

## TO OUR SHAREHOLDERS

Q3 brought few surprises, either positive or negative. Profitability increased and our year over year revenue and profit growth was good but continues to decelerate. We made one acquisition during the quarter, and our cash position improved. The company continued to build intrinsic value at an attractive rate.

Last Quarter we introduced and defined some metrics that we find useful in interpreting our results (especially Net Revenue, Net Maintenance Revenue, Adjusted Net Income and Organic Net Revenue Growth). Below is a table that repeats and updates those metrics and adds another key measure (Average Invested Capital). We use these measures internally to analyze our performance and, with minor modifications, to determine much of our incentive compensation.

|                                   | Q1 2005 | Q2 2005 | Q3 2005 | Q4 2005 | Q1 2006 | Q2 2006 | Q3 2006 |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages) |         |         |         |         |         |         |         |
| Revenue                           | 37.5    | 40.7    | 42.6    | 44.6    | 51.2    | 52.2    | 53.8    |
| Net Revenue                       | 34.5    | 37.0    | 39.0    | 39.8    | 46.0    | 47.3    | 48.4    |
| Net Maintenance Revenue           | 19.3    | 20.7    | 21.7    | 23.0    | 26.0    | 26.9    | 28.1    |
| Adjusted Net Income               | 3.8     | 4.1     | 5.2     | 4.1     | 5.1     | 5.1     | 6.8     |
| Net Income / (Loss)               | 1.1     | (3.5)   | 2.1     | 0.8     | (8.7)   | 1.3     | 2.3     |
| Net Revenue Growth (Y/Y)          | 62%     | 51%     | 47%     | 35%     | 33%     | 28%     | 24%     |
| Net Maintenance Growth (Y/Y)      | 72%     | 57%     | 48%     | 52%     | 35%     | 30%     | 30%     |
| Organic Net Revenue Growth (Y/Y)  | 22%     | 18%     | 22%     | 13%     | 14%     | 12%     | 5%      |
| Average Invested Capital          | 96      | 100     | 105     | 109     | 114     | 119     | 125     |
| ROIC (Annualized)                 | 16%     | 16%     | 20%     | 15%     | 18%     | 17%     | 22%     |
| ROIC + Organic Net Revenue Growth | 38%     | 34%     | 42%     | 28%     | 32%     | 29%     | 26%     |

As we mentioned last quarter, when we look at revenue trends, we use a concept that we call “Net Revenue”. Net Revenue is Gross Revenue for GAAP purposes less third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only includes the margin on our lower value-added revenues such as commodity hardware or third party software. In Q3, our Net Revenue increased to \$48.4 million compared to \$47.3 million in Q2 2006 and to \$39.0 million in the Q3 2005 period. The Q3 Net Revenue growth rate compared to Q3 of last year was 24%, but the growth rate was down from the 28% rate achieved in Q2 2006 compared to Q2 of last year.

Net Maintenance Revenue is derived from GAAP Maintenance Revenue by subtracting third party maintenance costs. We believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company, and that the operating profitability of a low growth software business should correlate tightly to Net Maintenance Revenues. In Q3, our Net Maintenance Revenue increased to \$28.1 million compared to \$26.9 million in Q2 2006, and compared to \$21.7 million in the Q3 2005 period. The Q3 Net Maintenance Revenue growth rate compared to Q3 of last year was 30%. On a per share basis the Net Maintenance Revenue growth rate in Q3 was 25% compared with the Q3 2005 period. In management’s view this reflects a spectacular but unmaintainable performance for CSI.

Our revenue growth stems from both acquisitions and organic sources. While the two are difficult to separate, we regularly attempt to do so. In Q3 we estimate that Net Revenue grew organically by 5% compared with Net Revenue in Q3 of 2005. This growth rate was down from the 14% organic growth rate experienced in Q1, and the 12% experienced in Q2.

Adjusted Net Income is derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption (a charge that is no longer incurred now that Constellation is publicly traded). We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP Net Income. In Q3, our Adjusted Net Income was

\$6.8 million. It increased from \$5.1 million in the Q2 2006 period, and from \$5.2 million in Q3 2005. The Q3 Adjusted Net Income Growth rate was 30% versus Q3 of last year.

This quarter we would like to begin to explain how we think about capital allocation at Constellation. In the table, we have noted Average Invested Capital. This is a non-GAAP measure that began as an estimate of the amount of money that our shareholders had invested in Constellation. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances, and making some small adjustments relating to our use of certain incentive programs, the amortization of impaired intangibles, etc. If you follow the math in the table above, you'll see that adding the quarterly Adjusted Net Income and subtracting dividends accounts for the vast bulk of the quarter to quarter changes in Average Invested Capital.

We keenly monitor our ability to put our shareholders' Invested Capital to work. In practice, the way we actually measure this is on a project by project basis using conventional after tax internal rates of return (IRR's). Periodically our board sets a hurdle rate, and we filter both prospective organic growth opportunities and acquisitions based upon those hurdle rates. IRR's are complex, future oriented, require judgement, and at any one time I'd estimate that we are tracking between 50 and 100 individual projects.

There is a simpler but cruder historical measure of the effectiveness of our capital allocation. Although it lacks the future orientation of IRR, it does eliminate some of the optimism that regrettably pervades future looking metrics. We take the sum of ROIC and our Organic Net Revenue Growth, and compare it to the hurdle rate set by our board. We measure ROIC or Return on Invested Capital by taking a ratio of Adjusted Net Income to Average Invested Capital. Our ROIC has bounced around between 15% and 22% (annualised) during the last 7 quarters, with arguably a slight upward trend. In and of itself, that is pretty good. However, there is a unique "kicker" to our business: We use very little capital to grow our business organically. Most of our businesses actually operate with negative tangible net assets. This means that as we grow organically, those businesses consume little or no incremental capital, and may even produce capital in excess of earnings. Unfortunately, organic growth isn't entirely free. We have to invest money in research and development, sales and marketing, etc. to get this growth. These expense items all depress Adjusted Net Income. The logical consequence, is that to get organic growth, we are willing to accept a lower ROIC.

As you can see from the table, the ROIC+OG (annualised) has varied from 26% to 42% over the last 7 quarters. We are delighted with this level of performance, but are concerned that this metric continues to decline. Senior management has a very large stake in maximising both long term ROIC and Net Revenue Growth, since these two items are entirely responsible for driving their incentive compensation. Most of our other employees have incentive compensation tied to the same metrics. As we explained in our prospectus, we take capital allocation very seriously.

We have previously stated that our objective is to grow, on average, the Net Revenues per share and Adjusted EBITDA per share of Constellation by 20% per annum from January 1, 2006 to December 31, 2010. In the short term there will be economic cycles when growth slows, and others when it accelerates. We continue to believe that our objective is audacious but achievable. The IT industry is maturing, and there will eventually come a time when our targeted growth rates will no longer be achievable at attractive hurdle rates.

#### Forward Looking Statements

Certain statements herein may be "forward looking" statements that involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of Constellation or the industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date hereof. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of

future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. These forward looking statements are made as of the date hereof and Constellation assumes no obligation to update any forward looking statements to reflect new events or circumstances.

#### Non-GAAP Measures

Net Revenue, Net Maintenance Revenue, Adjusted Net Income and Organic Net Revenue Growth are not recognized measures under GAAP and, accordingly, shareholders are cautioned that Net Revenue, Net Maintenance Revenue, Adjusted Net Income and Organic Net Revenue Growth should not be construed as alternatives to revenue or net income determined in accordance with GAAP as an indicator of the financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Net Revenue, Net Maintenance Revenue, Adjusted Net Income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers.

Mark Leonard  
President  
November 8, 2006

## CONSTELLATION SOFTWARE INC.

### TO OUR SHAREHOLDERS

We had a 1% quarterly decline in Revenue in Q4 compared to Q3, but our profitability improved. The year over year Q4 growth rate in Revenue was 20%, which was composed of approximately 1% Organic Growth and 19% acquired growth. Contraction in our Private Sector Revenue, especially within our software businesses involved in the building products and housing industries, continued to depress our overall Organic Growth rates. The deterioration in the acquired Revenue growth rate was a function of the reduction in our acquisition activity during much of the latter part of 2006. In early March 2007, we closed the acquisition of PG Govern. We expect that it will contribute significantly to our acquired growth in 2007.

While the economic slow-down in housing and building products may account for deteriorating Organic Revenue growth rates in our Private Sector Segment, it doesn't explain why our Public Sector Segment experienced only 5% Organic Revenue Growth in Q4. My sense is that, Constellation-wide, we are experiencing a secular change. We first broke out our Organic Growth Initiatives from our Core operating businesses in 2003. Many of our Initiatives have since experienced rapid Revenue growth, but most of them have required more investment than was originally forecast. Not surprisingly, we are now investing less in the creation of new Initiatives than we did when we first started tracking them. The likely consequence of lower investment levels, is that we will not keep pace with our historical (2002-2005) Organic Revenue Growth rate of 12%. Achieving an Organic Revenue Growth rate of between 5% and 10% for the January 1, 2006, through December 31, 2010, period is more realistic. This is lower than originally contemplated, and we intend to make up the short-fall by increasing our Revenue growth from acquisitions. Theoretically, shifting investment from Organic Growth to acquired growth should generate higher operating margins and Adjusted Net Income margins.

The table below incorporates a number of CSI metrics which we like to use to monitor the performance of our businesses. We have explained how most of these metrics are calculated in our previous quarterly reports to shareholders, but have also included a summary in Schedule A hereto. We have added one new metric: "Tangible Net Assets / Net Revenue", which is explained below.

|                                   | Q1 2005 | Q2 2005 | Q3 2005 | Q4 2005 | Q1 2006 | Q2 2006 | Q3 2006 | Q4 2006 |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages) |         |         |         |         |         |         |         |         |
| Revenue                           | 37.5    | 40.7    | 42.6    | 44.6    | 51.2    | 52.2    | 53.8    | 53.5    |
| Net Revenue                       | 34.5    | 37.0    | 39.0    | 39.8    | 46.0    | 47.3    | 48.4    | 48.6    |
| Net Maintenance Revenue           | 19.3    | 20.7    | 21.7    | 23.0    | 26.0    | 26.9    | 28.1    | 29.6    |
| Adjusted Net Income               | 3.8     | 4.1     | 5.2     | 4.1     | 5.1     | 5.1     | 6.8     | 9.0     |
| Net Income / (Loss)               | 1.1     | (3.5)   | 2.1     | 0.8     | (8.7)   | 1.3     | 2.3     | 3.8     |
| Net Revenue Growth (Y/Y)          | 62%     | 51%     | 47%     | 35%     | 33%     | 28%     | 24%     | 22%     |
| Net Maintenance Growth (Y/Y)      | 72%     | 57%     | 48%     | 52%     | 35%     | 30%     | 30%     | 29%     |
| Organic Net Revenue Growth (Y/Y)  | 22%     | 18%     | 22%     | 13%     | 14%     | 12%     | 5%      | 3%      |
| Average Invested Capital          | 96      | 100     | 105     | 109     | 114     | 119     | 125     | 135     |
| Tangible Net Assets / Net Revenue | (76%)   | (71%)   | (67%)   | (66%)   | (57%)   | (55%)   | (54%)   | (54%)   |
| ROIC (Annualized)                 | 16%     | 16%     | 20%     | 15%     | 18%     | 17%     | 22%     | 27%     |
| ROIC + Organic Net Revenue Growth | 38%     | 34%     | 42%     | 28%     | 32%     | 29%     | 26%     | 30%     |

In Q4 2006, our Net Revenue increased to \$48.6 million compared with \$48.4 million in Q3 2006 and to \$39.8 million in the Q4 2005 period. The Q4 Net Revenue growth rate year over year was 22%. The Net Revenue growth rate has declined for 8 successive quarters, primarily for the reasons outlined above.

Net Maintenance Revenue continued to grow in Q4 2006 at a rate of 29% compared to Q4 of 2005. Measured versus Q3 2006, the annualized growth rate in Q4 2006 Net Maintenance Revenue was 22%. As we have mentioned previously, we believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company. Despite the decline in Revenue for Q4, we are comforted that Net Maintenance Revenue continues to increase at an attractive rate.

Adjusted Net Income is derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to the appreciation in common shares eligible for redemption (a charge

that is no longer incurred now that Constellation's common shares are publicly traded). We use Adjusted Net Income for this shareholders' report because it is usually a better measure of cash flow than GAAP Net Income, and it is closely aligned with the calculation of Net Income that we use for bonus purposes. In Q4, our Adjusted Net Income was \$9.0 million. It increased from \$6.8 million in the Q3 2006 period, and from \$4.1 million in Q4 2005. The Q4 Adjusted Net Income Growth rate was 117% versus Q4 of last year.

Due to our improved Adjusted Net Income, our annualized ROIC + Organic Net Revenue Growth metric continued at acceptable levels despite our declining Organic Growth.

We calculate Tangible Net Assets or "TNA" by taking Total Assets for GAAP purposes, and subtracting 1) Intangible assets, 2) cash, and 3) all customer, trade and government liabilities that do not bear a coupon. In our last quarterly report to shareholders, we maintained that ROIC + Organic Net Revenue Growth was a reasonable proxy for the IRR that we are generating on our Shareholders' Invested Capital. The addition of Organic Growth to this equation assumes that we do not require additional TNA to generate Organic Growth. If this assumption is wrong, and we instead require significant TNA to generate Organic Growth, then Organic Growth becomes much less attractive. As you can see from the table, TNA expressed as a percentage of Net Revenues is negative, which is what we had assumed in the ROIC + Organic Net Revenue Growth discussion. Unfortunately, TNA is not as negative as it used to be, so we need to be wary that our asset intensity is increasing.

We have previously stated that our objective is to grow, on average, the Net Revenues per share and Adjusted EBITDA per share of Constellation by 20% per annum from January 1, 2006 to December 31, 2010. We continue to believe that our objective is achievable, but we now believe that a higher proportion of that growth will need to come from acquired growth than we had originally anticipated.

#### Forward Looking Statements

Certain statements herein may be "forward looking" statements that involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of Constellation or the industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date hereof. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. These forward looking statements are made as of the date hereof and Constellation assumes no obligation to update any forward looking statements to reflect new events or circumstances.

#### Non-GAAP Measures

Net Revenue, Net Maintenance Revenue, Adjusted Net Income, Organic Net Revenue Growth, Average Invested Capital, Tangible Net Assets and ROIC are not recognized measures under GAAP and, accordingly, shareholders are cautioned that such measures should not be construed as alternatives to revenue or net income determined in accordance with GAAP as an indicator of the financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Net Revenue, Net Maintenance Revenue, Adjusted Net Income, Organic Net Revenue Growth, Average Invested Capital, Tangible Net Assets and ROIC may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers.

Mark Leonard  
President  
March 7<sup>th</sup>, 2007

## **SCHEDULE A**

### **PERFORMANCE METRICS**

“Net Revenue” means Revenue for GAAP purposes less third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only includes the margin on our lower value-added revenues such as commodity hardware or third party software.

“Net Maintenance Revenue” is derived from GAAP Maintenance Revenue by subtracting third party maintenance costs. We believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company and that the operating profitability of a low growth software business should correlate tightly to Net Maintenance Revenues.

“Adjusted Net Income” is derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption (a charge that is no longer incurred now that Constellation’s common shares are publicly traded). We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP net income and it is closely aligned with the calculation of net income we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in Constellation. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“Tangible Net Assets / Net Revenue” provides a measure of our Tangible Net Assets as a proportion of Net Revenue. Tangible Net Assets is calculated by taking Total Assets for GAAP purposes, and subtracting (i) Intangible assets, (ii) cash, and (iii) all customer, trade and government liabilities that do not bear a coupon.

“ROIC (Annualized)” represents a ratio of Adjusted Net Income to Average Invested Capital.

“ROIC + Organic Net Revenue Growth” provides a historical measure of the effectiveness of our capital allocation.

## CONSTELLATION SOFTWARE INC.

### TO OUR SHAREHOLDERS

As you will read in our interim MD&A, and as you can see in the table of appended Performance Metrics, our year over year Revenue growth rate slowed in Q1 2007 to 9%, a level that concerns us. The primary reason for the low growth in Revenue was a 1% contraction in Organic Revenue compared to the same period in 2006. One of the causes of declining Organic Revenue is outside of our control: U.S. housing starts declined approximately 28% in Q1 2007 compared to the same period in 2006, and that seems to have depressed spending amongst our homebuilding, construction and building products related customers. For the most part, we are pleased with how our homebuilding and related businesses have responded to the tougher operating environment. We continue to seek acquisition prospects among software companies that service these currently depressed markets.

In addition to the downturn in the homebuilding and related sectors, I believe that our Initiative program also contributed to the current decline in Organic Revenue Growth. In 2003, we instituted a program to forecast and track many of the larger Initiatives that were embedded in our Core businesses (we define Initiatives as significant Research & Development and Sales and Marketing projects). Our Operating Groups responded by increasing the amount of investment that they categorized as Initiatives (e.g. a 3 fold increase in 2005, and almost another 50% increase during 2006). Initially the associated Organic Revenue growth was strong. Several of the Initiatives became very successful. Others languished, and many of the worst Initiatives were terminated before they consumed significant amounts of capital. Examined on a portfolio basis (and to do that we still have to use forecasts, as payback in our business generally requires a 5-7 year time frame) we believe that our Initiatives have generated reasonable internal rates of return. However the Initiative returns have not been as attractive as those generated by our acquisitions. Accordingly, many of our Operating Groups have shifted more of their efforts to growth by acquisition, and have launched increasingly fewer new Initiatives over the last couple of years.

The response of our Operating Groups is what you'd like to see: Now that they have tools for tracking Initiative IRR's, they are optimizing capital allocation by pursuing better returns in the acquisition market. In principle, there is nothing wrong with this shift. In practice, dramatically fewer Initiatives could eventually lead to a loss of market share. The software business has significant economies of scale, so conceding market share to well run competitors could lead to deteriorating economics. I'm not yet worried about our declining investment in Initiatives because I believe that it will be self-correcting. As we make fewer investments in new Initiatives, I'm confident that our remaining Initiatives will be the pick of the litter, and that they are likely to generate better returns. That will, in turn, encourage the Operating Groups to increase their investment in Initiatives. This cycle will take a while to play out, so I do not expect to see increased new Initiative investment for several quarters or even years.

Organic Growth can also be driven or diminished by acquisitions. When we acquire a rapidly growing company we boost Organic Growth. When we acquire an underperforming company that needs to have some of its unpromising lines of business reduced or removed, Organic Growth suffers. History suggests that we generally grow our acquired businesses, frequently providing additional products for them to sell into their installed base, and bringing our increased scale and best practices to bear upon their business. Occasionally however, the reduction of an acquired business to a profitable Core will leave us with a smaller, but usually more profitable business. Q1 2007 had several instances of declining revenues relating to acquired businesses. These acquisition-related declines in Organic Growth are usually transient, generally reversing after a year or less.

In addition to Organic Growth, we also grow our businesses via acquisition. Since inception Constellation has made 57 acquisitions. Software company acquisitions are becoming increasingly popular amongst both corporate and private equity buyers. As Corum, one of the most active M&A brokers in the software sector put it in their Q1 newsletter:

“Not since the dot-com peak has a year kicked off with as much merger and acquisition activity and value as in 2007”..... “Last year, 1,726 software companies were acquired, which is the highest number since 2000.”

We are currently experiencing intense competition in the large company acquisition market and are increasingly focusing upon those opportunities that are smaller or those that may not have a strong track record of positive cash flow. During 2006, we had a 42% increase in the number of “Non-Disclosure Agreements” that we signed with acquisition prospects, when compared to 2005. These NDA’s resulted in a >200% increase in the number of “Letters of Intent” that we submitted. My interpretation of this data is that we were working harder to see and bid on more of the available market. What did this work at the front end of the acquisition process produce? We had the same number of LOI’s signed back, and we ended up making only 10 acquisitions in 2006, down from the 12 that we made in the prior year. I think two factors were at play in generating the lower close rate in 2006: first, we went further afield (both geographically and strategically) looking for potential investments and second, we ran into more aggressive competition. The same pattern is apparent when we examine the M&A activity by dollar value instead of number of transactions.

In Q1 2007 we increased our M&A activity still further, almost doubling the number of NDA’s that we signed compared with Q1 2006, and achieving a new record high for the value of closed acquisitions in a single quarter. Despite the increased competition for acquisitions, we anticipate that our increased focus and discipline around the M&A process will allow us to generate a record year for acquisitions in ’07.

While we do not provide short-term forecasts, our objective is to generate 20% average annual Revenue growth per share between January 1, 2006 and December 31, 2010 (our “Planning Period”). During 2006 we exceeded this objective, generating 23% Revenue growth per share. In Q1, we fell far short of the objective, generating only 4% Revenue growth per share. Much of the shortfall in Q1 2007 was due to the 1% decline in Organic Revenue as compared to Q1 2006. Organic Revenue Growth is an important component of our overall Revenue growth objective, and we believe that it needs to average between 5% and 10% per annum for us to both achieve our objective and to have a healthy company. Management continue to believe that the Company will achieve both the Revenue growth per share objective and the Organic Growth targets for the Planning Period.

As is our practice, we have inserted below a table containing our quarterly Performance Metrics. In addition to the Organic Net Revenue Growth discussed above, the metrics that struck me were:

ROIC (Annualized) – 20%. We believe that this is an acceptable level, but would prefer to see higher levels if the low Organic Net Revenue Growth persisted.

Net Maintenance Growth (Y/Y) – 20%. We believe that (adjusted for cash and debt) maintenance revenues are the best indicator of Intrinsic Value. 20% is an acceptable increase, but any further slippage could be cause for concern.



|                                     | Q1<br>2005 | Q2<br>2005 | Q3<br>2005 | Q4<br>2005 | Q1<br>2006 | Q2<br>2006 | Q3<br>2006 | Q4<br>2006 | Q1<br>2007 |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| (US\$ millions, except percentages) |            |            |            |            |            |            |            |            |            |
| Revenue                             | 37.5       | 40.7       | 42.6       | 44.6       | 51.2       | 52.2       | 53.8       | 53.5       | 55.9       |
| Net Income / (Loss)                 | 1.1        | (3.5)      | 2.1        | 0.8        | (8.7)      | 1.3        | 2.3        | 3.8        | 2.6        |
| Net Revenue                         | 34.5       | 37.0       | 39.0       | 39.8       | 46.0       | 47.3       | 48.4       | 48.6       | 50.7       |
| Net Maintenance Revenue             | 19.3       | 20.7       | 21.7       | 23.0       | 26.0       | 26.9       | 28.1       | 29.6       | 31.2       |
| Adjusted Net Income                 | 3.8        | 4.1        | 5.2        | 4.1        | 5.1        | 5.1        | 6.8        | 9.0        | 7.0        |
| Average Invested Capital            | 96         | 100        | 105        | 109        | 114        | 119        | 125        | 135        | 143        |
| Net Revenue Growth (Y/Y)            | 62%        | 51%        | 47%        | 35%        | 33%        | 28%        | 24%        | 22%        | 10%        |
| Net Maintenance Growth (Y/Y)        | 72%        | 57%        | 48%        | 52%        | 35%        | 30%        | 30%        | 29%        | 20%        |
| Tangible Net Assets / Net Revenue   | (76%)      | (69%)      | (68%)      | (86%)      | (63%)      | (63%)      | (75%)      | (91%)      | (88%)      |
| Organic Net Revenue Growth (Y/Y)    | 22%        | 18%        | 22%        | 13%        | 14%        | 12%        | 5%         | 3%         | -1%        |
| ROIC (Annualized)                   | 16%        | 16%        | 20%        | 15%        | 18%        | 17%        | 22%        | 27%        | 20%        |
| ROIC + Organic Net Revenue Growth   | 38%        | 34%        | 42%        | 28%        | 32%        | 29%        | 26%        | 30%        | 19%        |

N.B. Due to an error, the historical figures included in our report to shareholders for the year ended December 31, 2006 for the Tangible Net Assets / Net Revenue metric for the periods Q2 2005 through Q4 2006 were incorrectly reported as (71%), (67%), (66%), (57%), (55%), (54%), and (54%), respectively. The correct figures have been included in the table above.

I encourage you to study the Performance Metrics, the attrition data that we presented in the annual report, and the M&A activity data mentioned above. Don't hesitate to pose any questions that you may have either on our quarterly conference call, or during the question period following our Annual General Meeting.

Mark Leonard  
President  
May 8, 2007

## Performance Metrics Glossary

“Net Revenue” means Revenue for GAAP purposes less third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only includes the margin on our lower value-added revenues such as commodity hardware or third party software.

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financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Net Revenue, Net Maintenance Revenue, Adjusted Net Income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers.

# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

Q2 saw an improvement in our revenue growth rate: Organic Net Revenue growth in Q2 compared to the same period last year, recovered to 0.5%, and acquisitions accounted for the remaining 15% of year over year Net Revenue growth. Our homebuilding and building products related businesses experienced Organic Net Revenue declines. A turnaround in their growth prospects is not yet evident. Organic Net Revenue growth in a number of our other businesses more than offset those declines.

Constellation has an inherently resilient business. During Q2 Net Maintenance Revenue was \$33.3 million, an increase of 24% from \$26.9 million during the same period last year. Net Maintenance grew as a percent of Net Revenues, from 57% to 61%. Constellation has very low attrition rates and good margins associated with this revenue stream. We focus on growing Maintenance revenue because we believe that it is less volatile and more profitable than Professional Service and License revenues.

Constellation's resilience is bolstered further by an employee compensation plan that insulates the company if performance lags, and rewards employees when the business is experiencing both high profits and rapid growth. Accrued bonuses (as a percentage of Net Revenues) in Q2 were 2% lower than in the comparable period last year. This accounted for a large portion of the 5% year over year increase in the EBITDA/Net Revenue margin ("EBITDA Margin") during Q2.

Much of the remaining increase in the Q2 EBITDA Margin was due to the decline in Research & Development and Sales & Marketing ("RDSM") spending as a percentage of Net Revenues (29% in Q2 vs 32% in the prior comparable period). Is this decline in RDSM and the associated increase in EBITDA Margin good for long-term shareholders? Historically, a significant portion of RDSM expense has been invested in new Initiatives. We began tracking the returns from our Initiatives in 2004. Some of the Initiatives were not economic. We sought to improve our returns by culling poor Initiatives, and nurturing those that remained. My fear is that we over-reacted, causing a dearth of new Initiatives. Our challenge is to strike the right balance between Organic Revenue growth and profitability. My current preference would be to see a higher level of investment in attractive Initiatives. If we are successful at rebuilding our portfolio of Initiatives and continue to make acquisitions at the current rate, I anticipate that our EBITDA margins will trend down, but that our Organic growth will improve.

Inserted below is the table of Constellation performance metrics. In addition to the Organic growth, acquired growth, and Net Maintenance Revenue growth discussed above, the metrics that struck me this quarter were:

ROIC (Annualized) – 24%. This was a nice improvement from Q1, and was largely due to the expanding EBITDA Margin.

Tangible Net Assets ("TNA")/ Net Revenues – (66)%. This was not a sterling performance. We pride ourselves in running negative TNA in our businesses. At minus 66% of Net Revenues, this quarter is among the highest levels of TNA that we have seen in the last 10 quarters. Some of the slippage stemmed from the way that our VCG investment is carried in our accounts. Some of the problem is poor management on our part. We are raising awareness of the slippage throughout the Company and are working to reduce it.

|                                   | Q3 2005 | Q4 2005 | Q1 2006 | Q2 2006 | Q3 2006 | Q4 2006 | Q1 2007 | Q2 2007 |
|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages) |         |         |         |         |         |         |         |         |
| Revenue                           | 42.6    | 44.6    | 51.2    | 52.2    | 53.8    | 53.5    | 55.9    | 60.5    |
| Net Income / (Loss)               | 2.1     | 0.8     | (8.7)   | 1.3     | 2.3     | 3.8     | 2.6     | 3.5     |
| Net Revenue                       | 39.0    | 39.8    | 46.0    | 47.3    | 48.4    | 48.6    | 50.7    | 54.9    |
| Net Maintenance Revenue           | 21.7    | 23.0    | 26.0    | 26.9    | 28.1    | 29.6    | 31.2    | 33.3    |
| Adjusted Net Income               | 5.2     | 4.1     | 5.1     | 5.1     | 6.8     | 9.0     | 7.0     | 8.8     |
| Average Invested Capital          | 105     | 109     | 114     | 119     | 125     | 135     | 143     | 149     |
| Net Revenue Growth (Y/Y)          | 47%     | 35%     | 33%     | 28%     | 24%     | 22%     | 10%     | 16%     |
| Net Maintenance Growth (Y/Y)      | 48%     | 52%     | 35%     | 30%     | 30%     | 29%     | 20%     | 24%     |
| Tangible Net Assets / Net Revenue | -68%    | -86%    | -63%    | -63%    | -75%    | -91%    | -88%    | -66%    |
| Organic Net Revenue Growth (Y/Y)  | 22%     | 13%     | 14%     | 12%     | 5%      | 3%      | -1%     | 0%      |
| ROIC (Annualized)                 | 20%     | 15%     | 18%     | 17%     | 22%     | 27%     | 20%     | 24%     |
| ROIC + Organic Net Revenue Growth | 42%     | 28%     | 32%     | 29%     | 26%     | 30%     | 19%     | 24%     |

We made two small acquisitions in the second quarter, as well as a “strategic investment” in VCG Inc., a supplier of staffing and recruiting software solutions. Our preference is to acquire businesses in their entirety, and to own them forever. Occasionally, we have the opportunity to buy a piece of a good business with the prospect of eventually acquiring the rest. While that is by no means guaranteed in the case of VCG, we welcome the opportunity to get to know the business and its managers better, and hope that we will be able to increase our ownership over time.

We have an objective of generating average annual revenue growth per share and average annual EBITDA growth per share of at least 20% for the five year period ending December 31, 2010. I recently ran a screen of public companies with in excess of \$50 million in revenues that met these criteria for the last 5 year period. I discovered that less than 1% of companies qualified. Picking through that list and pulling out anomalies, I was left with an even more exclusive list. We have set ourselves a very high bar.

Constellation experienced only 11% revenue growth per share during the first half of 2007. However, due to our strong revenue growth per share performance in 2006 (25%) and our continued optimism regarding acquired growth, we still believe that our five year revenue growth objective is achievable. Our performance to date against our EBITDA growth per share objective has exceeded our expectations. We continue to believe that we will be able to meet or exceed the EBITDA growth objective.

Mark Leonard  
President

## Performance Metrics Glossary

“Net Revenue” means Revenue for GAAP purposes less third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only includes the margin on our lower value-added revenues such as commodity hardware or third party software.

“Net Maintenance Revenue” is derived from GAAP Maintenance Revenue by subtracting third party maintenance costs. We believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company and that the operating profitability of a low growth software business should correlate tightly to Net Maintenance Revenues.

“Adjusted Net Income” is derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that Constellation’s common shares are publicly traded). We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP net income and it is closely aligned with the calculation of net income we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in Constellation. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“Tangible Net Assets / Net Revenue” provides a measure of our Tangible Net Assets as a proportion of Net Revenue. Tangible Net Assets is calculated by taking Total Assets for GAAP purposes, and subtracting (i) Intangible assets, (ii) cash, and (iii) all customer, trade and government liabilities that do not bear a coupon.

“ROIC (Annualized)” represents a ratio of Adjusted Net Income to Average Invested Capital.

“ROIC + Organic Net Revenue Growth” provides a historical measure of the effectiveness of our capital allocation.

## Forward Looking Statements

Certain statements herein may be “forward looking” statements that involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of Constellation or the industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date hereof. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. These forward looking statements are made as of the date hereof and Constellation assumes no obligation to update any forward looking statements to reflect new events or circumstances.

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# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

Net Revenue growth for Q3 2007 was 14%. This is short of our 20% growth objective for the 2006 to 2010 period. Despite having started the period well, with 4 quarters of Net Revenue growth in excess of 20%, we have fallen short of our objective for the last 3 quarters. The primary culprit has been Organic Net Revenue growth. During Q3 2007 our Organic Net Revenue growth rate improved: it increased from -1% in Q1, to 0% in Q2, and to 2% in Q3. While Organic growth appears to be recovering, it is not yet in the 5% to 10% range that we are targeting. Our homebuilding software businesses continued to experienced Organic Net Revenue declines. A recovery in their organic growth prospects is not imminent. We are impressed, however, with the way that the homebuilding team is managing their way through difficult times, and we will invest more capital with this team and in this vertical if good opportunities can be found. Our Government sector companies also had low Organic Net Revenue growth during the quarter. The reasons were several (and are discussed in some more detail in the MD&A), but appear to me to primarily be execution issues, not sector specific issues. We still believe that the Government sector business will eventually recover into the 5% to 10% organic growth rate range.

We have publicly reiterated our revenue growth objective each quarter, and we have a bonus plan that pays for growth. Those factors create a fierce temptation to stretch a bit and make some acquisitions that aren't quite up to par. Counterbalancing hubris and greed, we have a good board and many long-term oriented managers. I believe that we have the judgment to maintain our investment discipline, and the humility to adjust our growth objectives downwards if we don't think that they are achievable. I'm not yet ready to concede that our Net Revenue growth objective is not achievable, but if we have a couple of more quarters of sub-20% growth, achieving the objective will become very difficult.

We have fared much better with our EBITDA growth objective, far exceeding the minimum 20% year over year growth rate in the seven quarters to date. I believe Adjusted Net Income per share is a more useful measure of profitability growth. Quarterly Adjusted Net Income has grown an average of 49% (year over year comparisons) during the last 7 quarters, and we have issued no new shares. This rate of growth in Adjusted Net Income per share is not sustainable, particularly given our exposure to the increasing Canadian dollar, but the performance has been remarkable.

During Q3 2007, Net Maintenance Revenue was \$34.5 million, an increase of 23% from \$28.1 million during the same period last year. Those of you who follow our company closely know that we feel (assuming our cash & debt positions are stable), that Net Maintenance growth is a good proxy for the growth in Constellation's intrinsic value.

Another performance benchmark that we look to, is the sum of ROIC and Organic Net Revenue Growth ("ROIC+OGr"). We believe that long term shareholders will generate a return on their Constellation shares that cannot exceed the sum of long term ROIC plus Organic Net Revenue Growth. We align compensation with this belief, basing our corporate bonus plan upon ROIC and Net Revenue Growth. For Q3, ROIC+OGr was 24%, a respectable number, but not up to the 30% that we have averaged over the last 11 quarters. Achieving even 24% ROIC+OGr is non-trivial. We believe that less than 10% of public companies have been able to achieve this level of performance for an extended period.

Inserted below is a table of Constellation's performance metrics. We've added a new metric to the table - Adjusted Net Income Growth. As discussed, we believe that Adjusted Net Income Growth is a better proxy for the growth in profitability that accrues to shareholders, than EBITDA growth, since it also incorporates foreign exchange, tax and debt costs.



|                                   | Q3 2005                           | Q4 2005 | Q1 2006 | Q2 2006 | Q3 2006 | Q4 2006 | Q1 2007 | Q2 2007 | Q3 2007 |
|-----------------------------------|-----------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                   | (\$ millions, except percentages) |         |         |         |         |         |         |         |         |
| Revenue                           | 42.6                              | 44.6    | 51.2    | 52.2    | 53.8    | 53.5    | 55.9    | 60.5    | 60.6    |
| Net Income / (Loss)               | 2.1                               | 0.8     | (8.7)   | 1.3     | 2.3     | 3.8     | 2.6     | 3.5     | 3.3     |
| Net Revenue                       | 39.0                              | 39.8    | 46.0    | 47.3    | 48.4    | 48.6    | 50.7    | 54.9    | 55.3    |
| Net Maintenance Revenue           | 21.7                              | 23.0    | 26.0    | 26.9    | 28.1    | 29.6    | 31.2    | 33.3    | 34.5    |
| Adjusted Net Income               | 5.2                               | 4.1     | 5.1     | 5.1     | 6.8     | 9.0     | 7.0     | 8.8     | 8.6     |
| Average Invested Capital          | 105                               | 109     | 114     | 119     | 125     | 135     | 143     | 149     | 158     |
| Net Revenue Growth (Y/Y)          | 47%                               | 35%     | 33%     | 28%     | 24%     | 22%     | 10%     | 16%     | 14%     |
| Organic Net Revenue Growth (Y/Y)  | 22%                               | 13%     | 14%     | 12%     | 5%      | 3%      | -1%     | 0%      | 2%      |
| Net Maintenance Growth (Y/Y)      | 48%                               | 52%     | 35%     | 30%     | 30%     | 29%     | 20%     | 24%     | 23%     |
| Adjusted Net Income Growth (Y/Y)  |                                   |         | 34%     | 25%     | 30%     | 117%    | 38%     | 72%     | 27%     |
| Tangible Net Assets / Net Revenue | -68%                              | -86%    | -63%    | -63%    | -75%    | -91%    | -88%    | -66%    | -75%    |
| ROIC (Annualized)                 | 20%                               | 15%     | 18%     | 17%     | 22%     | 27%     | 20%     | 24%     | 22%     |
| ROIC + Organic Net Revenue Growth | 42%                               | 28%     | 32%     | 29%     | 26%     | 30%     | 19%     | 24%     | 24%     |

During the quarter we engaged in an attempt to help a shareholder sell one million of their Constellation shares. We spent money on lawyers and accountants, and chewed up management time, but didn't manage to complete the offering. Our stock price dropped by more than 10% after we announced the offering, but has since recovered somewhat. I believe that the intrinsic value of the business continued to increase at an attractive pace, despite the volatility in the stock price.

One of the useful things that we discovered during the marketing of the secondary offering, was that many of our existing shareholders wanted to speak with us. As we have mentioned previously, we would be pleased to meet with any Constellation shareholder at our offices. Please call me or John Billowits, our Chief Financial Officer, if you would like to arrange an appointment.

Mark Leonard  
President

## Performance Metrics Glossary

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“Net Maintenance Revenue” is derived from GAAP Maintenance Revenue by subtracting third party maintenance costs. We believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company and that the operating profitability of a low growth software business should correlate tightly to Net Maintenance Revenues.

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Company's method of calculating Net Revenue, Net Maintenance Revenue, Adjusted Net Income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers.

# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

Net Revenue growth in Q4 2007 was 24% compared with the same period last year. This was a welcome increase after three consecutive quarters of sub-20% growth. While acquisitions played a huge part in our Net Revenue improvement, Organic growth also improved to 3% for the quarter. As you can see in the Table on the next page, Organic Net Revenue growth bottomed out in Q1 2007, and has been gradually increasing since then. During the quarter, the Organic growth varied dramatically between our private sector (-2%) and public sector (+7%) segments.

The conditions for our housing, building products, and construction related software businesses were the worst that we have experienced since we entered these markets. We see no imminent turnaround in view. While these businesses aren't making as much money as during the prior year, they won customers at the expense of their competitors during 2007, and are bolstering their portfolio of add-on products. We continue to be confident in their long-term prospects.

Our public sector segment had a great quarter, with 28% Net Revenue Growth (of which 7% was Organic), and a handsome return on Invested Capital (25%). The public sector segment now constitutes approximately two thirds of our invested capital and revenues.

Net Maintenance revenue was a record \$37.8 million during the quarter, up 28% from the comparable period in 2006. We have the preliminary data in from our annual attrition survey, and we were pleased that over half of the growth in Maintenance revenue was Organic last year. The details of the attrition survey will be in our annual report.

EBITA and EBITDA were down slightly in Q4 vs Q3. Despite that, they both saw significant growth (29% and 26% respectively) vs the same period last year. EBITA margin as a percentage of Net Revenues dropped to 16% in Q4 vs 19% in Q3. Factoring in how our bonus plan works, I believe that a 15% EBITA margin is a more realistic objective if we are generating 20% plus Net Revenue growth.

Our favourite single metric for measuring our corporate performance is the sum of ROIC and Organic Net Revenue Growth ("ROIC+OGr"). For Q4, ROIC+OGr was 25%.

Inserted below is a table of Constellation's performance metrics. We've modified one of the metrics slightly – Tangible Net Assets / Net Revenues. Upon reflection, we decided that non-coupon carrying holdbacks (a form of acquisition financing even though they carry no explicit coupon) and Future Income Tax Assets (an intangible by any other name) were not appropriate to include in the Tangible Net Assets calculation. The table uses the new formula for all of the prior periods. While our performance with Tangible Net Assets continued to be acceptable, we could have done a better job of managing cash (which is excluded from the TNA / Net Revenues ratio) during the quarter. We believe that we had an excess of approximately \$10 million of float in our operating entities during Q4. We have modified some incentives and encouraged the operating groups to send more of their cash to head office.

One of the areas where generally accepted accounting principles ("GAAP") do a poor job of reflecting economic reality, is with goodwill and intangibles accounting. As managers we are at least partly to blame in that we tend to ignore these "expenses", focusing on EBITA or EBITDA or "Adjusted" Net Income (which excludes Amortisation). The implicit assumption when you ignore Amortisation, is that the economic life of the asset is perpetual. In many instances (for our business) that assumption is correct. We are constantly "renovating" our software, adding to and replacing portions of it, and we provide the maintained product to our clients under perpetual support programs that we generally term "Software for Life". Some of our products (and markets) won't be as durable, and will gradually start to lose economic viability. I don't think GAAP comes anywhere close to reflecting this spectrum and timing of outcomes. We do, however, have a couple of tools that we use in-house that can highlight the businesses that are

aging vs. those that continue to be revitalised. One crude indicator is a quarterly IRR calculation that we do on all acquisitions that we completed since 2004. IRR by its very nature requires forecasts, and hence is going to have subjectivity. Nevertheless, we try to beat the unwarranted optimism out of the forecasts, and as time passes, we can increasingly cross-reference history with forecasts. Right now, we only have one of those acquisitions (purchase price \$1.2 million) that shows a less than 10% after tax IRR on the original investment, and one other (purchase price <\$1 million), with an IRR between 10% and 20% after tax. All others exceed a 20% IRR.

The other mechanism that we use to potentially spot the “aging” assets is attrition. As I mentioned before we do a detailed review of attrition each year in the annual report, and in the upcoming one, we’ll try to give you some more comfort regarding the robustness of our portfolio of intangible economic assets.

I have no easy fix for GAAP, but we will try to highlight “impairments” as they become apparent, even if they have already been written off for GAAP purposes.

|                                                  | Q4 2005 | Q1 2006 | Q2 2006 | Q3 2006 | Q4 2006 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 |
|--------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages)                |         |         |         |         |         |         |         |         |         |
| Revenue                                          | 44.6    | 51.2    | 52.2    | 53.8    | 53.5    | 55.9    | 60.5    | 60.6    | 66.1    |
| Net Income / (Loss)                              | 0.8     | (8.7)   | 1.3     | 2.3     | 3.8     | 2.6     | 3.5     | 3.3     | 1.6     |
| Net Revenue                                      | 39.8    | 46.0    | 47.3    | 48.4    | 48.6    | 50.7    | 54.9    | 55.3    | 60.2    |
| Net Maintenance Revenue                          | 23.0    | 26.0    | 26.9    | 28.1    | 29.6    | 31.2    | 33.3    | 34.5    | 37.8    |
| Adjusted Net Income                              | 4.1     | 5.1     | 5.1     | 6.8     | 9.0     | 7.0     | 8.8     | 8.6     | 9.1     |
| Average Invested Capital                         | 109     | 114     | 119     | 125     | 135     | 143     | 149     | 158     | 167     |
| Net Revenue Growth (Y/Y)                         | 35%     | 33%     | 28%     | 24%     | 22%     | 10%     | 16%     | 14%     | 24%     |
| Organic Net Revenue Growth (Y/Y)                 | 13%     | 14%     | 12%     | 5%      | 3%      | -1%     | 0%      | 2%      | 3%      |
| Net Maintenance Growth (Y/Y)                     | 52%     | 35%     | 30%     | 30%     | 29%     | 20%     | 24%     | 23%     | 28%     |
| Adjusted Net Income Growth (Y/Y)                 |         | 34%     | 25%     | 30%     | 117%    | 38%     | 72%     | 27%     | 34%     |
| Tangible Net Assets / Net Revenue <sup>(1)</sup> | -73%    | -52%    | -51%    | -59%    | -73%    | -57%    | -45%    | -53%    | -74%    |
| ROIC (Annualized)                                | 15%     | 18%     | 17%     | 22%     | 27%     | 20%     | 24%     | 22%     | 22%     |
| ROIC + Organic Net Revenue Growth                | 28%     | 32%     | 29%     | 26%     | 30%     | 19%     | 24%     | 24%     | 25%     |

(1) Historical figures restated to comply with revised definition.

Recently there was a report of a massive (>30%) short position in our shares. Initially I was more amused than annoyed, thinking that an error had been made in the short report that would soon be corrected. Nevertheless, I touched base with our major shareholders, who told me that they knew nothing of such a short, and I did some math – soon determining that the reported short position exceeded the number of shares that had traded in our entire history as a public company. We probed some more, and found out that the short was reportedly due to a large off-exchange trade that failed to complete. We still are not to the bottom of the issue, but will provide a press release when we have more information.

On a more positive note, we are about to pay an \$0.18 per share dividend, a 20% increase from the \$0.15 per share paid last year.

The employee stock purchases for the Bonus program will commence in April. The anticipated volume of purchases will be approximately the same (\$4.4 million) as last year, and may extend over several months.

When we took Constellation public we communicated management’s 5 year performance objectives for the company: i.e. to exceed 20% average annual Net Revenue and EBITDA growth per share for the period January 1, 2006 to December 31, 2010. During 2007, Net Revenues grew 16%, after having grown 27% in the prior year. 2007 saw wonderful but unsustainable EBITDA growth of 33%, after a terrific 31% growth year in 2006. With the first two years of the five year objectives under our belt, we continue to believe that the 5 year objectives are going to be challenging, but achievable.

Mark Leonard  
President  
March 5, 2008

## Performance Metrics Glossary

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“Tangible Net Assets / Quarterly Net Revenue” provides a measure of our Tangible Net Assets as a proportion of Quarterly Net Revenue. Tangible Net Assets is calculated by taking Total Assets for GAAP purposes, and subtracting (i) intangible assets and goodwill, (ii) cash and short term investments, (iii) future income tax assets, (iv) all customer, trade and government liabilities that do not bear a coupon, excluding future income tax liabilities and acquisition holdbacks.

“ROIC (Annualized)” represents a ratio of Adjusted Net Income to Average Invested Capital.

“ROIC + Organic Net Revenue Growth” provides a historical measure of the effectiveness of our capital allocation.

## Forward Looking Statements

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### Non-GAAP Measures

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# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

Q1 2008 benefited from a very weak comparable Q1 in 2007. Revenue increased 32%, Organic Net Revenue growth was 6%, Net Maintenance growth was 34%, and Adjusted Net Income growth was 62%. On a sequential basis (Q4 2007 vs Q1 2008) growth was more modest but still encouraging (revenue increased 11% and Adjusted Net Income increased 19%). Please note that we have changed the definition of Adjusted Net Income (see MD&A) in a way that has reduced the Adjusted Net Income for this quarter by \$1.3 million vs what it would have been using the former definition. We believe the current definition provides a closer approximation of after tax cash profits.

Organic growth continued to improve despite deteriorating performance in our building related verticals. This was the fourth consecutive quarter of improving Organic Net Revenue growth. A table containing our quarterly Performance Metrics is appended. Our favourite single metric for measuring shareholder returns combines profitability and growth (ROIC + Organic Net Revenue growth). The combined metric was 32% (annualised) in Q1, a very handsome return for a business with such a low Tangible Net Asset ("TNA") requirement. TNA/Net Revenue remained stable at -58% (-57% in Q1 of 2007). We were disappointed that we did not see more improvement in this metric, despite considerable efforts throughout the year. Building related verticals are exhibiting longer receivables, and some long-dated receivables that came along with recent acquisitions (against which we have provisions in the acquisition agreements, should they prove uncollectable) are the primary culprits.

We completed 3 acquisitions in Q1, but only a modest (\$2.7 million) amount of capital was invested. Shortly after the end of the quarter, 3 further acquisitions were made for a total net cash investment of \$11.4 million. This continues to be one of the best acquisition markets that we have seen in many years. In 2007 we signed 50% more Non Disclosure Agreements than we signed in 2006. These resulted in a 52% increase in the value of Letters of Intent that we issued, and a 65% increase in the value of the Letters of Intent that were signed back to us. 2008 promises to be an equally busy year. As you may have seen in our recent press release, we have increased our revolving line of credit to \$105 million, so that we are in a position to take advantage of attractive acquisition opportunities when they are available.

I am often asked why Constellation takes minority interests in other public software companies. The answer is simple (value!), but it can be complicated by our investment horizon and by our requirement that the company have competent ownership.

Constellation's objective is to be a perpetual owner of inherently attractive software businesses. Part of a perpetual owner's job, is to make sure that energetic, intelligent and ethical general managers ("GM") are running their businesses and that the GM's are incented to enhance shareholder value over the very long term. It is trivial for an experienced GM to run a software company to generate high profitability and shrinking revenues. Far more challenging, is generating reasonable short term profits while continuing to grow revenues, in an industry where investment cycles often exceed 10 years. Understanding a GM's performance as they make these long term trade-offs is the most difficult part of a perpetual owner's job.

We have bought more than 70 private software businesses outright. On ten occasions, however, we have also participated in the purchase of significant minority positions in public software businesses. Usually these minority interests were purchased for less than their intrinsic value, and for far less per share than we would have had to pay for the entire business. While these purchases tend to be at the



“value” end of our investment spectrum, they often carry incremental risk because we lack access to information concerning the long term trade-offs that the businesses are making. Even excellent managers of public companies are initially uncomfortable allowing us to join their boards to get access to this information, suspecting us of dire motives or a short-term orientation. We have the same objective when we buy a piece of a business as when we buy 100%, i.e. we want to be a great perpetual owner of an inherently attractive asset. If we are allowed to join a public company’s board, we offer to sign an agreement that will limit our ability to make an unsolicited take-over bid. This allows existing long-term shareholders of our public investees to continue to enjoy the benefits of ownership. For shareholders with similar objectives to ours, we believe that we are an exceptional co-investor.

When boards reject our request for representation, we may resort to “shareholder democracy”, i.e. we may approach other shareholders to request that they support our quest for a board seat. Only as a last resort will we make an unsolicited bid for a company.

Our financial objective is to generate in excess of 20% average annual revenue and EBITDA growth per share for the period January 1, 2006 through December 31, 2010. We continue to believe that these objectives are attainable.

Mark Leonard  
President  
Constellation Software Inc.

May 7<sup>th</sup>, 2008

|                                       | Q1 2006 | Q2 2006 | Q3 2006 | Q4 2006 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages)     |         |         |         |         |         |         |         |         |         |
| Revenue                               | 51.2    | 52.2    | 53.8    | 53.5    | 55.9    | 60.5    | 60.6    | 66.1    | 73.6    |
| Net Income / (Loss)                   | (8.7)   | 1.3     | 2.3     | 3.8     | 2.6     | 3.5     | 3.3     | 1.6     | 4.3     |
| Net Revenue                           | 46.0    | 47.3    | 48.4    | 48.6    | 50.7    | 54.9    | 55.3    | 60.2    | 66.6    |
| Net Maintenance Revenue               | 26.0    | 26.9    | 28.1    | 29.6    | 31.2    | 33.3    | 34.5    | 37.8    | 41.7    |
| Adjusted Net Income (1)               | 4.8     | 4.4     | 7.5     | 9.0     | 6.9     | 8.4     | 8.5     | 9.4     | 11.1    |
| Average Invested Capital              | 114     | 119     | 125     | 135     | 143     | 149     | 158     | 167     | 176     |
| Net Revenue Growth (Y/Y)              | 33%     | 28%     | 24%     | 22%     | 10%     | 16%     | 14%     | 24%     | 31%     |
| Organic Net Revenue Growth (Y/Y)      | 14%     | 12%     | 5%      | 3%      | -1%     | 0%      | 2%      | 3%      | 6%      |
| Net Maintenance Growth (Y/Y)          | 35%     | 30%     | 30%     | 29%     | 20%     | 24%     | 23%     | 28%     | 34%     |
| Adjusted Net Income Growth (Y/Y)      | 21%     | 5%      | 49%     | 115%    | 43%     | 91%     | 13%     | 5%      | 62%     |
| Average Invested Capital Growth (Y/Y) | 19%     | 20%     | 20%     | 24%     | 25%     | 25%     | 26%     | 24%     | 24%     |
| Tangible Net Assets / Net Revenue     | -52%    | -51%    | -59%    | -73%    | -57%    | -45%    | -53%    | -74%    | -58%    |
| ROIC (Annualized)                     | 17%     | 15%     | 24%     | 27%     | 19%     | 23%     | 22%     | 22%     | 25%     |
| ROIC + Organic Net Revenue Growth     | 31%     | 27%     | 29%     | 30%     | 18%     | 23%     | 24%     | 26%     | 32%     |

(1) Historical figures restated to comply with revised definition.

See “Non-GAAP Measures” below and the Company’s Q1 2008 Management Discussion and Analysis.

## Performance Metrics Glossary

“Net Revenue” means Revenue for GAAP purposes less third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only includes the margin on our lower value-added revenues such as commodity hardware or third party software.

“Net Maintenance Revenue” is derived from GAAP Maintenance Revenue by subtracting third party maintenance costs. We believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company and that the operating profitability of a low growth software business should correlate tightly to Net Maintenance Revenues.

Effective this quarter, the term “Adjusted Net Income” is derived by adjusting GAAP net income for the non-cash amortization of intangibles, future income taxes, and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that Constellation’s common shares are publicly traded). Prior to Q1 2008, Adjusted Net Income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The computation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are being added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted Net Income figures have been restated in the table above to reflect the new method of computations. We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP net income and it is closely aligned with the calculation of net income we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in Constellation. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“Tangible Net Assets / Quarterly Net Revenue” provides a measure of our Tangible Net Assets as a proportion of Quarterly Net Revenue. Tangible Net Assets is calculated by taking Total Assets for GAAP purposes, and subtracting (i) intangible assets and goodwill, (ii) cash and short term investments, (iii) future income tax assets, (iv) all customer, trade and government liabilities that do not bear a coupon, excluding future income tax liabilities and acquisition holdbacks.

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# CONSTELLATION SOFTWARE INC.

## Q2 2008

### TO OUR SHAREHOLDERS

Q2 was a good quarter for Constellation, particularly in light of the difficult economic environment. We achieved record levels of Adjusted EBITDA (\$14 million) and Adjusted Net Income (\$12 million), and 5% Organic Net Revenue growth.

In Q2 of 2006, Constellation became a public company. Net Revenue during that quarter was \$47 million. Net Revenue in Q2 of this year was \$71 million – a 23% compound annual growth rate since the IPO. While some of this growth was organic, the majority of it was acquired. We issued no new shares during the IPO nor have we issued any since then, so the intervening acquisitions were financed from our earnings (~\$73 million), and borrowings/cash reductions (~\$26 million).

Until recently, we had avoided using significant amounts of debt. Circumstances, however, may dictate a change in our capital structure. The economy is slow, credit and equity markets are in rough shape, and buyers for vertical market software businesses are increasingly scarce. Concurrently, and for some of the same reasons, quite a number of vertical market software businesses are for sale at attractive prices. We may not be the successful bidders for these assets, but if we are, we will almost certainly be increasing Constellation's financial leverage. In support of our acquisition pursuits, we negotiated an increase in our revolving bank line to \$105 million during Q2 and are currently in discussions with our lenders to further increase the size of this facility. We are also examining other financing alternatives.

Rapid acquired growth is not an imperative, it is a choice. For most of the last decade we struggled to find enough attractive acquisitions to consume our operating cash flows. We believe that the situation has now reversed, and we are sorely tempted to buy as many attractive vertical market software businesses as and while we can.

A table containing our quarterly Performance Metrics is appended. We have discussed the definitions and implications of the various metrics in previous letters to shareholders, and a glossary is also provided. This quarter, I was pleased with our performance across all of the metrics but wanted to draw your attention to one in particular. When economic times are tough, and bonuses are tied to financial performance, there's a strong incentive for the managers of any business to aggressively recognise revenue. I believe that our people are largely inured to such temptations, but there's a quick way to cross-check. Aggressive revenue recognition nearly always gives rise to an associated increase in accounts receivable and work in process. We should be able to see any such movements in our Tangible Net Assets/Net Revenue metric. In Q2 of 2008, this metric was -58%, down from -45% and -51% in Q2 of 2007 and 2006 respectively. This improvement over prior years suggests that, if anything, our businesses are being conservative about the earnings that they are reporting.

Mark Leonard  
President  
Constellation Software Inc.

August 7<sup>th</sup>, 2008

|                                       | Q2 2006 | Q3 2006 | Q4 2006 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages)     |         |         |         |         |         |         |         |         |         |
| Revenue                               | 52.2    | 53.8    | 53.5    | 55.9    | 60.5    | 60.6    | 66.1    | 73.6    | 77.7    |
| Net Income / (Loss)                   | 1.3     | 2.3     | 3.8     | 2.6     | 3.5     | 3.3     | 1.6     | 4.3     | 3.4     |
| Net Revenue                           | 47.3    | 48.4    | 48.6    | 50.7    | 54.9    | 55.3    | 60.2    | 66.6    | 71.0    |
| Net Maintenance Revenue               | 26.9    | 28.1    | 29.6    | 31.2    | 33.3    | 34.5    | 37.8    | 41.7    | 43.8    |
| Adjusted Net Income <sup>(1)</sup>    | 4.4     | 7.5     | 9.0     | 6.9     | 8.4     | 8.5     | 9.4     | 11.1    | 12.0    |
| Average Invested Capital              | 119     | 125     | 135     | 143     | 149     | 158     | 167     | 176     | 188     |
| Net Revenue Growth (Y/Y)              | 28%     | 24%     | 22%     | 10%     | 16%     | 14%     | 24%     | 31%     | 29%     |
| Organic Net Revenue Growth (Y/Y)      | 12%     | 5%      | 3%      | -1%     | 0%      | 2%      | 3%      | 6%      | 5%      |
| Net Maintenance Growth (Y/Y)          | 30%     | 30%     | 29%     | 20%     | 24%     | 23%     | 28%     | 34%     | 32%     |
| Adjusted Net Income Growth (Y/Y)      | 5%      | 49%     | 115%    | 43%     | 91%     | 13%     | 5%      | 62%     | 43%     |
| Average Invested Capital Growth (Y/Y) | 20%     | 20%     | 24%     | 25%     | 25%     | 26%     | 24%     | 24%     | 26%     |
| Tangible Net Assets / Net Revenue     | -51%    | -59%    | -73%    | -57%    | -45%    | -53%    | -74%    | -58%    | -58%    |
| ROIC (Annualized)                     | 15%     | 24%     | 27%     | 19%     | 23%     | 22%     | 22%     | 25%     | 26%     |
| ROIC + Organic Net Revenue Growth     | 27%     | 29%     | 30%     | 18%     | 23%     | 24%     | 26%     | 32%     | 31%     |

(1) Historical figures restated to comply with revised definition.

### Performance Metrics Glossary

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“Net Maintenance Revenue” is derived from GAAP Maintenance Revenue by subtracting third party maintenance costs. We believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company and that the operating profitability of a low growth software business should correlate tightly to Net Maintenance Revenues.

Effective Q1 2008, the term “Adjusted Net Income” is derived by adjusting GAAP net income for the non-cash amortization of intangibles, future income taxes, and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that Constellation’s common shares are publicly traded). Prior to Q1 2008, Adjusted Net Income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The computation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are being added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted Net Income figures have been restated in the table above to reflect the new method of computations. We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP net income and it is closely aligned with the calculation of net income we use for bonus purposes.

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“Tangible Net Assets / Quarterly Net Revenue” provides a measure of our Tangible Net Assets as a proportion of Quarterly Net Revenue. Tangible Net Assets is calculated by taking Total Assets for GAAP purposes, and subtracting (i) intangible assets and goodwill, (ii) cash and short term investments, (iii) future income tax assets, (iv) all customer, trade and government liabilities that do not bear a coupon, excluding future income tax liabilities and acquisition holdbacks.

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# CONSTELLATION SOFTWARE INC.

## Q308

### TO OUR SHAREHOLDERS

In a diversified company like ours, you can usually point to some businesses that are stars and some that are not. I'm currently in the happy position of being able to commend the performance of all of our Operating Groups to shareholders. In Q3, some of our businesses recorded double digit organic growth and many of them produced record profits. Others continue to be profitable despite rending and perhaps long term change in their sectors. In aggregate, Constellation generated 7% organic Net Revenue growth in Q3, managed a further 28% acquired Net Revenue growth, produced record Adjusted EBITDA (\$15.7 million) and Adjusted Net Income (\$12.3 million), and invested more in acquisitions (\$44 million) than in any previous quarter. You can't judge the quality of this quarter's acquisitions by this quarter's profit, but after 85 acquisitions over a 13 year period, we seem to have developed a knack for acquiring fundamentally sound businesses at fair prices. While it's comforting to revel in the Q3 results, I suspect that our Organic Growth will flag in 2009. Forecasters are calling for GNP contraction in North America. Constellation can't hope to be immune, but we anticipate faring far better than most software companies due to our high and growing (34% growth in Q3) Net Maintenance Revenue.

Another metric worth bringing to your attention in the table below is Tangible Net Assets / Net Revenue. Our Operating Groups did an exceptional job of managing their working capital in an economic environment where many customers are trying to hang on to their cash a little bit longer. This improvement is overshadowed by the large amount of negative Tangible Net Assets that we acquired late in the quarter as a result of the Maximus acquisition. I anticipate that we will not be able to maintain the -84% Tangible Net Assets / Net Revenue ratio in the future, but we should see continued good performance on this metric. A glossary for our quarterly Performance Metrics is appended to this letter. I encourage you to refer back to previous letters for more extensive discussions of each of the metrics.

|                                       | Q3 2006 | Q4 2006 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 | Q3 2008     |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|-------------|
| (\$ millions, except percentages)     |         |         |         |         |         |         |         |         |             |
| Revenue                               | 54      | 54      | 56      | 60      | 61      | 66      | 74      | 78      | 81          |
| Net Income / (Loss)                   | 2.3     | 3.8     | 2.6     | 3.5     | 3.3     | 1.6     | 4.3     | 3.4     | 3.3         |
| Net Revenue                           | 48      | 49      | 51      | 55      | 55      | 60      | 67      | 71      | 75          |
| Net Maintenance Revenue               | 28      | 30      | 31      | 33      | 35      | 38      | 42      | 44      | 46          |
| Adjusted Net Income <sup>(1)</sup>    | 7.5     | 9.0     | 6.9     | 8.4     | 8.5     | 9.4     | 11.1    | 12.0    | <b>12.3</b> |
| Average Invested Capital              | 125     | 135     | 143     | 149     | 158     | 167     | 176     | 188     | 201         |
| Net Revenue Growth (Y/Y)              | 24%     | 22%     | 10%     | 16%     | 14%     | 24%     | 31%     | 29%     | <b>35%</b>  |
| Organic Net Revenue Growth (Y/Y)      | 5%      | 3%      | -1%     | 0%      | 2%      | 3%      | 6%      | 5%      | <b>7%</b>   |
| Net Maintenance Growth (Y/Y)          | 30%     | 29%     | 20%     | 24%     | 23%     | 28%     | 34%     | 32%     | <b>34%</b>  |
| Adjusted Net Income Growth (Y/Y)      | 49%     | 115%    | 43%     | 91%     | 13%     | 5%      | 62%     | 43%     | 47%         |
| Average Invested Capital Growth (Y/Y) | 20%     | 24%     | 25%     | 25%     | 26%     | 24%     | 24%     | 26%     | <b>35%</b>  |
| Tangible Net Assets / Net Revenue     | -59%    | -73%    | -57%    | -45%    | -53%    | -74%    | -58%    | -58%    | <b>-84%</b> |
| ROIC (Annualized)                     | 24%     | 27%     | 19%     | 23%     | 22%     | 22%     | 25%     | 26%     | 25%         |
| ROIC + Organic Net Revenue Growth     | 29%     | 30%     | 18%     | 23%     | 24%     | 26%     | 32%     | 31%     | 32%         |

<sup>(1)</sup> Historical figures restated to comply with revised definition.

Because of the uncertainty in credit and equity markets, there are some great VMS investments to be had right now. We scooped up a big one this last quarter in the form of the Maximus assets. It consists of 3 good businesses, two of which came with very large uneconomic contracts. As we indicated when we announced the acquisition, the contingent liabilities associated with these contracts could exceed 50% of the purchase price. Contracts of this size and structure are unusual in our businesses (at least the way we run them). We factored these contracts into the price that

we paid for these assets, and if we got it right, these 3 businesses will eventually generate good ROIC's and contribute to our organic growth.

Having bought the Maximus assets and 16 other businesses this year, combined with our purchases of publicly traded shares of VMS companies and the pending takeover offer for Gladstone plc, we have deployed and committed approximately \$94 million of capital. While we have also had record cash flows and profits, these commitments have largely tapped out our existing line of credit. I am leery about using short term financing for acquisitions, so we are exploring financing options: Either we slow down the pace of acquisitions and live within our cash flow from operations, or we raise long term financing, whether that be equity or debt flavoured. The capital markets are volatile right now, so I wouldn't hazard a bet as to whether we will find the right investors. If we do, you can expect our acquisition pace in 2009 to continue... if not, it will slow. Irrespective of our acquisition prospects, I continue to be optimistic that our long term performance will be attractive.

Mark Leonard  
President  
Constellation Software Inc.

November 6<sup>th</sup>, 2008

#### Performance Metrics Glossary

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# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

This quarter I'm using a reverse shaggy dog format for the Shareholder letter. Shaggy dog stories are wildly tangential tales that end with underwhelming and/or irrelevant punch lines. In my reverse shaggy dog story, we are going to start with the overwhelming punch line and then tell relevant tangential tales. To the extent that you take the time to follow my explanations of the impact this quarter of foreign exchange, employee bonus accruals, acquisition accounting, and organic growth, you'll have an appropriate context in which to judge our remarkable Q4 results and make sensible assumptions about our future results.

In Q4 2008 Constellation had record Net Revenue per share and record Adjusted Net Income per share in the midst of the worst economic decline that most of us have ever seen. Compared to Q4 2007, revenue grew 49%, Net Revenue grew 47%, Adjusted EBITDA grew 111%, Adjusted Net Income grew 103%, and Net Income grew 142%. Meanwhile, the U.S. department of Commerce believes that GDP decreased at an annual rate of 6.2% in the quarter, calling out the "downturn in exports and a much larger decrease in equipment and software" for special attention. Why did Constellation do so well in such a difficult environment?

The facile answer is that we have robust businesses with inherently attractive economics run by good managers whose compensation is tightly aligned with that of shareholders. The more nuanced answer requires a deeper understanding of Constellation and its business model.

As many of you know (please refer to the 2008 annual MD&A for the details), we run Constellation with an unhedged structural currency mismatch. The vast majority of our revenues (81% in Q4 2008) are in US dollars, while a large portion of our expenses (23%) are in Canadian dollars. The Canadian dollar has appreciated in excess of 60% vs. the US dollar since early 2002, peaking above par in late 2007. Despite the adverse foreign exchange rate move during that period we maintained and grew our operating margins. Since the 2007 peak the Canadian dollar has dropped by more than 20%, settling in around an average rate of .8264 per US dollar in Q4 2008. We have benefited enormously from the recent collapse in the Canadian dollar. Some of those benefits are transient (relating to Canadian dollar liabilities on the balance sheet that have depreciated, such as accrued employee bonuses), while others could continue to help us operate with higher margins. In the future, assuming a geographical business mix and foreign exchange rates consistent with those we achieved in Q4 2008, we would expect operating margins to be approximately 3% higher than they would be if we were to operate at the average foreign exchange rates that prevailed throughout the first 9 months of 2008.

Employee bonuses were approximately 9.5% of Net Revenue in 2008. In Q4 2008 they amounted to only 7.9% of Net Revenue, despite the fact that both ROIC and Net Revenue Growth increased. Once again, the impact was primarily due to foreign exchange rates. The bonus accrual that was made for the first 9 months of 2008 was calculated using historical foreign exchange rates and required a multi-million dollar adjustment in Q4 2008 as a significant portion is in Canadian dollars. The Net Revenue Growth of 47% that was achieved in Q4 2008 is not sustainable. Nor is the ROIC of 35%. Hence with some confidence (and no little regret) we can predict that employee bonuses will be less than 9.5% of Net Revenues in 2009. This, however, does point out one of the attractive features of our bonus plan – when one of our businesses suffers a downturn, its costs are automatically trimmed due to lower bonuses. We saw this at the

Homebuilders Operating Group in 2008: operating expenses per employee decreased 14% (mostly due to lower employee bonuses), while Adjusted EBITDA dropped 18%.

We don't often spotlight an individual acquisition. Partly this is because we do a lot of them. In 2007 we made 17 acquisitions and in 2008 a further 21 - tracking them all publicly would be a sinecure for our auditors second only to IFRS. Partly it is because we don't like sharing sensitive information with competitors. We were required by applicable securities laws to file a Business Acquisition Report ("BAR") for our recent acquisition of certain assets and liabilities of Maximus Inc.'s Asset, Justice, and Education solutions businesses ("MAJES"), so the competitive reasons are less valid in this instance.

The BAR did, however, throw into question our sanity. Read literally, it suggests that we bought a business that had \$72 million in revenues and lost \$32 million pre tax in the year leading up to our acquisition. According to the BAR, the business also had a negative tangible net worth (excluding deferred income taxes) of \$2 million. For this we paid \$40 million. Clearly we had quite a different perception of these businesses than that depicted in the BAR. I'm pleased to refer you to the "selected financial information" for the MAJES businesses in our 2008 MD&A. The business generated \$17 million in revenue during Q4 2008, \$3 million of Adjusted EBITDA, \$1 million of Net Income, and had a negative \$1 million cash flow from operating activities. You need to understand the acquisition accounting to interpret this information.

The Asset Solutions business is performing well, but the Education and Justice businesses have their challenges. First and foremost among these are a number of what I have previously referred to as "uneconomic contracts". Where we cannot reasonably estimate the effort to complete these contracts, we are using the "completed-contract" method to account for them. We have never used this accounting method before. It involves capitalising the contract revenues and expenses on the balance sheet until the contract is completed and then recognizing them in a lump sum. This tends to depress revenues vs. our normal (percent complete) revenue recognition methods, and can have a profound effect upon the bottom line. If at some stage we are able to estimate the cost to complete these contracts, and if we expect the contracts to generate losses, then we are allowed to take provisions against the estimated losses. Prior to that, we cannot recognise losses. Accounting aside, we have been able to make progress with most of the Education and Justice clients that were a source of concern. These situations may take years to resolve. We'll keep you apprised of the financial performance of the MAJES businesses for a couple of years. You will be able to decide first-hand whether or not we effectively deployed a large chunk of capital on behalf of our shareholders.

Organic Net Revenue growth ("OGr") came in at a 0% for Q4 2008, and 5% for 2008 as a whole. Compared to our long term objective of 5-10%, this is low. Compared to U.S. GDP, we are doing fine. There were a couple of mitigating factors. The appreciation of the US dollar vs. the Canadian dollar, the UK pound, and the Danish kroner shaved a couple of points off the OGr rate. I'm sensitive to the fact that our OGr historically benefited from currency shifts, so I don't want to over-emphasize this point. The MAJES acquisition also took a couple of points off of our Q4 2008 OGr rate (we accounted for its run-rate revenues using the numbers in the BAR, which did not use completed-contract accounting). Incorporating these adjustments and a recent analysis we did of license bookings (which are slowing), it's apparent to me that achieving organic growth in 2009 is going to be difficult. Some of our public businesses will grow, but the private sector businesses still anticipate significant organic decline.

I continue to be in the fortunate position of being able to commend the performance of all of our Operating Groups. I have confidence that their managers will protect the interests of our customers, shareholders and employees despite the distressing economic environment.

Mark Leonard  
President  
Constellation Software Inc.

March 4<sup>th</sup>, 2009

|                                       | Q4 2006 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 | Q3 2008 | Q4 2008 |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages)     |         |         |         |         |         |         |         |         |         |
| Revenue                               | 53.5    | 55.9    | 60.5    | 60.6    | 66.1    | 73.6    | 77.7    | 80.8    | 98.4    |
| Net Income / (Loss)                   | 3.8     | 2.6     | 3.5     | 3.3     | 1.6     | 4.3     | 3.4     | 3.3     | 4.0     |
| Net Revenue                           | 48.6    | 50.7    | 54.9    | 55.3    | 60.2    | 66.6    | 71.0    | 74.6    | 88.6    |
| Net Maintenance Revenue               | 29.6    | 31.2    | 33.3    | 34.5    | 37.8    | 41.7    | 43.8    | 46.1    | 52.9    |
| Adjusted Net Income (1)               | 9.0     | 6.9     | 8.4     | 8.5     | 9.4     | 11.1    | 12.0    | 12.3    | 19.0    |
| Average Invested Capital              | 135     | 143     | 149     | 158     | 167     | 176     | 188     | 201     | 216     |
| Net Revenue Growth (Y/Y)              | 22%     | 10%     | 16%     | 14%     | 24%     | 31%     | 29%     | 35%     | 47%     |
| Organic Net Revenue Growth (Y/Y)      | 3%      | -1%     | 0%      | 2%      | 3%      | 6%      | 5%      | 7%      | 0%      |
| Net Maintenance Growth (Y/Y)          | 29%     | 20%     | 24%     | 23%     | 28%     | 34%     | 32%     | 34%     | 40%     |
| Adjusted Net Income Growth (Y/Y)      | 115%    | 43%     | 91%     | 13%     | 5%      | 62%     | 43%     | 45%     | 103%    |
| Average Invested Capital Growth (Y/Y) | 24%     | 25%     | 25%     | 26%     | 24%     | 24%     | 26%     | 27%     | 29%     |
| Tangible Net Assets / Net Revenue     | -73%    | -57%    | -45%    | -53%    | -74%    | -58%    | -58%    | -84%    | -102%   |
| ROIC (Annualized)                     | 27%     | 19%     | 23%     | 22%     | 22%     | 25%     | 26%     | 25%     | 35%     |
| ROIC + Organic Net Revenue Growth     | 30%     | 18%     | 23%     | 24%     | 26%     | 32%     | 31%     | 32%     | 35%     |

(1) Historical figures restated to comply with revised definition.

### Performance Metrics Glossary

“Net Revenue” means Revenue for GAAP purposes less third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only includes the margin on our lower value-added revenues such as commodity hardware or third party software.

“Net Maintenance Revenue” is derived from GAAP Maintenance Revenue by subtracting third party maintenance costs. We believe that Net Maintenance Revenue is one of the best indicators of the intrinsic value of a software company and that the operating profitability of a low growth software business should correlate tightly to Net Maintenance Revenues.

Effective Q1 2008, the term “Adjusted Net Income” is derived by adjusting GAAP net income for the non-cash amortization of intangibles, future income taxes, and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that Constellation’s common shares are publicly traded). Prior to Q1 2008, Adjusted Net Income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The computation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are being added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted Net Income figures have been restated in the table above to reflect the new method of computations. We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP net income and it is closely aligned with the calculation of net income we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in Constellation. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“Tangible Net Assets / Quarterly Net Revenue” provides a measure of our Tangible Net Assets as a proportion of Quarterly Net Revenue. Tangible Net Assets is calculated by taking Total Assets for GAAP purposes, and subtracting (i) intangible assets and goodwill, (ii) cash and short term investments, (iii) future income tax assets, (iv) all customer, trade and government liabilities that do not bear a coupon, excluding future income tax liabilities and acquisition holdbacks.

“ROIC (Annualized)” represents a ratio of Adjusted Net Income to Average Invested Capital.

“ROIC + Organic Net Revenue Growth” provides a historical measure of the effectiveness of our capital allocation.

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# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

Our Q1 2009 performance compared well with Q1 2008: revenue was up 32%, Adjusted EBITDA up 64%, and Adjusted Net Income up 51%. Sequential comparisons vs Q4 2008 along with a bit of digging reveal a less rosy picture: revenue down 1%, Adjusted EBITDA down 7%, and Adjusted Net Income down 11%. The drivers of this performance that strike me as worthy of highlighting include our Organic Net Revenue Growth rate (-5%), the Maximus Asset, Justice and Education (“MAJES”) acquisition which was completed in Q3 2008, our increased tax payments, and lastly, the Canadian dollar.

### Organic Net Revenue Growth

Some of our businesses are more subject than others to a downturn in the economy. In Q1 2009, our Private Sector segment Net Revenue contracted 15% organically vs Q1 of 2008, while our Public Sector segment Net Revenue fared better (1% organic growth vs Q1 of 2008) for a combined Organic Net Revenue Growth of -5%. This is the worst Organic Net Revenue Growth that we have produced since we started keeping such records in 2001. Despite the occasional encouraging press release from real estate brokers, bankers and homebuilders to the contrary, we have yet to see any clear signs of a recovery in our private sector businesses. There is also little direct evidence of government stimulus spending trickling down to our public sector clients.

### MAJES Acquisition

GAAP and even our own “Adjusted EBITDA” measure do a poor job of reflecting the current economics of the MAJES acquisition. In an investor’s shoes, I’d look at the cash purchase price (\$35 million disbursed to date) and compare it with the cash produced (\$1 million in the 6 months that we’ve owned the business). Not bad, but certainly not up to our long term expectations, and nowhere near as good as the reported six month Adjusted EBITDA (\$8 million) and Net Income (\$3 million) for these businesses would lead you to believe. There are several large contracts within MAJES that are cash flow negative, and until they are either completed or terminated by the customers, we don’t expect attractive returns from the acquisition. The MAJES acquisition also “helped” our TNA/Net Revenue ratio, contributing to a significant drop in the ratio in Q3 2008 and beyond. MAJES came with significant contract related liabilities but my sense is that the asset intensity of this business will eventually be similar to our other businesses. Excluding the MAJES acquisition, the TNA/Net Revenue ratio was down vs Q1 2008, which suggests that our businesses are continuing to practice conservative revenue recognition.

### Taxes

We have had low tax rates during the last couple of years, but increasing profitability is driving them up. In Q1 2009 we provided for current taxes (\$3.1 million) that are more than three times the amount provided for in Q1 2008. Taxes are inevitable, and despite our efforts to minimise them, we anticipate that our ratio of cash taxes to Adjusted Net Income will continue to increase during 2009.

#### Canadian Dollar

In the Q4 2008 letter to shareholders I chronicled how the Canadian dollar had affected our profitability during the last 7 years. The gist of the matter, is that with disproportionate expenses in Canadian dollars and revenues in US dollars, we run a fundamental and unhedged foreign exchange position. This hurt us for many years as the Canadian dollar appreciated vs the US dollar, but in the second half of 2008 as the Canadian dollar plummeted by over 20%, we benefited significantly. In Q1 2009 the average Canadian dollar vs US dollar exchange rate was .8054, down from an average rate of .8264 in Q4 2008. Of late the Canadian dollar has strengthened, and should it continue, we can expect leaner profit margins.

We had comforted ourselves in the last couple of quarters that poor organic growth for Constellation likely meant even worse performance for other vertical market software businesses, and hence we would see a number of good acquisition prospects. This hasn't proved to be the case. Q1 2009 was a slow acquisition activity quarter for Constellation, with just one acquisition and no new signed letters of intent. Many owner-managers of healthy businesses seem to be waiting out the recession before selling, but I had expected some of the leveraged transactions of the last few years to come unraveled. To date, we have seen very few distressed asset sales. I'm still hopeful that lenders will lose patience with some private equity sponsored vertical market software businesses during the second half of the year culminating in some larger transactions. We are currently negotiating an increase in our credit line so that we can pursue large acquisitions.

The toughest challenge in the software business is intelligently trading off profitability and organic growth. Many entrepreneurs have a huge bias towards growth at the expense of profits. Most private equity owned software firms have the opposite bias. At Constellation we try to find an optimum position where incremental investment still generates good incremental long term returns. I think our managers and employees are doing a great job of maintaining profitability in a difficult economic environment, without curtailing our record Research & Development spending (\$15 million in Q1).

I look forward to seeing those of you who are able to attend our Annual General Meeting on May 7<sup>th</sup>, 2009.

Mark Leonard  
President  
Constellation Software Inc.

May 6<sup>th</sup>, 2009

|                                       | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 | Q3 2008 | Q4 2008 | Q1 2009 |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (\$ millions, except percentages)     |         |         |         |         |         |         |         |         |         |
| Revenue                               | 55.9    | 60.5    | 60.6    | 66.1    | 73.6    | 77.7    | 80.8    | 98.4    | 97.3    |
| Net Income / (Loss)                   | 2.6     | 3.5     | 3.3     | 1.6     | 4.3     | 3.4     | 3.3     | 4.0     | 3.8     |
| Net Revenue                           | 50.7    | 54.9    | 55.3    | 60.2    | 66.6    | 71.0    | 74.6    | 88.6    | 89.3    |
| Net Maintenance Revenue               | 31.2    | 33.3    | 34.5    | 37.8    | 41.7    | 43.8    | 46.1    | 52.9    | 53.7    |
| Adjusted Net Income (1)               | 6.9     | 8.4     | 8.5     | 9.4     | 11.1    | 12.0    | 12.3    | 19.0    | 16.8    |
| Average Invested Capital              | 143     | 149     | 158     | 167     | 176     | 188     | 201     | 216     | 234     |
| Net Revenue Growth (Y/Y)              | 10%     | 16%     | 14%     | 24%     | 31%     | 29%     | 35%     | 47%     | 34%     |
| Organic Net Revenue Growth (Y/Y)      | -1%     | 0%      | 2%      | 3%      | 6%      | 5%      | 7%      | 0%      | -5%     |
| Net Maintenance Growth (Y/Y)          | 20%     | 24%     | 23%     | 28%     | 34%     | 32%     | 34%     | 40%     | 29%     |
| Adjusted Net Income Growth (Y/Y)      | 43%     | 91%     | 13%     | 5%      | 62%     | 43%     | 45%     | 103%    | 51%     |
| Average Invested Capital Growth (Y/Y) | 25%     | 25%     | 26%     | 24%     | 24%     | 26%     | 27%     | 29%     | 33%     |
| Tangible Net Assets / Net Revenue     | -57%    | -45%    | -53%    | -74%    | -58%    | -58%    | -84%    | -102%   | -80%    |
| ROIC (Annualized)                     | 19%     | 23%     | 22%     | 22%     | 25%     | 26%     | 25%     | 35%     | 29%     |
| ROIC + Organic Net Revenue Growth     | 18%     | 23%     | 24%     | 26%     | 32%     | 31%     | 32%     | 35%     | 24%     |

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# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

GAAP statements tend to be the best tool that investors have to monitor and judge a company's performance. We have tried to supplement GAAP by providing you with our own calculations of Adjusted Net Income, Average Invested Capital, ROIC, Organic Net Revenue Growth, and Attrition (the "CSI Metrics") amongst others. The CSI Metrics do attract cynicism from some quarters, so I've also included in this letter a couple of GAAP financial metrics that reflect the company's performance over the last decade. I welcome any suggestions that you may have for other metrics to include in these annual letters.

Table 1

|      | Adjusted Net<br>Income (a.) | Average Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-----------------------------|-----------------------------|------|----------------------------------------|-----------------------------------------|
| 2000 | (2.4)                       | 68                          | -4%  | b.                                     | b.                                      |
| 2001 | 7.1                         | 69                          | 10%  | b.                                     | b.                                      |
| 2002 | 1.5                         | 71                          | 2%   | 6%                                     | 8%                                      |
| 2003 | 21.8                        | 83                          | 26%  | 11%                                    | 37%                                     |
| 2004 | 12.7                        | 84                          | 15%  | 9%                                     | 24%                                     |
| 2005 | 17.4                        | 101                         | 17%  | 18%                                    | 35%                                     |
| 2006 | 25.7                        | 123                         | 21%  | 8%                                     | 29%                                     |
| 2007 | 33.2                        | 154                         | 22%  | 1%                                     | 23%                                     |
| 2008 | 54.4                        | 195                         | 28%  | 5%                                     | 33%                                     |
| 2009 | 62.4                        | 256                         | 24%  | -3%                                    | 21%                                     |

a. Historical figures restated to comply with current definition (see Glossary)

b. Not Available

The definitions of Adjusted Net Income, Average Invested Capital, ROIC and Net Revenue appear in the Glossary below.

Internally we think about Adjusted Net Income as the cash profits we generate after paying cash taxes. The most significant variation from GAAP net income, is that we assume our intangible assets are not diminishing in economic value. This is a critical assumption that our board challenges, and that you, as shareholders, need to monitor. The way we support the "ever-expanding intangibles value" contention with our board is by regularly forecasting the cash flows for each of our acquired business units and comparing them to our original acquisition costs to calculate acquisition by acquisition IRR's. We don't provide this level of disclosure to our shareholders because we want to avoid the cost to the company (having done more than 100 acquisitions), the disclosure of competitive information to competitors and overwhelming shareholders with the sheer volume of information that would be required. Instead we disclose the annual changes in our maintenance revenue base, with a particular focus on the organic changes. Our attrition statistics show that we have grown our

maintenance revenues organically, even during the recent recession, so I'd argue that the economic value of our intangibles in aggregate has increased rather than decreased for as long as we've done our annual maintenance attrition surveys.

And when we think about Invested Capital, we think about the shareholder capital that has been invested in the businesses, plus any Adjusted Net Income less any distributions. Obviously, when you divide Adjusted Net Income by Invested Capital, you get a measure of the return on our shareholders' investment (i.e. ROIC). If you add Organic Net Revenue Growth to ROIC, you get what we believe is a proxy for the annual increase in Shareholders' value. In a capital intensive business you couldn't just add Organic Net Revenue Growth to ROIC, because growing revenues would require incremental Invested Capital. In our businesses we can nearly always grow revenues organically without incremental capital.

If you refer to Table 1, you'll see that Average Invested Capital is compounding at a handsome pace, largely because we are generating attractive ROIC's and are paying only a modest dividend. In 2009 we generated a 24% ROIC. I'm particularly pleased with this performance, as it was achieved in a recession, and despite a significant adverse move in currencies. The trend in Organic Net Revenue Growth is less attractive. In the middle of the decade we generated double digit growth rates, but this has slowed, culminating in a 3% contraction in 2009. This is the worst performance that we've experienced since we started tracking Organic Net Revenue Growth. The macro economy had a significant influence on our organic growth, but some of the decelerating growth is also self imposed. In 2004 we started tracking CSI's investments in new Initiatives on an Initiative by Initiative basis. The system was not without flaws, but as the longitudinal data has gradually been amassed, it has convinced me and many of our other managers that the returns that we are generating on these investments are nowhere near as good as we had originally hoped. I believe that our efforts to generate better returns from Initiatives have permanently reduced the amount of Organic Net Revenue growth that we will seek. We are currently targeting an average of 5% organic growth over the long term.

The attrition statistics for 2009 and the previous three years appear in Table 2. We calculate attrition and growth each year based off of the prior year's GAAP maintenance revenue, rather than the run-rate of maintenance revenue at the end of the prior year. This creates a persistent overstatement of both organic growth and attrition if we consistently acquire significant amounts of maintenance revenue late in each year. Foreign exchange changes during the last couple of years have been significant and also complicate the analysis. Despite the challenges of pulling together accurate data across tens of thousands of clients in a multitude of different geographies, we believe that the table is indicative of the trends in our maintenance base.

Table 2

|                                     | 2006       | 2007       | 2008       | 2009       |
|-------------------------------------|------------|------------|------------|------------|
| <b>Maintenance Revenue (US\$MM)</b> | <b>116</b> | <b>142</b> | <b>193</b> | <b>252</b> |
| <b>Growth from:</b>                 |            |            |            |            |
| Acquisitions                        | 17%        | 11%        | 24%        | 27%        |
| Organic Sources                     |            |            |            |            |
| a) New maintenance                  | 15%        | 10%        | 10%        | 8%         |
| b) Price increases                  | 5%         | 8%         | 9%         | 3%         |
| c) Attrition - Lost Modules         | -2%        | -2%        | -3%        | -3%        |
| c) Attrition - Lost Customers       | -4%        | -4%        | -4%        | -4%        |
| Total Organic Growth                | 15%        | 12%        | 11%        | 4%         |
| Total Maintenance Growth            | 32%        | 23%        | 35%        | 31%        |

Our customer and module attrition has consistently been less than the sum of new maintenance revenue plus maintenance price increases (i.e. the organic growth in our maintenance revenue has been positive). This suggests that the economic value of Constellation's intangible assets has appreciated even during the recent recession. And while the Total Organic Growth in maintenance has slowed during the recession, 2009 was a record year for the acquisition of maintenance revenues so we still had a very attractive increase (31%) in our maintenance revenues. It seems intuitively appealing that as we go through an economic cycle there will be good times to organically grow maintenance revenues and good times to buy maintenance revenues, and that those events will rarely coincide. I only wish we had acquired more maintenance during the recession before acquisition prices rebounded.

Our attrition rates also illustrate the long-term nature of our client relationships. Attrition due to the loss of customers in 2009 was ~4%, suggesting that our average customer will stay with Constellation for 26 years. Customer relationships that endure for more than two decades are valuable. We have symbiotic relationships with tens of thousands of customers: we handle thousands of their calls each day, and issue scores of new versions of mission critical software each year which incorporate their feedback and suggestions. For an annual cost that rarely exceeds 1% of a customers' revenues, our products help them run their businesses efficiently, adopt their industry's best practices, and adapt to changing times.

In aggregate our intangibles appear to be steadily increasing in value. Nevertheless there is one sector amongst our businesses where the picture is not so rosy. Within our CHS Operating Group, primarily due to the contraction of our homebuilder businesses, Total Organic Growth has averaged -10% in each of the last two years. During the recession we believe that our market share in the homebuilding software industry has grown, even while our revenues and profits have decreased. We still anticipate generating an investment return from this sector that exceeds our hurdle rate.

Even when you use GAAP financial metrics to measure performance, you can be accused of cherry-picking those that look good. There's nothing like studying many years of a company's financial statements and filings to form a clear picture of its business and its

managers' values. Nevertheless, I've tried to boil down that analysis into two simple per share metrics in Table 3. I used per share metrics, because it is no achievement to grow revenues or cash flow 50% per annum while growing share count by 100% per annum. I used Revenue per Share because, all other things being equal, any increase in Revenues per Share should translate into a similar increase in intrinsic value per share (not including dividends). Obviously, all other things are not equal. I'd suggest, however, that on balance the important factors that drive our economic model have improved during the last decade (for instance, margins have improved and we are using less and less working capital). This is borne out by our Cash Flow from Operating Activities per Share, which has improved at a rate in excess of Revenue per Share during the decade. The growth in Cash Flow from Operating Activities per Share has not been achieved at the cost of significantly increased debt per share. Indeed, if we liquidated our portfolio of marketable securities at current market prices, we would entirely eliminate our debt.

Table 3

|      | Total Revenue<br>per Share |              | Cash Flow from<br>Operating Activities<br>per Share |              | Total Share<br>Count |
|------|----------------------------|--------------|-----------------------------------------------------|--------------|----------------------|
|      |                            | YoY $\Delta$ |                                                     | YoY $\Delta$ |                      |
| 2000 | 3.00                       |              | 0.06                                                |              | 19,439               |
| 2001 | 2.95                       | -2%          | 0.48                                                | 729%         | 19,284               |
| 2002 | 3.22                       | 9%           | 0.43                                                | -11%         | 19,342               |
| 2003 | 4.16                       | 29%          | 0.74                                                | 72%          | 19,428               |
| 2004 | 5.49                       | 32%          | 0.59                                                | -20%         | 19,891               |
| 2005 | 8.11                       | 48%          | 1.21                                                | 106%         | 20,392               |
| 2006 | 10.01                      | 23%          | 1.36                                                | 12%          | 21,065               |
| 2007 | 11.47                      | 15%          | 1.62                                                | 19%          | 21,192               |
| 2008 | 15.60                      | 36%          | 2.96                                                | 83%          | 21,192               |
| 2009 | 20.67                      | 32%          | 3.90                                                | 32%          | 21,192               |
| CAGR |                            | 24%          |                                                     | 30%*         |                      |

\* 8 year CAGR 2001-2009 is 30%. The 9 year CAGR is 60%.

Experience and math suggest that the compound average growth rates in Revenue per share and Cash Flow from Operating Activities per share of the last decade are not maintainable. Inevitable decline doesn't make the company's performance to date any less impressive. As both the GAAP and CSI Metrics suggest, and over pretty much any period, we have done extremely well vs most comparables. I'm proud of the company that our employees and shareholders have built.

The majority of the Constellation board believe that our stock price does not adequately reflect the company's fundamental performance and its ability to deploy retained capital at high returns. They speculate that the complexity of the company creates a discount because only enterprising investors are willing to do the work to understand our business. The board also worries that if we continue with our current strategy, our growth rates may start to slow and/or our profitability erode. There's something to their observations and concerns.

We have been a serial acquirer of inherently attractive small vertical market software businesses in a large number of different verticals. We try to be competent long-term oriented owners of these businesses. Our maintenance attrition and organic maintenance growth numbers, coupled with our profitability suggest that we have been successful. In the vast majority of cases, the longer we have owned a small software business, the larger and better it has become. If we persist in this strategy (let's call it the "many verticals" strategy), we will continue to add new verticals and to make many more small acquisitions each year. We've handled our geometric growth to date by largely abdicating management to the general managers of each of our vertical businesses. We have a very thin overlay of infrastructure at CSI. We count on the fact that with each new acquisition will come general managers who are steeped in their verticals... veterans who have built industry leading (albeit small) vertical market software businesses with great economics. Having owned more than a hundred vertical market software businesses, we also have some best practices that we can share. We coach the managers of our newly acquired businesses in how to grow their businesses and make them even better. As long as we compensate these managers appropriately, and are not tempted to meddle too much, then I think we can scale up Constellation for many years to come.

This large span of control with low overhead is an experiment. A couple of successful conglomerates appear to have used it, but it isn't common and we are feeling our way forward. The challenge is striking a balance between keeping overheads low and having the management capacity to intervene when a business isn't living up to its potential. Unfortunately, even if we execute this "many verticals" strategy flawlessly, and continue to generate high returns on our invested capital, Constellation will become even more complex and difficult for our shareholders and board to understand.

An alternative strategy that we've discussed with the board, is concentrating our activities in a fewer number of larger verticals. This would likely mean paying higher multiples for larger acquisitions and paying strategic premiums to accelerate the number of tuck-in acquisitions that we do in any one vertical. Despite the higher multiples (and hence lower returns on investment) associated with such acquisitions, we'd end up with fewer and larger businesses and Constellation would be easier to manage and understand.

We've decided to continue with our original "many verticals" strategy, but we are monitoring our ability to keep on scaling up the number of verticals in which we compete. Management are not currently feeling overtaxed, and hate the prospect of paying premiums for larger businesses and tuck-in acquisitions. So for the time being, at least, our shareholders and board will have to contend with increased complexity, and our management will focus on maximising the long term return on capital.

Only one eleventh of our shares changed hands in 2009 (vs one sixteenth in 2008). Our share price has outperformed the S&P TSX index by an average of 16% per annum since our IPO in 2006. We seem to have attracted a group of shareholders who have willingly sacrificed liquidity in return for the opportunity to make a long term investment in what they believe is a good company. We continue to seek long-term oriented shareholders that share our approach to investing.

As in previous years, we will be hosting the annual general meeting in early May. Many of our Directors and Officers and a number of our General Managers will be in attendance. We look forward to talking about our business and answering your questions. I hope to see you there.

Mark Leonard  
President  
Constellation Software Inc.

March 25, 2010

## Glossary

Effective Q1 2008, the term “Adjusted Net Income” is derived by adjusting GAAP net income for the non-cash amortization of intangibles, future income taxes, and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that Constellation’s common shares are publicly traded). Prior to Q1 2008, Adjusted Net Income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The computation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are being added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted Net Income figures have been restated in the table above to reflect the new method of computations. We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP net income and it is closely aligned with the calculation of net income that we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in Constellation. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“ROIC” represents a ratio of Adjusted Net Income to Average Invested Capital.

“Net Revenue”. Net Revenue is gross revenue for GAAP purposes less any third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only the margin on the lower value-added revenues such as commodity hardware or third party software.

## Forward Looking Statements

Certain statements herein may be “forward looking” statements that involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of Constellation or the industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date hereof. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. These forward looking statements are made as of the date hereof and Constellation assumes no obligation to update any forward looking statements to reflect new events or circumstances except as required by law.



### Non-GAAP Measures

Adjusted Net Income, Adjusted EBITDA and Organic Revenue Growth are not recognized measures under GAAP and, accordingly, shareholders are cautioned that Adjusted Net Income Adjusted EBITDA and Organic Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP as an indicator of the financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Adjusted Net Income, Adjusted EBITDA and Organic Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to Constellation's most recently filed Management Discussion and Analysis for a reconciliation, where applicable, between the GAAP and non-GAAP measures referred to above.

# CONSTELLATION SOFTWARE INC.

## TO OUR SHAREHOLDERS

On April 4<sup>th</sup>, Constellation's board announced that it was undertaking a review of the strategic alternatives for the company, with the objective of enhancing shareholder value. In your shoes, I'd interpret that as meaning that the company is likely to be sold. In the ~40% appreciation of CSI's stock since January 2011, we have presumably seen the market reflecting some of that takeover premium.

The marketing of the company to prospective buyers has, and will be, a considerable distraction to the managers and employees of the company. We can't be sure that it will result in an acceptable offer. We hope to get through this process as quickly as possible, generate some liquidity for our major shareholders, and then get back to building our business.

This may be my last chance to publicly commend our managers and employees for many years of spectacular performance. In Table 1 below, I've updated the performance metrics that we presented last year. This analysis is no substitute for reading our audited annual financial results and statutory filings, however it does provide a nice synopsis of some metrics that we believe are important. It also highlights the remarkable returns that our employees have generated with our shareholders' funds.

Table 1

|      | Adjusted Net<br>Income (a.) | Average Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-----------------------------|-----------------------------|------|----------------------------------------|-----------------------------------------|
| 2000 | (2)                         | 68                          | -4%  | b.                                     | b.                                      |
| 2001 | 7                           | 69                          | 10%  | b.                                     | b.                                      |
| 2002 | 2                           | 71                          | 2%   | 6%                                     | 8%                                      |
| 2003 | 22                          | 83                          | 26%  | 11%                                    | 37%                                     |
| 2004 | 13                          | 84                          | 15%  | 9%                                     | 24%                                     |
| 2005 | 17                          | 101                         | 17%  | 18%                                    | 35%                                     |
| 2006 | 26                          | 123                         | 21%  | 8%                                     | 29%                                     |
| 2007 | 33                          | 154                         | 22%  | 1%                                     | 23%                                     |
| 2008 | 54                          | 195                         | 28%  | 5%                                     | 33%                                     |
| 2009 | 62                          | 256                         | 24%  | -3%                                    | 21%                                     |
| 2010 | 87                          | 325                         | 27%  | -2%                                    | 25%                                     |

a. Historical figures restated to comply with revised definition.

b. Not Available

The definitions of Adjusted Net Income, Average Invested Capital, ROIC and Net Revenue appear in the Glossary below.

As I explained in last year's Letter to Shareholders, we believe that the sum of ROIC and Organic Net Revenue Growth is the best single metric for measuring the performance of a

low asset intensity software business, closely reflecting the increase in Shareholders' value. For 2010 this number was 25%, a nice improvement from 2009. The increase was due in large part to near record levels of ROIC and a slightly smaller contraction in the Net Revenue of our existing businesses. By late 2010, our Organic Net Revenue Growth was once again positive, and 2011 is showing encouraging signs of a continued resurgence in Organic Net Revenue growth, accompanied by even better returns on Invested Capital.

We traditionally report on our Maintenance Revenue as part of this letter. Maintenance is the most profitable part of our business and can provide an insight into whether the long-term intrinsic value of our business is increasing or decreasing. During 2010 we experienced 7% organic growth and 28% acquired growth in Maintenance Revenue. New Maintenance, i.e. maintenance derived from new clients or associated with add-on module sales to existing clients, contributed 8% to the growth in Maintenance Revenue during the year. This performance reflects well on the competitiveness of our products and the value that our solutions can deliver to clients, even during a recessionary period. We lost only 4% of our customers in 2010, a number that has been remarkably consistent over the last 5 years. Some of these customers we lost to bankruptcies or acquisitions... others to competitors. No matter how you look at it, our customers stay with us for a very long time, suggesting both the high switching costs and the real customer loyalty benefits that are inherent in our businesses.

|                                     | 2006       | 2007       | 2008       | 2009       | 2010       |
|-------------------------------------|------------|------------|------------|------------|------------|
| <b>Maintenance Revenue (US\$MM)</b> | <b>116</b> | <b>142</b> | <b>193</b> | <b>252</b> | <b>337</b> |
| <b>Growth from:</b>                 |            |            |            |            |            |
| Acquisitions                        | 17%        | 11%        | 24%        | 27%        | 28%        |
| Organic Sources                     |            |            |            |            |            |
| a) New maintenance                  | 15%        | 10%        | 10%        | 8%         | 8%         |
| b) Price increases                  | 5%         | 8%         | 9%         | 3%         | 6%         |
| c) Attrition - Lost Modules         | -2%        | -2%        | -3%        | -3%        | -3%        |
| c) Attrition - Lost Customers       | -4%        | -4%        | -4%        | -4%        | -4%        |
| Total Organic Growth                | 14%        | 12%        | 11%        | 4%         | 7%         |
| Total Maintenance Growth            | 31%        | 23%        | 35%        | 31%        | 35%        |

In aggregate our Maintenance Revenue increased at a 35% rate in 2010. We believe that Adjusted EBITA correlates well with Maintenance Revenue, hence we'd argue that our enterprise value is appreciating at a similar pace. Another vantage point from which to judge the long term appreciation in shareholder value per share is presented in Table 3 below.

Table 3

|      | Total Revenue per<br>Share |              | Cash Flow from Operating<br>Activities per Share |              | Total Share<br>Count |
|------|----------------------------|--------------|--------------------------------------------------|--------------|----------------------|
|      |                            | YoY $\Delta$ |                                                  | YoY $\Delta$ |                      |
| 2000 | 3.00                       |              | 0.06                                             |              | 19,439               |
| 2001 | 2.95                       | -2%          | 0.48                                             | 729%         | 19,284               |
| 2002 | 3.22                       | 9%           | 0.43                                             | -11%         | 19,342               |
| 2003 | 4.16                       | 29%          | 0.74                                             | 72%          | 19,428               |
| 2004 | 5.49                       | 32%          | 0.59                                             | -20%         | 19,891               |
| 2005 | 8.11                       | 48%          | 1.21                                             | 106%         | 20,392               |
| 2006 | 10.01                      | 23%          | 1.36                                             | 12%          | 21,065               |
| 2007 | 11.47                      | 15%          | 1.62                                             | 19%          | 21,192               |
| 2008 | 15.60                      | 36%          | 2.96                                             | 83%          | 21,192               |
| 2009 | 20.67                      | 32%          | 3.85                                             | 30%          | 21,192               |
| 2010 | 29.77                      | 44%          | 4.96                                             | 29%          | 21,192               |
| CAGR |                            | 26%          |                                                  | 30% *        |                      |

\* 9 year CAGR 2001 - 2010 is 30%. The 10 year CAGR is 56%.

In 2010 our Revenue per Share and Cash Flow from Operating Activities (“CFOA”) per share increased 44% and 29% respectively. For the last decade, Revenue per Share has increased approximately ten fold i.e. a 26% compound average annual growth rate. CFOA per share increased at a compound annual average growth rate of 56% over that same period. This is a bit misleading because cash flows in 2000 were unusually poor, but measuring from the following year (when CFOA/Revenue was a respectable 16%), the compound average annual growth rate has been 30%.

I’m proud of the company that our employees and shareholders have built, and will be more than a little sad if it is sold.

We will be hosting the annual general meeting on Thursday May 5th. Many of our Directors and Officers and a number of our General Managers will be in attendance. We look forward to talking about our business and answering your questions. I hope to see you there.

Mark Leonard  
President  
Constellation Software Inc.

May 2, 2011

## Glossary

“Adjusted Net Income” means net income plus non-cash expenses (income) such as amortization of intangible assets, deferred income taxes, and certain other expenses (income).

We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP net income and it is closely aligned with the calculation of net income that we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in Constellation. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“ROIC” represents a ratio of Adjusted Net Income to Average Invested Capital.

“Net Revenue” is gross revenue for GAAP purposes less any third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with Constellation’s own products, but only the margin on the lower value-added revenues such as commodity hardware or third party software.

## Forward Looking Statements

Certain statements herein may be “forward looking” statements that involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of Constellation or the industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date hereof. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. These forward looking statements are made as of the date hereof and Constellation assumes no obligation to update any forward looking statements to reflect new events or circumstances except as required by law.

## Non-GAAP Measures

Adjusted Net Income, Adjusted EBITDA and Organic Revenue Growth are not recognized measures under GAAP and, accordingly, shareholders are cautioned that Adjusted Net Income, Adjusted EBITDA and Organic Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP as an indicator of the financial performance of the Company or as a measure of the Company’s liquidity and cash flows. The Company’s method of calculating Adjusted Net Income, Adjusted EBITDA and

Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to Constellation's 2010 Management Discussion and Analysis for a reconciliation, where applicable, between the GAAP and non-GAAP measures referred to above.

# Constellation Software Inc.

## TO OUR SHAREHOLDERS

As a rule, I prefer to use these letters to write about our business, not our stock. And while I'll start off focusing on the business, I think it is worth devoting some ink to what I think I've learned about managing our stock.

In Table 1, we've updated the Constellation ("CSI") metrics to include the 2011 results. The definitions of Adjusted Net Income, Average Invested Capital, ROIC and Net Revenue appear in the Glossary at the end of this document.

Table 1

|      | Adjusted Net<br>Income (a.) | Average Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-----------------------------|-----------------------------|------|----------------------------------------|-----------------------------------------|
| 2001 | 7                           | 69                          | 10%  | b.                                     | b.                                      |
| 2002 | 2                           | 71                          | 2%   | 6%                                     | 8%                                      |
| 2003 | 22                          | 83                          | 26%  | 11%                                    | 37%                                     |
| 2004 | 13                          | 84                          | 15%  | 9%                                     | 24%                                     |
| 2005 | 17                          | 101                         | 17%  | 18%                                    | 35%                                     |
| 2006 | 26                          | 123                         | 21%  | 8%                                     | 29%                                     |
| 2007 | 33                          | 154                         | 22%  | 1%                                     | 23%                                     |
| 2008 | 54                          | 195                         | 28%  | 5%                                     | 33%                                     |
| 2009 | 62                          | 256                         | 24%  | -3%                                    | 21%                                     |
| 2010 | 84                          | 325                         | 26%  | -2%                                    | 24%                                     |
| 2011 | 140                         | 394                         | 36%  | 7%                                     | 43%                                     |

a. Historical figures restated to comply with revised definition.

b. Not Available

Note: 2010 and 2011 information is presented in accordance with IFRS

2011 saw a very significant increase in Adjusted Net Income compared with 2010. The 68% growth in 2011 Adjusted Net Income far exceeded revenue growth, which was 22% for the year. The rapid growth in Adjusted Net Income was partly a function of the recovering economy: Organic Net Revenue Growth was 7% in 2011 versus -2% in 2010. My sense is that our managers were reticent about adding staff and incremental expense (particularly for long term initiatives) while we were involved in the strategic review process ("Process"), and hence the improved Organic Net Revenue Growth drove improved operating margins. Adjusted Net Income growth also outstripped revenue growth because our investment in acquisitions in 2011 was less than half that in 2010. We tend to have lower operating margins in years when we actively acquire because some of the acquisitions are not very profitable when initially purchased. During the Process our managers were instructed to stop making acquisitions in new verticals. In addition some of the time and attention that might otherwise have been used for acquisitions was diverted into preparing for and responding to potential acquirers of CSI. I anticipate that our acquisition pace will recover somewhat in 2012.

Our Average Invested Capital increased by only 21% during 2011, much lower than our ROIC. The difference is accounted for by the \$2.00/share annual dividend that we paid in 2011. The company has recently adopted a new dividend policy and paid a quarterly dividend of \$1.00 per share immediately

following the end of our first quarter. Because of the new dividend policy, we anticipate that Average Invested Capital will grow at a much lower rate in the coming decade, than it has in the past.

ROIC in 2011 was 36%. I believe that the Process created a focus on short-term profitability that detracted from our investment in long-term initiatives and from acquisitions that would generate attractive (but sub 36%) ROIC's. I expect to see our ROIC decrease in the coming decade as margins moderate and we deploy more capital.

Organic Net Revenue Growth recovered to 7% in 2011. I believe that this was a post-recession bounce. We don't expect organic growth to continue at this pace over an extended period.

We use the sum of ROIC and Organic Net Revenue Growth as the best single metric for measuring the short-term performance of our low asset intensity software businesses. For 2011, CSI's ROIC plus Organic Net Revenue Growth was 43%, a spectacular performance that we would be hard pressed and ill-advised to try to repeat.

When short term results (such as our 68% growth in 2011 Adjusted Net Income) seem unusually good, it is worth examining other measures of intrinsic value that are not as subject to short-term swings. In Table 2, you can see that CSI's Maintenance Revenue grew 24% in 2011, slower than in most prior years. If you believe that intrinsic value is closely correlated with Maintenance Revenue, and factor in our unchanging share count, then arguably CSI's value per share incremented very satisfactorily... though perhaps not at the pace that our Adjusted Net Income growth would suggest.

Table 2

|                               | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|-------------------------------|------|------|------|------|------|------|
| Maintenance Revenue (US\$MM)  | 116  | 142  | 193  | 252  | 340  | 422  |
| Growth from:                  |      |      |      |      |      |      |
| Acquisitions                  | 17%  | 11%  | 24%  | 27%  | 28%  | 15%  |
| Organic Sources               |      |      |      |      |      |      |
| a) New maintenance            | 15%  | 10%  | 10%  | 8%   | 8%   | 8%   |
| b) Price increases            | 5%   | 8%   | 9%   | 3%   | 6%   | 6%   |
| c) Attrition - Lost Modules   | -2%  | -2%  | -3%  | -3%  | -3%  | -2%  |
| d) Attrition - Lost Customers | -4%  | -4%  | -4%  | -4%  | -4%  | -3%  |
| Total Organic Growth          | 14%  | 12%  | 12%  | 4%   | 7%   | 9%   |
| Total Maintenance Growth      | 31%  | 23%  | 36%  | 31%  | 35%  | 24%  |

Growth in Maintenance Revenue due to acquisitions slowed to 15% in 2011 and is expected to slow further in 2012 due to the unusually low amount of our acquisition investment in the last half of 2011. Longer term, we will be satisfied if the company generates 10% Maintenance Revenue growth from acquisitions, though it is conceivable we could exceed this number if we succeed in improving the efficiency of our acquisition process.

The organic growth in Maintenance Revenues edged up to 9% in 2011. We were particularly pleased to see customer attrition decrease to 5.5% in 2011 from 6.7% the previous year. One note of caution with regard to the organic and acquired Maintenance Revenue growth numbers... while the analysis in Table 2 foots to our reported Maintenance Revenue for financial reporting purposes, the individual components reflected in this table are generated by examining and categorising thousands of records. This analysis isn't perfect, but I believe it is a fair illustration of the trends in our maintenance base and, ultimately, the trends underlying the intrinsic value of our business.



A couple of years ago we added some GAAP/IFRS metrics to our regular letters to shareholders, which we've updated in Table 3.

In 2011, revenue per share increased 22% and cash flow from operating activities per share increased 28%. The growth in cash flow from operating activities cannot outpace revenues ad infinitum. I expect these two growth rates to track each other more closely in the future.

Having had the chance to review the tables, I hope you'll join me in thanking the CSI employees for a wonderful decade. It is a rare company that consistently increases its per share financial fundamentals by 25% or more for such an extended period.

Table 3

|        | Total Revenue per Share |              | Cash Flow from Operating Activities per Share |              | Total Share Count |
|--------|-------------------------|--------------|-----------------------------------------------|--------------|-------------------|
|        |                         | YoY $\Delta$ |                                               | YoY $\Delta$ |                   |
| 2000   | 3.00                    |              | 0.06                                          |              | 19,439            |
| 2001   | 2.95                    | -2%          | 0.48                                          | 729%         | 19,284            |
| 2002   | 3.22                    | 9%           | 0.43                                          | -11%         | 19,342            |
| 2003   | 4.16                    | 29%          | 0.74                                          | 72%          | 19,428            |
| 2004   | 5.49                    | 32%          | 0.59                                          | -20%         | 19,891            |
| 2005   | 8.11                    | 48%          | 1.21                                          | 106%         | 20,392            |
| 2006   | 10.01                   | 23%          | 1.36                                          | 12%          | 21,065            |
| 2007   | 11.47                   | 15%          | 1.62                                          | 19%          | 21,192            |
| 2008   | 15.60                   | 36%          | 2.96                                          | 83%          | 21,192            |
| 2009   | 20.67                   | 32%          | 3.85                                          | 30%          | 21,192            |
| 2010   | 29.92                   | 45%          | 5.06                                          | 32%          | 21,192            |
| 2011   | 36.49                   | 22%          | 6.49                                          | 28%          | 21,192            |
| CAGR * |                         | 25%          |                                               | 30%          |                   |

\* Cash flow CAGR calculated from 2001. It is 53% if calculated from 2000.

Note: 2010 and 2011 information is presented in accordance with IFRS

Moving on to the "manage the stock versus manage the company" issue... I used to maintain that if we concentrated on fundamentals, then our stock price would take care of itself. The events of the last year have forced me to re-think that contention. I'm coming around to the belief that if our stock price strays too far (either high or low) from intrinsic value, then the business may suffer: Too low, and we may end up with the barbarians at the gate; too high, and we may lose previously loyal shareholders and shareholder-employees to more attractive opportunities.

In previous letters (for instance, the 2008 letter to shareholders), I've talked about how important long-term oriented employees, customers and shareholders are to both our strategy and organisational design. A long-term orientation requires a high degree of mutual trust between the company and all of its constituents.

We trust our managers and employees and hence try to encumber them with as little bureaucracy as possible. We encourage our managers to launch initiatives, which in our industry, often require 5 to 10 years to generate payback. We are comfortable providing them with capital to purchase businesses that won't be immediately accretive, but that have the potential to be long-term franchises for CSI. We nearly

always promote from within because mutual trust and loyalty take years to build, and conversely, newly hired smart and/or manipulative mercenaries can take years to identify and root out. We incent managers and employees with shares (escrowed for 3-5 years) so that they are economically aligned with shareholders. In return we need and want loyal employees... if they aren't planning to be around for 5 years, then they aren't going to care much about the outcome of multi-year initiatives, and they certainly aren't going to forego short-term bonuses for long-term profits.

When a company is put on the block, employees worry, and trust erodes. It isn't hard to imagine their concerns: Will the current long-term oriented compensation plans be changed? Will independence be constrained? Will their boss be fired? Will they have to fire some mandated percentage of their long-term employees? Should they embark on attractive initiatives which will lose money in the short-term? Why do major shareholders want to sell and is there something daunting in the future that the major shareholders see?

Customers rely on us to provide them with the tools to keep their businesses operating efficiently and adapt their information systems to evolving best practices within their industry. They also begin to question their relationships with the company when a potential sale is announced: Will pricing change? Do they need stronger agreements to protect themselves? Will they be dealing with different employees? Will the company have significant debt if it is sold? Will the company continue to invest in its solutions?

And long-term shareholders begin to question their commitment to the company: Is the board exploring a sale because they are concerned about the long-term prospects for the company? Has the company been "optimised", and hence should shareholders sell now before the fundamentals plateau?

Our employees, customers and long-term shareholders endured 9 months of these Process related uncertainties last year. There's no doubt in my mind that the Process hurt the company's prospects. However, the ironic and perverse result of the Process, was that our short-term profits improved, acquisition investment slowed, cash piled up and the board was able to institute significant dividends, all of which seems to have contributed to a greater than 70% increase in our stock price over the last 16 months. The stock price increase effectively scuttled the chances of selling the entire company to a financial buyer, while at the same time allowing our two major shareholders to sell some shares at prices which they felt were closer to intrinsic value.

When we announced the Process, I asked a number of our sophisticated long term shareholders (other than the two major shareholders) for their estimate of the intrinsic value of the company. I was surprised by their answers (they seemed high to me), but assumed that they were just trying to put a high sticker price on the company in the event of a sale. During the course of the ensuing year these investors have significantly increased their stake in CSI at ever-increasing prices. This vote of confidence achieved two things: Firstly, it made me accept that the company was likely undervalued when the Process started. It also convinced me that we have the nucleus of a group of competent long-term oriented shareholders who can provide the stable ownership which will allow us to prosper. A respected investor told me, "You end up with the shareholders you deserve". I'm hoping that's true.

There is a nuance to "stock price management" that may be unusually important to CSI. For nearly all companies, when their stock price gets too low, there is the potential for a "Process", and obviously we are no different. However, when CSI's stock price gets too high, I think we have the potential to lose our most valuable cohort - our senior managers. Most of these employees have been with us for many years. Most of them started out as operators. They've refined their operating chops, learning best practices from their peers and from their own experiments. As vertical market software business operators, I'd say they are amongst the most talented available (and I'm uniquely qualified to be a connoisseur of such talent). They also have another skill, one that is incredibly rare: they respect and know how to deploy capital to

generate high rates of return. Glancing at our ROIC+Organic Growth stats, it is evident that our senior managers consistently generate rates of return in excess of 25% on the capital that they deploy. As investors you'll know that this is wildly difficult to achieve. How do we keep these multi-talented managers? Hopefully we provide an environment that is fulfilling, colleagues that are both challenging and entertaining, and work that is meaningful. We also pay them well. They are all millionaires many times over, with much of their net worth invested in unescrowed CSI shares. If they don't think that CSI shares will generate high rates of return, they need only sell their shares and use their unique skills to deploy and manage their capital. And because the average business that we buy costs something less than \$3MM, nearly all of these managers could be in business for themselves very quickly.

I've always tried to avoid having CSI's shares trade at too high a price. Many members of the board were conscious of the opposite problem. I think we all now acknowledge the importance of managing our stock into a price range where we neither invite another Process, nor encourage our employee shareholders and long-term investors to liquidate their holdings. I don't think it will be difficult to keep our stock price marching in lock-step with the intrinsic value of our company. The board and I just have to be conscious of doing so.

We will be hosting the annual general meeting on Thursday May 3rd. Many of our Directors and Officers and a number of our senior managers will be in attendance. We look forward to talking about our business and answering your questions. With our increasingly broad institutional and retail ownership, I'm hoping for a record turnout. I hope to see you there.

Mark Leonard  
President  
Constellation Software Inc.

May 2<sup>nd</sup> 2012

## Glossary

Effective Q1 2008, the term “Adjusted Net Income” is derived by adjusting GAAP or IFRS net income for the non-cash amortization of intangibles, future income taxes, and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that CSI’s common shares are publicly traded). Prior to Q1 2008, Adjusted Net Income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The computation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are being added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted Net Income figures have been restated in the table above to reflect the new method of computations. We use Adjusted Net Income because it is generally a better measure of cash flow than GAAP or IFRS net income and it is closely aligned with the calculation of net income that we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in CSI. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted Net Income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“ROIC” represents a ratio of Adjusted Net Income to Average Invested Capital.

“Net Revenue”. Net Revenue is gross revenue for GAAP or IFRS purposes less any third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with CSI’s own products, but only the margin on the lower value-added revenues such as commodity hardware or third party software.

## Forward Looking Statements

Certain statements herein may be “forward looking” statements that involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of CSI or the industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date hereof. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. These forward looking statements are made as of the date hereof and CSI assumes no obligation to update any forward looking statements to reflect new events or circumstances except as required by law.

## Non-GAAP/IFRS Measures

Adjusted Net Income, Adjusted EBITDA and Organic Revenue Growth are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted Net Income Adjusted EBITDA and Organic Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company’s liquidity and cash flows. The Company’s method of calculating Adjusted Net Income, Adjusted EBITDA and Organic Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to CSI’s most recently filed Management’s Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.

## Constellation Software Inc.

### TO OUR SHAREHOLDERS

In Table 1, we've updated the Constellation ("CSI") metrics to include the 2012 results. The definitions of Adjusted net income, Average Invested Capital, ROIC, Net Revenue and Maintenance Revenue appear in the Glossary at the end of this document. Several of the statements included below constitute forward looking statements and should not be read as guarantees of future results. See "Forward Looking Statements".

Table 1

|      | Adjusted Net<br>Income (a.) | Average Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-----------------------------|-----------------------------|------|----------------------------------------|-----------------------------------------|
| 2002 | 2                           | 71                          | 2%   | 6%                                     | 8%                                      |
| 2003 | 22                          | 83                          | 26%  | 11%                                    | 37%                                     |
| 2004 | 13                          | 84                          | 15%  | 9%                                     | 24%                                     |
| 2005 | 17                          | 101                         | 17%  | 18%                                    | 35%                                     |
| 2006 | 26                          | 123                         | 21%  | 8%                                     | 29%                                     |
| 2007 | 33                          | 154                         | 22%  | 1%                                     | 23%                                     |
| 2008 | 54                          | 195                         | 28%  | 5%                                     | 33%                                     |
| 2009 | 62                          | 256                         | 24%  | -3%                                    | 21%                                     |
| 2010 | 84                          | 325                         | 26%  | -2%                                    | 24%                                     |
| 2011 | 140                         | 394                         | 36%  | 7%                                     | 43%                                     |
| 2012 | 172                         | 491                         | 35%  | 2%                                     | 37%                                     |

a. Historical figures restated to comply with revised definition.

Note: 2010 and subsequent year information is presented in accordance with IFRS

Our Adjusted net income ("ANI") increased by \$32 million when compared with 2011. This 23% increase is far smaller than the 42% average increase achieved in the prior 5 years. The quality of these reported earnings isn't up to our historical standards either, as you'll see by comparing the increase in 2012 ANI with the modest 5% increase in cash flow from operations ("CFOps") for the same period - see Table 3. The major differences were securities gains, which were significant but non-recurring, an \$8 million payment that we made to Canadian taxing authorities while we dispute their assessment, and a \$5 million decrease in contract liabilities associated with previous acquisitions.

Our Average Invested Capital ("IC") increased by 25% during 2012, which was better than we had expected. With the current \$1.00 per quarter dividend, it would not be unreasonable to anticipate that IC will increase at a slower percentage rate in the future.

ROIC in 2012 was 35%. If our conventional license businesses are growing organically, there should be a natural upward bias in ROIC, as those businesses tend to use less and less working capital as they grow their "annual in advance" maintenance streams. Most SaaS businesses tend to have monthly rather than annual payment cycles, and hence are more working capital intensive and are also more fixed asset intensive. As SaaS and other alternative economic models become an ever-larger portion of our maintenance streams, the economics of our businesses will become somewhat less attractive and there will be downward pressure on ROIC. We also tend to see a drop in ROIC when we have had a lot of

recent acquisition activity, since the acquired businesses rarely have strong profits at the time of our initial purchase. It will be a struggle for us to maintain 2012 ROIC levels in the future.

Organic Net Revenue Growth was positive 2% in 2012. We had foreseen a pullback in 2012 from the 2011 post recession pickup, but achieving only 2% was disappointing. We would not be satisfied if our long term Organic Net Revenue Growth rate were maintained at this level.

We still believe that the sum of ROIC and Organic Net Revenue Growth is the best single metric for measuring the short-term performance of our low asset intensity software businesses. At 37%, our 2012 ROIC + Organic Net Revenue Growth was at the high end of the range achieved by CSI during the last decade.

Maintenance Revenue provides an important way to cross check intrinsic value. In Table 2, you can see that CSI's Maintenance Revenue grew 22% in 2012, slower than in prior years. If you believe that intrinsic value is closely correlated with Maintenance Revenue and factor in our unchanging share count, but adjust for CSI's increasingly leveraged balance sheet, then arguably CSI's value per share incremented somewhere in the high teens percent range last year. That seems an attractive increase in intrinsic value for a relatively high dividend yielding stock. Unfortunately, our stock price has increased at over twice that rate during the last year, a differential that would seem difficult to be sustain in future years.

Table 2

|                               | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
|-------------------------------|------|------|------|------|------|------|------|
| Maintenance Revenue (US\$MM)  | 116  | 148  | 193  | 252  | 337  | 417  | 510  |
| Growth from:                  |      |      |      |      |      |      |      |
| Acquisitions                  | 17%  | 11%  | 21%  | 27%  | 26%  | 15%  | 15%  |
| Organic Sources               |      |      |      |      |      |      |      |
| a) New maintenance            | 15%  | 9%   | 9%   | 7%   | 8%   | 8%   | 8%   |
| b) Price increases            | 5%   | 8%   | 8%   | 3%   | 6%   | 6%   | 5%   |
| c) Attrition - Lost Modules   | -2%  | -2%  | -3%  | -3%  | -3%  | -2%  | -2%  |
| d) Attrition - Lost Customers | -4%  | -4%  | -4%  | -4%  | -4%  | -3%  | -4%  |
| Total Organic Growth          | 14%  | 11%  | 10%  | 3%   | 8%   | 9%   | 7%   |
| Total Maintenance Growth      | 31%  | 23%  | 31%  | 31%  | 34%  | 24%  | 22%  |

Growth in Maintenance Revenue due to acquisitions was 15% again in 2012. Without changes to our capital and/or dividend structure, and all other things being equal, CSI cannot continue to finance this rate of acquired Maintenance Revenue growth.

The Total Organic Growth in Maintenance Revenue dropped to 7% in 2012. Attrition edged up by 0.5% during the year. We try to trade lower license and professional services revenues in return for higher Maintenance Revenues in our businesses, so the Total Organic Growth in Maintenance Revenue needs to exceed our targeted organic growth rate for total revenue. If Total Organic Growth in Maintenance Revenue were to drop below 7% for any length of time, it would be difficult for us to achieve a mid-single digit organic growth rate in our overall revenue.

A note of caution with regard to the organic and acquired Maintenance Revenue growth numbers... while the analysis in Table 2 is materially the same as our reported Maintenance Revenue for financial reporting

purposes, the individual components reflected in this table are generated by examining and categorising thousands of records. This analysis isn't perfect, but we believe it is a fair illustration of the trends in our maintenance base and, ultimately, the trends underlying the intrinsic value of our business.

A few years ago we added some GAAP/IFRS metrics to our regular letters to shareholders. We've updated them in Table 3.

In 2012, revenue per share increased 15% and cash flow from operating activities per share increased 5%. 2012 revenue growth was constrained by the limited acquisition activity in late 2011 and our 2% organic growth rate. Our capital deployment stepped up considerably during 2012, and has remained strong into the first half of 2013, so we anticipate much stronger revenue growth in 2013. The growth in 2012 CFOps was disappointing. The aforementioned payment to tax authorities chewed up approximately 38 cents/share of CFOps. We also had operating margin compression as the lower profitability of the recently acquired businesses drove down our average profitability. We don't anticipate that the rate of acquisitions will continue at the pace we've managed during the last 3 quarters, so some of the pressure on operating margins may abate later in 2013.

Table 3

| Year | Total Revenue<br>per Share |              | Cash Flow from Operating<br>Activities per Share |              | Total Share<br>Count |
|------|----------------------------|--------------|--------------------------------------------------|--------------|----------------------|
|      |                            | YoY $\Delta$ |                                                  | YoY $\Delta$ |                      |
| 2002 | 3.22                       | 9%           | 0.43                                             | -11%         | 19,342               |
| 2003 | 4.16                       | 29%          | 0.74                                             | 72%          | 19,428               |
| 2004 | 5.49                       | 32%          | 0.59                                             | -20%         | 19,891               |
| 2005 | 8.11                       | 48%          | 1.21                                             | 106%         | 20,392               |
| 2006 | 10.01                      | 23%          | 1.36                                             | 12%          | 21,065               |
| 2007 | 11.47                      | 15%          | 1.62                                             | 19%          | 21,192               |
| 2008 | 15.60                      | 36%          | 2.96                                             | 83%          | 21,192               |
| 2009 | 20.67                      | 32%          | 3.85                                             | 30%          | 21,192               |
| 2010 | 29.92                      | 45%          | 5.06                                             | 32%          | 21,192               |
| 2011 | 36.49                      | 22%          | 6.49                                             | 28%          | 21,192               |
| 2012 | 42.05                      | 15%          | 6.83                                             | 5%           | 21,192               |
| CAGR |                            | 29%          |                                                  | 32%          |                      |

Note: 2010 and subsequent year information is presented in accordance with IFRS

Having had the chance to review the tables, we hope you'll join us in thanking the CSI employees for a wonderful decade. It is a rare company that consistently increases its per share financial fundamentals at such high rates over such an extended period.

Our long-term shareholders, our board, and our analysts all seem concerned about CSI's ability to scale. I haven't spent a lot of time worrying about the issue, except in response to their enquiries. We've evolved gradually for 18 years, and don't feel like we are facing an impending paradigm shift. Nevertheless, when a number of smart, engaged constituents consistently harp on the same issue, it is worth investigating both their concerns and the mindset of those asking the questions.

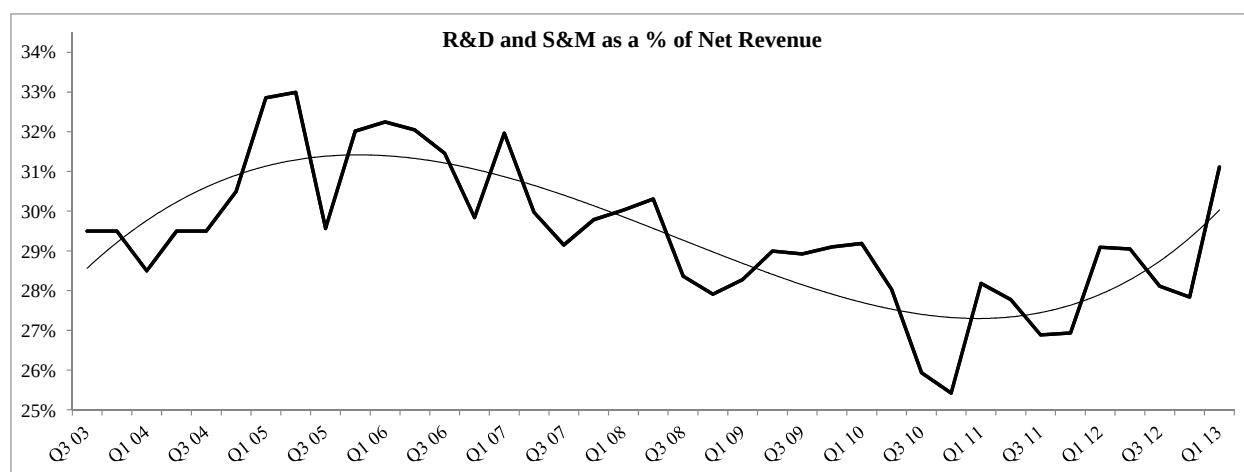
CSI's Adjusted net income ("ANI") increased by \$32 million in 2012, from \$140 million to \$172 million. By my calculation the current stock price values CSI at approximately 16 times 2012 earnings. It is sometimes useful to look at marginal rather than average economics. The \$32 million increase in CSI's

ANI in 2012 translates to roughly a buck and a half a share. Concurrent with that increase in ANI, CSI's stock price increased something like \$40/share, (depending on the exact beginning and end points that you choose). My back of the envelope math says shareholders accorded us a better than a 25 times multiple on the 2012 incremental earnings. Those sorts of market multiples create a growth imperative... you have to either rapidly grow into your multiple or disappoint your shareholders, analysts and board. So ultimately, it seems to me that it is our stock price that has catalysed the spate of questions about our "ability to scale", rather than our practices and performance. Irrespective of the questions' genesis, some context for what we do to generate growth seems appropriate.

There are two components to CSI's growth, organic and acquired. Organic growth is, to my mind, the toughest management challenge in a software company, but potentially the most rewarding. The feedback cycle is very long, so experience and wisdom accrete at painfully slow rates.

In 2004 we separated our Research & Development and Sales & Marketing spending ("RDSM"), into two buckets: Initiatives and everything else. Initiatives are significant long-term investments required to create new products, enter new markets etc.. In the mid to high ticket vertical market software business, Initiatives usually require 5-10 years to reach cash flow break-even. We felt that they should be both measured and treated differently than our other, sustaining, RDSM expenditures. The ethos of software companies requires the regular launching of visionary new products by steely-eyed tenacious developers (substitute software architects, product managers or founders in this sentence, as the specific instance requires). CSI was not immune to these archetypes, and it became apparent that there were lots of Initiatives and nascent Initiatives buried in our RDSM groups. Initiatives grew to account for over half of our combined RDSM expenditures by 2005, which, not co-incidentally, was the peak of our RDSM spending (measured as a percent of Net Revenues... see Chart A). As you'd expect for venture-style investments, our initial expectations for these Initiatives were very high. We tracked their progress every quarter, and pretty much every quarter the forecast IRR's eroded. Even the best Initiatives took more time and more investment than anticipated.

Chart A



As the data came in, two things happened at the business unit level: we started doing a better job of managing Initiatives, and our RDSM spending decreased. Some of the adaptations made were obvious: we worked hard to keep the early burn-rate of Initiatives down until we had a proof of concept and market acceptance, sometimes even getting clients to pay for the early development; we triaged Initiatives earlier if our key assumptions proved wrong; and we created dedicated Initiative Champion positions so an Initiative was less likely to drag on with a low but perpetual burn rate under a part-time leader who didn't



feel ultimately responsible. But the most surprising adaptation, was that the number of new Initiatives plummeted. By the time we stopped centrally collecting Initiative IRR data in Q4 2010, our RDSM spending as a percent of Net Revenue had hit an all-time low.

We believe that CSI is one of the few software companies that takes a somewhat rational approach to long term RDSM investments. We didn't get to that point with central edicts or grand plans. We just had a hunch that our internal ventures could be better managed, and started measuring them. The people involved in the Initiatives generated the data, and with measurement came adjustment and adaptation. It took 6 years, but we have fundamentally changed the mental models of a generation of our managers and employees (though perhaps not of all the steely eyed visionaries).

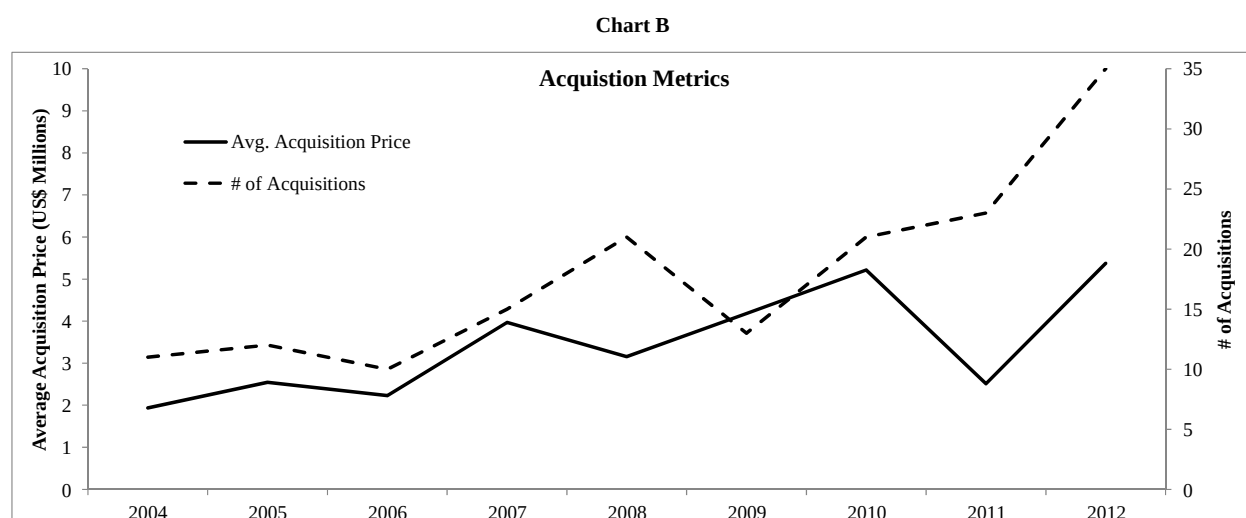
In the last three years, we have been investing more heavily in Initiatives. If you compare the recent uptick in RDSM expenditures with the organic growth rates of our Maintenance Revenue in Table 2, it isn't yet obvious that the increased investment has been successful. We still need another couple of years to see the results at a macro level. Based on our experience to date, I'd place the bounds around the potential organic growth outcomes for the next 5 years as follows: If we are wildly successful, we might average high single digit percentage organic growth, while a reasonable assumption would be mid-single digits, and poor performance would be low single digits, but would likely see us pare back on future RDSM investment.

The other way we grow is via acquisitions. We make a lot of acquisitions (see Chart B below). We haven't heard of another company in Canada that has made as many. We have come across a couple of perennial acquirers in the US with more experience than CSI. They offer some interesting insights, but no clear model to emulate. Our acquisition approaches are pretty much home grown, but tend to use variations on only a couple of basic themes.

Our favourite and most frequent acquisitions are the businesses that we buy from founders. When a founder invests the better part of a lifetime building a business, a long term orientation tends to permeate all aspects of the enterprise: employee selection and development, establishing and building symbiotic customer relationships, and evolving sophisticated product suites. Founder businesses tend to be a very good cultural fit with CSI, and most of the ones that we buy, operate as standalone business units managed by their existing managers under the CSI umbrella. We track many thousands of these acquisition prospects and try to regularly let their owners know that we'd love the chance to become the permanent owners of their business when the time is right for them. There is a demographic element to the supply of these acquisitions. Most of these businesses came into being with the advent of mini and micro-computers and many of their founders are baby boomers who are now thinking about retirement.

The most lucrative acquisitions for us have been distressed assets. Sometimes large corporations convince themselves that software businesses on the periphery of their industry would be good acquisitions. Rarely do the anticipated synergies accrue, and frequently the cultural clashes are fierce, so the corporate parent may eventually choose to sell the acquired software business. The lag is often 5 to 10 years as the proponents of the original acquisition usually have to move on before the corporation will spin off the asset. Our most attractive acquisitions from corporate vendors seem to have happened during recessions. Occasionally, we also acquire portfolio companies from a private equity ("PE") fund that is getting long in the tooth. These will have been well shopped but for some reason will not have attracted a corporate buyer. While both corporate and PE divestitures tend to be much larger than the founder businesses that we buy, they are usually more of a cultural challenge for us post-acquisition.

The historical trends in Chart B are telling. We will be disappointed if we don't acquire a few more companies per annum and the average size doesn't continue to edge up. We don't see a doubling or trebling of our annual acquisition investment unless we fundamentally change what we do.



From time to time, we do flirt with fundamental change. I was recently in the UK, where a couple of very large (by our standards) public sector vertical market software conglomerates are for sale. The "whisper" prices are ones we could just about stomach if we were financing the acquisitions on a stand-alone basis like the other PE firms that are competing for these assets. My sense is that we would be better owners of these assets, and would generate better long term performance from them than their PE suitors. If we could not leverage the transactions on a stand-alone basis, they would not meet our hurdle rates, and they would also exhaust our available acquisition lines. Our current bank facilities do not allow us to make acquisitions which incorporate standalone financing, and hence this opportunity to make substantial acquisitions of attractive assets that are close to our core competence is moot, but intriguing.

One of the issues that the CSI Board, in particular, worries about as CSI gets larger, is the complexity created by our continued growth. We totted up the numbers this quarter, and we had approximately 125 business units which were competing in approximately 50 verticals. We tend to add 10-15 business units and 3-5 verticals each year. The Board rightly asks how they (and CSI management) can expect to understand and manage an ever larger number of business units and verticals.

In response to the Board's concern, I've asked each of our Operating Group General Managers to lead the board through an analysis of how their Operating Group has evolved during the last decade: how they are structured now, what has changed over time, where the business unit, divisional and Operating Group managers have come from, how big the business units are and how big they are likely to become, from whom they were acquired, what their subsequent performance has been, etc..

One early observation is that our business units rarely get large. The biggest is 307 employees, and the average business unit currently has 44 employees. Two thirds of our employees are working in business units with less than 100 employees. When we did a linear regression analysis of performance (a metric composed of growth and profitability) against business unit size for Q1 2013, we found less than a .001  $R^2$ . This suggests that the size and performance of our business units are almost totally unrelated. I believe that these business units are small for a reason...that the advantages of being agile and tight far outweigh economies of scale. I'm not a proponent of handling our "complexity problem" by creating a

bunch of 400 employee business units to replace our 40 employee units. I'm looking for ways of "achieving scale" elsewhere.

We currently manage our 125 independent business units through 5 Operating Groups. The Operating Groups have accounting, acquisition, and IT functions, and varying degrees of HR, tax, shared R&D and legal capabilities. They also have a number of relatively senior staff who can be parachuted into large new acquisitions or troubled situations. The Operating Groups serve extremely valuable functions as coaches, capital deployers, occasional recruiters and "single point of management failure" insurance. I'm not sure if there's an optimal structure and size for an Operating Group. In the Operating Group reviews that we've done to date with the Board, it is clear that the Groups have evolved differently: they have markedly different appetites for functional integration, diversification, hierarchy, and average business unit size. This is good news, for by any conventional measure, all of our Operating Groups would be considered successful. At the one extreme, I do worry about the Operating Group managers becoming overwhelmed because of constrained resources at the Group level. At the other extreme, I'm concerned that they may hire too many staff at the Group level and take on too much of the business units' activities. This is one of those debates where there are likely no easy answers, but it helps to have a regular dialog and some crisp data. Given the disparity in size of our Operating Groups, bringing our smaller Groups up to the scale of our largest Groups, and continuing our historical organic growth rates would offer us the opportunity to scale up CSI by a factor of two. Our larger Operating Groups are showing no signs of wanting to pare back their acquisition activities, so we'll likely get continued acquisitive growth from them as well.

We have a 14 employee head office staff composed primarily of finance, accounting, acquisition, tax and legal personnel. Head office provides the Operating Groups with capital allocation assistance and decisions, and tries to disseminate some best practices, a few clear rules, a bit of coaching, and coughs up the occasional partly trained employee for the Operating Groups. Compliance, investor relations, and handling the finance function round out the head office duties. Whenever we feel stretched at head office, we download more of our work to the Operating Groups. This delegation to the point of abdication philosophy (first discussed in the 2010 Letter to Shareholders) seems to have worked so far. It also suggests that I could probably work with more than 5 Operating Groups, so there may be yet another way to scale CSI.

Our board considers all sizeable acquisitions and any acquisitions in new verticals. In practice, this translates into considering a dozen or so new acquisitions per annum. We also present to them a quarterly review of our performance prepared by the CFO but which also contains reports from the CSI President, the Vice President, Mergers & Acquisitions, and each of the Operating Group General Managers. These reports are exception oriented and tend to highlight areas of concern. While the ability of the board to monitor all of our business units and/or verticals is long past, I think they can responsibly discharge their key obligations with these tools and this information. The Board doesn't seem to be a limit to our ability to scale, particularly since we have added two new members with intimate knowledge of vertical market software, our management team, and many of our business units.

Back to the original question: Does CSI have the ability to scale? With some tweaks and normal evolutionary changes, without dramatic reorganisations, recapitalisations or a whole lot of angst, I believe that CSI has the management and financial capacity to double its size and profitability per share during the next 5 to 10 years while continuing to pay a dividend. That would be an impressive achievement for any company. Does CSI have the ability to scale at the rates which it achieved during the last decade? I don't think we are sufficiently humble not to try. I do think we will be pushing our luck.

On a related note, we had mentioned previously that the current rate of acquisitions is unsustainable for financial reasons. We ended Q1 with \$109 million drawn on our \$300 million revolving line of credit. If we are spending over 40% of our free cash flow on dividends, and doing considerably in excess of \$100 million in acquisitions per annum (we closed \$78 million of acquisitions in Q1), then we are likely going to go further into the line. Debt is cheap right now, so it is pretty tempting to use it. Unfortunately, it has a nasty habit of going away when you need it most. I think most revolving debt facilities, while notionally long term, are on the brink of technical default most of the time due to clever and/or cumbersome covenants. Hence I consider them to be de facto demand facilities. Long term high coupon bonds equate to much the same thing, because of so-called incurrence covenants. We would test such covenants monthly, perhaps even weekly, if we were a high yield issuer.

Personally, I'd use significant amounts of debt to finance our growth if it were long term, non-callable and the interest payments could be deferred for short periods. We have demonstrated the ability to generate good returns on incremental capital over the long haul, as demonstrated by the track record in Table 1. Unfortunately, investment bankers tell me that this sort of debt doesn't exist. If you are a long-term lender and would like to do business with a company that has consistently generated strong and increasing cash flows, and are willing to work with us to design a novel lending instrument, please give me a call.

Another obvious fix for our cash constraints would be to axe the dividend. The dividend was a tactic, not a strategic move. It broadened the appeal of our stock and thereby helped us find an exit for our private equity investors. We appreciate the confidence in CSI that many of the new investors expressed in buying the PE shares. We recognise that these investors bought, in part, because of the dividend and the implicit promise of continued yield. Eliminating it would disenfranchise a group of shareholders to whom we owe our independence. That wouldn't sit right with me and many of the senior management team, so I don't see it happening.

For the time being, we'll keep an eye on the revolver, and consider increasing our hurdle rate if we start getting too far into the facility.

We will be hosting the annual general meeting on Friday May 3rd. Many of our Directors and Officers and a number of our employees will be in attendance. We look forward to talking about our business and answering your questions. With our increasingly broad institutional and retail ownership, I'm hoping for a record turnout. We hope to see you there.

Mark Leonard  
President  
Constellation Software Inc.

May 1<sup>st</sup>, 2013

## Glossary

Effective Q1 2008, the term “Adjusted net income” is derived by adjusting GAAP or IFRS net income for the non-cash amortization of intangibles, future income taxes, and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that CSI’s common shares are publicly traded). Prior to Q1 2008, Adjusted net income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The computation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are being added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted net income figures have been restated in the table above to reflect the new method of computations. We use Adjusted net income because it is generally a better measure of cash flow than GAAP or IFRS net income and it is closely aligned with the calculation of net income that we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in CSI. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted net income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“ROIC” represents a ratio of Adjusted net income to Average Invested Capital.

“Net Revenue” is gross revenue for GAAP or IFRS purposes less any third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with CSI’s own products, but only the margin on the lower value-added revenues such as commodity hardware or third party software. “Maintenance Revenue” primarily consists of fees charged for customer support on our software products post-delivery and also includes, to a lesser extent, recurring fees derived from software as a service, subscriptions, combined software/support contracts, transaction-related revenues, and hosted products.

## Forward Looking Statements

Certain statements herein may be “forward looking” statements that involve known and unknown risks, uncertainties and other factors that may cause the actual results, performance or achievements of CSI or the industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance and speak only as of the date hereof, including:

Organic Net Revenue Growth will range from low single digit percentages to high single digit percentages.

A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements, including:

Revenue can fluctuate significantly based on the demand for our software products, level of product and price competition, the geographical mix of our sales together with fluctuations in foreign currency exchange rates, changes in mix and pricing of software solutions that our

customers demand, our ability to successfully implement projects, order cancellations, renewal of maintenance agreements with customers, and patterns of spending and changes in budgeting cycles of our customers.

Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved.

#### Non-GAAP/IFRS Measures

Adjusted net income and Organic Net Revenue Growth are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted net income and Organic Net Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Adjusted net income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to CSI's most recently filed Management's Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.

# Constellation Software Inc.

## TO OUR SHAREHOLDERS

In Table 1, we've updated the Constellation Software Inc. ("CSI") metrics with the 2013 results. We've shortened up the period presented to 10 years. A long term review is worthwhile, but CSI is a much larger business than it was 10 years ago, so it is easy to question the relevance of the older data. The definitions of Adjusted net income ("ANI"), Average Invested Capital, ROIC, Net Revenue and Maintenance Revenue appear in the Glossary at the end of this document. Unless otherwise indicated, all dollar amounts are expressed in U.S. dollars. Several of the statements included below constitute forward looking statements and should not be read as guarantees of future results. See "Forward Looking Statements".

Table 1

|      | Adjusted Net<br>Income (a.) | Average Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-----------------------------|-----------------------------|------|----------------------------------------|-----------------------------------------|
| 2004 | 13                          | 84                          | 15%  | 9%                                     | 24%                                     |
| 2005 | 17                          | 101                         | 17%  | 18%                                    | 35%                                     |
| 2006 | 26                          | 123                         | 21%  | 8%                                     | 29%                                     |
| 2007 | 33                          | 154                         | 22%  | 1%                                     | 23%                                     |
| 2008 | 54                          | 195                         | 28%  | 5%                                     | 33%                                     |
| 2009 | 62                          | 256                         | 24%  | -3%                                    | 21%                                     |
| 2010 | 84                          | 325                         | 26%  | -2%                                    | 24%                                     |
| 2011 | 140                         | 394                         | 36%  | 7%                                     | 43%                                     |
| 2012 | 172                         | 491                         | 35%  | 2%                                     | 37%                                     |
| 2013 | 207                         | 585                         | 35%  | 4%                                     | 39%                                     |

a. Historical figures restated to comply with revised definition.

Note: 2010 and subsequent year information is presented in accordance with IFRS

ANI increased 20% in 2013. Cash Flow from Operating Activities per Share (see Table 3) grew far faster, so we were less concerned with "quality of earnings" than we were in 2012. The shareholders' Average Invested Capital grew 19%. This was insufficient to finance the acquisitions that we made, so we resorted to using increasing amounts of bank debt - more about this later. The high ROIC achieved over the last decade suggests that we have very good businesses. If ROIC starts to erode significantly, then either we've damaged our existing businesses, or our new acquisitions are less attractive than those that we have made in the past. ROIC isn't one of those metrics that is necessarily subject to "reversion to the mean". Some businesses seem to be able to widen their moats at reasonable cost.

Organic Net Revenue Growth and Organic Maintenance Revenue Growth (see Table 2) are good cross-checks of our business health. You can't easily get this information from audited financial statements. CSI's Organic Net Revenue Growth was 4% in 2013, below our long-term average but better than GNP. We'd like our Organic Net Revenue Growth to be slightly higher. Growing organically while generating a high ROIC is, to my mind, the toughest task in the software business.

We achieved a near-record combined ratio (the sum of ROIC and Organic Net Revenue Growth) of 39% in 2013. If we had to pick a single metric to reflect the performance of our businesses, this is the one that we'd choose.

Maintenance Revenue grew an impressive 42% in 2013. We wouldn't want to do that every year. Growth in Maintenance Revenue due to acquisitions was 34%, and acquiring that maintenance revenue consumed all of our free cash flow for the year, and then some. As of March 31<sup>st</sup> 2014 we had \$485 million outstanding on our debt facilities. We continue to seek longer-term capital to defuse the fundamental mismatch inherent in buying permanent assets with short-term debt. We have not dismissed the idea of cutting the dividend should other attractive sources of capital not be available.

Table 2

|                                     | 2006       | 2007       | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Maintenance Revenue (US\$MM)</b> | <b>116</b> | <b>148</b> | <b>193</b> | <b>252</b> | <b>337</b> | <b>417</b> | <b>510</b> | <b>725</b> |
| <b>Growth from:</b>                 |            |            |            |            |            |            |            |            |
| Acquisitions                        | 17%        | 11%        | 21%        | 27%        | 26%        | 15%        | 15%        | 34%        |
| Organic Sources                     |            |            |            |            |            |            |            |            |
| a) New maintenance                  | 15%        | 9%         | 9%         | 7%         | 8%         | 8%         | 8%         | 10%        |
| b) Price increases                  | 5%         | 8%         | 8%         | 3%         | 6%         | 6%         | 5%         | 5%         |
| c) Attrition - Lost Modules         | -2%        | -2%        | -3%        | -3%        | -3%        | -2%        | -2%        | -2%        |
| d) Attrition - Lost Customers       | -4%        | -4%        | -4%        | -4%        | -4%        | -3%        | -4%        | -5%        |
| Total Organic Growth                | 14%        | 11%        | 10%        | 3%         | 8%         | 9%         | 7%         | 8%         |
| Total Maintenance Growth            | 31%        | 23%        | 31%        | 31%        | 34%        | 24%        | 22%        | 42%        |

The Total Organic Growth in Maintenance Revenue was 8% in 2013, a slight increase from 2012. Our favourite businesses are those that are growing just slightly faster than their markets, gradually adding market share and customer share (i.e. "share of wallet"), while generating a good return on the capital that they have invested to produce organic growth. Small market share gains are much less likely to trigger a scorched earth competitive response that erodes pricing and triggers wildly unproductive R&D and S&M binges. We believe that we have struck that balance at many of our businesses.

Attrition increased in 2013, up more than 1% during the year, but as you can see in Table 2, this was more than offset by organic increases in Maintenance. That is encouraging, but bears monitoring. Over the last few years we have purchased a number of software businesses (usually SaaS) that have a much higher "churn" in their client bases because of factors inherent in their industry. By high churn, we mean that they acquire a greater proportion of new clients each year, and lose a higher percentage of existing accounts, than our average business. Sometimes the higher churn is because the clients' switching costs are low. Sometimes the higher churn is because lots of new potential clients are being created, and old ones are going bankrupt and merging. If it is the latter, these software businesses may be very attractive. If it is the former, then the software businesses are likely to be unpleasant, requiring tremendous effort to stay in much the same place. When we analyse the attrition and customer acquisition economics at the individual business unit level, the jury is still out on whether our high churn businesses are as attractive as our low churn businesses.

A note of caution with regard to the organic and acquired Maintenance Revenue growth numbers... while the analysis in Table 2 is materially the same as our reported Maintenance Revenue for financial reporting purposes, the individual components reflected in this table are generated by examining and categorising thousands of records. This analysis isn't perfect, but we believe it is a fair illustration of the trends in our maintenance base and, ultimately, the trends underlying the intrinsic value of our business.

A few years ago we added some GAAP/IFRS metrics to our regular letters to shareholders. We've updated them in Table 3.



In 2013, revenue per share increased 36% and Cash Flow from Operating Activities per Share (“CFO/Shr”) increased 52%. We don’t aspire to grow revenue per share at this sort of rate in the future. The growth in 2013 CFO/Shr was wonderful, but really reflects a catch up after a very disappointing 2012.

Table 3

|      | Total<br>Revenue<br>per Share |       | Cash Flow from<br>Operating Activities<br>per Share |       | Total<br>Share Count<br>(000's) |
|------|-------------------------------|-------|-----------------------------------------------------|-------|---------------------------------|
|      |                               | YoY Δ |                                                     | YoY Δ |                                 |
| 2003 | 4.16                          | 29%   | 0.74                                                | 72%   | 19,428                          |
| 2004 | 5.49                          | 32%   | 0.59                                                | -20%  | 19,891                          |
| 2005 | 8.11                          | 48%   | 1.21                                                | 106%  | 20,392                          |
| 2006 | 10.01                         | 23%   | 1.36                                                | 12%   | 21,065                          |
| 2007 | 11.47                         | 15%   | 1.62                                                | 19%   | 21,192                          |
| 2008 | 15.60                         | 36%   | 2.96                                                | 83%   | 21,192                          |
| 2009 | 20.67                         | 32%   | 3.85                                                | 30%   | 21,192                          |
| 2010 | 29.92                         | 45%   | 5.06                                                | 32%   | 21,192                          |
| 2011 | 36.49                         | 22%   | 6.49                                                | 28%   | 21,192                          |
| 2012 | 42.05                         | 15%   | 6.83                                                | 5%    | 21,192                          |
| 2013 | 57.13                         | 36%   | 10.40                                               | 52%   | 21,192                          |
| CAGR |                               | 30%   |                                                     | 30%   |                                 |

Note: 2010 and subsequent year information is presented in accordance with IFRS

Having had the chance to review the tables, we hope you'll join us in thanking the CSI employees for a wonderful decade.

Ideally, we’d like CSI’s stock price to appreciate in tandem with our fundamental economics. At any point in time, we’d prefer the price to be high enough to discourage a takeover bid and low enough so that our sophisticated long term oriented investors are not tempted to sell. It takes lots of time and effort to attract and educate competent shareholder/partners. The last thing we want them to do, is sell.

If a stock is over-priced and sophisticated investors sell, they are generally replaced by unsophisticated investors who are ultimately disappointed. This may lead to a stock price that over-corrects and in turn precipitate either a takeover bid, or more insidiously, a significant and predatory share buyback. Buybacks are tempting to management and boards: they tend to improve the lot of managers and insiders, while being applauded by the business press. I think they are frequently a tolerated but inappropriate instance of buying based upon insider information. Instead of shareholders being partners, they become prey.

In addition to our long term sophisticated investors, we also have a second constituency of less financially oriented long-term investors, including some of our employee shareholders. Our employee bonus plan requires that all employees who make more than a threshold level of compensation invest in CSI shares and hold those shares for an average of at least 4 years. In practice, their average hold period has been much longer. We feel an enormous obligation to protect our non-professional investor constituency. One way we can do that is by trying to making sure that the stock price stays in a fair range at all times.

CSI's stock price has appreciated something like 68% per annum over the last two years while our revenue per share and CFO/Shr have increased by only 25% and 27% per annum respectively. The divergence between the appreciation in the stock price and the fundamentals prompted us to do an experiment to see if the multiple expansion could be rationalized (revenue per share and ANI per share multiples have roughly doubled during that period).

We contacted 8 analysts from the investment banks and brokerage firms that cover CSI and asked them for their discounted cash flow valuation ("DCF") models. The analysts also use peer comparisons, market multiples and other methods as part of their valuation process, so their DCF results don't entirely explain their valuations for CSI. Nevertheless, the analysts' models do tend to highlight their underlying assumptions about the company. When we examined the average of the analysts' assumptions for organic growth, acquired growth, acquisition pricing, cost of capital, margins, tax rates, and terminal growth rates, we found that we felt reasonably comfortable with most of their assumptions. The assumptions with which we felt least comfortable were the future cash tax rates and terminal growth rates (both of which seemed low to us). We adjusted for these changes to create a DCF model consisting of the average of the analysts assumptions plus a couple of CSI tweaks, which I'll call the "Consensus Model". The Consensus Model generated a stock price that was at a slight premium to the current share price, though without the margin of safety that we would seek when investing CSI's capital. The upshot of the exercise was that one could mathematically justify the current stock price based on assumptions similar to those achieved by the company in the past.

The more interesting part of the experiment was using the Consensus Model to do some sensitivity analysis and to look at alternative strategies. In all of the following examples, we assume that only one variable changes. In reality, our businesses are dynamic and changing one variable has an impact throughout the business.

Varying the organic growth assumption has a tremendous impact on the intrinsic value of a CSI share. Add in another 2.5% organic growth to the base line assumption and you get more than double the intrinsic value. Subtract 2.5% from the base line organic growth assumption and you lose almost half the intrinsic value of the stock. You can see why so many software company CEO's are growth junkies.

For anyone who's studied the industry, it is difficult to imagine a 5% perpetual swing in organic growth that doesn't have an offsetting impact upon operating margins. That said, there's still tremendous valuation and strategic leverage if organic growth can be increased with reasonable levels of investment. If managers have the discipline to monitor the IRR's on their investments in organic revenue growth, then they've taken a critical step towards understanding the most powerful lever in software. Some of our managers are there. I suspect others are using crude heuristics like "make 20% EBITA, and you can invest the rest". I dislike the latter approach, but many managers change their hard-won beliefs at glacial speed.

If we assume that CSI makes no further acquisitions, the Consensus Model calculates an intrinsic value that is roughly half of the current price. The magnitude of this valuation change surprised me, and suggests that our stock price could suffer very significantly if our acquisition activities slow down or the acquired businesses perform poorly. In the early days of CSI, I assumed that shareholders would be somewhat ambivalent between receiving all of CSI's free cash flow as a dividend, and having us invest a portion of it in acquisitions. According to the model, that is resoundingly not the case.

Another scenario that we tried in the Consensus Model was doing large TSS style acquisitions, at prices similar to that which we paid for TSS. The underlying assumptions continued to be that we are able to get these larger acquisitions to generate operating margins and growth equivalent to the small

acquisitions. Not surprisingly, the Consensus Model forecasts that making large acquisitions adds significant intrinsic value, but not as much as doing “many small” acquisitions at lower purchase price multiples. It also confirms our belief that if we can’t make more small acquisitions, then doing the occasional large one seems to make sense.

The final scenario that we ran involves the use of non-common share capital (i.e. debt or something similar). The assumption is that we raise enough capital to maintain revenue growth rates in excess of 20%, and that we operate with a balance sheet that is not highly levered. The Consensus Model for that scenario adds hugely to shareholder value, even if we use high cost debt.

Models are only as good as the assumptions that go into them, and there’s no substitute for thinking through the above scenarios on your own, with your own underlying assumptions.

The biggest surprise for me in the modeling exercise was that our multiple expansion over the last two years can be justified by our “acquisition engine”. I’d rather the market was paying for our acquisition capabilities in retrospect rather than in prospect. Nevertheless, it is clear that acquisitions have added tremendous shareholder value over the years, particularly during times of economic crisis and/or recession.

Which brings us to the topic of funding. We’d like to be in a position to acquire aggressively should attractive opportunities arise. We’ve asked CSI’s Board for permission to raise non-common share capital to replace our revolving line of credit. They’ve given us that mandate.

Last year I mentioned that I’d feel comfortable using debt to finance our growth if it were long term, non-callable and the interest payments could be deferred for short periods. I followed up in the letter to shareholders with an invitation to potential investors to work with us to design such an instrument. During the course of the ensuing year we’ve had discussions with a variety of institutions and investment bankers. And while we got past a few hurdles, we inevitably came up against the institutional imperative: no matter how logical and appealing an instrument may be, if it is novel and works, the sponsor gets a pat on the back. If it is novel and doesn’t work, the sponsor loses their job.

That led us back into a dialog with our investment bankers. They began to understand what we wanted: a very long term instrument that we could issue in tranches whenever we needed, that was liquid and would trade at close to intrinsic value at all times so that our investors could get liquidity without taking a haircut, that was tax deductible for CSI as we expect to otherwise pay lots of cash tax, and that can be redeemed by CSI with reasonable amounts of notice if we are producing more cash than we can intelligently invest elsewhere. I’ll refer to this as a Non-Traditional Instrument or “NTI”. The novelty of the NTI was still a concern to the investment banks, but they felt that they could overcome that and sell it to retail investors if the yield were sufficiently high and the transaction fees sufficiently large. Once the first tranche of the NTI was sold, there would be a precedent trading in the market, and the investment bankers felt that the terms of subsequent NTI issues would likely be more attractive to CSI.

As our discussions progressed, the yield and the transaction fees proposed by the investment banks got higher and the terms less attractive. Based on my previous experience during the CSI IPO, I expected further concessions would be required before an offering was completed. I approached our board with an alternative: make the terms of the NTI even more attractive than those proposed by the investment banks, and market it to our existing shareholders. Any overpricing would accrue to our own investors rather than strangers and intermediaries. If our investors have appetite for an NTI issued at a discount to face value with an above average coupon by a company with a strong balance sheet, they could purchase the NTI and subsequently liquidate at close to face value whenever they choose.

My experience selling CSI shares over the years is that you can sell a novel investment to the sophisticated few, and that over time both the size of the audience and the level of trust grow. I think that will also be the case with the NTI.

Finishing on a quite different note: I'm happy if I "find" one good book to recommend to friends, family and employees each year. Currently, I'm shamelessly flogging Daniel Kahneman's Thinking Fast and Slow. His book is about a life (actually two) well spent. He tells the tale of his intellectual journey via a series of behavioural economics experiments. He helped me appreciate the efficiency, speed, and inherent conceit of intuitive judgment, and its infrequent but often abject failures. Understanding the major findings in behavioural economics provides profound insights into investing and managing, and this book is the most pleasant way I've found to acquire that knowledge.

We will be hosting the annual general meeting on Thursday May 1<sup>st</sup>. Many of our Directors and Officers and a number of our employees will be in attendance. We look forward to talking about our business and answering your questions. We hope to see you there - perhaps with a camera.

Mark Leonard  
President  
Constellation Software Inc.

April 30<sup>th</sup>, 2014

## Glossary

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## Forward Looking Statements

Certain statements in this letter may contain “forward looking” statements that involve risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company or industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Words such as “may”, “will”, “expect”, “believe”, “plan”, “intend”, “should”, “anticipate” and other similar terminology are intended to identify forward looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance as of the date of this letter. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. Although the forward looking statements contained in this letter are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward looking statements. These forward looking statements are made as of the date of this letter and the Company assumes no obligation, except as required by law, to update any forward looking statements to reflect new events or circumstances. This report should be viewed in conjunction with the Company’s other publicly available filings, copies of which can be obtained electronically on SEDAR at [www.sedar.com](http://www.sedar.com).

### Non-GAAP/IFRS Measures

Adjusted net income and Organic Net Revenue Growth are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted net income and Organic Net Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Adjusted net income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to CSI's most recently filed Management's Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.

## Constellation Software Inc.

### TO OUR SHAREHOLDERS

Table 1 contains non-IFRS metrics for Constellation Software Inc. (“CSI”). The definitions for these metrics appear in the Glossary at the end of this document. Unless otherwise indicated, all dollar amounts are expressed in millions of U.S. dollars. Several of the statements included below constitute forward looking statements and should not be read as guarantees of future results. See “Forward Looking Statements”.

Table 1

|          | Adjusted Net<br>Income<br>(a) | Average<br>Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|----------|-------------------------------|--------------------------------|------|----------------------------------------|-----------------------------------------|
| 2003     | 22                            | 83                             | 26%  | 11%                                    | 37%                                     |
| 2004     | 13                            | 84                             | 15%  | 9%                                     | 24%                                     |
| 2005     | 17                            | 101                            | 17%  | 18%                                    | 35%                                     |
| 2006     | 26                            | 123                            | 21%  | 8%                                     | 29%                                     |
| 2007     | 33                            | 154                            | 22%  | 1%                                     | 23%                                     |
| 2008     | 54                            | 195                            | 28%  | 5%                                     | 33%                                     |
| 2009     | 62                            | 256                            | 24%  | -3%                                    | 21%                                     |
| 2010 (b) | 84                            | 325                            | 26%  | -2%                                    | 24%                                     |
| 2011     | 140                           | 394                            | 36%  | 7%                                     | 43%                                     |
| 2012     | 172                           | 491                            | 35%  | 2%                                     | 37%                                     |
| 2013     | 207                           | 585                            | 35%  | 4%                                     | 39%                                     |
| 2014     | 274                           | 739                            | 37%  | 3%                                     | 40%                                     |

(a) Historical figures restated to comply with revised definition.

(b) 2010 and subsequent year information is presented in accordance with IFRS

Adjusted Net Income (“ANI”) increased 32% in 2014, and average ANI growth per share over the last five years has been 36%. This is an impressive but unsustainable performance. The ubiquitous “*Past performance is no guarantee of future results*” disclaimer really does apply in this instance.

Our shareholders’ Average Invested Capital grew 26% in 2014. This, in conjunction with a slower acquisition pace, allowed us to reduce our overall debt from \$477 million on Dec. 31, 2013 to \$295 million on Dec. 31, 2014. I am not comfortable using short term debt or long-term debt with highly restrictive covenants to finance the parent company.

2014 ROIC, at 37%, was the highest we’ve ever achieved. In a well-managed, organically growing vertical market software business, less tangible assets tend to be required over time, hence you would expect to see increasing ROIC’s. In CSI’s case, there are a couple of countervailing factors: Our cash tax rates are likely to increase over the next few years, and we are willing to make acquisitions that generate IRR’s that are much lower than 37%. Even if new acquisitions track according to plan, they will nearly always depress our overall ROIC to some degree. If we are successful in deploying large amounts of capital, ROIC could drop sharply for a time.

CSI’s Organic Net Revenue Growth was 3% in 2014, below our long-term average but better than GNP growth. We’d like our Organic Net Revenue Growth to be higher.

We achieved a very high combined ratio (the sum of ROIC and Organic Net Revenue Growth) of 40% in 2014. If we had to pick a single metric to reflect the growth in the intrinsic value of our businesses, this is the one that we'd choose.

Table 2 parses our Total Maintenance Revenue Growth into organic and acquired, and further divides the organic growth into its components. We made a very large acquisition (TSS) in late 2013, which contributed to another year of rapid (40%) Total Maintenance Growth in 2014. One very important caveat about Maintenance Revenue as presented below: it is a gross number... i.e. it is not net of third party costs. For instance, if we have a business which incorporates third party databases or development tools and/or utilises third party hosting, the Net Maintenance Revenue received by CSI may be far less than the gross.

Maintenance Revenue growth due to acquisitions was 33% in 2014. Based upon the acquisitions that we completed in 2014 and those done year to date in 2015, we anticipate far slower acquired Maintenance Revenue growth in 2015.

Table 2

|                                     | 2006       | 2007       | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       | 2014        |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| <b>Maintenance Revenue (US\$MM)</b> | <b>116</b> | <b>148</b> | <b>193</b> | <b>252</b> | <b>337</b> | <b>417</b> | <b>510</b> | <b>725</b> | <b>1015</b> |
| <b>Growth from:</b>                 |            |            |            |            |            |            |            |            |             |
| Acquisitions                        | 17%        | 11%        | 21%        | 27%        | 26%        | 15%        | 15%        | 34%        | 33%         |
| Organic Sources                     |            |            |            |            |            |            |            |            |             |
| a) New Maintenance                  | 15%        | 9%         | 9%         | 7%         | 8%         | 8%         | 8%         | 10%        | 10%         |
| b) Price Increases & Other          | 5%         | 8%         | 8%         | 3%         | 6%         | 6%         | 5%         | 5%         | 5%          |
| c) Attrition - Lost Modules         | -2%        | -2%        | -3%        | -3%        | -3%        | -2%        | -2%        | -2%        | -3%         |
| d) Attrition - Lost Customers       | -4%        | -4%        | -4%        | -4%        | -4%        | -3%        | -4%        | -5%        | -5%         |
| Total Organic Growth                | 14%        | 11%        | 10%        | 3%         | 8%         | 9%         | 7%         | 8%         | 7%          |
| Total Maintenance Growth            | 31%        | 23%        | 31%        | 31%        | 34%        | 24%        | 22%        | 42%        | 40%         |

The Total Organic Growth in Maintenance Revenue was 7% in 2014. Lost module attrition nearly doubled in 2014, primarily due to newer acquisitions.

SaaS revenues are becoming increasingly important to us: Our 17 "SaaS'y" businesses (those where SaaS revenues are over half of total revenues and where our customers do not host their own applications) now constitute 13% of Maintenance Revenues. This is up from less than 1% of Maintenance Revenues five years ago. In addition, most of our traditional (i.e. non-SaaS'y) businesses have some SaaS offerings of add-on or core products, so I'd guess that SaaS revenues overall are now almost one fifth of our total Maintenance Revenues. The SaaS'y businesses also have higher organic growth rates in recurring revenues than do our traditional businesses. Unfortunately, our SaaS'y businesses have higher average attrition, lower profitability and require a far higher percentage of new name client acquisition per annum to maintain their revenues. We continue to buy and invest in SaaS businesses and products. We'll either learn to run them better, or they will prove to be less financially attractive than our traditional businesses - I expect the former, but suspect that the latter will also prove to be true.

A note of caution with regard to the organic and acquired Maintenance Revenue growth numbers... while the totals in Table 2 are materially the same as our Maintenance Revenue for financial reporting purposes, the individual components reflected in this table are generated by examining and categorising tens of thousands of records. The complexity of the analysis is compounded by the movements in foreign exchange and transactional revenues (which are currently categorised in "Price Increases & Other"). We are working



to improve the accuracy of the underlying data so that we can better manage this critically important part of our business. For the time being, we believe that the data presented is a fair illustration of the trends in our maintenance base.

Table 3 contains some metrics that we started to present a few years ago in response to a request for GAAP/IFRS information.

In 2014, revenue per share increased 38% and Cash Flow from Operating Activities per Share (“CFO/Shr”) increased 55%. We don’t aspire to grow revenue per share at this sort of rate in the future nor do we think that the growth in CFO/Shr will be able to consistently outpace revenue per share.

Table 3

|      | Total Revenue<br>per Share | YoY $\Delta$ | Cash Flow from<br>Operating<br>Activities<br>per Share | YoY $\Delta$ | Total Share<br>Count<br>(000's) |
|------|----------------------------|--------------|--------------------------------------------------------|--------------|---------------------------------|
| 2005 | 8.11                       | 48%          | 1.21                                                   | 106%         | 20,392                          |
| 2006 | 10.01                      | 23%          | 1.36                                                   | 12%          | 21,065                          |
| 2007 | 11.47                      | 15%          | 1.62                                                   | 19%          | 21,192                          |
| 2008 | 15.60                      | 36%          | 2.96                                                   | 83%          | 21,192                          |
| 2009 | 20.67                      | 32%          | 3.85                                                   | 30%          | 21,192                          |
| 2010 | 29.92                      | 45%          | 5.06                                                   | 32%          | 21,192                          |
| 2011 | 36.49                      | 22%          | 6.49                                                   | 28%          | 21,192                          |
| 2012 | 42.05                      | 15%          | 6.83                                                   | 5%           | 21,192                          |
| 2013 | 57.13                      | 36%          | 10.40                                                  | 52%          | 21,192                          |
| 2014 | 78.77                      | 38%          | 16.11                                                  | 55%          | 21,192                          |
| CAGR |                            | 31%          |                                                        | 39%          |                                 |

Note: 2010 and subsequent year information is presented in accordance with IFRS

We hope that shareholders are as proud of our last decade’s performance as we are.

A quick observation before we leave the discussion of Maintenance Revenues and cash flows. In assessing CSI’s value, it is tempting to look at cash flows after tax, interest and capex as the “real” return on shareholders’ capital. However, you should only do that if you can convince yourself that the underlying (mostly intangible) assets of our businesses are not deteriorating. The analysis of Maintenance Revenues in Table 2 is designed to give you some tools to assess the health of those intangible assets. If Maintenance Revenue continues to grow organically, there’s reason to believe that our intangible assets are not deteriorating. A nice byproduct of isolating the Organic Growth in Maintenance Revenue, is that you can also see how much Maintenance Revenue has been acquired and compare that to the amount spent on acquisitions.

\* \* \* \* \*

Last year I asked the board to reduce my salary to zero and to lower my bonus factor. CSI had a great year, so despite those modifications, my total compensation actually increased. This year I'll take no salary, no incentive compensation, and I am no longer charging any expenses to the company.

I've been the President of CSI for its first 20 years. I have waived all compensation because I don't want to work as hard in the future as I did during the last 20 years. Cutting my compensation will allow me to lead a more balanced life, with a less oppressive sense of personal obligation. I'm paying my own expenses for

a different reason. I've traditionally travelled on economy tickets and stayed at modest hotels because I wasn't happy freeloading on the CSI shareholders and I wanted to set a good example for the thousands of CSI employees who travel every month. I'm getting older and wealthier and find that I'm willing to trade more of my own cash for comfort, convenience, and speed ... so I'm afraid you'll mostly see me in the front of the plane from here on out.

I love what I'm doing, and don't want to stop unless my health deteriorates or the board figures it's time for me to go. We have an impressive board. I trust them to determine when I'm no longer adding value as the senior executive in the company.

I recognise that some of our directors, shareholders and employees have, or are going to have, misgivings about this arrangement. I'm still planning to do the work that I've always done: acquisitions, monitoring, best practice development, investor relations and financing. I'm just not going to do the weekends, all-nighters and a constant grind of 60 hour plus weeks that characterised my earlier career. Keep in mind that CSI has an unconventional organisational structure, and we seem to have prospered to date without a lot of centralised command and control. While I may not be travelling as much as before nor putting in as many hours, CSI has lots of seasoned and accomplished managers at the Operating Group level who have become far better coaches, culture bearers, and hypothesis generators than I ever was.

One of the results of this compensation change is that I get to side-step the agent-principal problem. My compensation for being president is now tied solely to my current ownership of CSI shares. In essence, I'm your partner in CSI, not your employee. I like the feel of the partner relationship a whole lot better.

I'm currently campaigning for a couple of changes in emphasis at CSI, and I'm hoping that my new "partner" status will lend me increased credibility as I make the case for those changes.

First, I'd like CSI to experiment with modifying its employee bonus program. The idea is to make any such changes totally optional from the employee's perspective, so that there is no loss of trust. My experience with long-term compensation programs is that they require many years of consistent application before employees believe in them enough to make the short-term / long-term trade-offs necessary in the software business. The objective of the compensation plan changes will be to allow our newest generation of employees to build wealth more quickly. In a zero sum game, whatever incremental compensation we deliver to these employees will come out of the hides of shareholders, mine included. The trick, of course, is to make sure that we aren't operating in a zero sum environment. There's reticence in the organisation about "fixing" an existing bonus program that isn't obviously broken. I'm trying to convince our managers and directors that pre-emptive change is worthwhile.

Second, I'd like to over-capitalise the company with reliable capital. We've had poor results with this tactic historically. In 1999, we raised a \$60 million second round of equity capital. We didn't end up using the capital for several years, and eventually our investors insisted on a special dividend to return some of it. The good news was that we maintained our investment discipline despite holding "excess cash" for many years and we acquired a second institutional investor to help balance out our shareholder group. The bad news was that our employee shareholders suffered more dilution than was necessary. Why is a historically bad idea worth trying a second time? Currently, we're using debentures to build our long term capital. The debentures are less costly than our second round equity financing, and they will only be a net cost to shareholders if CSI is unable to deploy the capital at attractive returns in a reasonable time-frame. Our confidence is growing that we can compete effectively with Private Equity firms for larger vertical market software company acquisitions. This feels like a much bigger opportunity for capital deployment than the market in which we've historically played, and is not a market where we can finance the "equity" portion of transactions from our revolver. Of course, what may appear to be prudent funding when it leads to excess

cash of \$100 million, may appear to be foolhardy funding if it has \$1 billion floating around in our coffers. And therein lie the seeds of debates that I'm sure our board will be having for years to come.

While we are on the capital raising topic, Jamal has presented our lead bank with a draft agreement for a new revolving line of credit that is more reliable: one with less restrictive covenants, and with room and flexibility enough to allow us to buy significant businesses (or pieces of businesses) during a recession. We are hopeful that our existing banks and perhaps some new ones will find the proposal attractive.

Shareholders sometimes ask why we don't pursue economies of scale by centralising functions such as Research & Development and Sales & Marketing. My personal preference is to instead focus on keeping our business units small, and the majority of the decision making down at the business unit level. Partly this is a function of my experience with small high performance teams when I was a venture capitalist, and partly it is a function of seeing that most vertical markets have several viable competitors who exhibit little correlation between their profitability and relative scale. Some of our Operating Group GM's agree with me, while others are less convinced. There are a number of implications if you share my view: We should a) regularly divide our largest business units into smaller, more focused business units unless there is an overwhelmingly obvious reason to keep them whole, b) operate the majority of the businesses that we acquire as separate units rather than merge them with existing CSI businesses, and c) drive down cost at the head office and Operating Group level.

I find that some of our shareholders confuse CSI's strategy with that of our business units. While there are terrific moats around our individual business units, the barrier to starting a "conglomerate of vertical market software businesses" is pretty much a cheque book and a telephone. Nevertheless, CSI does have a compelling asset that is difficult to both replicate and maintain: We have 199 separately tracked business units and an open, collegial, and analytical culture. This provides us with a large group of businesses on which to test hypotheses, a ready source of ideas to test, and a receptive audience who can benefit from their application. More quickly and cheaply than any company that I know, we can figure out if a new business process works. This sort of ad hoc experimentation doesn't require enormous systems or the peddling of a new dogma to the unreceptive. It requires curious managers at a few dozen business units and a couple of clever analysts to plausibly test if a process works. Once a new best practice starts working within CSI, wide access to benchmarking information tends to rapidly breed emulation. We've found a few other examples of high performance conglomerates built around the idea of continuously refining their business processes and then driving ever more acquired businesses up their business process learning curve as quickly as possible.

When CSI was much smaller, we used to run annual offsite meetings. Working on the curriculum for one of the offsites, I asked our academic advisor about game theory. He said "tit-for-tat, that's pretty much all you need to know". That clever but unsatisfying explanation eventually led me to the book and article that I'm recommending this year - The Evolution of Cooperation by Robert Axelrod, and a related journal article<sup>1</sup> (jointly, "EoC"). EoC is a short and accessible introduction to the prisoner's dilemma game. Google Scholar has 28,000 scientific citations for the original EoC article in the journal *Science*, so I'm not going out on much of a limb by recommending it. Despite that, it doesn't seem to get much coverage in the business press.

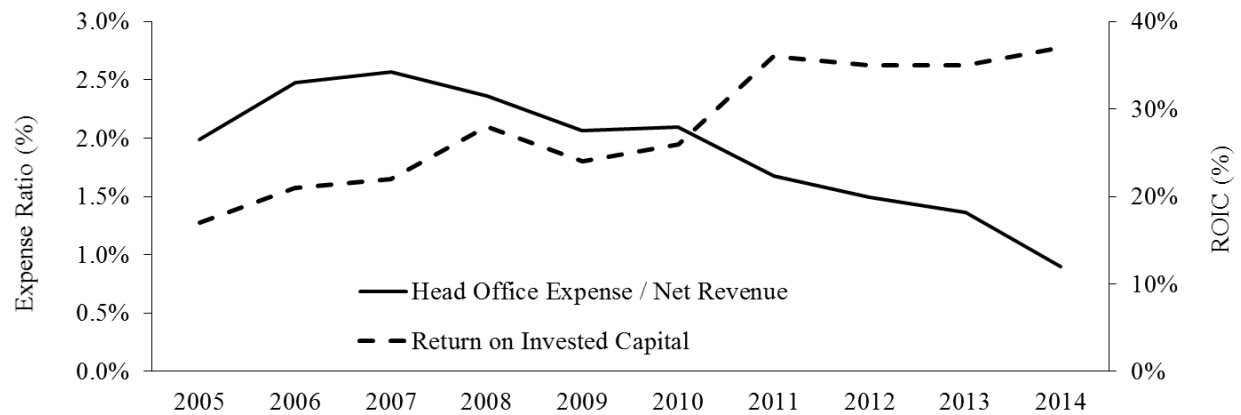
EoC has provided me with models for thinking about a number of business problems. Perhaps the best way to illustrate that the sort of reciprocal trust advocated by Axelrod can be profitably applied in a business, is

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<sup>1</sup> "Launching The Evolution of Cooperation": Axelrod, *Journal of Theoretical Biology* April 2011

to look at some statistics from CSI's history. In Chart 1, you'll see that our head office expense as a percent of Net Revenues has halved from 1.9% in 2005 to 0.9% in 2014 while ROIC has increased from 17% to 37%. Clearly trust trumped central bureaucracy in our case.

Chart 1



If you ask me about “hierarchical bullies” at our Annual General Meeting, I’ll be happy to give you another example of how EoC helped clarify my thinking in a practical application at CSI.

We will be hosting the annual general meeting on Thursday, April 30<sup>th</sup>. Many of our Directors and Officers and a number of our employee shareholders will be in attendance. We look forward to talking about our business and answering your questions. We hope to see you there.

Mark Leonard  
President  
Constellation Software Inc.

April 6<sup>th</sup>, 2015

## Glossary

Effective Q1 2008, the term “Adjusted net income” is derived by adjusting GAAP or IFRS net income for the non-cash amortization of intangibles, future income taxes, and charges related to appreciation in common shares eligible for redemption (a charge that we no longer incur now that CSI’s common shares are publicly traded). Prior to Q1 2008, Adjusted net income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The computation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are being added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted net income figures have been restated in the table above to reflect the new method of computations. We use Adjusted net income because it is generally a better measure of cash flow than GAAP or IFRS net income and it is closely aligned with the calculation of net income that we use for bonus purposes.

“Average Invested Capital” is based on the Company’s estimate of the amount of money that our shareholders had invested in CSI. Subsequent to that estimate, each period we have kept a running tally, adding Adjusted net income, subtracting any dividends, adding any amounts related to share issuances and making some small adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles.

“ROIC” represents a ratio of Adjusted net income to Average Invested Capital.

“Net Revenue” is gross revenue for GAAP or IFRS purposes less any third party and flow-through expenses. We use Net Revenue since it captures 100% of the license, maintenance and services revenues associated with CSI’s own products, but only the margin on the lower value-added revenues such as commodity hardware or third party software. “Maintenance Revenue” primarily consists of fees charged for customer support on our software products post-delivery and also includes, to a lesser extent, recurring fees derived from software as a service, subscriptions, combined software/support contracts, transaction-related revenues, and hosted products.

## Forward Looking Statements

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Adjusted net income and Organic Net Revenue Growth are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted net income and Organic Net Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company's liquidity and cash flows. The Company's method of calculating Adjusted net income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to CSI's most recently filed Management's Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.

# Constellation Software Inc.

## TO OUR SHAREHOLDERS

Each quarter we try to study an admirable company and discuss it with our Operating Group managers and board members. We focus on high performance conglomerates that have demonstrated at least a decade of superior shareholder returns. We started by studying those that have generated superior returns for multiple decades. That narrowed the field a lot, so we are beginning to let some single decade performers slip into the candidate pool. I'll refer to the conglomerates that we've studied to date as the "HPCs" in this letter. If you have any suggestions for the candidate pool, please send them along.

Constellation Software Inc. ("CSI") is just entering its third decade. We study the HPCs because they help us understand what CSI does well, where we might improve, and what alternatives we could pursue. Keep in mind that we are comparing CSI to a group of wonderful companies. Over the last decade, if you had held an equally weighted portfolio of the shares of the HPCs, you would have more than doubled the performance of the S&P 500.

We reviewed one of our perennial favourite HPCs this quarter, Jack Henry and Associates, Inc. ("JKHY"). The company's values are those to which we aspire and their multi-decade performance is remarkable. Their shares have outperformed the S&P 500 Index by 11%, 9% and 10% per annum over the last 30, 20 and 10 years, respectively. Best of all, JKHY is in the vertical market software business like CSI, so there are sector-specific lessons in their history from which we can draw.

I encourage you to familiarise yourself with JKHY. Their financial history is easily accessible because they went public very early in their development (i.e. in late 1985). At that time they had less than 50 employees and revenue of \$12 million. They now have over 6,000 employees and revenue of \$1.3 billion. There's also a lovely company history "You Don't Know Jack... or Jerry", written by a retired IBM executive. The book covers JKHY's founding years through to the end of 2007. It provides many first-hand accounts by employees, customers, competitors and partners about the business practices, strategy, and culture of the company.

During the course of this letter I've incorporated our findings from the HPCs in general and JKHY in particular to the discussion of each metric.

One point of caution with respect to the HPC analysis. The individual HPCs have differences in how they have compiled their publicly available financial information and our calculations of their financial metrics may not be entirely consistent across the group. Despite these "data challenges" we believe the analysis is worthwhile and can provide some insights.

### **Adjusted Net Income**

Table 1 contains the non-IFRS metrics for CSI which we present each year. The definitions for these metrics appear in the Glossary at the end of this document. Any other capitalised financial terms in this letter are also defined in the Glossary. Unless otherwise indicated, all dollar amounts are expressed in millions of U.S. dollars. Several of the statements in this letter constitute forward looking statements and should not be read as guarantees of future results. See "Forward Looking Statements".

CSI's Adjusted Net Income ("ANI", column 2 of Table 1) increased by 35% to \$371 million in 2015. Our average annual increase in ANI per share over the last decade has been 37%. We do not expect to come close to achieving this ANI growth rate in the next decade.

During the last decade, the HPCs struggled to increase their ANI per share by more than 15% per annum. JKHY's annualised growth in ANI was only 12% over that period. This drove much higher appreciation

in JKHY's shareholder value because they also made significant dividend payments and share repurchases (jointly averaging 10% of Average Invested Capital per annum). If CSI is not successful in finding attractive acquisitions, we could pursue a similar strategy of returning capital to shareholders.

Table 1

|      | Adjusted Net<br>Income<br>(a) | Average<br>Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-------------------------------|--------------------------------|------|----------------------------------------|-----------------------------------------|
| 2006 | 26                            | 123                            | 21%  | 8%                                     | 29%                                     |
| 2007 | 33                            | 154                            | 22%  | 1%                                     | 23%                                     |
| 2008 | 54                            | 195                            | 28%  | 5%                                     | 33%                                     |
| 2009 | 62                            | 256                            | 24%  | -3%                                    | 21%                                     |
| 2010 | 84                            | 325                            | 26%  | -2%                                    | 24%                                     |
| 2011 | 140                           | 394                            | 36%  | 7%                                     | 43%                                     |
| 2012 | 172                           | 491                            | 35%  | 2%                                     | 37%                                     |
| 2013 | 207                           | 585                            | 35%  | 4%                                     | 39%                                     |
| 2014 | 274                           | 739                            | 37%  | 3%                                     | 40%                                     |
| 2015 | 371                           | 965                            | 38%  | -3%                                    | 35%                                     |

(a) Historical figures restated to comply with revised definition.

Only a couple of HPCs that have employed significant financial leverage have had ANI/Share growth consistently in excess of 15%. Inexpensive financial leverage is a tool that diversified conglomerates can easily access. We haven't decided yet where we stand on using leverage, other than that we want to avoid using short term debt to finance long term assets, or using long term debt that is unreliable.

### **Invested Capital**

CSI's Average Invested Capital (column 3, Table 1) increased by 31% in 2015 to \$965 million. By December 31<sup>st</sup> of that year, Invested Capital topped one billion dollars. There's nothing magical about the billion dollar amount, but it is a bit sobering to note that we took over seventeen years to invest the first half billion of CSI's capital. The remaining half billion has been invested during the last three years. We are continuing to add to our "investment capacity". Despite that, we expect the rate of growth in capital deployment to slow.

About eighteen months ago we looked at the impact of investment hold period on transaction costs. We had some rules of thumb in mind, but hadn't actually done the math. If you hold investments forever, you can afford to spend a surprising amount of money to deploy capital at attractive returns. I have been encouraging our Operating Groups to push down more of the acquisition activity to the Business Unit ("BU") level, even if it means higher capital deployment costs. If we can train a couple of hundred BU managers to be competent part-time capital allocators and provide them with acquisition analysis and structuring support when they need it, then I can foresee the day when we are doing 100 acquisitions per annum, instead of 30. It makes the BU manager's job richer and more fun, but also more demanding.

Only one other HPC has followed a strategy of buying hundreds of small businesses and managing them autonomously. They eventually caved in to increased centralisation. My hunch is that it takes an unusually trusting culture and a long investment horizon to support a multitude of small businesses and their entrepreneurial leaders. If trust falters the BU's can be choked by bureaucracy. If short term results are paramount, the siren song of consolidation synergies is powerful. We continue to believe that autonomy and responsibility attract and motivate the best managers and employees.

We are currently adding several hundred million to Invested Capital each year. In addition to our traditional M&A activity, we are re-starting our public company investing efforts. During the period



from 1995 to 2011, we made sixteen public company investments in the software sector. If you viewed our public company investments as a single portfolio, the internal rate of return ("IRR") for that portfolio far exceeded our hurdle rate. Thirteen of the sixteen investments generated individual IRRs in excess of 10%, and only one small investment had a negative rate of return. The average hold period was shorter than we would have liked, and most of the investments ended in the companies being acquired by third parties, rather than CSI. Those may prove to be the fundamental limitations for this sort of investment activity. We hope to find some attractive public software company investments in the coming year or two. At present, the pickings are slim due to generally high valuations.

### **Return on Invested Capital**

ROIC is the next metric in the table, but I thought it was worth a long segue to discuss what we found at the HPCs when we studied a closely related metric, EBITA/Average Total Capital ("EBITA Return"). Both metrics look at return on investment. ROIC is the return on the shareholders' investment and EBITA Return is the return on all capital. In the former, financial leverage plays a role. In the latter only the operating efficiency with which all net assets are used is reflected, irrespective of whether those assets are financed with debt or shareholders' investment.

Surprisingly the HPCs seem to have a fairly consistent pattern of EBITA Returns. Most of them started out in an asset-light business. A few didn't have the "asset-light epiphany" until after they'd struggled with more capital intensive businesses for a few years. During the first year of data that we were able to source for each HPC, they averaged a respectable 21% EBITA Return. Subsequently their returns experienced a period of dramatic improvement as they refined their operating methods and philosophies. These operating methods varied, but generally involved techniques for the detailed measurement of business processes coupled with relentless incremental improvement. At some of the HPCs the methods are applied with a zeal that makes me a bit uncomfortable. It's hard to argue with results. The average peak EBITA Return for the HPCs was 46%, and on average it took them 6 years from the start of our measurement period to achieve those peak returns.

At peak returns, the HPCs' cash flows far exceeded their internal requirements, so all of them embarked upon acquisition programs. They acquired businesses similar to their own - i.e. asset light business with good barriers to entry and a history of positive organic growth. They paid significant premiums to book value for the acquisitions. The initial EBITA Return in each of the acquired businesses would have been modest because of the high purchase prices, but organic growth required little investment in tangible assets so returns would have subsequently climbed. In many instances the acquired businesses were not run optimally prior to acquisition, and the HPCs were able to apply their business practices to further improve returns.

The HPCs have invested almost their entire Free Cash Flow ("FCF") in acquisitions during the last decade. This has allowed them to grow Revenue per share and ANI per share at an average of 9% and 17% per annum, respectively, over the same period. However, their significant acquisition expenditures have tended to depress EBITA Returns. 2015 EBITA Return averaged only 18% for the group.

JKHY's EBITA Return for the last decade was 24%. They performed better than the other HPCs on this metric because they had strong organic growth and did not invest as much of their FCF in acquisitions.

We haven't confirmed it yet by compiling the detailed data, but I have a feeling that acquisition multiples, acquisition size and acquisition profitability have all increased over time for the HPCs. In CSI's case, I've confirmed the first two, but need to check the third.

In summary, the general pattern for the HPCs' EBITA Returns for the study period has been moderate, high and then declining returns, with operating excellence driving the period of growth and significant investments in relatively high priced acquisitions driving the subsequent period of contraction. If CSI's

EBITA Return pattern is similar, there's a good argument that our 37% EBITA Return in 2015 was close to the peak, and that acquisitions will drive it lower from here on out.

CSI's ROIC (column 4 Table 1) was 38% in 2015, its highest to date. Viewed over the long term, our ROIC has increased fairly consistently due to improving EBITA/revenue margins and increasing but still moderate financial leverage. Our acquisition mix in 2015 was also unusual. We acquired some large, high margin but shrinking businesses with attractive tax characteristics and higher than normal profitability resulting in consolidated EBITA/revenue margin reaching record levels.

Most of the HPCs have operated with ROIC's in the mid to high teens during the last decade. JKHY was in the middle of the ROIC range at 18%. CSI was the second highest in the group, with a 30% ROIC average for the decade. I anticipate that we will deploy larger amounts of capital on investments each year. We are using a lower hurdle rate for larger transactions, but have retained our original hurdles for most of our acquisitions. Unless we use increasing amounts of financial leverage, increased acquisition investment and lower hurdle rates on large transaction will likely drive down our future ROIC. Interestingly, half of the HPCs have begun to acquire vertical market software businesses.

Financial leverage is a tool that can have a profound impact on ROIC. Some HPCs have whittled down Invested Capital as a percent of Total Capital by borrowing to pay dividends, repurchase shares, and/or make acquisitions. This has helped them generate higher ROIC's. One of the HPCs has returned their entire Invested Capital to shareholders, and hence generates an infinite ROIC. If covenant-free long-tenured debt is available at a lower after tax cost than equity, then this kind of capital structure is attractive.

### **Organic Net Revenue Growth**

CSI's Organic Net Revenue Growth ("OGr", column 5, Table 1) was negative in 2015 for the first time since the last recession. The Maintenance analysis in Table 3 below, shows that much of the decline vs 2014 was due to shifts in foreign exchange rates. Nevertheless, when we compare CSI's organic revenue growth to that of the other HPCs, we rank amongst the poorest performers and JKHY ranks amongst the best. Are we doing something systematic that leads to low OGr, and if so, is it a mistake? It is worth comparing JKHY and CSI to get some ideas.

JKHY sells software, hardware and services to small and medium sized financial institutions. The number of potential customers in these markets has been shrinking for decades. In the early years, JKHY acquired a number of competitors for reasonable prices, which reduced some of the rivalry in their market, and gave them a larger installed base for which to develop add-on products.

Significant technology change (ATM's, internet banking, mobile banking, and proliferating electronic payment methods) in conjunction with rapidly growing regulation and compliance requirements, drove demand for add-on products and services. During the 2005 to 2015 decade, JKHY's revenue growth has been 2/3<sup>rd</sup>s organic and 1/3<sup>rd</sup> acquired, with acquisitions primarily being add-on products and services businesses. JKHY deployed approximately one third of their FCF on acquisitions during the decade.

Unlike JKHY, CSI serves a multitude of end markets. We deployed far more (>90%) of our FCF on acquisitions during the last decade. As of December 31, 2015 we had 182 BUs serving more than 75 verticals, run by 158 BU managers that rolled up into CSI via 6 Operating Groups. We usually organise each BU around a single vertical, although there are a few of our BUs that serve more than one vertical, and a many verticals served by more than one of our BUs.

The variations between each of our vertical markets is enormous. Some markets are consolidating, some not. In some we have high market share, in others we are a niche player. Some markets have compliance and technology drivers, while others rarely change their systems. Some have rapidly churning clients while others have long-lived clients. Some clients spend their own money buying systems, and some are

spending an employer's. Some buy enterprise-wide systems with significant customisation, while others buy departmental SaaS products with no customisation. Some markets have rabid venture-backed competitors with a grow-at-any-cost ethos, while others have a few rational competitors intent on making a decent living. All of these factors impact the organic growth potential of our businesses. Taking the particular industry and company factors into account, our BU managers work to develop an appropriate strategy.

A number of our businesses have strategies similar to JKHY i.e. they have built high market share in core systems via acquisition and organic growth, after which they've purchased and built add-on products to serve their clients better and drive up switching costs. JKHY appears to be willing to pay high prices for some third party add-on product businesses that might sell well into their installed base. We have tended to be more sceptical of such cross-selling synergies, perhaps because the investment decision-making has not historically been at the BU manager level. A lesson from JKHY, is that we may have been overly cautious regarding cross selling synergies.

In a variation on the "industry leader rollup with broad suite of add-ons" strategy, we sometimes acquire a group of businesses in the same market and run them independently. This can lead to duplication of costs but also tends to make for better market coverage, differentiated products and ultimately, higher market share. We have developed some add-on products to share between these BUs and sometimes share administration expenses, but the BU managers are autonomous, compete vigorously with each other, and are held accountable only for their own results. Operating with this kind of strategy, we may not be as likely to buy high growth add-on product businesses, nor invest as heavily in developing add-on products, because each BU Manager can't justify the investment based solely on his BU's installed base.

In some verticals, we are not the #1 or #2 player. There are a couple of strategies that we follow in this instance. We obviously try to use our knowledge of the vertical to acquire our way to a leadership position. That sometimes works (e.g. paratransit, mid-tier utilities, equipment rental software, homebuilding software, agricultural software, public housing software). If we are a small market share player and are unable to grow share via acquisition, we target a defensible niche within the overall market where we can differentiate our offering to compete effectively. Sometimes we can grow that niche, sometimes not. In some markets, it may not be economic to compete for new name clients. In that case, your niche has to be the clients that you already have. You target your service, support and add-on products solely at that base, and if the underlying attrition of the industry that you are serving is low, this can be a very good business model.

All of these strategies work, albeit with very different organic growth outcomes. We have tracked the IRR for all of the acquisitions that we've made since 2004 (i.e. >95% of the acquisition capital that we've deployed). When we graph the IRR's vs the post-acquisition OGr of each investment, there is little correlation. If you are really striving to see a relationship, you might argue that our best and our worst IRR's are both associated with low post-acquisition organic growth. Based on the data, there are much more obvious drivers of IRR than OGr. For instance, Revenue multiple paid (lower purchase price multiples are better - no revelation there), and post-acquisition EBITA margin (fatter margin acquisitions tend to generate better IRR's - somewhat intuitive, but needs further work).

How about a thought experiment? Assume attractive return opportunities are scarce and that you are an excellent forecaster. For the same price you can purchase a high profit declining revenue business or a lower profit growing business, both of which you forecast to generate the same attractive after tax IRR. Which would you rather buy?

It's easy to go down the pro and con rabbit hole of the false dichotomy. The answer we've settled on (though the debate still rages), is that you make both kinds of investments. The scarcity of attractive return opportunities trumps all other criteria. We care about IRR, irrespective of whether it is associated with high or low organic growth.

Organic growth can be associated with good IRR's. There are obvious techniques to improve IRR: You keep the early burn rate down while you test the major assumptions and then you add fuel to the fire once the risk associated with the low probability hypothesis testing is largely behind you. You try to test as cheaply as possible, and you move on quickly to new hypotheses. My background is in the venture industry, and that sort of hypothesis testing was what I did for eleven years. Most of our key managers earned their chops running strong organic growth verticals before building out their Operating Groups, so they're used to investing for organic growth. I don't think any of us had done an acquisition before we came to CSI. The vast majority of the CSI senior management team has a natural bias towards organic growth. But despite that bias, we strive to be rational, and only embark on Initiatives (and acquisitions) that we believe will meet our hurdle rate on a probability weighted basis.

Obviously we could do more organic growth Initiatives (and acquisitions) if we dropped our hurdle rates. We observed in early 2015, however, that lowering hurdle rates had historically been far more expensive than we originally thought. We analysed the weighted average expected IRR's for each of our acquisitions by year from 1995 to early 2015 and compared them with the prevailing hurdle rate we were using when the acquisitions were made. During that twenty year period we made three changes to the hurdle rate, one up, two down. The weighted average expected IRR for each vintage (e.g. all of the acquisitions done in 2004) of acquisitions tended to drop or increase to the newly implemented hurdle rate. Said another way, when we dropped our hurdle rate, it dragged down the expected IRR's for all the opportunities that we subsequently pursued, not just those at the margin. We try to capture this idea by saying "hurdle rates are magnetic". It now takes a very brave soul to propose a hurdle rate drop at CSI.

Only our BU managers have the intimate knowledge of their markets and teams needed to intelligently trade-off short term profitability and long term growth when they choose to sponsor an Initiative. Only they can deliver the "synergies" required to justify the acquisition of a high growth potential add-on products/services company. So if we are going to delegate the responsibility for organic growth and some of the acquisitions to the BU managers, how do we go about attracting and keeping great BU managers? I encourage you to bring up the question with our Operating Group managers at the annual general meeting ("AGM").

Our best BU managers have overseen double digit rates of growth for years via a combination of organic growth and acquisitions in their vertical and in adjacencies. That kind of low capital intensity compound growth creates powerful economics that generate remarkable incentive compensation. For BU managers that are new to the job and running a single BU, the compounding effect isn't as obvious, so we've started to roll out an additional bonus program targeted at keeping this contingent around until their wealth building potential becomes apparent. To date there are over 100 CSI employee/shareholder millionaires. Ten years from now, my hope is that there will be five times as many.

Table 2

|                  | Quarter Ended |             |             |             |             |             |             |             | Fiscal Year Ended |             |
|------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------|-------------|
|                  | Mar. 31       | Jun. 30     | Sep. 30     | Dec. 31     | Mar. 31     | Jun. 30     | Sep. 30     | Dec. 31     | Dec. 31           | Dec. 31     |
|                  | <u>2014</u>   | <u>2014</u> | <u>2014</u> | <u>2014</u> | <u>2015</u> | <u>2015</u> | <u>2015</u> | <u>2015</u> | <u>2014</u>       | <u>2015</u> |
| CSI Method       | 7%            | 5%          | 4%          | 0%          | -2%         | -4%         | -5%         | -1%         | 4%                | -3%         |
| Alternate Method | 6%            | 4%          | 5%          | 2%          | -2%         | -4%         | -4%         | -1%         | 4%                | -3%         |

As a wrap up to the organic growth discussion, Jamal, at the urging of one of the analysts who covers CSI, asked me to compare how we calculate organic growth in revenue in our quarterly Management's Discussion and Analysis ("MD&A") to a commonly used alternative method. In the MD&A we estimate the run-rate revenue of the acquired businesses at the time of their acquisition as the starting point for

subsequent organic growth measurements. The common alternative method excludes the revenue of the acquired businesses from the calculation of organic revenue growth until the first anniversary of each acquisition. In Table 2 above, we've calculated organic revenue growth for the last eight quarters using both methods. The results are very similar. There are advantages and disadvantages to each method, but we'll continue to use our historical method in the MD&A, since it more quickly reflects organic growth changes caused by acquired businesses.

### **Combined Ratio**

The final column in Table 1 is our "Combined Ratio" i.e. the sum of ROIC and OGr. We have touted the Combined Ratio as the best single measure of CSI's performance. CSI's ROIC+OGr was 35% in 2015, down significantly versus the levels achieved in the years since the last recession.

One of the problems with growing asset-lite businesses is that the historical Invested Capital required to purchase the business becomes increasingly irrelevant over time. We have a number of businesses where their current EBITA now exceeds their original purchase price. If they have achieved all of that growth organically, they have likely also reduced working capital significantly, perhaps driving the net purchase price below zero, and hence ROIC to infinity. These sorts of businesses defy conventional financial statement measurement, which is why we use IRR to track performance. Even IRR has its faults, usually to do with re-investment assumptions and the fact that it indicates neither hold period nor the amount of the investment. These faults are illustrated well by the impressive but largely unimportant IRR track record of our previous public company investments.

Since ROIC is also one of the big drivers of our incentive compensation program, we care about this "increasingly high ROIC" issue. When ROIC is very high, bonuses start to consume a disproportionate and inappropriate amount of pre-bonus net income. We've actually run into this situation a couple of times. You can either change the plan, cap the bonuses, or ask the managers to keep their profits and redeploy them in acquisitions or Initiatives.

We dislike changing bonus plans because it literally takes years for trust to re-build to the point where managers are willing to trade off short term profitability and bonus for higher longer term profitability. We saw this in spades when our major investors put CSI up for sale in 2011. ROIC increased sharply, acquisitions slowed dramatically, and Initiative spending dropped. Faced with the prospect of new owners intent on changing the bonus program and borrowing mountains of debt to acquire the business, our managers reacted as you'd expect, maximising short term profitability and bonuses at the cost of longer term growth and profitability.

The second alternative is capping bonuses. This feels like an extremely strong incentive to shift revenue and profit between good and bad years. It also undermines the utility of the accounting and information systems as management tools. Good people who might stray, become bad people in tiny steps greased by "everyone is doing it" and "it was a grey area". The last thing you want to do is build an incentive system that pushes employees out onto that slippery slope. We aren't fans of capped bonuses.

The third alternative shifts the capital allocation task down to the Operating Groups and Business Units. If they are producing handsome returns, they also need to figure out how to redeploy some of that capital. If they aren't producing good returns, we are happy for them to send excess capital back to head office. Since the Operating Groups and BUs "own" the bulk of our human resources, they also have the talent to develop opportunities and manage them (whether those opportunities are acquisitions or Initiatives). This is the alternative we've opted for when ROIC's get very high.

In the past, we've had both the Volaris and Vela Operating Groups on the "you've got to keep your capital" program, and they've responded well by deploying it at attractive rates of return. One of the nice

side effects of the “keep your capital” restriction, is that while it usually drives down ROIC, it generates higher growth, which is the other factor in the bonus formula. Acquisitions also tend to create an attractive increase in base salaries as the team ends up managing more people, capital, BUs, etc. Currently, a couple of our Operating Groups are generating very high returns without deploying much capital and we are getting to the point that we’ll ask them to keep their capital if they don’t close acceptable acquisitions or pursue acceptable Initiatives shortly. You might get some interesting dialog with the Operating Group managers at the AGM if you bring up this topic.

When we judge our own track record, we use IRR. We update the IRR forecasts for our acquisitions every quarter. The more “history”, and the less “forecast” that we have for each acquisition IRR, the better a measure it becomes of a manager’s investment performance. It takes years to figure out who are the great capital allocators. CSI’s shareholders do not have the IRR information, would question it if they did have it (by definition, it contains forecasts), and are unlikely to want to wade through the 245 acquisitions we’ve made since 2004 (to December 31, 2015). Divulging the information would arm our competitors with acquisition pricing information so that they can bid against us more effectively, and acquisition performance data so that they can compete with us in our most attractive markets. So providing IRR information isn’t the right way to keep shareholders informed.

Years ago, we settled on the Combined Ratio as a proxy for the growth in intrinsic value. If you assume that we continue to invest our entire FCF in acquisitions, and that the economics of our acquisitions are similar to those that we’ve demonstrated over the years, then ROIC+OGr is a reasonable (but somewhat overstated) proxy for the increase in intrinsic value. However, if we start paying higher multiples for acquisitions or using significant amounts of debt to either make more acquisitions, buy back shares and/or pay dividends, then the Combined Ratio metric can quickly become misleading. We’re starting to look around for a better single metric to reflect the growth in intrinsic value.

### **Maintenance Growth and Attrition**

The Maintenance growth and attrition statistics appear in Table 3. We have removed the estimated impact of foreign exchange from the “Price Increases and Other” category. FX was a big number this year, driving down our Maintenance growth by 6%. Total organic growth in Maintenance revenue was 7% in 2015, down slightly from last year. Lost module attrition is back down to its historical levels after an acquisition related increase last year. Acquisitions provided the bulk of the growth in 2015.

One of the concerns with acquisitive companies is that some of them grow revenues and adjusted earnings but impair the underlying value of their intangible assets. In essence what purports to be a return on capital is really a return of capital. We present these Maintenance statistics each year so that you can see if the Maintenance base is growing or shrinking organically. Our thesis is that as long as the base is growing organically, the value of the business is growing and our shareholders are getting a return on capital, not of capital. The 2015 numbers continue to support the thesis, albeit muddled by the estimated FX numbers.

As we caution you each year with regard to this table, while the totals are materially the same as our Maintenance revenue for financial reporting purposes, the individual components reflected in the table are generated by examining and categorising tens of thousands of records. The estimated FX adjustment was calculated by translating the Maintenance amounts in major foreign currencies into U.S. dollars at the average FX rates for each year. We believe that the data presented is a fair illustration of the trends in our Maintenance base.

Table 3

|                                     | 2006       | 2007       | 2008       | 2009       | 2010       | 2011       | 2012       | 2013       | 2014         | 2015         |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|--------------|
| <b>Maintenance Revenue (US\$MM)</b> | <b>116</b> | <b>142</b> | <b>193</b> | <b>252</b> | <b>337</b> | <b>417</b> | <b>510</b> | <b>725</b> | <b>1,015</b> | <b>1,170</b> |
| <b>Growth from:</b>                 |            |            |            |            |            |            |            |            |              |              |
| Acquisitions                        | 17%        | 11%        | 25%        | 27%        | 25%        | 15%        | 15%        | 34%        | 32%          | 15%          |
| Organic Sources                     |            |            |            |            |            |            |            |            |              |              |
| a) New Maintenance                  | 15%        | 9%         | 9%         | 8%         | 8%         | 8%         | 8%         | 10%        | 10%          | 8%           |
| b) Price Increases and other        | 5%         | 9%         | 9%         | 4%         | 6%         | 5%         | 5%         | 6%         | 7%           | 5%           |
| c) Attrition - Lost Modules         | -2%        | -2%        | -3%        | -3%        | -3%        | -2%        | -2%        | -2%        | -4%          | -2%          |
| d) Attrition - Lost Customers       | -4%        | -4%        | -4%        | -4%        | -4%        | -3%        | -4%        | -5%        | -5%          | -5%          |
| Total Organic Growth*               | 14%        | 12%        | 10%        | 4%         | 7%         | 7%         | 8%         | 8%         | 8%           | 7%           |
| Estimated effect of FX              | 0%         | 0%         | 0%         | -1%        | 1%         | 2%         | -1%        | -1%        | -1%          | -6%          |
| Total Maintenance Growth *          | 31%        | 23%        | 35%        | 31%        | 34%        | 24%        | 22%        | 42%        | 40%          | 15%          |

\* Certain totals may not reconcile due to rounding

### Revenue per Share

Table 4 contains a couple of IFRS/GAAP metrics that we think are useful for our investors. Revenue growth is an upper-bound setter, since the growth rate of net income, ANI, cash flow from operating activities and dividends are all ultimately going to be limited by the revenue growth rate.

Table 4

|      | Total Revenue<br>per Share |              | Cash Flow from<br>Operating Activities<br>per Share |              |
|------|----------------------------|--------------|-----------------------------------------------------|--------------|
|      |                            | YoY $\Delta$ |                                                     | YoY $\Delta$ |
| 2006 | 10.01                      | 23%          | 1.36                                                | 12%          |
| 2007 | 11.47                      | 15%          | 1.62                                                | 19%          |
| 2008 | 15.60                      | 36%          | 2.96                                                | 83%          |
| 2009 | 20.67                      | 32%          | 3.85                                                | 30%          |
| 2010 | 29.92                      | 45%          | 5.06                                                | 32%          |
| 2011 | 36.49                      | 22%          | 6.49                                                | 28%          |
| 2012 | 42.05                      | 15%          | 6.83                                                | 5%           |
| 2013 | 57.13                      | 36%          | 10.40                                               | 52%          |
| 2014 | 78.77                      | 38%          | 16.11                                               | 55%          |
| 2015 | 86.75                      | 10%          | 18.68                                               | 16%          |
| CAGR |                            | 27%          |                                                     | 31%          |

In 2015 CSI's revenue per share increased 10%. This was our worst performance since 2002.

The HPCs averaged 9% per annum revenue per share growth over the last decade. JKHY averaged 10%.

Absent enough attractive opportunities to deploy capital, I would not be hugely disappointed with a 10% annual increase in CSI's revenue per share over the next five years, so long as we also started paying significant dividends. We will obviously try to do better, and have refinanced our revolving line of credit and raised incremental debentures to put ourselves into a position where we are not capital constrained if we find acquisitions that meet our hurdle rate.

### **Cash Flow from Operating Activities per Share**

CSI's cash flow from operating activities ("CFOA", column 4, Table 4) per share increased 16% in 2015. Note that CFOA is a defined term under IFRS and is shown in this table, as it is in our financial statements for 2010 and beyond, before the deduction of interest paid. CSI's CFOA per share will eventually be limited by our growth in revenue per share.

Last year I suggested that CFOA less interest paid (for 2010 and subsequent years) and capital expenditures all calculated on a per share basis was a good way to look at CSI's results. That's a non-IFRS metric, so all the associated warnings apply.

### **Great Companies Are Not Always Great Stocks**

There's one last lesson from JKHY that I'd like to share. It relates to you as shareholders. There was a ten year period during which JKHY's shares both underperformed the S&P 500 (2000 until 2010) and didn't make any money for shareholders. The underperformance vs the S&P 500 was minor ... approximately 1%. JKHY's revenues per share and ANI per share had compound average annual growth rates of 14% and 21%, respectively during that decade. Why did stock results and operating results diverge so widely for such a long period? It had to do with shareholder expectations and market exuberance. The general mania which gripped the market in 2000, and the more specific enthusiasm for JKHY's stock which then traded at well over 60 times ANI, left shareholders incredibly vulnerable. When the market "corrected" the JKHY stock had no margin of safety.

When really good companies start trading at 5 and 6 times revenues, it's time to start worrying. I hope our shareholders are never in that position.

### **Partners**

In last year's letter I explained that the directors and I had worked out a plan where I was to work less and get paid less. After more than a year under that regime, I'm not complaining, and the directors don't seem uncomfortable.

More important, our shareholders seem comfortable with my new "partner not employee" arrangement. I was pleased to see that this year's AGM proxies still overwhelmingly voted for both our inside and outside directors.

I'd like to thank our shareholders and our employees for their continued support.

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I sometimes recommend books. I don't do this lightly, as I know they can be an obligation (sometimes felt heavily) to spend precious time. I feel better when I remember Will Rogers' advice about learning by readin'.

The books that I recommended in previous letters were summaries of seminal scientific research. This year I'd like to propose that you read "*One Man's Medicine: An Autobiography of Professor Archie Cochrane*", and "*Effectiveness and Efficiency, Random Reflections on Health Services*", both by A. L. Cochrane. I'm sneaking in two books because they are both thin. Once again the books contain summaries of scientific research, this time in epidemiology.

The first book is a moving, idiosyncratic and dryly amusing autobiography of a brilliant and erudite outsider that makes you wish you'd known the man firsthand.



The second is a stinging critique of a well-meaning but entrenched medical establishment, for their ineffective and dangerous medical practices.

While the epidemiology is interesting and surprisingly relevant even today (people change incredibly slowly!), Archie's observations regarding medical practices and doctors struck me as applying equally to business practices and managers. The asymmetric effectiveness of most medical treatments, rarely influencing positive outcomes while frequently contributing to negative ones, made me think critically about what I and most other managers do.

Archie's legacy is a worldwide volunteer organisation (Cochrane.org) consisting of 37,000 contributors in 130 countries producing systematic reviews of medical research so that researchers, doctors, and patients have access to the most recent evidence from randomised controlled trials "RCTs" to make healthcare decisions.

The progress in business knowledge is painfully slow and is fraught with guru's generalising from plausible anecdotes. A little more experimentation (in the old sense of the word, i.e. testing hypotheses) would go a long way towards improving business practices.

At CSI we spend time on non-randomised observational studies (the red haired step-child of RCTs) trying to spot business practices that actually add value rather than overhead. One of our analysts recently looked at the correlation of increased customer spending with a host of factors and found a single significant correlation. That finding may be an aberration, or it may be a way to unlock untapped organic growth. While I was interested in the analysis, I was incredibly proud of the people involved. Without questioning minds and willing participants providing data, you can't even start to solve the important questions.

We will be hosting the AGM on Thursday, April 28<sup>th</sup>. Many of our Directors and Officers and a number of our employee shareholders will be in attendance. We look forward to talking about our business and answering your questions. We hope to see you there.

Mark Leonard April 26<sup>th</sup>, 2016  
President  
Constellation Software Inc.

## Glossary

For 2009 and prior periods, the financial information for CSI was derived from the consolidated financial statements which were prepared in accordance with Canadian generally accepted accounting principles (“GAAP”). 2010 and subsequent year financial information for the Company was derived from the consolidated financial statements which were prepared in accordance with International Financial Reporting Standards (“IFRS”). Certain totals, subtotals and percentages may not reconcile due to rounding.

“Adjusted net income” effective Q1 2008, means adjusting GAAP or IFRS net income for non-cash expenses (income) such as amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other expenses (income), and excludes the portion of the adjusted net income of Total Specific Solutions (TSS) B.V. (“TSS”) attributable to the minority owners of TSS. Prior to Q1 2008, Adjusted net income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The calculation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted net income figures have been restated in the table above to reflect the new calculation method. The Company believes that Adjusted net income is useful supplemental information as it provides an indication of the results generated by the Company’s main business activities prior to taking into consideration amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other non-cash expenses (income) incurred or recognized by the Company from time to time, and adjusts for the portion of TSS’ Adjusted net income not attributable to shareholders of CSI.

“Average Invested Capital” represents the average equity capital of the Company, and is based on the Company’s estimate of the amount of money that its common shareholders had invested in CSI. Subsequent to that estimate, each period the Company has kept a running tally, adding Adjusted net income, subtracting any dividends, adding any amounts related to share issuances and making some minor adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles. The Company believes that Average Invested Capital is a useful measure as it approximates the retained earnings of the Company prior to taking into consideration amortization of intangible assets, deferred income taxes, and certain other non-cash expenses (income) incurred or recognized by the Company from time to time. ROIC” means Return on Invested Capital and represents a ratio of Adjusted net income to Average Invested Capital. The Company believes this is a useful profitability measure as it excludes non-cash expenses (income) from both the numerator and denominator.

“Net Revenue”. Net Revenue is gross revenue for GAAP or IFRS purposes less any third party and flow-through expenses. The Company believes Net Revenue is a useful measure since it captures 100% of the license, Maintenance and services revenues associated with CSI’s own products, and only the margin on the lower value-added revenues such as commodity hardware or third party software.

“Total Capital” is the sum of Net debt plus Invested Capital

“Net Debt” is debt less cash.

“Free Cash Flow” in this letter, unlike under IFRS is cash flow from operating activities less interest paid and property and equipment purchased.

“EBITA” is earnings before interest, taxes and the amortisation of intangible assets.

“EBITA Return” is EBITA/Total Capital

“HPCs”: Ametek, Danaher, Dover, Illinois Tool Works, Roper, Jack Henry & Associates, Transdigm, and United Technologies.

As part of this letter, we have compared CSI with the HPCs using many commonly used financial metrics. The financial metrics principally used to compare CSI with the HPCs are: adjusted net income (ANI), earnings before interest, taxes and amortization (EBITA), return on invested capital (ROIC), Total Capital, Net Debt, EBITA Return, and Free Cash Flow. We have had to rely on publically available information in order to calculate the financial metrics for the HPCs. It should also be noted that there will be differences between how the financial metrics are calculated for CSI and each of the HPCs.

### Forward Looking Statements

Certain statements in this letter may contain “forward looking” statements that involve risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company or industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Words such as “may”, “will”, “expect”, “believe”, “plan”, “intend”, “should”, “anticipate” and other similar terminology are intended to identify forward looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance as of the date of this letter. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. Although the forward looking statements contained in this letter are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward looking statements. These forward looking statements are made as of the date of this letter and the Company assumes no obligation, except as required by law, to update any forward looking statements to reflect new events or circumstances. This report should be viewed in conjunction with the Company’s other publicly available filings, copies of which can be obtained electronically on SEDAR at [www.sedar.com](http://www.sedar.com).

### Non-GAAP/IFRS Measures

Adjusted net income and Organic Net Revenue Growth are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted net income and Organic Net Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company’s liquidity and cash flows. The Company’s method of calculating Adjusted net income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to CSI’s most recently filed Management’s Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.

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“optimism is highly valued, socially and in the market; people and firms reward the providers of dangerously misleading information more than they reward truth tellers” Daniel Kahneman

“What accounts for TIT FOR TAT’s robust success is its combination of being nice, retaliatory, forgiving, and clear.” Robert Axelrod

“I ended up writing the book... between the hours of 10:00 pm and 1:00 am when I had finished everything else. I date the real beginnings of my love of whiskey to this period.” Archie Cochrane

“There are three kinds of men. The ones that learn by readin’. The few who learn by observation. The rest of them have to pee on the electric fence for themselves.” Will Rogers

## Constellation Software Inc.

### TO OUR SHAREHOLDERS

Last year I used our study of high-performance conglomerates (“HPC’s”) as a framework for this letter. One of the findings from studying the HPC’s was that they followed a multi-decade pattern, with extraordinary returns in asset-light businesses in their early days, followed by a period of attractively priced acquisitions to which they applied their increasingly refined operating practices. Eventually, they drifted towards paying higher multiples for larger acquisitions as the HPC’s became very large. The high acquisition prices led to declining pre-tax, pre-interest returns on Total Capital. While the average return on Total Capital for the HPC’s still exceeds that of the S&P 500, it is much closer to that benchmark now than it was fifteen years ago.

In the last couple of years, a number of journalists and analysts have hinted that the Constellation Software Inc. (“CSI”) historical performance is too good to be true. They frequently conclude, in the best case, that our performance will revert to the mean. Reversion towards the mean is consistent with what we found for all the HPC’s, so I don’t disagree with their observation. Our goal, however, is to have our return on Total Capital revert to the mean as slowly as possible, while still deploying most of the Free Cash Flow (“FCF”) that we generate.

Table 1

|      | Adjusted Net<br>Income<br>(a) | Average<br>Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-------------------------------|--------------------------------|------|----------------------------------------|-----------------------------------------|
| 2007 | 33                            | 154                            | 22%  | 1%                                     | 23%                                     |
| 2008 | 54                            | 195                            | 28%  | 5%                                     | 33%                                     |
| 2009 | 62                            | 256                            | 24%  | -3%                                    | 21%                                     |
| 2010 | 84                            | 325                            | 26%  | -2%                                    | 24%                                     |
| 2011 | 140                           | 394                            | 36%  | 7%                                     | 43%                                     |
| 2012 | 172                           | 491                            | 35%  | 2%                                     | 37%                                     |
| 2013 | 207                           | 585                            | 35%  | 4%                                     | 39%                                     |
| 2014 | 274                           | 739                            | 37%  | 3%                                     | 40%                                     |
| 2015 | 371                           | 965                            | 38%  | -3%                                    | 35%                                     |
| 2016 | 395                           | 1261                           | 31%  | 1%                                     | 32%                                     |

(a) Historical figures restated to comply with revised definition.

In our non-GAAP results for 2016 (Table 1), you can see evidence of reversion to the mean. Adjusted Net Income grew only 6% in 2016, as compared to our ten-year compound average growth rate (“CAGR”) of 31%. Our Average Invested Capital grew 31% as compared to our ten year CAGR of 26%. On the face of it, the increasingly rapid accumulation of Invested Capital is attractive, but only if we can invest that capital at high rates of return. ROIC was 31% in 2016, in line with our 10-year average, but lower than we’ve achieved in each of the last five years. ROIC was depressed because we were unable to invest all of our FCF during 2016 and so were carrying excess cash by year-end, and because we made a number of larger acquisitions with lower returns over the last couple of years. Organic Net Revenue Growth for the year was 1%, an improvement vs. 2015, but below our 10-year average.

We have just completed the Maintenance Revenue analysis (Table 2) for 2016. The same cautions apply to this year's analysis as to those in prior years, i.e. while the totals are materially the same as our Maintenance Revenue for financial reporting purposes, the individual components reflected in the table

are generated by examining and categorising tens of thousands of records, and the estimated FX adjustment was calculated by translating the Maintenance amounts in major foreign currencies into U.S. dollars at the average FX rates for each year. We believe that the data presented is a fair illustration of the trends in our Maintenance base.

Total organic growth in Maintenance Revenue declined to 5% for 2016. In my letter last year, I explained that we sometimes buy shrinking businesses, and despite the shrinkage, we still expect to generate good returns on those investments. Growing businesses are more attractive to us, but we can't always acquire enough growing businesses at reasonable prices to invest all of our FCF. Our "next best" use of capital is acquiring shrinking VMS businesses which still meet or exceed our hurdle rate. Mixing growing and contracting businesses in one company creates a number of interesting cultural and management challenges. This might be a lively discussion topic for shareholders to raise with our management team during the Annual General Meeting (AGM). During the last few years we purchased several healthcare software businesses and a real estate software business that were all contracting, but generating strong current results. Those acquisitions improved our short-term profitability but depressed our organic growth rate in Maintenance Revenue by over 1% in 2016.

Table 2

| (US\$MM)                         | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|
| <b>Maintenance Revenue</b>       | 142  | 193  | 252  | 337  | 417  | 510  | 725  | 1015 | 1170 | 1400 |
| <b>Growth from:</b>              |      |      |      |      |      |      |      |      |      |      |
| Acquisitions                     | 11%  | 25%  | 27%  | 25%  | 15%  | 15%  | 34%  | 32%  | 15%  | 16%  |
| Organic Sources                  |      |      |      |      |      |      |      |      |      |      |
| a) New Maintenance               | 9%   | 9%   | 8%   | 8%   | 8%   | 8%   | 10%  | 10%  | 8%   | 9%   |
| b) Price Increases & Other       | 9%   | 9%   | 4%   | 6%   | 5%   | 5%   | 6%   | 7%   | 5%   | 5%   |
| c) Attrition- lost modules       | -2%  | -3%  | -3%  | -3%  | -2%  | -2%  | -2%  | -4%  | -2%  | -4%  |
| d) Attrition- lost customers     | -4%  | -4%  | -4%  | -4%  | -3%  | -4%  | -5%  | -5%  | -5%  | -5%  |
| <b>Total organic growth*</b>     | 12%  | 10%  | 4%   | 7%   | 7%   | 8%   | 8%   | 8%   | 7%   | 5%   |
| Estimated effect of FX           | 0%   | 0%   | -1%  | 1%   | 2%   | -1%  | -1%  | -1%  | -6%  | -2%  |
| <b>Total maintenance growth*</b> | 23%  | 35%  | 31%  | 34%  | 24%  | 22%  | 42%  | 40%  | 15%  | 20%  |

\* Certain totals may not reconcile due to rounding

Our overall organic growth in revenue has averaged 2% during the last 10 years. The organic growth in Maintenance Revenue has averaged close to 8%. The discrepancy between the two figures has been possible because Maintenance Revenue as a portion of total revenue has increased. While some of the change in revenue mix is due to the elimination of low-margin, non-Maintenance activities, a portion is because we have knowingly traded off one-time licenses for increased recurring revenues. To some extent, particularly where we've adopted a SaaS model, we may have also traded off professional service revenues for increased recurring revenue. These trade-offs create revenue streams that are more stable and make managing our businesses easier. As Maintenance Revenue becomes a larger portion of total revenues, the discrepancy between the organic growth in total revenue and Maintenance Revenue is likely to be smaller.

This will be the last year that we present the Maintenance analysis in this format. Our business units ("BU's") monitor customer health in many ways and tend to do so on a much shorter cycle than annually. When we ask them to produce the information in Table 2, there is a large, unautomated process of classifying data and making it consistent between BU's. The benefit of providing this information for shareholders feels like it is outweighed by the effort of compiling it, if we can do it another way. For reporting purposes, Jamal began (last quarter) an alternative process of measuring organic growth by revenue stream, including maintenance, on a quarterly basis. This is a top-down analysis, and can be done quickly without a lot of ad hoc effort. Jamal will describe the calculation in managements' discussion of the Q1 results, but a significant difference is that instead of using only the prior year's Maintenance Revenue as the denominator for the growth calculations, he adds a run-rate assumption for acquired Maintenance Revenue to the denominator for such calculations. We will be reporting that data quarterly, and will provide quarterly historical comparisons going back to Q1 2016. While the information presented will not be as detailed as in Table 2, the increased frequency of reporting should be valuable for our shareholders.

Because some of our shareholders prefer IFRS-sanctioned data, we regularly present a couple of IFRS metrics that we find informative (Table 3). Total revenue per share increased 16% in 2016, up from 10% the prior year but down from the 26% CAGR that we achieved during the last decade. I consider 16% growth in Revenue per Share to be superb performance. The S&P 500's Revenue per Share grew less than 3% in 2016 and its growth has averaged 2% for the last decade.

Our Cash Flow from Operating Activities per Share grew 24% in 2016, down from the 33% CAGR that we achieved during the last decade. The S&P 500 seems to have grown its Cash Flow from Operating Activities per share in the mid to high single digit percentage range during the last decade, depending upon which source you believe, and whether financial companies are included in the calculation or not. CSI has done an outstanding job of growing cash flow per share, but that surfeit of cash contributes to our reinvestment challenges.

Table 3

|      | Total Revenue<br>per Share | YoY $\Delta$ | Cash Flow from Operating<br>Activities per Share | YoY<br>$\Delta$ |
|------|----------------------------|--------------|--------------------------------------------------|-----------------|
| 2007 | 11.47                      | 15%          | 1.62                                             | 19%             |
| 2008 | 15.60                      | 36%          | 2.96                                             | 83%             |
| 2009 | 20.67                      | 32%          | 3.85                                             | 30%             |
| 2010 | 29.92                      | 45%          | 5.06                                             | 32%             |
| 2011 | 36.49                      | 22%          | 6.49                                             | 28%             |
| 2012 | 42.05                      | 15%          | 6.83                                             | 5%              |
| 2013 | 57.13                      | 36%          | 10.40                                            | 52%             |
| 2014 | 78.77                      | 38%          | 16.11                                            | 55%             |
| 2015 | 86.75                      | 10%          | 18.68                                            | 16%             |
| 2016 | 100.28                     | 16%          | 23.16                                            | 24%             |
| CAGR |                            | 26%          |                                                  | 33%             |

CSI is still an exceptional company by most standards, but we are clearly not performing as well as we have in the past. Part of that slippage is due to external factors. Part of it is due to internal execution issues.

Externally, competition to buy vertical market software ("VMS") businesses is intense. Vista Equity Partners and Thoma Bravo are two of the most prominent private equity ("PE") firms that concentrate on

software acquisitions. Roper Industries is a large publicly traded industrial conglomerate that we included in our HPC study and that also actively competes for VMS acquisitions. Vista currently manages approximately \$28 billion of capital and Thoma Bravo is managing approximately \$16 billion. Both have raised multi-billion dollar funds in the last couple of years. CSI is currently managing only \$1.4 billion of capital. In the last 9 years, Roper Industries has invested five times as much capital in the VMS sector as CSI has since its inception, 22 years ago.

In addition to these three daunting competitors, there are a dozen or so PE firms who each manage in excess of a billion dollars and who have well-established software track records. At the lowest end of the market, every quarter we seem to profile for our Operating Group Managers at least one new competitor that proposes to create a CSI look-alike. A number of these new competitors are trolling our employee base for talent. This much capital targeting the VMS sector has driven and will continue to drive up purchase price multiples.

The internal execution issues upon which we currently focus are: Maintaining investment discipline, avoiding overhead creep, and increasing our investment in growth, both organic and acquired. Even if we execute superbly on the first two, it is difficult to foresee consistent multiyear growth in intrinsic value per share (assuming that dividends are reinvested) that exceeds 10% to 12%.

#### Maintaining Investment Discipline:

I recently worked on a large transaction. With every day that passed, I could feel my commitment to the process growing... not because the news was getting better, just because I was spending more time on the prospect. The investment didn't quite meet our hurdle rate. We were not able to negotiate a structure that got us an extra couple of points of IRR, and the big one got away. The difference between investing and not, was tiny.

Currently, we have 26 Operating Group and Portfolio Managers who spend >50% of their time on M&A, and another 60 full-time M&A professionals spread across CSI. We are trying to ramp up our M&A capacity from the 40 acquisitions that we did last year, to 100 per annum. It was useful for me to once again experience the temptations that these people face every day. It also reaffirmed for me that when we pursue a very large acquisition, the diligence, structuring, negotiating and integration needs to be led by a single person who is one of our highly-experienced acquirers, and who will shoulder responsibility for the process and the outcome.

Bernie tries to be the last line of defense when our Operating Groups and BU's propose borderline investments. Some of our Operating Groups have developed or are developing senior M&A people to help Bernie filter out over-optimistic acquisition proposals, but Bernie is still the primary provider of this acquisition control function for some of the Operating Groups.

If a small investment with a borderline hurdle rate is proposed, we sometimes allow it to proceed. Our rationale is that if the investment goes sideways, then it becomes a "lesson" for the Operating Group or BU personnel that proposed it. If the investment goes well, it becomes a "lesson" for Bernie and me.

An investment only becomes a lesson if we diligently track its post-acquisition performance and take the time to analyse the outcome while the investment is still fresh in everyone's mind. We have a process for this that we call a post-acquisition review, or "PAR". We try to schedule the PAR's about a year after the initial investment. The PAR's originated as a head office led process approximately four years ago. Just over a year ago, we started delegating them down to the Operating Groups.



One of the useful things that head office can do, is pilot new processes and champion new ideas. If the ideas add enough value to the BU's and Operating Groups, and they choose to maintain them, then I'm delighted. Nevertheless, I think all processes should be periodically re-examined for their cost and benefit. An ad-hoc analysis done to understand a problem or opportunity is more likely to translate into action than a quarterly report that gets generated because "we've always done it that way". The former requires curiosity and intelligence, the latter bureaucracy and compliance. If the Operating Groups can learn from their acquisitions by some less burdensome method than PAR's, I'm all for it.

As we teach more people at CSI how to deploy capital, we lean on the accumulated data from our historical acquisitions to help maintain investment discipline. We have base rates for a variety of key operating metrics. Whether it is a neophyte investment champion arguing that a particular acquisition is "special", or a senior executive being tempted by a large acquisition, we have enough data to make the discussion rational, not emotional. We all know whether the key assumptions are being pushed to the 55<sup>th</sup> or 95<sup>th</sup> percentiles of our historical distributions.

My only significant concern regarding investment discipline, is that we'll be tempted to drop our hurdle rates as our cash balances climb.

#### Avoiding Overhead Creep:

Overhead creep is a short-term concern of mine and the BU Managers.

It is human nature to build empires. The slippery slope looks something like this:

I add value to the CSI Operating Groups and BU's, and CSI is doing well, hence the expenditures that I make at head office are justified.

Our Operating Group Managers add value to their BU's, and their Operating Groups are doing well, hence their expenditures are justified (although they find the expenditures at head office questionable).

The Portfolio Managers who work for the Operating Group Managers add value to their BU's hence their expenditures are justified, etc., etc.

There's no real feedback in the process, until the costs of head office, the Operating Groups, the Portfolio Managers and their staff, and the Player/Coaches who work for the Portfolio Managers, all get allocated down to the BU's. We do this allocation, but the BU Managers often don't feel that they can control allocated overheads.

The only way we've been able to consistently stifle overhead growth at head office is to arbitrarily limit headcount additions. That has allowed us to reduce the head office burden from 3.0% of Net Revenue in 2004, to 0.5% last year. We hope it will be lower in 2017.

I have struggled to find a less arbitrary means of appropriately sizing overheads. A couple of years ago, our head office tax folks seemed to have an insatiable appetite for increased headcount. I couldn't argue with their justification, but I asked them to start billing the Operating Groups for the incremental services, separate from our normal overhead allocation. There were two short-term results... our head office tax people hated billing the Operating Groups and justifying their bills, and one of the Operating Groups went off and hired their own tax person. The long-term result also pleased me: the head office tax people have stopped asking about hiring additional staff. Now, if I could just figure out how to stop them spending all that money with outside tax consultants...

Each of the Operating Groups is the equivalent of what CSI was ten years ago (plus or minus three years). If every Operating Group manages to develop six or seven Portfolio Managers to whom they can download the monitoring, coaching and acquisition control functions, and seeks to operate their

remaining overheads with cost parameters similar to those that CSI's head office exhibited at the comparable time/size of portfolio, then overhead creep should be controllable.

#### Increasing Investment in Growth, both Organic and Acquired

This is a big topic. The Operating Group Managers and I are concerned that our BU's are not investing enough in the pursuit of profitable Organic growth. Equally important, we would like to see the company investing all of its FCF (and perhaps more) in acquisitions.

I believe that optimising organic growth investment is the single toughest management task in software. It requires a long-term orientation and an intimate understanding of customers and capabilities from our BU Managers. Historically, organic growth has not been a struggle for our best BU Managers. When most of our current Operating Group Managers ran single BU's, they had strong organic growth businesses. As those managers gave up their original BU management position to oversee a larger Group of BU's (i.e. became Portfolio Managers), the organic growth of their original BU's decreased and the profitability of those BU's increased. Perhaps those trade-offs were rational and inevitable, and it was just a function of maturing verticals and higher market share. Nevertheless, once you've experienced higher organic growth with all of its ancillary benefits for employees and for the depth and radius of your business moat, the move towards higher profit and lower growth is much less satisfying. Across the board, our Operating Group Managers have organic growth as the primary objective for their BU Managers.

When we study organic growth, there are no easy answers from CSI's data. We are just as likely to have good organic growth in our small BU's as in our large ones. We are just as likely to have good profitability in our small BU's as in our large ones. If you believe that small implies agile and responsive, then the former observation is counter-intuitive. If you believe that economies of scale are the primary drivers of profitability in the software business, then the latter observation is counter-intuitive.

One of my research acquaintances says that most people keep torturing the data until it confesses. In this instance, we can do that... we can make a case for "small is beautiful". Our businesses with fewer than 100 employees are a tiny bit more profitable and have a bit more organic growth. Unfortunately, we can flip that finding by excluding only a couple of outlier data points. Despite the lack of compelling data, I believe that small BU's are more manageable and do a better job of serving clients in the VMS industry. Sometimes belief and gut feel are all you have, and you must act upon them until there's more evidence to influence your thinking.

CSI's BU demographics (as of December 2016) appear below. There are some BU's that are independent but are run by the same BU manager, that get aggregated as single BU's into this tally, i.e. the total number of BU's is slightly higher and the average size is slightly lower than indicated in Table 4.

Table 4

| # of BU's | BU Size (Employees) |
|-----------|---------------------|
| 6         | >200                |
| 29        | 100-200             |
| 158       | <100                |

CSI's strategy is to be a good owner of hundreds (and perhaps someday thousands) of growing autonomous small businesses that generate high returns on capital. Our strategy is unusual. Most CEO's of public companies would rather run a single big business - perhaps two or three big businesses, but rarely 200 businesses. They expect (or hope) to get above average returns on capital by pursuing

economies of scale and by crushing or acquiring their smaller competition. "We are #1 in this large and growing market" is their normal aspirational paradigm. It's also a formula with which shareholders, analysts and boards are comfortable. We recognise that economies of scale, centralised management and world class talent competing in large and growing markets can be a great business-building formula. But, it isn't what we do.

We seek out vertical market software businesses where motivated small teams composed of good people, can produce superior results in tiny markets. These markets are usually characterised by a gradually consolidating customer base, so partnering with the right clients, and helping them survive and prosper is an important part of our job. What we offer our BU Managers is autonomy, an environment that supports them in mastering vertical market software management skills, and the chance to build an enduring and competent team in a "human-scale" business.

While we have developed some techniques and best practices for fostering organic growth, I think our most powerful tool is using human-scale BU's. When a VMS business is small, its manager usually has five or six functional managers to work with: Marketing & Sales, Research & Development ("R&D"), Professional Services, Maintenance & Support and General & Administration. Each of those functional managers starts off heading a single working group. If the business leader is smart, energetic and has integrity, these tend to be halcyon days. All the employees know each other, and if a team member isn't trusted and pulling his weight, he tends to get weeded-out. If employees are talented, they can be quirky, as long as they are working for the greater good of the business. Priorities are clear, systems haven't had time to metastasise, rules are few, trust and communication are high, and the focus tends to be on how to increase the size of the pie, not how it gets divided. That's how I remember my favourite venture investments when I was a venture capitalist, and it's how I remember many of the early CSI acquisitions.

That structure usually suffices until there are perhaps 30 to 40 people in the business. At that stage, some of the teams - perhaps R&D if the product is rapidly evolving or has high needs for interfaces or compliance changes - must grow beyond the five to nine optimal team size. If the head of R&D in this example is brilliant and is willing to work hours that are unsustainable for most of us, he may be able to parse out tasks for each of the team members despite the increased team size. He may be able to judge the capabilities and cater to the development needs of each of his direct reports. He may be able to recruit excellent new employees, and he may be able to manage the demands and trade-offs required to co-ordinate with the other functional managers. The more likely outcome, is that the R&D manager isn't a brilliant workaholic and cannot cope as the team size exceeds double digits. Instead, he'll break his team up into multiple teams. A new level of middle managers will be born, with all the potential for overhead creation, politics, and bureaucracy that comes with another tier of middle managers.

The larger a business gets, the more difficult it becomes to manage and the more policies, procedures, systems, rules and regulations are generated to handle the growing complexity. Talented people get frustrated, innovation suffers, and the focus shifts from customers and markets to internal communication, cost control, and rule enforcement. The quirky but talented rarely survive in this environment. A huge body of academic research confirms that complexity and co-ordination effort increase at a much faster rate than headcount in a growing organisation.

If the BU is small enough, and has a competent BU manager who has several years experience in the vertical, and good functional managers, then he/she will be able to cope with complexity for a while, making the right calls to optimise organic growth as the business grows. The challenge of running a BU of this size is human-scaled. As a BU becomes larger (by our standards, that's greater than 100 employees), I worry that even an extraordinarily brilliant and energetic manager, who has been in the vertical and the BU for a very long time, and is surrounded by a strong team that he/she has selected and

trained and winnowed over many years, is going to struggle to steer the business to above industry-average organic growth.

No one wants to admit that they've hit their limit. Some BU Managers lack the humility, some lack the courage, and most lack the time for reflection, to notice that their task is getting too large, and the sacrifices are getting too great. This is the point at which our Operating Group Managers or Portfolio Managers can provide coaching. If a large BU is not generating the organic growth that we think it should, the BU manager needs to be asked why employees and customers wouldn't be better served by splitting the BU into smaller units. Our favourite outcome in this sort of situation is that the original BU Manager runs a large piece of the original BU and spins off a new BU run by one of his/her proteges. Ideally, he/she has been grooming a promising functional manager who'll be enthusiastic about running and growing a tightly focused, customer-centric BU.

This dividing of larger BU's into smaller units is rare, but not unknown, in other large companies. One of the HPC's that we studied was Illinois Tool Works Inc. ("ITW"). It has hundreds of BU's. We began following the company from afar in 2005. The most relevant period in ITW's history for CSI was the tenure of John Nichols. Nichols began consulting to ITW in 1979, and appears to have been the primary author of its decentralisation strategy. He was CEO as the company went from \$369 million in revenues in 1981 to \$4.2 billion in 1995 (\$6.7 billion in today's dollars). Prior to Nichols's tenure, ITW had acquired only 3 businesses. During his tenure, ITW aggressively acquired and often split the larger acquisitions into smaller BU's. ITW had 365 separate operating units by 1996 when Nichols retired. I'm sorry I didn't reach out to some of the ITW employees and ex-employees until 2015. When I did talk with one of the senior managers, he said (I'm paraphrasing) "Something wonderful happens when you spin off a new business unit." ... "With a clean sheet of paper, the leader only takes those he needs. They set up in an open office with good communication and no overheads. They cover for each other. They leave all the bureaucracy and the crap behind". I did record a couple of verbatim quotes from that conversation: "Don't share sales, R&D, HR, etc. because the accountants never get the allocations right and the business units always treat the allocated costs as outside their control", and "When you get big you lose entrepreneurship".

I don't want to give you the impression that the "human-scale" BU idea is a universally accepted doctrine in our ranks. For that, I suspect we'd need more compelling data. However, we have been successfully experimenting with the concept for a long time. Volaris and TSS regularly divide their larger BU's into smaller BU's that focus on sub-segments of their markets. Volaris feels strongly that splitting larger BU's into smaller ones allows more targeted products and services that differentiate their offerings from their more horizontal competitors. Harris has very successfully acquired multiple BU's in the same industry and run them independently rather than combining them into one BU. Both tactics forego obvious and easily obtainable benefits from economies of scale. We think we get something valuable when we constrain BU headcount, but it isn't a panacea for all of our organic growth challenges.

The other way we grow is via acquisitions. The vast majority of our acquisitions fall into the sub-100 employee category and were owner-managed prior to our acquisition. In 2016 we made 40 acquisitions, of which 35 had fewer than 100 employees. 30 of those acquisitions were from owner-managers.

I believe that CSI can be a great home for an owner-managed business. If the business has more than a handful of employees, we nearly always run it as a stand-alone BU. We respect the vertical-specific knowledge of the employees and give them the chance to learn from employees running similar departments and functions in our other BU's. We don't sunset products and we believe that customers and BU Managers, not head office CTO's or product strategists, should choose which products get continued investment. If the owner-manager wants to transition out quickly, the probability is very high that the successor that he/she designates will end up running the business for CSI. If the owner-manager

wishes to stay for several years, perhaps spending less time on day to day management and more on acquisitions, then we are just as happy with that outcome. If you are an owner-manager of a VMS company and fall into either camp, we can arrange for you to meet with former owners like yourself who have sold to CSI.

We have best practices for acquisitions, just as we have best practices for fostering organic growth. When our BU managers encounter natural limits we coach them on how to get the most leverage from their skills and team. We apply a similar model when our Portfolio Managers encounter the limits to their monitoring, coaching, and acquisition related activities. I was CSI's first Portfolio Manager. Somewhere between mid-2005 and mid-2006, I ran out of capacity. CSI had \$200 million in revenue, seven Operating Groups and about thirty BU's at that time. I could do the short-term BU monitoring portion of the job, but I couldn't stay abreast of the important longer-term factors for the BU's: details about competitors, market share, major customers, product strategy, initiatives, management competencies, etc. Without those details, my ability to provide context-sensitive coaching for BU Managers and Portfolio Managers rapidly deteriorated. I had been involved in all the large acquisitions that CSI had done up until 2005 and I had chased down a second significant acquisition for several of those verticals. By 2006 I could no longer be the primary driver of our acquisition activities. I began to ask our Operating Group Managers to shoulder the entire responsibility for monitoring and coaching their BU's and to also assume responsibility for deploying the majority of our FCF.

I didn't have complete confidence in a couple of the Operating Group Managers so the delegation process dragged on for a while. We eventually terminated two managers. It cost us some severance pay and time but we were able to find capable and trusted replacements from within CSI. There was a bit of a hiccup in our growth in 2006 and 2007 but the current Operating Group Managers - Barry, Dexter, Jeff, John, Mark, and Robin - have driven most of our capital deployment since 2006. They've developed their teams, put their own unique stamp on their groups and done a magnificent job of growing CSI's revenue and FCF per share by more than tenfold. Each is now running a group of BU's that is similar in size to CSI when I ran out of capacity. All of the Operating Group Managers have started the process of delegating their monitoring, coaching, and acquisition activities down to their Portfolio Managers, so the cycle begins anew.

When I look at the current generation of Portfolio Managers, I see some that have the potential to be exceptional managers and capital deployers. While that bodes well for continued growth, there aren't enough of them to get us the ten-fold growth that we've had in the last eleven years. To generate that sort of growth, we need more Portfolio Managers and they need to be as competent as our current Operating Group Managers. That's a tall order. It will require an intense training and coaching effort with our existing Portfolio Managers, possibly some outside hires into Portfolio Manager roles, and the acceleration of some existing BU Managers into Player/Coach and Portfolio Manager roles. Until these Portfolio Management roles are filled with people that have the complete confidence of their Operating Group Managers, delegating the majority of capital allocation won't happen, and the sustainable 20% plus growth rates of the past are impossible.

In December, we asked our Operating Groups to identify new "Potential Portfolio Managers". The good news was that there were 45 BU Managers on the list and 84% of them had been internal promotions to BU manager, or had arrived as part of an acquisition. The bad news is that newly identified high-potential BU Managers must first demonstrate that they can run a BU well, build a team, and generate optimal organic growth. Then they need to learn some non-trivial M&A skills. They'll have lots of support in this process, but it doesn't happen overnight. If we manage to get even a dozen of these 45 BU managers to the point where they are running 500-1000 employee portfolios in ten years' time, that will be a huge achievement.

I have a bias towards developing our Portfolio Managers internally or having them join us via an acquisition. Our best managers have risen through the ranks and developed a following. When they make it to BU Manager, they act like they “own” their BU and they stick with it. They have career-spanning relationships with their employees and their clients. They feel responsibility heavily. If the industry they serve is suffering, they find a way to grow the business organically, or they roll up their vertical via acquisition. They progress to running one BU and coaching others. If they’re ambitious for themselves and their team, they evolve into deeply experienced Portfolio Managers with a tried and trusted cadre of employees that can help them do acquisitions and they continue to build out their Portfolio. It starts small. It’s incremental. It’s slow, but over the course of a long career their mastery, satisfaction, wealth and the number of their followers, all compound.

This sort of career path obviously worked for our current Operating Group Managers, who all either came up through the ranks or joined us via an acquisition. I believe that attracting, developing, and keeping that sort of talent, is the internal execution issue that poses the greatest threat to our continued success.

I don’t know if the analysts and journalists who predict reversion to average performance for CSI will be proved correct in the next few years. Our plan is to maintain investment discipline, keep overheads low and hire and coach a new generation of ambitious, hard-working BU Managers who can be taught how to be competent long-term “owners”. Hopefully we’ll still be having this reversion debate ten years from now.

Some businesses get their unique advantage from government-granted monopolies, some from natural resources, some from large patent portfolios, and some from enormous fixed assets. CSI doesn’t have these advantages. Our employees, and the customer relationships that those employees have built and fostered over many years, provide our competitive advantage. I hope all of our shareholders will join me in thanking our thirteen thousand employees for the company’s continued prosperity.

We will be hosting the AGM on Friday, April 28th. Many of our Directors and Officers and a number of our employee shareholders will be in attendance. We look forward to talking about our business and answering your questions. We hope to see you there.

Mark Leonard,

President

Constellation Software Inc.

April 25<sup>th</sup>, 2017

## Glossary

For 2009 and prior periods, the financial information for CSI was derived from the consolidated financial statements which were prepared in accordance with Canadian generally accepted accounting principles (“GAAP”). 2010 and subsequent year financial information for the Company was derived from the consolidated financial statements which were prepared in accordance with International Financial Reporting Standards (“IFRS”). Certain totals, subtotals and percentages may not reconcile due to rounding.

“Adjusted net income” effective Q1 2008, means adjusting GAAP or IFRS net income for non-cash expenses (income) such as amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other expenses (income), and excludes the portion of the adjusted net income of Total Specific Solutions (TSS) B.V. (“TSS”) attributable to the minority owners of TSS. Prior to Q1 2008, Adjusted net income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The calculation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted net income figures have been restated in the table above to reflect the new calculation method. The Company believes that Adjusted net income is useful supplemental information as it provides an indication of the results generated by the Company’s main business activities prior to taking into consideration amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other non-cash expenses (income) incurred or recognized by the Company from time to time, and adjusts for the portion of TSS’ Adjusted net income not attributable to shareholders of CSI.

“Average Invested Capital” represents the average equity capital of the Company, and is based on the Company’s estimate of the amount of money that its common shareholders had invested in CSI. Subsequent to that estimate, each period the Company has kept a running tally, adding Adjusted net income, subtracting any dividends, adding any amounts related to share issuances and making some minor adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles. The Company believes that Average Invested Capital is a useful measure as it approximates the retained earnings of the Company prior to taking into consideration amortization of intangible assets, deferred income taxes, and certain other non-cash expenses (income) incurred or recognized by the Company from time to time. ROIC” means Return on Invested Capital and represents a ratio of Adjusted net income to Average Invested Capital. The Company believes this is a useful profitability measure as it excludes non-cash expenses (income) from both the numerator and denominator.

“Net Revenue”. Net Revenue is gross revenue for GAAP or IFRS purposes less any third party and flow-through expenses. The Company believes Net Revenue is a useful measure since it captures 100% of the license, Maintenance and services revenues associated with CSI’s own products, and only the margin on the lower value-added revenues such as commodity hardware or third party software.

“Total Capital” is the sum of Net debt plus Invested Capital

“Net Debt” is debt less cash.

“Maintenance Revenue” primarily consists of fees charged for customer support on our software products post-delivery and also includes, to a lesser extent, recurring fees derived from software

as a service, subscriptions, combined software/support contracts, transaction-related revenues, and hosted products.

“Free Cash Flow” in this letter, unlike under IFRS is cash flow from operating activities less interest paid and property and equipment purchased. I figure if you have to pay interest and buy new computers, the cash used for those purposes is no longer available, and shouldn’t be included in FCF.

“EBITA” is earnings before interest, taxes and the amortisation of intangible assets.

“HPCs”: Ametek, Berkshire Hathaway, Danaher, Dover, Illinois Tool Works, Roper, Jack Henry & Associates, Transdigm, and United Technologies.

### Forward Looking Statements

Certain statements in this letter may contain “forward looking” statements that involve risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company or industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Words such as “may”, “will”, “expect”, “believe”, “plan”, “intend”, “should”, “anticipate” and other similar terminology are intended to identify forward looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance as of the date of this letter. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. Although the forward looking statements contained in this letter are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward looking statements. These forward looking statements are made as of the date of this letter and the Company assumes no obligation, except as required by law, to update any forward looking statements to reflect new events or circumstances. This report should be viewed in conjunction with the Company’s other publicly available filings, copies of which can be obtained electronically on SEDAR at [www.sedar.com](http://www.sedar.com).

### Non-GAAP/IFRS Measures

Adjusted net income and Organic Net Revenue Growth are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted net income and Organic Net Revenue Growth should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company’s liquidity and cash flows. The Company’s method of calculating Adjusted net income and Organic Net Revenue Growth may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to CSI’s most recently filed Management’s Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.



## Constellation Software Inc. TO OUR SHAREHOLDERS

I used to write quarterly letters to shareholders. After a few, I switched to annual letters. There is an archive of them on our website. It contains most of what I can tell you about investing in Constellation. In the future I will only write to shareholders when I think I have something new and important to communicate. We will still provide you with the non-IFRS and IFRS tables that we produce on an annual basis, likely as part of our Q4 MD&A.

For competitive reasons we are limiting the information that we disclose about our acquisition activity. We believe that sharing our tactics and best practices with a host of Constellation emulators is not in our best interest. We have discussed the matter with many of the large Constellation shareholders, all of whom (despite grumbling) eventually agreed.

Since this is the last annual President's letter I thought I would include a grab bag of items that I think long-term shareholders should consider. Some of these opinions may be controversial, so let me stress that they are mine, and are not necessarily shared by others at Constellation.

One of the analysts who covers Constellation recently changed his perennial "sell" recommendation to a "buy". We lost one of our few critics. Analysts who worry about the quality of earnings and reversion to the mean and the impossibility of trees growing to the sky are valuable.

The reversion to the mean argument still has merit. You can see it at work in Constellation's 2017 results: Our Adjusted Net Income ("ANI") increased only 17% last year (Table 1), far below our ten-year average ANI compound annual growth rate of 30%. Our Cash Flow from Operating Activities per share ("CFO/Share") increased only 8% (Table 2), versus our ten-year CFO/Share compound annual growth rate of 31%.

Table 1

|      | Adjusted Net<br>Income<br>(a) | Average<br>Invested<br>Capital | ROIC | Organic Net<br>Revenue Growth<br>(YoY) | ROIC + Organic<br>Net Revenue<br>Growth |
|------|-------------------------------|--------------------------------|------|----------------------------------------|-----------------------------------------|
| 2008 | 54                            | 195                            | 28%  | 5%                                     | 33%                                     |
| 2009 | 62                            | 256                            | 24%  | -3%                                    | 21%                                     |
| 2010 | 84                            | 325                            | 26%  | -2%                                    | 24%                                     |
| 2011 | 140                           | 394                            | 36%  | 7%                                     | 43%                                     |
| 2012 | 172                           | 491                            | 35%  | 2%                                     | 37%                                     |
| 2013 | 207                           | 585                            | 35%  | 4%                                     | 39%                                     |
| 2014 | 274                           | 739                            | 37%  | 3%                                     | 40%                                     |
| 2015 | 371                           | 965                            | 38%  | -3%                                    | 35%                                     |
| 2016 | 395                           | 1261                           | 31%  | 1%                                     | 32%                                     |
| 2017 | 463                           | 1622                           | 29%  | 4%                                     | 33%                                     |

(a) Historical figures restated to comply with revised definition.

Our shareholders' Average Invested Capital grew 29% in 2017, which was above its ten-year compound average growth rate, but a large amount of the retained capital was undeployed at year-end. We have

ramped up our acquisition team, which may help with the capital deployment, but is also likely to put some pressure on our Free Cash Flow ("FCF") margin (i.e. FCF/Net Revenue).

The return on our shareholders' Average Invested Capital ("ROIC") dropped to 29% in 2017. The decrease was a function of a slew of new investments with lower ROIC's and of our increasing cash balance. I expect this metric to continue to drop.

Constellation's Organic Net Revenue growth has averaged only 2% during the last decade. This has been disappointing for me and the Operating Group managers. Some of our businesses serve shrinking verticals or those that are otherwise troubled, so we don't necessarily expect strong organic growth from them. We do expect each business unit ("BU") to provide constantly evolving software and systems that help their clients refine and strengthen their businesses, even in the face of industry headwinds. In 2017 our Organic Net Revenue growth was 4%.

ROIC + Organic Net Revenue growth ("ROIC+OGr") remained relatively flat at 33% in 2017. Over time, ROIC+OGr should move asymptotically towards our hurdle rate if we are deploying all of our FCF on acquisitions and are accurately forecasting the internal rates of return ("IRR's") on those acquisitions.

There has been some confusion regarding the ROIC+OGr metric. When we were investing more than our FCF and generating attractive returns, we were comfortable using the ROIC+OGr metric as the single best measure of Constellation's performance. Competition for acquisitions has increased, as has our FCF, so it is unlikely that we will be able to invest all of our FCF at attractive returns over the next decade. That got me thinking about a new "single best metric" for shareholders. I like incremental return on incremental invested capital (e.g.  $((ANI_1 - ANI_0)/(IC_1 - IC_0))$ ), but it is very volatile, and share issuances or repurchases can throw it out of kilter. The increase in Net Maintenance Revenue per share is an interesting metric but is easily abused because it can't be derived from the audited financial statements. I'm now leaning towards the growth in FCF per share (e.g.  $((FCF_1/\#Shares_1)/(FCF_0/\#Shares_0) - 1)$ ). This metric takes into account share count, interest expense and capex, but doesn't include an adjustment for the increase in our minority interest liability. If the minority interest is growing at rates similar to FCF, then that's not a problem, but they may not always track together. The growth in FCF per share metric isn't very sensitive to debt and cash, but right now our net cash is not significant. Jamal's preferred measure of our progress is the growth in ANI per share. It is less volatile than FCF per share (because the variance in net working capital largely washes out over the long run), and it does adjust for the portion of ANI that should accrue to minority shareholders.

I gave the growth in FCF per share metric a trial run by looking at the last three years for ROIC+OGr (averaged 33%), our US\$ market capitalisation (average increase of 28% per annum), our FCF per share (average increase of 16% per annum) and our ANI per share (average increase of 20% per annum). If I had to stake my reputation on one of those as the best proxy for the annual increase in intrinsic value, I would go with the increase in FCF per share. Jamal may yet argue me around to the growth in ANI per share. Keep in mind that you don't need to use any single metric to judge our performance. Enterprising long-term investors will look at many metrics.

In Table 2 we have presented a couple of IFRS-based metrics that we believe can be important in assessing our business. Total Revenue per Share increased 17% in 2017, in line with the increase in ANI per share. This strikes me as a fairly torrid pace. If we come close to achieving that level over the next five years, I will be pleased. The amount of capital being deployed by competitors in the vertical market software ("VMS") sector was recently reported to be at an all time high, and private equity firms who know the space have never had as much undeployed capital (Hampton Partners, "Enterprise Software M&A Overview H1 2018").

Table 2

|      | Total Revenue per<br>Share |              | Cash Flow from<br>Operating Activities<br>per Share |              |
|------|----------------------------|--------------|-----------------------------------------------------|--------------|
|      |                            | YoY $\Delta$ |                                                     | YoY $\Delta$ |
| 2008 | 15.60                      | 36%          | 2.96                                                | 83%          |
| 2009 | 20.67                      | 32%          | 3.85                                                | 30%          |
| 2010 | 29.92                      | 45%          | 5.06                                                | 32%          |
| 2011 | 36.49                      | 22%          | 6.49                                                | 28%          |
| 2012 | 42.05                      | 15%          | 6.83                                                | 5%           |
| 2013 | 57.13                      | 36%          | 10.40                                               | 52%          |
| 2014 | 78.77                      | 38%          | 16.11                                               | 55%          |
| 2015 | 86.75                      | 10%          | 18.68                                               | 16%          |
| 2016 | 100.28                     | 16%          | 23.16                                               | 24%          |
| 2017 | 117.00                     | 17%          | 24.90                                               | 8%           |
| CAGR |                            | 26%          |                                                     | 31%          |

It is important to keep an eye on debt when using CFO/Share because this metric does not take interest cost into account. Similarly, the metric isn't adjusted for capital expenditures (although they tend to be small for Constellation). My preference would be to use a FCF/share metric, which subtracts both interest and capital expenditures, but shareholders specifically asked for some IFRS defined metrics that weren't subject to management "adjustment".

In 2017, CFO/Share increased only 8% vs 2016. The primary reason was the payment of cash taxes in 2017 that were associated with earnings in 2016. If we make the cash tax timing adjustment to match cash taxes to ANI before tax, the growth in CFO/Share is similar in both 2016 and 2017. It is also in line with Net Revenue growth and ANI growth. On that basis, the top and bottom line growth are in sync, so neither economies of scale nor creeping overheads are evident.

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Our current policy is to invest all of our retained investor's capital (and then some) when we think we can achieve our targeted hurdle rates. When we can't find enough attractive investments, we plan to maintain our hurdle rates and build cash for as long as our shareholders and board will allow. We believe that long-term shareholders and boards should set those policies, which segues nicely into discussing shareholder democracy and the role of boards.

Almost half of our shares trade each year, which suggests that many of our shareholders are not long-term oriented. These traders are buying our shares because they hope they will be able to sell them at higher prices in three months or six months.

Another class of shareholders are indexers. They buy our stock because we are part of whatever index they are emulating. Their actions are formulaic. Despite the fact that they may be long-term holders, it is difficult to find someone to speak with at these indexing institutions and even if we do, they rarely know much about our company.

There is another class of long-term Constellation shareholders who invest time and effort to get to know our company and may even try to contribute to its growth and prosperity. We are fortunate to have a

couple of dozen institutional investors, several hundred personal investors and several thousand employee shareholders who have taken this view. I'll refer to these as "enterprising investors" (perhaps stretching the original definition). They are the groups that we consult when we need advice and input from engaged shareholders.

One of the ways that our enterprising investors can contribute is by helping find and elect excellent Directors. Shortly after our IPO we started asking our major institutional shareholders to suggest people from their ranks for our board. A couple of enthusiastic investment managers tried to convince their organisations to take that step, but the institutional barriers to them being Directors are apparently insurmountable.

We have also asked our enterprising investors to suggest board candidates from outside of their ranks. This has not been very productive so far, probably because I didn't do a good job of explaining the characteristics of an ideal Director from our perspective. A couple of years ago we started creating a screen for Director searches - I've appended it to this letter so that our enterprising investors will have a better sense of who we are seeking. If you know anyone who would rank well vs the screen, and if you think they would be interested in being a Constellation Director, please let us know.

Qualified and competent Directors are very rare, and not surprisingly, the track record of most boards is awful. According to the 2017 Hendrik Bessembinder study of approximately 26,000 stocks in the CRSP database, only 4% of the stocks generated all of the stock market's return in excess of one-month T-Bills during the last 90 years. The other 96% of the stocks generated, in aggregate, the T-bill rate over that period. This means that 4% of boards oversaw all the long-term wealth creation by markets during that period. Even more disturbing, the boards for over 50% of public companies saw their businesses generate negative returns during their entire existence as public companies.

This governance problem is well understood, and the tools-du-jour for fixing boards are Director independence, diversity, and term limits. These tools are a great starting point when you are dealing with most public companies. However, when you are dealing with a high-performance company, I don't think governance should be the key role of the board. Governance is still necessary, but it is not sufficient. Helping extend the extraordinary track record of building intrinsic value should be the board's primary function. You are unlikely to achieve that by replacing their proven and obviously very rare Directors and Officers with new ones who are statistically unlikely to have ever experienced anything like consistent high performance.

Last year a proxy advisory firm, on behalf of the Fonds de solidarité FTQ ("FTQ"), a tiny Constellation shareholder, proposed that we change our proven Director and Officer recruiting methods to give preference to diverse candidates. During the ensuing year we have appointed a female Director and have undertaken to diligently include diverse candidates in any Director and Officer search processes.

The FTQ have a similar proposal on this year's ballot. We thought we had addressed their primary concerns prior to the motion being submitted, so we asked their proxy advisor to withdraw it. They have refused. Our formal response to the proposal appears in our proxy. Jamal and I are once again lobbying our institutional investors to vote against this proposal. We hope you'll vote against the FTQ's resolution and in accord with management's recommendation at the AGM again this year.

We recently received another challenge to our board practices. This time a significant shareholder (holding hundreds of thousands of Constellation's shares) expressed concern about extended board tenures and a preference for "board refreshment". They proposed that we consider limiting board tenure to 10 years. I appreciated them consulting with us directly, rather than just putting it on the ballot as a

shareholder proposal. I thought I'd respond to them as part of this letter so that all shareholders can see how we think about Director selection and tenure.

We believe that when you limit a competent Director's term, you limit their opportunity to learn and hence to add value.

There was a 1994 peer-reviewed journal article about the role of deliberate practice in becoming an expert (Ericsson & Charness). The concept was popularised and extended by Malcolm Gladwell in his book "Outliers", as the 10,000 hour rule. I understand that you don't need 10,000 hours of deliberate practice to be able to fire a CEO who has his hand in the till or is abusing employees. I'll refer to this as the "governance" role of Directors. However, I also think there's something to be said for Directors intently studying an industry and a company over a period of many years to acquire relevant expertise so that they can contribute more than just governing. I'll refer to this as the "coaching" role of a Director.

In some instances, you are fortunate and can find Directors like Mark Miller and Jeff Bender who have 10,000 hours of relevant experience. They were master practitioners of the VMS craft long before they were appointed to the Constellation board. For most Directors, however, learning about VMS and Constellation's particular approach to VMS, is a long journey. A couple of the outside Directors remarked how humbling it was to have these insiders on our board, because Jeff and Mark had so much context, experience and nuance to bring to most board discussions.

Our outside Directors spend about 30 hours in board meetings each year, and let's assume preparation time doubles that. For an especially engaged Director, committees, special projects and extra-curricular Constellation-related activities might drive their time with us up to 200 hours per year. At 200 hours per year, and if you believe the 10,000 hour rule, then this especially engaged Director needs to put in 50 years on the job to offer deeply contextual expert level coaching.

Some prospective Directors don't have the appetite or incentive to invest 10,000 hours to make the transition from a monitoring/governing role to a coaching/nurturing role. Most prospective Directors are simply too old to make that journey. Unfortunately, that means that the default role for most Directors is as a governor not a mentor. Some investors find that acceptable. I'd argue that governing is table stakes. Coaching and talent nurturing are the places where Directors can make a significant contribution and help a company become part of Bessembinder's 4%.

Simple math suggests that if a Director is not from the industry or the company, then they have no hope of coaching and nurturing unless they start in the Director job when they are young. Ideally we'd like to get them in their 40's or 50's and keep them for 30 or 40 years or until their health deteriorates. We certainly don't want to kick them out after they've served for 10 years.

We've been searching for great Directors for years. We've gone on long campaigns to land individual candidates whom we admire. One observation from those frustrating pursuits is that a lot of high quality people don't want to be Directors. They may be intrigued by the company and the managers and the business philosophy. Despite that, the "policing" responsibility is an unpleasant one, and the prospect of investing a huge amount of time to learn the business and win management's trust and respect is daunting.

There are a number of reasons people serve on boards: the halo effect of being associated with a good company, compensation, curiosity, and a desire to give back. However, I can think of only two really compelling reasons why a high-quality candidate would want to serve on a board and commit hundreds of hours per year to the task: 1) it is a way to invest a significant portion of your net worth and be able to watch it closely, and 2) you can learn and apply those learnings to your own career and investments.

I have difficulty forecasting long-term growth in Constellation's intrinsic value per share that exceeds 12% per annum. For many Directors who are adept capital allocators, that is insufficient to justify investing a significant portion of their net worth. For them, the first compelling reason doesn't apply.

Only a tiny number of CEO's/Owners/Managers and some academics are going to want to study Constellation's decentralised multiple small business unit model for application in their own careers. That suggests the second compelling reason creates even fewer candidates.

The overlap in the Venn diagram between high quality Director candidates and those that have a compelling interest in serving as a Director is tiny. Making Director tenures shorter, or limiting candidates to a particular gender, race, or religion, just exacerbates this situation.

The current movement to limit Director tenure makes great sense if you think your investee company is poorly governed. However, if you think the governance is good, then limiting Director tenure hurts the company. It is analogous to firing a high-performance employee on their tenth anniversary.

\*\*\*\*\*

Constellation has some intelligent, curious and irreverent employees who regularly challenge management's fondly held assumptions and beliefs. We don't appreciate those employees enough. One of them posed the following questions to me:

- Why are we doing this? What is the greater vision/mission of Constellation?
- If you keep on buying and you don't sell, where does it end?

I am suspicious of "vision". Long-term studies suggest that the underlying predictions or assumptions for visions are nearly always impractically vague or outright wrong (see Tetlock's "Superforecasting"). I am not much happier with the term "mission". It feels too heavily freighted with overtones of hierarchy and unquestioning compliance. I prefer to talk about Constellation's objective. Our objective is to be a great perpetual owner of VMS businesses. We like VMS businesses because they are asset-light, have robust moats, and attract the sort of managers and employees with whom we enjoy working. Lots of investors seek businesses with those characteristics, but great owners are rare. Far too many owners mistake themselves for great operators. Others, particularly some of those who invest in public companies, abdicate their responsibilities as owners, preferring instead to be traders or passive indexers.

As perpetual owners, we care about the long-term health of our many small businesses. We try to provide an environment in which they can flourish. The primary way we can do that is by making sure that they have high-quality managers who are compensated according to rational long-term oriented incentive programs. We make sure that BU managers have access to capital when they have opportunities. We try to foster a collegial environment so that best practices are shared. Late last year, when we reviewed our BU demographics, we had 243 separately managed BU's, up from 193 the prior year. We currently see no fundamental limit to the number of BU's that we can manage, but we are very worried about limits to the number of good VMS businesses that we will be able to buy at reasonable prices.

To understand the "where does it end?" question, it is useful to look at a much older industry with some similarities to the VMS sector.

If Constellation had started in 1895 instead of 1995, we might have had the objective of being a great perpetual owner of daily newspapers. The newspaper industry underwent a long period of high growth which attracted many new entrants, followed by local consolidation, conglomeration, and eventual decline. I anticipate that the VMS industry will evolve similarly.

Many standalone newspaper businesses and newspaper conglomerates did well for extended periods, generating far above average ROE's. They had deep moats and attracted more than their fair share of intelligent, ethical, driven employees. Some of these businesses returned their FCF to stakeholders, and some deployed it to buy other newspapers. As their industry matured, a few of the newspaper conglomerates acquired somewhat related businesses (book publishing, magazine publishing, radio stations, TV stations, cable franchises, database vendors, etc.). Only a tiny minority of the newspaper conglomerates made the "diversification" transition successfully. A couple have done extraordinarily well. If you had bought shares of the Washington Post (now the Graham Holdings Company) four decades ago, you would have more than trebled the gains generated by the S&P500 over those forty years.

One day Constellation may find that VMS businesses are too expensive to rationally acquire. If that happens, I hope we'll have had the foresight and luck to find some other high ROE non-VMS businesses in which to invest at attractive prices. I am already casting about for such opportunities. If we don't find attractive sectors in which to invest, then we'll return our FCF to our investors. Even if re-investment opportunities become scarcer, Constellation doesn't end... it will continue to be a good (hopefully great) perpetual owner of its existing VMS portfolio, and will still deploy some capital opportunistically.

You may have noticed that I deferred the "why are we doing this?" question. The answer to that is personal to each of us who are involved in Constellation. My motivation is to help create a company where worthy people succeed. Whether they join us with an acquisition or are hired from the outside, I want to support and encourage employees who work hard, treat others well, continuously learn, and share best practices. I try to make sure that sycophants, spin-doctors, and mercenaries don't survive in Constellation's senior ranks. Harder, but not impossible, is helping identify and remove hidebound managers who rely upon habit and folklore to run their businesses rather than rational enquiry and experimentation. Constellation is as close to a meritocracy as I have experienced. I hope it will continue to provide an environment where entrepreneurs and corporate refugees can invest their lives and their capital and thrive.

A career path for an ambitious employee joining Constellation might be something like this: Immerse yourself in learning about the peculiarities of VMS economics. At some point, transition from analyst or knowledge worker into a leader of people. I find there is no magic to managing and leading. If you are smart, work harder than everyone else around you, treat people fairly, do not ask them to do anything you would not or have not done, share the credit, keep learning and keep teaching, then pretty soon you have followers. If you make sure that the team members are intelligent, energetic, and ethical people with whom you would want to work for the rest of your career, it won't be long until you are running one of our BU's. Whatever vertical you end up in, that specialisation, that focus, will require a multi-year effort to build a trusted network of employees, customers, other industry participants, and even competitors.

If I were advising my 35 or 40-year-old self on where to go from there, I would tell him to stay put. Work closely with the best customers in your vertical. Help provide them with the software and systems that they need to prosper. Do an occasional tuck-in acquisition to buy a product or customer base more cheaply than you could otherwise build it. Grow revenues per employee so that you can pay your team significantly more every year. Become a master Craftsman in the art of managing your VMS business. It is the most satisfying job in Constellation and will generate more than enough wealth for you to live very comfortably and provide for your family.

For those whose ambition exceeds their good sense, we have a role that we call a Player/Coach. A Player/Coach continues to run their BU, but ambition drives them to acquire a sizable business, usually in another geography or another vertical. We set up most of these acquisitions as stand-alone BU's because

verticals differ, and it is difficult to create a high-performance team if they are geographically dispersed. The BU manager for the newly acquired business is nearly always from the acquisition itself, and hence has deep expertise in the vertical. Should the Player/Coach find a second or third stand-alone business to acquire, they eventually have to give up the day to day responsibilities for running their original BU and become a full-time Portfolio Manager (“PM”). If the PM is good at finding acquisitions, and helping them learn relevant best practices, and continues to deploy at least the FCF produced by their portfolio, then we refer to them as a Compounder.

The journey from Craftsman to Compounder can be very financially rewarding, but there are some significant sacrifices. At best, a PM is an advisor: they fly in (usually clocking hundreds of thousands of airmiles per annum), gather information, share ideas, provide referrals to others within Constellation who have dealt with similar issues, and then they move on to the next portfolio company. The excitement and satisfaction of doing and deciding has to be traded for the lukewarm cocoa of mentoring and coaching. Fortunately, the Compounders are regularly learning about new verticals, and acting as ambassadors to VMS entrepreneurs who might one day want to sell their businesses to Constellation. The multi-year relationships with VMS founders can be very rewarding.

The difference between a Craftsman and a Compounder is often one of personality. Successful Craftsmen can be autocratic or consultative, brilliant or average intelligence, introverted or extraverted, mercurial or imperturbable. Lots of different personalities and styles work.

Successful Compounders have no choice but to be (or become) more hands-off and trusting. They can be curious and driven, but they can’t be directive. They can nurture, goad and suggest, but they can’t order. No PM can personally know the customers, products, employees, and competitors sufficiently well across multiple BU’s in different geographies and verticals, to make the critical decisions required at the BU level. In the infrequent instances where the manager of a BU isn’t making the grade...if they are failing to build the team, extend their moat and generate an adequate return on their capital, then the PM needs to find a replacement for the BU manager.

There will be a couple of dozen PM’s attending the AGM and participating in the break-out sessions. Please take the opportunity to ask them about the satisfactions and challenges of their jobs and the trade-offs that they have to make between capital deployment and portfolio nurturing.

Hopefully the analogy between the Compounder’s job and that of Constellation’s board is obvious.

Both have a governance role. In the rare instance where the manager who reports to them has to go, they need to pull the plug. If this governance role is consuming most of their time, it is a sad reflection on their competence.

Our expectation is that both the Compounder and the Constellation Board spend much of their time in coaching/nurturing roles, bringing along managers and their teams, and making sure that there is a strong bench of talent if they have to change a manager. As aspiring “great owners”, our Operating Groups avoid imposing unqualified PM’s on high performance BU managers. I’d hope Constellation’s owners will show us the same courtesy and allow us to choose our Directors and Operating Group managers based on the criteria that we believe are important rather than on specific targets or quotas.

Lastly, both the Compounder and the Board should be worried about finding good places to deploy capital while maintaining investment discipline. It is one of our most significant challenges.

As you are aware, our AGM is to be held at a larger venue this year. Subsequent to the regular meeting and Q&A session, we have six break-out rooms where each of our Operating Group managers,



accompanied by some of their PM's, will make a presentation followed by a Q&A session. If you haven't already signed up for one of the break-out sessions, please do so as soon as possible, as seating is limited.

For as long as I can recall, I've been using these letters to thank our employees on behalf of all shareholders for another wonderful year. This year is no different. See if you can find an employee at the AGM and thank them personally.

Mark Leonard  
April 20, 2018

## CSI Board Role Search Criteria

### THE ROLE

|                       |                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------|
| Thought Partner       | Thought partner for senior leadership.                                               |
| Long-term Orientation | Unfazed by short term pressure. Focused on CSI's long-term issues.                   |
| Timeframe             | Able to serve on the board for 20+ years.                                            |
| Investment in CSI     | Willing to make a significant equity investment in CSI, above and beyond board comp. |

### THE CANDIDATE

|                       |                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------|
| High Quality Business | Understands what constitutes a high quality business.                                |
| Autonomy              | Appreciates the motivational power of autonomy, decentralisation.                    |
| Cultural Fit          | Respects and gets along with the current senior CSI management as well as the board. |
| Ownership             | Believes in the motivational power of equity ownership.                              |
| High Impact / Low Ego | Will intervene when necessary, contribute meaningfully, but not dominate discourse.  |
| Out of Kitchen        | Can resist the urge to get into the kitchen when there's a chef already in there.    |

### EXPERIENCE

|                    |                                                                                                                                                                                                                         |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Builder            | Helped build or maintain (as a director, manager or major shareholder) a large organisation (>1000 employees) over an extended period, while providing a superior return to owners (ideally including employee owners). |
| Decentralized      | Experience with a decentralised company (nice, not necessary).                                                                                                                                                          |
| Capital Allocation | Experience in a capital allocation role (nice, not necessary).                                                                                                                                                          |

### LIKELY BACKGROUND

Family owned business operator or director.  
CEO / #2 for exceptional business.  
Entrepreneur

### SEARCH PATHS

Multi-generational family owned businesses with high ROIC within reach of our network and ideally local to CSI (increases involvement, eases reference checks, more likely to know CSI, decreases absenteeism).  
High quality businesses with strong shareholder alignment.  
Great capital allocators in the corporate world.  
CEOs with great shareholder letters and high quality businesses.

## Glossary

For 2009 and prior periods, the financial information for Constellation was derived from the consolidated financial statements which were prepared in accordance with Canadian generally accepted accounting principles (“GAAP”). 2010 and subsequent year financial information for the Company was derived from the consolidated financial statements which were prepared in accordance with International Financial Reporting Standards (“IFRS”). Certain totals, subtotals and percentages may not reconcile due to rounding.

“Adjusted net income” effective Q1 2008, means adjusting GAAP or IFRS net income for non-cash expenses (income) such as amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other expenses (income), and excludes the portion of the adjusted net income of Total Specific Solutions (TSS) B.V. (“TSS”) attributable to the minority owners of TSS. Prior to Q1 2008, Adjusted net income was derived by adjusting GAAP net income for the non-cash amortization of intangibles and charges related to appreciation in common shares eligible for redemption. The calculation was changed to include future income taxes since the majority of future income taxes relate to the amortization of intangible assets, and thus are added back to more closely match the non-cash future tax recovery with the amortization of intangibles. All previously reported Adjusted net income figures have been restated in the table above to reflect the new calculation method. The Company believes that Adjusted net income is useful supplemental information as it provides an indication of the results generated by the Company’s main business activities prior to taking into consideration amortization of intangible assets, deferred income taxes, the TSS membership liability revaluation charge, and certain other non-cash expenses (income) incurred or recognized by the Company from time to time, and adjusts for the portion of TSS’ Adjusted net income not attributable to shareholders of Constellation.

“Average Invested Capital” represents the average equity capital of Constellation, and is based on the company’s estimate of the amount of money that its common shareholders had invested in Constellation. Subsequent to that estimate, each period the company has kept a running tally, adding Adjusted net income, subtracting any dividends, adding any amounts related to share issuances and making some minor adjustments, including adjustments relating to our use of certain incentive programs and the amortization of impaired intangibles. The company believes that Average Invested Capital is a useful measure as it approximates the retained earnings of the company prior to taking into consideration amortization of intangible assets, deferred income taxes, and certain other non-cash expenses (income) incurred or recognized by the company from time to time.

“ROIC” means Return on Invested Capital and represents a ratio of Adjusted net income to Average Invested Capital. The Company believes this is a useful profitability measure as it excludes non-cash expenses (income) from both the numerator and denominator.

“Net Revenue”. Net Revenue is gross revenue for GAAP or IFRS purposes less any third party and flow-through expenses. Constellation believes Net Revenue is a useful measure since it captures 100% of the license, Maintenance and services revenues associated with Constellation’s own products, and only the margin on the lower value-added revenues such as commodity hardware or third-party software.

“Total Capital” is the sum of Net debt plus Invested Capital “Net Debt” is debt less cash.

“Maintenance Revenue” primarily consists of fees charged for customer support on our software products post-delivery and also includes, to a lesser extent, recurring fees derived from software as a service, subscriptions, combined software/support contracts, transaction-related revenues, and hosted products.

“Free Cash Flow” in this letter, unlike under IFRS is cash flow from operating activities less interest paid and property and equipment purchased. I figure if you have to pay interest and buy new computers, the cash used for those purposes is no longer available, and shouldn’t be included in FCF.

“EBITA” is earnings before interest, taxes and the amortisation of intangible assets.

“CRSP”: Centre for Research in Security Prices, University of Chicago Booth School of Business.

### Forward Looking Statements

Certain statements in this letter may contain “forward looking” statements that involve risks, uncertainties and other factors that may cause the actual results, performance or achievements of the Company or industry to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Words such as “may”, “will”, “expect”, “believe”, “plan”, “intend”, “should”, “anticipate” and other similar terminology are intended to identify forward looking statements. These statements reflect current assumptions and expectations regarding future events and operating performance as of the date of this letter. Forward looking statements involve significant risks and uncertainties, should not be read as guarantees of future performance or results, and will not necessarily be accurate indications of whether or not such results will be achieved. A number of factors could cause actual results to vary significantly from the results discussed in the forward looking statements. Although the forward looking statements contained in this letter are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward looking statements. These forward looking statements are made as of the date of this letter and the Company assumes no obligation, except as required by law, to update any forward looking statements to reflect new events or circumstances. This report should be viewed in conjunction with the Company’s other publicly available filings, copies of which can be obtained electronically on SEDAR at [www.sedar.com](http://www.sedar.com).

### Non-GAAP/IFRS Measures

Adjusted net income and Organic Net Revenue Growth and Free Cash Flow are not recognized measures under GAAP or IFRS and, accordingly, shareholders are cautioned that Adjusted net income and Organic Net Revenue Growth and Free Cash Flow should not be construed as alternatives to net income determined in accordance with GAAP or IFRS as an indicator of the financial performance of the Company or as a measure of the Company’s liquidity and cash flows. The Company’s method of calculating Adjusted net income, Organic Net Revenue Growth, and Free Cash Flow may differ from other issuers and, accordingly, may not be comparable to similar measures presented by other issuers. Please refer to Constellation’s most recently filed Management’s Discussion and Analysis for reconciliation, where applicable, between the IFRS, GAAP and non-GAAP/IFRS measures referred to above.

“We should no more trust executives who rely solely on experience than we should trust doctors who ignore clinical trials.” Simon London, Financial Times, Jan. 2006.

“Science is organised scepticism.” Robert K. Merton

“Too much of business is disorganised optimism.” Poster in Constellation’s board room.

“You can’t be normal and expect abnormal results.” Jeffrey Pfeffer

## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH APRIL 19, 2018

### **Question**

There has been a lot of capital deployed during Q1 so far (based on YTD information released in Q4 filings), more than in many whole years in the recent past.

While I understand it's not possible to know with certainty, what is your best estimate on the ratio of that capital that has been deployed by recent additions to the M&A effort, and what came from the same core M&A team that has been there for a long time?

In other words, how much is it the luck of the draw (sometimes a whole bunch of big things close at the same time randomly), and how much is a result of scaling up the M&A team, and possibly more sustainable when it comes to acquisition run-rate going forward, as far as you can determine?

### **Response**

Excluding the Acceo acquisition, the increased acquisition activity is primarily the result of us scaling up the M&A team.

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### **Question**

To what extent are you involved in providing Cyber Security solutions for your customer base? What kind of business do you expect from the Federal Government and their emphasis on dealing with Cyber Security threats?

### **Response**

Cyber security solutions do not generate any significant revenue for Constellation.

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### **Question**

What effort has been put in place to retain employees from creating copy cat firms with a similar mandate? On a larger scale, how do you plan on competing with larger private equity firms that also specialize in technology investments that can pay more?

### **Response**

We offer our employees the opportunity to invest, compound capital, and over time build a large portfolio of software companies within Constellation. Those that do this well can generate significant wealth.

With regards to competing against private equity: hopefully the benefits of CSI ownership (a permanent home for the business where the management team will have autonomy and access to literally hundreds of peer companies with similar issues and opportunities) will outweigh any benefits of selling to private equity.

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### **Question**

About not decreasing adjusted earnings to reflect the minority interest in earnings. I realise that accounting rules reflect the minority interest in TSS in a liability rather than in minority earnings. However, management adds back the full change in that liability for adjusted earnings. It seems to me that this means that the minority interest in TSS earnings while recognised as a liability in GAAP becomes totally unrecognised in adjusted earnings. Why is that appropriate? I realise that the minority interest would be a non-cash expense. But should it not still be recognised in adjusted earnings? Or, by adjusted earnings does management mean to arrive at a cash flow number? I have been an owner of Constellation off and (mostly) on for over seven years and have read its reports and letters closely all these years. I greatly respect the success and openness of the company.

**Response**

Adjusted net income is a metric that is intended to be a proxy for the cash generated in a period that's available to Constellation's shareholders. Our calculation of Adjusted net income excludes the 33.29% non-controlling interest in the Adjusted net income of TSS.

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**Question**

About adjusted earnings. In my (long) experience, when items are added back to adjust earnings, it is almost always done on a tax-affected basis to reflect that the added back expense reduced GAAP if not cash taxes. Constellation does not appear to tax-affect the adjustments. That seems less conservative to me. Please explain. My guess is that it is because Constellation is trying to calculate some measure of cash and not adjusted earnings? I have been an owner of Constellation off and (mostly) on for over seven years and have read its reports and letters closely all these years. I greatly respect the success and openness of the company. I have had the greatest respect for Mark Leonard for many years but I am growing concerned that the adjusted earnings figure seems aggressive. Am I wrong?

**Response**

Adjusted net income is a metric that is intended to be a proxy for the cash generated in a period that's available to shareholders. The largest add-back in the ANI number is the amortization of intangibles associated with acquisitions. Our contention, is that this is non-economic amortization, and that the intangible value of our underlying assets is actually increasing and hence the full amount of the amortization should be added to ANI.

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**Question**

Tyler technologies says the public sector software market is growing at 6%-7% per annum and their own organic growth has been in the 10%-12% range. Why are your public sector businesses growing at substantially below market growth rates at 2%-3%?

**Response**

One of the main contributors to the lower growth is our exposure to the US healthcare market which rolls up into our "Public Sector" reporting segment.

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**Question**

You regularly talk about how decentralized CSI is and how you prefer to break up bigger teams into smaller teams rather than attempt economies of scale by aggregating teams together.

Would this apply to the operating groups and how would you think about this? Would you ever break up an operating group into two because it too large, or are things decentralized enough within the groups to allow them to become quite a bit larger than they are now? How did the company arrive at the current number of operating groups and why is that the right number at this time? Is the bottleneck for more groups down the line the number of executives capable of running a group, or something else?

**Response**

We break up business units to enhance their customer focus. The operating groups are now essentially mini Constellations. The same way Constellation's head office pushed down responsibility as we grew, the operating groups are pushing down responsibility to the layer beneath them (the group we refer to as portfolio managers). Over time the portfolio managers will become mini Constellations and the cycle will repeat.

The number of operating groups under Constellation will be limited to the number of direct reports that Mark Leonard is comfortable managing.

An important item to keep in mind, is that we are not doctrinaire about organizational structure: we are willing to cater to exceptional people with exceptional talents who wish to ply their trade using unique reporting relationships or capital deployment models.

## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH MAY 11, 2018

### **Question**

With the different operating groups functioning as independent entities, do situations ever arise when products within the portfolio end up competing with each other? Also wondering how extensive the competition is between operating groups for acquisitions? For example, what happens if one segment head sources a deal that would fit better with another operating group? How would this get resolved?

### **Response**

We let Operating Groups compete for a customer's business, but that is quite rare. More frequently, Business Units within one Operating Group will compete for a customer's business.

When we are dealing with acquisition prospects, we try to limit the competition between CSI-owned entities. We'd like only one manager and their staff to have responsibility for building a relationship with each prospect, since this can be a decade long process. When we buy a business and run it as a stand-alone Business Unit post acquisition, we don't expect synergies with any other CSI Business Units, so there is no economic reason for us to seek a "better fit" elsewhere within CSI.

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### **Question**

TSS has an acquisition program. Do they put up 1/3 of the capital and retain 1/3 of the acquired companies' ownership, and how is this reflected in CSI statements? Do they have non-recourse sources of capital?

### **Response**

Constellation Software Netherlands Holding Cooperatief U.A. ("CNH"), is a subsidiary of Constellation and the indirect owner of 100% of TSS. On December 23, 2014 Constellation and the sellers of TSS along with members of TSS' executive management team (collectively, the "minority owners") entered into a Members Agreement pursuant to which the minority owners acquired 33.29% of the voting interests in CNH. In accordance with IFRS, 100% of the financial results for TSS are included in the consolidated financial results of the Company. Each of the minority owners may, at any time, exercise a put option to sell all or a portion of their interests in CNH back to Constellation for an amount calculated in accordance with a valuation methodology described within the Members Agreement. The value of the put option at March 31, 2018 was approximately \$146.5 million.

CNH entered into a credit facility on July 14, 2017. Under this facility, CNH is able to borrow up to €300 million under a multicurrency revolving loan facility and up to €50 million under an additional uncommitted term loan facility. As at March 31, 2018, \$43.1 million (€35.0 million) had been drawn from this credit facility. The CNH facility is not guaranteed by Constellation or its subsidiaries other than CNH and its subsidiaries.

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## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH JUNE 26, 2018

### Question

Let's say that at some point CSI was not able to deploy anywhere near its FCF into acquisitions that meet its hurdle rate and large acquisitions were too scarce and expensive, and it was expected that this would continue going forward. Would management consider not only returning the excess capital via special dividends, as has already been mentioned in the past, but also leveraging the balance sheet a little (via long-dated bonds?) to increase ROE?

In other word, I'm seeing that M&A is a big source of value creation for the company right now, and it's also the main source of uncertainty (you never know how much you'll be able to deploy, when big opportunities will show up, when a mistake could be made about an acquisition that could cause problems, etc). If suddenly M&A became a much smaller part of the business, it seems to me like the remaining business would be much more predictable and stable as a result, and so some reasonable amount of financial leverage would make more sense (if risk went down on one side, it could be increased a little on the other without changing too much the overall level).

This is more of a thought experiment to better understand how management thinks about things, as I don't expect M&A to dry up any time soon or larger VMS companies to stay expensive forever (and just one of those could all of a sudden radically change the excess cash situation).

### Response

One of the few lessons that stuck with me from B-school was "Toy's law of constant concern" which our entrepreneurship prof phrased as "business risk + financial should equal a constant". Although he didn't specify the units of measurement for risk, I think Toy's law captures the essence of your question.

We would definitely consider special dividends if we felt we had excess cash. We might consider buybacks if we felt the stock was fairly valued. I would personally fight against a buy-back if I felt the stock was under-valued. Buybacks of under-valued stock feel to me like insiders preying upon their weakest shareholders using superior information. I'd argue to our board of Directors that there is no "Mr. Market" whom we can take advantage of without qualm. Buybacks of over-valued stock hurt your continuing shareholders, so I can't see us doing that.

I don't know whether we'd use high leverage or not to increase dividends. It feels like a manoeuvre that gets shareholders maybe a 20%-25% one year pop in their return, but then hobbles the company with debt and covenants for a very long time. That hobbling has obvious (i.e. you are less likely to take on turn-arounds and high business risk situations when you have high financial risk) and less obvious (i.e. more short term focus) ramifications.

Moderate leverage with "friendly" debt (similar to our existing debentures) might be worth considering if our acquisition growth slows considerably.

I think our dividend/debt/buyback decisions will get made in the context of the environment and alternatives at any particular time. We have a very financially sophisticated board of Directors, so this

isn't an issue that currently keeps me up at night (although when our PE investor proposed a leveraged recap a few years before our IPO, it greatly concerned me).

Mark L.

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## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH JULY 25, 2018

### Question

Since key employees are under the obligation to buy CSI shares when they receive a bonus and given the expanding stock price multiple, what measures, if any, have you put in place to maintain employee retention?

### Response

We don't think our stock is likely to appreciate in the future at anywhere near the rate it did in the past. That means the opportunity for wealth creation via the employee bonus plan (which is invested in CSI shares) is not as great as it once was. We are offsetting that somewhat by increasing bonus factors for employees. If the employees are instrumental in generating ROIC's and growth at levels similar to the levels achieved in the past, their bonuses will be greater and they will get to invest more in CSI shares than they would have in the past.

If we get this trade-off right, we think most employees will feel that they are compensated fairly, and retention will then become merely a function of providing meaningful work, inspiring colleagues, intellectual stimulus, autonomy, and opportunities to learn and grow... the normal stuff you should be able to expect from work and life.

Mark L.

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### Questions

1. How do you ignore what the street, media, investors, say about CS and in some cases, yourself? How do you avoid bias (or can you)? Maybe it is just because I am young and inexperienced, but I find it hard to tune out all the noise.
2. How do you set incentives for your team, especially management? To retain talent, sustain a good corporate culture and avoid diluting your human capital.

### Response

I've responded to your first question in 3 parts:

"How do you ignore what the street, media, investors, say about CS and in some cases, yourself?"

Most of the time, the street, media and analysts/investors have got it figured out... so I don't ignore them. Sometimes they get it wrong... that's when I try to ignore them.

From your original email it sounds like you are currently working as an investor or analyst. Don't despair. Investors who learn how to provide capital to worthy projects and strive to be great owners can eventually be worth their salt. Sadly, the majority of investors trade pieces of paper in a frenzied zero sum game that arguably adds little or no value to society.

One of the tenets of value investing is that investors who have unpopular but well-founded beliefs ("Correct Contrarians") will outperform the market. Invert that statement, and it implies that Investors who share the street's, the media's, or the consensus investors'/analysts' opinions are much less likely to outperform. As an investor, that is a pretty strong argument in favour of ignoring street/media/investor/analyst opinions if you have good reason to believe that the consensus opinion is wrong.

Constellation was a Correct Contrarian when it entered the vertical market software businesses. We were able to ignore consensus views because we had (and hopefully still have) important facts that others don't have ("IFTODH"). If you surround yourself with curious and questing people, and develop a culture where argument and debate and experimentation are encouraged, then you are more likely to recognise, discover and use IFTODH.

"How do you avoid bias (or can you)?"

The research suggests that bias is incredibly hard to avoid, even for a well-prepared mind. The one defense I've found against unconscious bias, is to surround myself with logical intelligent anti-authoritarian (ideally unemotional) skeptics. They are hard on my ego, chew up my energy, but save me from making fatal mistakes and consistently making the same mistakes. They also provide really good whet stones against which you can hone your IFTODH, and they frequently generate new IFTODH because they are naturally sceptical of consensus thinking.

I love the Merton quote that "Science is organised scepticism". Science has had a pretty good run, so I'm a big advocate of investors and business people cultivating sceptics on their teams.

"Maybe it is just because I am young and inexperienced, but I find it hard to tune out all the noise."

One way to tune out noise is by focusing narrowly. With a tight enough focus, you avoid distraction and rapidly develop the ability to separate signal from noise (within that particular specialty). Value investors refer to this as a circle of competence. At CSI we became vertical market software specialists long before VMS was an accepted term.

If you develop a circle of competence while learning how to discover, defend and use IFTODH, you will be a very rare commodity. Youth will flip from being a liability to an asset.

"How do you set incentives for your team ... to retain talent, sustain a good corporate culture..."

Incentives need to be approximately right and perceived as fair. Once people think you are in the ballpark with incentives, it is a bunch of other things like corporate culture that keep the stars and their teams around. By culture, I'm referring to mutual respect, shared values and beliefs, trust, the joy of learning and mastering and sharing. You can't mandate that stuff. It slowly seeps into the coffee and becomes the accepted way that things are done. A bad boss can stamp out a good culture in no time.

For the 6 Operating Group ("OG") managers we have a formulaic incentive plan based on their respective OG revenues (net of third party costs) revenue growth (combined organic and acquired), and profitability (a return on capital measure).

We tried to design the formula to align annual incentive compensation with the annual increase in each OG's intrinsic value.

The OG managers have a sense of their incentive comp at all times based upon the formula and how their OG is performing. Bonuses are paid in cash, but the OG managers must then invest 75% of their after tax incentive compensation in CSI shares that are purchased on the open market. These shares are held in trust and cannot be sold for between 3 and 10 years (it used to be between 3 and 5 years).

We designed the hold periods and the trust to align the managers' capital appreciation with that of CSI's long term shareholders.

I prefer incentives to be formulaic because subordinates are more likely to be candid. When bonuses depend upon a manager's subjective assessment of a subordinate, there's a temptation for the subordinate to optimise their bonus by agreeing with the boss. Formulas also get questions of fairness into the open since the OG managers know the components and relative weightings in the formula and can debate their appropriateness. Not all of our OG managers agree with a formulaic approach to incentive comp... some feel that they have built enough mutual trust between themselves and their direct reports to be able to work with more of an ad hoc approach.

One of the many possible complaints about formulaic incentives is the free-rider problem. Imagine a manager who is doing 50 hour weeks, but is benefitting from an industry tailwind and has a strong group of subordinate managers who are generating superior returns on capital and revenue growth. That OG manager would receive a high bonus. Compare that to an extremely hard working OG manager who is running a cyclical business that is struggling in absolute terms, but doing well compared to its industry peers. An example of the latter would be our Homebuilding OG in '08 and '09, when 80% of their prior years' bonuses were vapourised by the downturn in the homebuilding industry.

All of our OG Managers have been responsible for deploying the majority of their capital to make acquisitions, and for building their teams. If they have built a portfolio of businesses where their investment is disproportionately high compared to the "difficulty" of those business, and their team is not what it should be, then we believe that their incentive should reflect that, irrespective of the effort they are expending to manage their portfolio. Similarly, if the manager has a portfolio of great businesses that "run themselves" and the manager has trained and promoted a competent and inspiring team, then I have no problem with them reaping the incentives provided by the bonus formula. However, if either manager is unethical, is not respected by their subordinates, or is trading off long-term success for short-term profits to optimise bonus at the expense of long-term shareholder value, then we will replace them.

The Portfolio managers and Business Unit managers below our Operating Group managers have incentives that are built on similar, but not identical concepts. Sometimes they have return on sales instead of return on capital as a key portion of their bonus formulas. Sometimes they are allowed to return excess capital rather than deploy it. If all of our managers were experienced and competent capital deployers, I'd hope to see more consistency in our incentive compensation formulas across various levels of the organisation, as that would improve alignment between managers and their reports.

Mark L.

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### **Question**

“ ... one more answer about IFTODH... these are facts then, not beliefs? ... I am working on some small caps, which has been a good learning experience because I usually prefer companies with a proven moat. These small caps are still in the process of building their moat. Is it a IFTODH if I believe their strategy will work, when others don't?”

### **Response**

You rarely have double blind randomised controlled trials in the business world, and even if you do, the “N” has to be absurdly large for a “fact” to be absolute. Beliefs are about as good as it gets in business and investing. Maybe I should change the acronym to IBTODH 😊.

Mark L.

## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH AUGUST 3, 2018

### Question

You have obviously studied many HPCs. Do you also study failures, or companies which lost market share and/or suffered from unexpected declines? For example, are there any lessons from Blackboard or MYOB, both of which had dominant market positions and lost significant share to SaaS competitors (Instructure and Xero, respectively)? Or Micro Focus, which has struggled since acquiring HPE Software?

### Response

One of the design problems of the HPC study, was that we didn't formally study conglomerates that had been failures. Most people from my generation and younger believed that conglomerates were failures, hence I focused on the few that weren't! Once we knew that there was a handful of successful conglomerates that operated in a manner similar to CSI, I'm afraid that I moved on to other areas of study. It is a great example of confirmation bias. I should have tried to distinguish the characteristics of the conglomerates that were successes and failures, and determined if there were differences between the two.

We have always studied vertical market software businesses of all kinds, including both successes and failures. MYOB isn't a VMS, nor is Micro Focus and hence they have not had much of our attention.

I followed Blackboard while it was public, but it was taken private many years ago by a PE firm. At the time, it appeared to be a successful firm largely competing in the colleges and universities market (15% of revenue was from the K-12 market). I had not heard of Instructure previously, so thank you for bringing it to our attention. I just had a glance at their profile: They seem to operate primarily in the K-12 market, so I don't believe Instructure is focused in the same place as Blackboard. They also appear to be investing significantly to generate declining growth. We'll study them further.

The economics of customer acquisition interests me. I've been looking for public SaaS companies that are clearly creating value in their customer acquisition process. I'm amazed at how difficult it is to get the data necessary to do this analysis. Most currently raise money at high valuations without providing detailed customer acquisition cost information.

We produce a valuation index of public VMS SaaS businesses each quarter and publish it internally. This quarter the weighted index hit an all-time high of 9.5X TTM Revenue. If you believe that each dollar of new customer revenue really does create 9.5 dollars of enterprise value, then you can afford to spend up to 9.5 dollars acquiring that incremental dollar of annual revenue. I think that there are a number of SaaS CEO's who are pushing customer acquisition "investment" to these record levels. It feels like a party that could end unhappily if that marginal customer's economics don't support their marginal acquisition cost.

I was having a conversation about SaaS customer acquisition economics with one of our large shareholders. They suggested that I look at The Ultimate Software Group, Inc. ("ULTI"). ULTI are not a VMS, but I did some analysis based on their publicly available information and I'm convinced that they are adding value via customer acquisition.

If there are other public SaaS businesses where you think the marginal customer acquisition costs are clearly below the customer lifetime value acquired, please send along their names and we'll study them and share what we learn with our managers.

Mark L.

P.S. The ULTI suggestion was an example of what I've referred to as "Enterprising Shareholders" adding value to CSI. I can't imagine having that conversation with most ETF managers.

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**Question**

Margin trajectory: The margins for the first half of the year has been weaker than last year, can you give us some colour on how much of this is because of higher employee expense at the corporate office and how much is because of lower margins for the acquired company. Also just some colour on whether there has been some shift in the criteria for making new acquisitions to include lower margin companies?

**Response**

As mentioned in the MD&A the margin decline is primarily the result of lower margins on recently acquired businesses. If these businesses improve over time as expected, and we do not add a proportionate volume of low margin acquisitions, then overall margins of Constellation could move closer to historical levels.

Keep in mind that we are also investing a lot more in M&A, so there could be an increase in our G&A expense as a percentage of revenue.

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**Question**

The trajectory of your ex-fx organic growth has shifted from low single digit (LSD) to mid single digit (MSD) improvements to flattish in the first half of the year. Is this a longer-term shift in your organic growth rate to the Flat to LSD range from an LSD to MSD range or a one-off in the first half with improvements expected heading into the second half of the year?

**Response**

Organic growth in maintenance and other recurring revenue remains stable. The organic growth in the remaining revenue streams is lumpy and there has been no fundamental shift in the organic growth profile of the overall company.

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**Question**

The tax rate in this quarter was much higher than your prior quarter trajectory, what were the one-offs included in the tax rate numbers and what the long-term tax rate should be for the company?

**Response**

Current tax expense as a percentage of adjusted net income before tax was 22% and 19% for the three and six months ended June 30, 2018 respectively, and 21% for the same periods in 2017. This rate has historically approximated our cash tax rate however the quarterly rate can sometimes fall outside of the



annual range due to out of period adjustments. It is expected that the cash tax rate will increase slightly over time as taxable income growth outpaces the growth in tax deductible intangible assets.

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#### **Question**

What is the company's philosophy on SaaS based models vs. on-premise? Would SaaS require more R&D spending at the company? Are SaaS businesses available at similar acquisition multiples to Constellation? Will you disclose what portion of revenues are generated from SaaS products? Do Constellation businesses fall behind as SaaS competitors integrate more machine learning and artificial intelligence into their offerings?

#### **Response**

We like to generate good returns on our invested capital, whether that capital is invested in SaaS or on-premise businesses.

SaaS can be a technology model or a billing model or both. R&D spending will vary depending which of those two you mean. It will also vary by stage. For example, if a multi-tenant single instance SaaS tech model is being deployed along with a SaaS billing model, and the business is mature, then the proponents of SaaS would argue that R&D spending as a percentage of revenues would be less. In the growth phase for a similar company, that is much less likely.

Our individual businesses will offer SaaS or hosted solutions if it makes sense in the market in which they operate. This may involve a software re-write or acquiring the technology. We don't track the percentage of revenue coming from SaaS or hosted solutions.

If new technologies like machine learning and AI prove useful, we integrate them into our products.

## **SEPTEMBER 19, 2018 - Additional sectors for investment, Buybacks, ROIC, Value Investing**

### **Question**

In the president's 2017 letter, you mentioned the competitive environment and possibly finding other sectors with high ROE and asset light businesses. Can you talk a little more about what other sectors interest you and if we are likely to see Constellation make an acquisition outside of VMS in the medium to long term? Additionally, what would be the hurdle rate (ROE) targeted for these other sectors?

### **Response**

I hope that we eventually find ways to invest beyond the VMS sector, but our current priority is to refine our capital deployment process within the VMS sector. If we are successful, that will probably delay our move into other sectors.

There are structural factors and trade secrets that contribute to moats. The latter tend to leak into the market over time, gradually diminishing moats. Alerting potential competitors to investment opportunities that we find interesting feels like a way to deliberately introduce leaks into our moat. When we do invest in another sector, we'll keep it as quiet as legally possible.

We use a weighted four-scenario approach to assess investment prospects. Academics call this mutually exclusive collectively exhaustive scenario modelling or "MECE". The cash flows of each of the four scenarios are probability weighted, allowing us to use a single hurdle rate across all investment prospects, even if the investments have very different risk profiles. I encourage our folks to use the MECE method and similar hurdle rates for all of our investment prospects, whether they be VMS acquisitions, internally generated Initiatives, or investments outside of the VMS sector.

If we continue to generate strong and growing free cash flows, we will eventually lower our hurdle rates. That will both broaden the field for alternative investments and increase the size of our addressable market within the VMS sector. It will also mean that there is less excess return to share between CSI's employees and investors. I'm hoping that doesn't happen for a long time.

ML

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### **Question**

Your previous Q&A answer about buybacks created some interesting discussion among a group of CSI shareholders. One of them raised the point that when a company buys back undervalued stock, it is providing liquidity counter-cyclically at a time when some shareholders might need it (some of them will be making sales whether the company is buying or not, and might get better prices if the company is increasing demand for the stock).

It also helps protect the company from staying undervalued too long, protecting it from short-term thinking activists and takeover attempts (the original PE investors tried to have the company sold because of undervaluation, according to the president's letters).

So the argument is basically that undervalued buybacks might help selling shareholders by providing them more liquidity and a better price and help remaining shareholders by stabilizing the price and possibly

protect some from human nature that makes people panic when prices fall rapidly (something that the company's less sophisticated and experienced shareholders are probably more prone to). Only those who are would-be shareholders and are waiting for low prices might have fewer opportunities.

Do you agree or disagree with these points and do they change your thinking about buybacks any? Thank you.

### **Response**

Those are good arguments in favour of buybacks. There are some counter-arguments. The question about when to use buybacks is a difficult one.

My second inclination when confronted by a difficult question, is to ask what problem we are trying to solve. Once that has been nailed down, I like to use scholarly research in the field, well-constructed experiments (if the cost/benefit of our experiments can be justified), case studies, and experts to help me seek solutions.

My first inclination is to rely upon my own biased and subjective experience. Tapping personal instinct and experience is nearly effortless and works fine a lot of the time, particularly with simple questions. Unfortunately, habitual or instinctive responses to difficult questions can sometimes lead to very poor outcomes. With difficult questions, I try to follow my second inclination, and only resort to my own experience and judgement if I have no alternative.

Buybacks are sometimes used to return capital to shareholders when management can find no better way to deploy capital. They can also be used as a signaling device — a way for directors and officers to communicate to existing shareholders that they think the company's current stock price is trading below intrinsic value and that shareholders should not sell at prevailing prices. My second inclination would be to figure out which of these problems you are trying to solve. That may point you to a better solution than a buyback.

History is replete with examples of directors and officers using insider information to abuse shareholders. Regulators eventually twigged to the problem and market-making by insiders is now illegal except in highly prescribed circumstances. Despite these regulatory efforts, the scholarly research is clear that buybacks commonly increase short-term share prices and are more frequently associated with insider selling than insider buying. My sense from the research is that most buybacks help short-term sellers rather than long-term owners. I'd prefer that our employees be aligned with Constellation's long-term owners. Alignment with long-term owners may not work in PE-backed or venture-backed companies or when the majority of your investors are transient. In those instances, catering to the objectives of short-term sellers is more rational.

There are a minority of cases where a company designs a buyback to benefit long-term owners by acquiring shares at less than intrinsic value. If you consider only long-term owners, the "success" of this kind of buyback is dependent upon the company acquiring as many of its shares as far below intrinsic value as possible. In that case, the directors and officers could maximise "success" by 1) convincing the market not to buy the company's shares, and 2) convincing some existing company shareholders to sell their shares below intrinsic value. This is one of those instances where the moral compass and the apparently common-sense definition of "success", point in opposite directions. When there are reasonable alternatives, I try to avoid such dilemmas.

If the problem is determining how to return capital to shareholders when its shares are trading for less than intrinsic value, why expend energy on the inherent conflict of a buyback, when dividends are a good alternative? In those circumstances I can think of only a couple of examples where I might prefer a buyback to a dividend... i.e. if most of our shareholders were taxable entities, or if I'd had a sincere conversation about the company's prospects with a sophisticated large block shareholder who still wished to sell.

If the problem is that company shares are trading at a value significantly below or above intrinsic value, and the directors and officers have exhausted all other methods of broadly communicating that fact, then a buyback or share sale may be warranted. In those instances, I'd say a common-sense measure of success would be getting the company's shares to trade at approximately their intrinsic value with as little market intervention (and as little capital deployed/raised) as possible. The greatest good has been achieved for the greatest number of our shareholders, when none of them buy too expensively and none of them sell too cheaply.

ML

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### **Question**

Thank you for your answer to my previous question about leverage. If possible, I'd like to dig a little deeper into your answer. You mention:

"I would personally fight against a buy-back if I felt the stock was under-valued. Buybacks of under-valued stock feel to me like insiders preying upon their weakest shareholders using superior information. I'd argue to our board of Directors that there is no "Mr. Market" whom we can take advantage of without qualm."

This sounds like CSI will not take the John Malone approach, but I'm curious what you think of the Henry Singleton and Warren Buffett approaches, and whether they make a difference in how you see buybacks. Singleton did large tender offers. Does it make a difference to you if the stock isn't bought back in the open market but rather shareholders are given advance notice of the company's intentions and allowed to decide if they want to participate or not?

Buffett's approach has been to either buy large blocks of stocks from sophisticated early shareholders who approached him (I know it happened at least once, maybe more -- I think it might have been related to succession planning). At some point CSI might have large early shareholders who want to sell, and it could be made known to them that the company could buy the stock back rather than have them try to sell large amounts on the open market. In recent years, Buffett also set pre-announced levels where everyone knows that he might buy (ie. at 1.3x of book value), and he's made it clear publicly that he thinks the stock is a good value at those levels.

Seems to me like these approaches might remove or at least reduce the potential moral issues with buybacks, though they might also be self-defeating and put a floor on the share price (though in a future period of large market dislocation, there might be large opportunities for such buybacks, and a lot of the churn in the stock might come from indexers, algorithms and other "accidental" shareholders that haven't invested much thought into their ownership).

Hindsight being 20/20, we can see that CSI stock has been undervalued for most of its public history, so any buybacks would've provided excellent IRRs for remaining shareholders, if they could have been done in a manner satisfactory to all. We can't know the future, but similar opportunities to deploy meaningful amounts of capital this way may be available in the future. Thank you.

### **Response**

Teledyne and Berkshire are examples of buy-backs where the companies were seeking to return excess capital to shareholders and management believed that their shares were trading for less than intrinsic value. For most of Constellation's history management were not seeking to return capital to shareholders and did not think their stock was undervalued, so we do not yet have any practical experience with this issue.

I agree with you that some things can be done to reduce the moral hazards inherent in buybacks.

The prospectus-like disclosure used in tender offers gets far more attention from multiple layers of company managers than do the normal quarterly disclosures. The prospectus usually lays out the price and/or terms on which the company will be purchasing a specified number or dollar value of shares. That feels better to me than playing cat and mouse with selling shareholders over an extended period as the company buys in the market.

If the company resorts to frequently trading in its shares, it could press release its purchases every day rather than wait until it is forced to do so by regulation. That is more likely to give an immediate indication of intrinsic value to shareholders, than the periodic anonymous purchasing of shares which isn't reported until quarter-end. This is a good way of signaling intrinsic value but is unlikely to deploy much capital.

A large block purchase of company shares at or below market value from a sophisticated investor who has been personally warned by company management that the directors and officers believe the shares are trading below intrinsic value, strikes me as a one of the better sets of circumstances in which to buy back shares instead of paying dividends.

The buyback vs dividend debate isn't black or white. However, I'd rather have a rule with which I'm comfortable and consider exceptions based upon an analysis of the circumstances of specific exception, than have no rule and act instinctively as each decision arises.

I asked our outside securities counsel to review my responses regarding the buyback questions. She reports that directors and officers cannot legally do buybacks while in possession of material undisclosed information ("MUI"), and that quarterly disclosures by directors and managers should be held to no lower a standard than prospectus disclosures. That strikes me as legally correct but unlikely to be the observed practice. For instance, I would not publicly disclose the specific customers and products with which CSI is getting the most traction and the extent of that success, the techniques that generate the most M&A opportunities for us, nor the places and processes by which we have recently hired and trained our best employees, etc., etc.. Those trade secrets are part of our moat. We protect them jealously. Are they MUI? My gut tells me that if we did publicly promote them, it might increase our share price in the short-term (the legal definition of MUI) and hurt it in the long-term. This illustrates a conundrum. More information is always better for long-term investors... until its availability becomes a competitive disadvantage for their investee.

ML

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### **Question**

In your 2018 letter, you wrote that the best way to measure CSUs change in intrinsic value is through ROIC+ Organic Net Revenue Growth, growth in operating cash flow per share & growth in free cash flow per share. Would you mind sharing with us what inputs you use to calculate ROIC - namely the denominator?

### **Response**

Invested Capital represents the cash that has been retained in the business. The following calculation can be used to approximate our invested capital.

|                                                                                        | <b>2016</b> | <b>2017</b> |                    |
|----------------------------------------------------------------------------------------|-------------|-------------|--------------------|
| Ending Retained earnings                                                               | 394         | 532         | Per BS             |
| Less non-controlling interest in the Adjusted net income of TSS ( <b>Accumulated</b> ) | (37)        | (59)        | Per MD&A 2014-2017 |

### **Non-Cash Adjustments:**

|                                                                        |       |       |                  |
|------------------------------------------------------------------------|-------|-------|------------------|
| Add accumulated amortization of Intangible assets                      | 1,019 | 1,286 | Per note 9 of FS |
| Less Deferred income tax asset                                         | (50)  | (38)  | Per BS           |
| Add TSS membership liability revaluation charge ( <b>Accumulated</b> ) | 44    | 94    | Per IS 2014-2017 |

|  |              |              |  |
|--|--------------|--------------|--|
|  | <b>1,371</b> | <b>1,814</b> |  |
|--|--------------|--------------|--|

|         |  |       |  |
|---------|--|-------|--|
| Average |  | 1,592 |  |
|---------|--|-------|--|

|                                |  |       |  |
|--------------------------------|--|-------|--|
| Average per Shareholder Letter |  | 1,622 |  |
|--------------------------------|--|-------|--|

Additional non-cash adjustments are made that are not as easily obtained from our disclosure including accumulated unrealized foreign exchange gains and losses.

JB

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### **Question**

Hi Mark

... [some discussion of \*\*\* recently becoming an owner/manager/director]

I have a question about your comment regarding value investors-- your response to the question appears to suggest that these IFTODH (or beliefs) are what's behind value investors success - being 'correct contrarian', etc. This seems to suggest that value investors do well when making an investment decision "against the crowd". I generally do agree with this approach and have been doing this ... but lately, I find that there are just as many instances where the "crowd is right".... for example.. if you look at Adobe... it's been consistently trading at 40x+ and has delivered tremendous return over many years for its shareholders. Google, Amazon, Netflix, etc have too. An investor who followed the crowd clearly did really well.

Because of this.. I have in recent years started to invest in good businesses that will likely do well in the future, and pay the 'premium' that the crowd has assigned to those shares.

I was wondering if you might have any advice (since your investment history is much longer than mine) that you could share with me about this approach.

Thanks

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### **Response**

Congratulations on becoming a business owner and leader. Too few smart people aspire to that responsibility.

There appear to be two methods documented in the investment literature that consistently work to generate above average returns: Value and momentum. Sometimes the two overlap, but that is rare.

I think you are perhaps conflating "momentum" (a proven technique) and the "crowd is right" (the crowd, by definition, gets average returns). Momentum works, but it seems to be rooted in emotion, not logic, so I've always shied away from it.

A very special case of value investing, is the example of a company that is growing quickly, that the market expects to stop growing within the next 5-7 years, but that actually keeps growing quickly for much longer. If you can spot one of those, it may appear expensive on a PE basis, but actually be an attractive long-term investment on a "value investing" basis. Spotting this kind of investment requires the ability to foretell the distant future... which is extremely difficult to do with consistency.

Mark L

## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH OCTOBER 4, 2018

### Question

Besides the classic financial reward (salary + bonus + shares), what does Constellation usually do to attract, retain and motivate its employees, especially at lower levels in the organization structure? In other words, what drives the employees to make "the extra effort" for their business units? Does the company track employees' engagement and morale metrics among its Operating Groups? If yes, what is the evolution of these metrics as the company gets bigger and more decentralized?

### Response

There are two questions. I'll respond to the second first: Does CSI track the engagement & morale metrics of our Operating Groups?

Engagement and morale metrics are not something we track from head office. Implicit in the question, is the assumption that superior employee engagement and morale, coupled with head office supervision, will lead to better company performance.

I noticed employee engagement as a topic a couple of months ago when one of our groups hired a speaker to talk about it at their off-site meeting. A bit of casual Googling showed me that employee engagement was starting to get buzz in the business press and Amazon had a slew of books on the topic by general purpose business gurus ("GPBG"). I'm suspicious of GPBG's, so I started digging for relevant scholarly research. A resource that I like is the Centre for Evidence Based Management's library website, where you can search for systematic reviews and meta analyses ( <http://cebma-library.org/> ). Normal humans don't have the time and/or skills to wade through 1000's of research papers to generate informed opinions. Systematic reviews and meta-analyses do a lot of the work for us.

The consistent criticisms of employee engagement as a cause of business unit performance seemed to be three-fold: employee engagement is a fuzzily defined concept, it isn't clear that it causes performance (although a correlated concept, job satisfaction, does appear to be a cause performance), and there are a large number of other factors that have statistically significant effects upon performance, the most compelling of which is an employee's satisfaction with their supervisor.

One of the fundamental beliefs at CSI, is that autonomy motivates people, and bureaucracy does the opposite, so we try to do as many of the important monitoring tasks with as light a touch as possible. I notice CSI managers who can't retain good subordinates. This isn't data provided by a head office supervisory system and doesn't involve any bureaucracy... just personal awareness. I think our Operating Group Managers and Portfolio Managers monitor turnover similarly. This practice seems more likely to improve performance with less effort than tracking engagement and morale metrics.

And the first question: What does CSI do to attract, retain and motivate employees?

Our internal recruiters use all the normal methods to attract new employees: job boards, search consultants, LinkedIn, referral fees for current employees who generate successful candidates, etc. Attracting employees works best for me via my network. I get better folks who tend to stay. Retaining employees seems to require big doses of opportunity and occasional empathy: Opportunity because the best employees want more... more knowledge, more money, more responsibility, and more autonomy.



Empathy because they are pushing their limits and sometimes crack. Motivation seems to come from the team and the task. If employees work with people that they respect on tasks that are important, then finding the motivation isn't a problem.

Mark L.

## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH OCTOBER 9, 2018

### Question

Is the traditional moat around software shrinking as 1) absolute development/compute/storage/distribution costs fall, 2) startup costs become increasingly variable vs. fixed (e.g. pay-per-drink compute/storage offerings like AWS and increased availability of developer tools/APIs), 3) capital has become more aggressively available and 4) product distribution via the internet/SaaS model has become cheaper, easier and faster, with lower switching costs? Is the current reality of software a lower moat business now versus the days of deeply entrenched, costly to create, costly to install/sell/service/customize, multi-product suites of the past like SAP/ORCL?

In a related question - could this mean the niche TAMs that Constellation operates in that historically were illogical to compete in ("not worth it") are more 'at risk' going forward given software development and distribution seems to be much easier, cheaper and more variable now than it was ten years ago?

### Response - Mark:

There's little doubt that the cloud + amortised payment models + single instance multi-tenant software (let's call this technology/economic model "SaaS" for the purposes of this response) has significantly lowered the up-front costs of equipment for new SaaS entrants, has the potential to both speed up and lower their costs of development and customer acquisition, and has attracted huge amounts of capital to finance the creation of new SaaS products. As to your related question, I think smaller TAM's (TAM is venture capital speak for "total addressable market") are more viable today than ever before if start-up capital is available. The "if" is important, as new SaaS products consume a lot of up-front cash.

Over the entire value chain and over long periods of time, it isn't clear to me how much value will be created by the move to SaaS. Nor is it clear to me how the value created (if any) will get shared amongst clients, their software vendors and the cloud hosting companies:

If SaaS players consistently compete for new clients based on low prices, then the clients will likely be the largest beneficiaries of the platform change;

If the big three cloud vendors use the pricing leverage provided by the proprietary development and infrastructure management tools that they offer to developers, then they may get to extract a large portion of the benefits from the platform change;

If new name client acquisition costs are rational and the cloud vendors don't succeed in materially raising developers' switching costs, then perhaps software vendors who make the platform transition will also get to participate in the benefits of the move to SaaS.

I think the demand for SaaS (as defined above) amongst clients will be based upon their budgets and the desired "proprietaryness" of their software and data. Nearly all clients would like to have custom developed enterprise-wide software suites tailored to their chosen business processes and strategy. Those with really deep pockets will want to keep their proprietary data and processes private.

Many more clients will not be able to afford custom software and their own IT infrastructure, and hence will take pre-packaged software that is either highly configurable or allows for customisation. They may or may not want this hosted in the cloud.

The clients with the smallest IT budgets need to accept software with little or no customisation, and it will almost certainly be hosted in the cloud.

SaaS is ideal for customers who have strict financial constraints, and hence is an existential threat to vendors of on-premise legacy software solutions selling into the low-priced software segment. I believe that legacy solutions with browser and smart phone based user interfaces will remain the dominant solution in the mid-tier market for many years to come. True SaaS solutions strike me as unlikely to replace a significant portion of large custom-developed solutions in my lifetime.

On a more pragmatic note, the organic growth or contraction of CSI's recurring revenues and free cash flow should give you a pretty good sense of the impact on CSI of new SaaS entrants.

I asked Barry Symons who runs our Jonas Operating Group to provide you with an example from his portfolio. His response appears below. I think you'll get a sense of how his incumbent club software business fortified their moat in the face of technological disruption and potential new entrants.

Mark L.

**Response - Barry:**

Thanks for the question(s), below would be our thoughts:

On the moat issue, I think economic theory would say that if you have a business/industry that can produce above average returns for extended periods of time, intelligent people and capital will find ways to get into the industry and thus over time increase the competitiveness of the business/industry and by definition probably reduce the size of the moat. We are seeing some of the effects of the points you raised, however, I also believe that these are not changing at rapid speed (as we have witnessed so far) and thus if we are paying attention and responding appropriately we can defer their impact (materially speaking) for a very long time.

Specifically to the 4 items you mention there is no doubt that they have the potential to reduce the size of the moats we have, but we are actively working on things to counteract these threats. A great example of this would be the club market, which is one of our larger verticals. When we first entered the club market back in 2003 (via acquisition of Jonas) we were not the market share leader and we did not have a "complete" enterprise product but we saw lots of potential. Over the last 15 years in the face of the challenges you mentioned we have managed (at least in my opinion... I am sure our competitors may feel a bit differently) to not only maintain the size of the moat but in fact expand it:

- 1) We continued to invest in new name sales as we were seeing great traction and the economics were compelling (we measure our sales & marketing investment relative to long term value of the customers acquired)
- 2) We realized that we needed to have more of an enterprise-wide offering: our mantra has always been to try to be the one stop shop for all our clients' software / technology needs. Thus we built or purchased the products we did not have and began selling them back to our base of clients to truly have an enterprise product. This makes our offering to our customers even more valuable and thus reduces their desire to leave us for the competition.
- 3) We acquired some of our competitors to strengthen our position in the market.

- 4) We paid attention to changing trends in the market and developed solutions our clients would one day need... hopefully before they needed them. Since 2003 many things have evolved and changed and we have responded accordingly such as:
  - a. Websites – just having a web presence
  - b. Interactive websites – allowing the club members to actually utilize the website for booking tee times, event sign up, court booking, review their statements etc.
  - c. Member communications – email marketing and text messaging modules that did not exist in 2003.
  - d. Payments – back in 2003 the club world was pretty much all invoice and check. That has transitioned tremendously and we have built the solutions to help our clients embrace digital payments.
  - e. Mobile computing – as things transitioned we moved our product to our clients' and their members' smartphones – first with responsive designs and then with club specific mobile apps.
- 5) We evolved how we delivered our products to our clients – back in 2003 we literally shipped our clients CD's for every update that was needed (and we used to have huge Fed Ex bills) we evolved to digital downloads and have moved to having a cloud based offering for those who no longer want to host the product on site at the club.

There are many other changes I could go on about but the key message is each of these changes are things we have to respond to that give us the opportunity to deepen our moats if done properly.

I think in the end as long as we are producing above average returns there will be threats to our moats we need to deal with. However, if we are actively watching our KPI's on things like: Customer Satisfaction, Attrition Rates, Win Loss percentage etc. we can hopefully course correct before any threat becomes overly material.

Finally, specific to the second question about “not worth it”, I am sure some of the 4 items you mention have some impact, but in each of our verticals there is still a very large barrier to entry to get in the game and while the 4 items you mention make it a bit easier to build a base product, the evolutions that happen (as noted in the club example) constantly increase the size of the base product, offsetting some of the attacker's advantages. At the same time the majority of the markets we serve are not rapidly expanding so the “size of the prize” is not growing significantly. Further, no matter what changes in the 4 items mentioned, the pain of switching a mission critical enterprise application is still high. No matter how fast and cheap computing power becomes people do not like to change things that are working well unless the upside to the change is extremely compelling. Thus I think for the majority of our markets the “not worth it” comment continues to hold and that is evidenced by the limited number of new competitors we see in the majority of our verticals.

Hopefully the above gives you comfort that we are constantly thinking about these threats and doing our best to manage our shareholders capital in intelligent ways. I know we have made mistakes in the past and I am sure we will make many more in the future but if we respond quickly, rationally and intelligently we can hopefully maintain if not grow the size of our moats in a number of our stronger verticals while gracefully reducing our presence and investments in those where we have lost our edge.

Barry Symons

### **Question**

There are a number of successful companies who count the culture they have created as part of their moat or competitive advantage. Many of us shareholders believe CSU is one of those companies. However, could you elaborate on this where CSU is concerned and how important do you think the CSU culture is in the ability to drive solid shareholder returns longer term.

### **Response**

Page 2 of <http://www.csisoftware.com/wp-content/uploads/2018/07/QA-July-25-2018-Final.pdf> answers part your question... at least from my perspective. If there's a more specific corporate culture-related query, don't hesitate to send it in to the Q&A website.

I'm leery of corporate culture. The popular business press has touted it as a tool to improve corporate performance for decades. I find it a fuzzy concept (values, beliefs, and?) and a bit threatening. Actively promoting "correct corporate culture" has vague overtones of brainwashing and the cult-like expectation of acquiescence. I won't accept a set of values and beliefs that are foisted upon me, and I would not expect others to accept them, either.

I think we have lots of different sub-cultures and more than our share of heretics at CSI. Some of these sub-cultures will thrive, and some will fail. The cultures that are successful are likely to propagate their values and beliefs by example and by selection. With that sort of evolutionary process at play, my sense is that we don't need to be preaching corporate culture from head office.

Mark L.

## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH NOVEMBER 5, 2018

### **Question**

What about the business model causes license revenue to be flat to down in normal course? If it doesn't grow, please help us understand why not?

### **Response:**

The timing of license sales can be quite irregular resulting in quarterly swings in organic growth. For example, in Q318 businesses representing approximately 10% of consolidated maintenance revenue recorded negative 45% organic license revenue growth. Excluding those businesses organic license revenue growth would have been positive 7% in Q318 versus negative 7%. That same group of businesses recorded 60% organic license revenue growth in Q317 and 5% in Q316.

In Q317 businesses representing approximately 5% of consolidated maintenance revenue recorded negative 62% organic license revenue growth. Excluding those businesses organic license revenue growth would have been 17% in Q317 versus 1%. That same group of businesses recorded 25% organic license revenue growth in Q316, and 26% in Q318.

Contributing to the volatility is the fact that we will always discount licenses first and recurring revenue last when we are under price pressure.

Jamal

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### **Question**

What would you say has been CSI's biggest failure in the last 20 years? How did it change your business?

### **Response:**

The biggest failure that pops to mind was taking too much money when we didn't really need it. We had one major investor and we were hoping to balance their influence by bringing in another. The second major investor served that purpose well, but brought challenges of their own. The unnecessary dilution to our employee shareholders has cost them literally billions of dollars. The experience has made us very conscious of the value of our shares. We didn't issue any shares when we went public. We haven't issued any in the last decade. Perhaps we have been too sensitive about share issuances because of that early dilution.

Our second biggest failure was selling one of our vertical market software businesses shortly after we purchased it. It was a good business. We liked the team. We were offered an extraordinary price for the business by a venture backed dot-com. It was early in our history. We were less certain of our abilities and objectives and took the quick win. I don't look for quick wins any more. Every now and then, we check in with the VMS business that we sold. We'd love to buy it back so that we could say that we own every VMS business that we have ever bought. Our reputation for being a good perpetual owner of VMS businesses is really important to us... and this is the one glaring example of CSI selling a VMS business.

There is a management maxim that "you learn more from your failures than your successes". Kahneman and Tversky's Prospect Theory (the idea that most humans are risk-seeking in the domain of probable losses, and risk-averse in the domain of probable gains), suggests that people tend to double down on their losers and cash out their winners. It feels intuitive that learning from large failures is more poignant than any other experience. But only learning from big mistakes is a slow and painful way to learn. CSI is

in a good position to learn from lots of small experiments and experiences. We are trying to institutionalise that skill.

Mark L.

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### **Question**

Have you ever thought about creating a 'business system' just like Danaher (which is the lead reference in that field). I know CSI does a lot of benchmarking and fosters best practices among its BUs and Operating Groups, creating a kind of 'decentralized business system' spread through the organization. However, at the same time, I think there are also benefits with a more formal and standardized approach. Have you ever had this discussion at the board level?

### **Response:**

In the 2015 President's Letter ([http://www.csisoftware.com/wp-content/uploads/2016/04/PL\\_2015.pdf](http://www.csisoftware.com/wp-content/uploads/2016/04/PL_2015.pdf)) I discussed a CSI study of high performance conglomerates "HPC's". Several HPC's, including Danaher, had extensive and codified operating methodologies. I don't doubt that their technique works for the right kind of organisation.

We do some of the things that the operationally focused HPC's do: CSI benchmarks its business units and we share best practices. We usually caveat these practices with phrases like "if you do this, then historically there's been a Y% probability that Z will happen", and "this seems to have worked amongst X% of our performing businesses". Because we have hundreds of similar VMS businesses, my sense is that we are more statistical and less dogmatic about our best practices than the operationally focused HPC's. I also have the sense that our best practices are more granular than those found in the HPC's. Instead of championing broad processes like lean six sigma or the Pareto principle and applying them to a relatively small group of businesses competing in different industries, we are more likely to test a very specific hypothesis with an observational study of several hundred CSI VMS acquisitions. If the hypothesis is correct, it may lead to the development of a best practice. Whether the hypothesis proves correct or not, the observational study nearly always leads to a flurry of new hypotheses to test.

A lot of our practices were (and are) the result of ad hoc analysis (see 2016 President's Letter, <http://www.csisoftware.com/wp-content/uploads/2017/04/2017-Presidents-Letter-1.pdf>). I think we have less bureaucracy regularly applied to the development, application and compliance with centrally developed best practices than the operationally focused HPC's.

CSI has sought, hired, trained and promoted senior managers who both wish and deserve to work autonomously. The more autonomously you encourage business units to operate, the less likely you are to be able to specify exactly how they should be operated. Along with Berkshire and ITW (during the Nichols era), I think we are at the left end of the autonomous vs centrally directed spectrum for the HPC's.

You mentioned that there are benefits of a more formal and standardised approach. I'm sure you can also think of some drawbacks... particularly when you factor in our statistically driven skepticism about the universality of best practices, our disdain for bureaucracy and our managers' appetite for autonomy.

We have discussed the idea of gathering and codifying operating methods at the board a couple of times. The discussions were in-passing, and not in-depth.

Mark L.

## **SELECTED INVESTOR QUESTIONS RECEIVED THROUGH FEBRUARY 20, 2019**

**(Relating to the special dividend)**

### **Question**

Now that CSI has announced a special dividend, could you please elaborate on your thinking behind the decision. You've talked a bit about the pros and cons of retaining capital vs returning it to shareholders in the past (via special dividends or buybacks, which you aren't a fan of). I'm curious what prompted the decision now. Is this a signal at all about capital deployment, or do you feel like you have such good access to capital (with the new bigger revolving line of credit and the possibility of issuing more debentures and the ever growing FCF coming in) that the excess ~\$400m was simply superfluous? Should we read into this that there are no elephants in the pipeline, or that if you were to do one, you'd want to lever it up anyway and wouldn't require that much cash.

### **Response**

The dividend is clearly a signal about capital deployment. If we thought that we could deploy this capital at high rates of return, we would have kept it.

ML

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### **Question**

While your team of capital allocators at CSI is able to deploy capital at a ROIC of 25% to 30%, a good fundamental investor might hope to generate 10% to 15% CAGR if he does a good job. This is far from the 25-30% CSI is able to generate, and in between, it seems to us that lowering CSI's hurdle rate in order to deploy more capital might be a better use of cash than returning it to shareholders. We would be curious to have Mr. Leonard's thoughts about the opportunity cost investors incur when receiving such a dividend from a high ROIC generating company such as CSI?

### **Response**

This has been a perennial discussion topic with the board.

I used 3 ideas to make the case for maintaining hurdle rates to our board this quarter: Hurdle rates are magnetic, our performance has been exceptional despite (and perhaps because of) our high hurdle rates, and if we deploy our capital at the "cost of capital" then there are no exceptional returns to share with employees in the form of bonuses.

We have only our own experience to go on when it comes to changing hurdle rates. We've noticed that when we increase or drop the hurdle rate, all of the expected returns on our new acquisitions seem to increase or drop, respectively, in lock step with the new hurdle rates. We summarise this with the phrase "hurdle rates are magnetic". I'd be interested to hear if others have had a similar experience or if they've found any academic studies on the topic.

It is rare to find acquisitive companies that generate high rates of return on invested capital. I did a study for our managers and directors in the most recent board package. I found a half dozen public companies out of 4000 had done as well or better than CSI with an acquisition strategy during the last decade. All of them were operating on a smaller scale than CSI. If you know of any acquisitive companies that have done



well by deploying capital at 10% or 15% ROIC's for long periods, we'd be pleased to study them and try to learn from them.

I had no qualms recommending to the board that we leave the hurdles where they are and send excess capital back to shareholders.

ML

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**Question**

I had a question about Constellation's special dividend. What drove the decision to pay out the \$20/share dividend - and why was the \$20 amount decided upon? Mark has debated the merits of buybacks and special dividends with excess capital for a while, and the press release spoke about returning excess capital, but what was the straw that broke the camel's back? Was it just that the cash balance surpassed \$500 million for the first time? The special dividend (plus regular dividend) will sharply reduce the existing cash balance; is this because management expects F19 cash flows to largely cover the cost of F19 acquisitions? Or is this more on the view that CSU will become more levered (at least on a net basis) to optimize its capital structure? Thank you for answering these in advance.

**Response**

As mentioned previously in the Q&A responses, capital allocation is a perennial topic for our board discussions. This quarter I got the sense that the board hit a tipping point. There were a number of factors. We had excess cash. We are deploying more capital in the vertical market software sector, but don't see dramatic growth this year unless competition slackens. One of the directors mentioned that they were disappointed with my efforts to find new avenues for investment (outside of vertical market software), and that we should apply more effort. I don't disagree, but that is unlikely to reduce our cash meaningfully in the short term. Those factors seemed to combine to make this the right time to pay a special dividend.

Perhaps dividends are perceived as a failure... but to my mind, they are less of a failure than sitting on excess cash.

ML

## NOTE TO SHAREHOLDERS REGARDING OUR REPLACEMENT NON-IFRS MEASURE

In my last Letter to Shareholders dated April 20, 2018, I wrote about the pros and cons of using the growth in Adjusted net income ("ANI") per share versus cash flow from operations ("CFO") per share as indicators of the increase in CSI's economic value. Neither metric is ideal.

Too often managers and shareholders unquestioningly accept ANI as the equivalent of earnings available to shareholders. Regulators require reconciliations of ANI to net income to highlight the difference, but these reconciliations often get short shrift. CFO doesn't distinguish well between the return on capital and the return of capital.

In CSI's reconciliation of ANI and Adjusted EBITA to net income the largest item is the amortisation of intangible assets. Clearly some of this amortisation represents an actual decrease in the economic value of the related underlying intangible assets. Our appreciating intangible assets have more than offset depreciating intangible assets to date, so I didn't fret about adding back the entire amount when calculating ANI. That will not always be the case. We have literally thousands of purchased products and the associated customer relationships. Many of these intangible assets are regularly maintained, enhanced and extended. A few deteriorate - some due to irrational competitors, some due to poor management and some due to shrinkage in the underlying vertical. The vast majority of CSI's economic value resides in our ability to acquire and manage these intangible assets. I can guarantee that indiscriminately adding back amortisation to create a proxy for earnings available to shareholders will eventually be misleading. I'd much rather our shareholders focused on the free cash flow that is produced each year and the trend in that free cash flow.

While the growth in net cash flow from operations (as defined by IFRS) is a useful starting point in understanding CSI's economic value, it doesn't take into account all of our cash needs for continuing operations. To reflect these necessary expenditures, we are introducing some adjustments to operating cash flow, to create a metric that we call Free cash flow available to shareholders, or "FCFA2S".

We will no longer report ANI and Adjusted EBITA. We will focus instead on IFRS sanctioned measures of profitability (i.e. net income) and cashflow (i.e. net cashflow from operations) in our MD&A, and will add FCFA2S as our only non-IFRS metric.

In the table below, we've presented the FCFA2S (along with ANI, CFO and net income) for the last 10 years. In the table below that, we've presented the same metrics for the last 9 quarters.

|                                                            | 2009      | 2010      | 2011       | 2012       | 2013       | 2014       | 2015       | 2016       | 2017       | 2018       |
|------------------------------------------------------------|-----------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Net Cash flows from operating activities</b>            | 82        | 107       | 138        | 145        | 220        | 341        | 396        | 491        | 528        | 662        |
| Interest expense, financing fees and lease obligations     | (5)       | (5)       | (5)        | (4)        | (4)        | (20)       | (18)       | (24)       | (25)       | (28)       |
| Interest and dividends received                            | 1         | 1         | 1          | 0          | 0          | 1          | 1          | 1          | 4          | 5          |
| Property and Equipment-purchases                           | (4)       | (7)       | (7)        | (6)        | (11)       | (14)       | (13)       | (19)       | (20)       | (25)       |
| TSS Minority Owners Liability                              | -         | -         | -          | -          | -          | -          | (22)       | (22)       | (50)       | (55)       |
| <b>Free Cash Flow Available to Shareholders ("FCFA2S")</b> | <b>74</b> | <b>96</b> | <b>126</b> | <b>135</b> | <b>206</b> | <b>308</b> | <b>344</b> | <b>427</b> | <b>438</b> | <b>559</b> |
| <b>Adjusted net income ("ANI")</b>                         | <b>62</b> | <b>84</b> | <b>140</b> | <b>172</b> | <b>207</b> | <b>274</b> | <b>371</b> | <b>395</b> | <b>463</b> | <b>597</b> |
| <b>Net Income</b>                                          | <b>10</b> | <b>42</b> | <b>157</b> | <b>93</b>  | <b>93</b>  | <b>103</b> | <b>177</b> | <b>207</b> | <b>222</b> | <b>379</b> |

Note: For historical reconciliations of Net Income to ANI see the MD&A filed for the relevant period, available on SEDAR at [www.sedar.com](http://www.sedar.com).

|                                                            | Q317       | Q417       | Q118       | Q218       | Q318       | Q418       | Q119       | Q219       | Q319       |
|------------------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Net Cash flows from operating activities</b>            | 123        | 163        | 258        | 53         | 143        | 208        | 284        | 50         | 177        |
| Interest expense, financing fees and lease obligations     | (8)        | (6)        | (5)        | (5)        | (9)        | (8)        | (19)       | (22)       | (22)       |
| Interest and dividends received                            | 1          | 1          | 1          | 1          | 2          | 2          | 3          | 0          | 0          |
| Property and Equipment-purchases                           | (5)        | (5)        | (4)        | (8)        | (6)        | (7)        | (7)        | (8)        | (9)        |
| TSS Minority Owners Liability                              | (12)       | (10)       | (7)        | (14)       | (17)       | (18)       | (10)       | (8)        | (12)       |
| <b>Free Cash Flow Available to Shareholders ("FCFA2S")</b> | <b>99</b>  | <b>143</b> | <b>242</b> | <b>27</b>  | <b>112</b> | <b>178</b> | <b>250</b> | <b>12</b>  | <b>134</b> |
| <b>Adjusted net income ("ANI")</b>                         | <b>116</b> | <b>141</b> | <b>143</b> | <b>122</b> | <b>145</b> | <b>187</b> | <b>127</b> | <b>137</b> | <b>154</b> |
| <b>Net Income</b>                                          | <b>54</b>  | <b>76</b>  | <b>83</b>  | <b>52</b>  | <b>66</b>  | <b>179</b> | <b>87</b>  | <b>73</b>  | <b>82</b>  |

Note: For historical reconciliations of Net Income to ANI see the MD&A filed for the relevant period, available on SEDAR at [www.sedar.com](http://www.sedar.com).

We calculate FCFA2S by taking net cash flow from operating activities per IFRS, subtracting the amounts that we spend on fixed assets and on servicing the capital we have sourced from other stakeholders (e.g. debt providers, lease providers, minority shareholders), and then adding interest and dividends earned on investments. The remaining FCFA2S is the uncommitted cashflow available to CSI's shareholders if we made no further acquisitions, nor repaid our other capital-providing stakeholders.

There has been grumbling from some of CSI's directors and finance staff that I'm creating much ado about nothing... that FCFA2S is very similar to ANI, so why make the change? Partly, it's the name. ANI implies income. When we buy a company that we expect to consistently shrink, then the ANI for that business is actually a combination of return on capital and return of capital. The name implies otherwise.

I did like the fact that ANI, unlike CFO, was net of the cost of servicing the capital provided by other stakeholders (e.g. interest on debt, dividends on preferred stock, and lease payments). The deductions from CFO that we've made to create FCFA2S reflect this cost. This may become an increasingly important adjustment if we do more partnering with other investors and operators or create spin-out businesses.

FCFA2S captures changes in working capital, while ANI did not. If venture-backed competitors use their balance sheet as a weapon, we will have to respond and that could depress our FCFA2S, but would not depress ANI. At the extreme, we've seen some venture-backed competitors offering a year or two of free SaaS service in return for customers signing a 5 year subscription.

FCFA2S reflects cash taxes, while ANI uses only current taxes. I'm a motivated consumer of corporate tax arcana... at least when it comes to optimising cash taxes. That said, I am baffled by what the accountants are now doing with the reported current and deferred tax liabilities and tax assets. I believe that these balance sheet items verge on meaningless for even the most sophisticated analysts of financial information.

And lastly, we will reconcile FCFA2S to CFO, its closest IFRS measure. I believe that FCFA2S will nearly always be less than CFO. This feels more comfortable to me than reconciling ANI to net income, and always having ANI be significantly greater than net income.

While we could use the FCFA2S to pay dividends, or repurchase shares, our current objective is to invest all of it in acquisitions which meet our hurdle rate.

If you keep a weather eye on the trends in CSI's FCFA2S per share, I think you'll be able to spot any significant deterioration in the value of our intangible assets.

Mark Leonard

## Glossary

“Adjusted EBITA” refers to net income before adjusting for finance and other expense (income), bargain purchase gain, finance costs, income taxes, share in net income or loss of equity investees, impairment of non-financial assets, amortization, TSS membership liability revaluation charge, and foreign exchange gain or loss.

“Adjusted net income” (“ANI”) means net income adjusted for non-cash expenses (income) such as amortization of intangible assets, deferred income taxes, the Total Specific Solutions (TSS) B.V. (“TSS”) membership liability revaluation charge, bargain purchase gains, and certain other expenses (income), and excludes the portion of the adjusted net income of TSS attributable to the minority owners of TSS (see “Capital Resources and Commitments” section).

Adjusted EBITA and Adjusted net income are not recognized measures under IFRS and, accordingly, readers are cautioned that Adjusted EBITA and Adjusted net income should not be construed as alternatives to net income determined in accordance with IFRS. The Company’s method of calculating Adjusted EBITA and Adjusted net income may differ from other issuers and, accordingly, Adjusted EBITA and Adjusted net income may not be comparable to similar measures presented by other issuers.

The following table reconciles Adjusted net income to Net income for the current period:

|                                                                 | <u>Q319</u><br>(\$M) |
|-----------------------------------------------------------------|----------------------|
| <b>Net income</b>                                               | 82                   |
| <b>Adjusted for:</b>                                            |                      |
| Amortization of intangible assets                               | 84                   |
| TSS membership liability revaluation charge                     | 12                   |
| Bargain purchase gain                                           | (7)                  |
| Less non-controlling interest in the Adjusted net income of TSS | (7)                  |
| Deferred income tax expense (recovery)                          | (8)                  |
| <b>Adjusted net income</b>                                      | 154                  |

Due to rounding, certain totals may not foot.

## SELECTED INVESTOR QUESTIONS RECEIVED THROUGH AUGUST 17, 2020

### Question

We notice that staff expenses have grown 10% while maintenance revenue went up 15% and that it led CSI to generate an improved (and maybe all-time record) margin this quarter. We were wondering if you felt that margin expansion is sustainable? I guess some employees have been temporarily furloughed while some have been permanently laid-off. Is this margin the new normal or just a temporary event due to the pandemic?

### Response - Jamal

Staff expense as a percentage of revenue was 52% in both Q2 2020 and Q2 2019 so not the reason for the improved margin. Travel, Telecommunications, Supplies & Software expense declined 36% resulting in an increase in margins of 240bps. It is expected that Travel, Telecommunications, Supplies & Software expense will increase when travel restrictions related to COVID-19 are lifted. Also, \$17 million in COVID-19-related governmental assistance received in the quarter added 180 bps to margins. There can be no assurance that COVID-19-related governmental assistance to offset our costs will be available in Q3 2020 (or thereafter), and if so, whether we will qualify for or receive any such assistance.

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### Question

Leafing through your new AIF, I noted you'd changed one of the executive compensation metrics from ROIC to profitability, but profitability was not defined. I was wondering if you could share how the company is defining profitability when it comes to compensation?

### Response - Jamal

As described in the management information circular filed on March 30, 2020, our corporate bonus plan, which compensates employees at all levels of our organization, is based upon return on invested capital ("ROIC") and net revenue growth (ROIC is calculated by dividing net income for bonus purposes for the year by the Average Invested Equity Capital for the period.). The language in the AIF was changed to reflect the fact that not all employees are on the corporate bonus plan. All senior executives are on the corporate bonus plan.

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### Question

Long-term plans w/ Contour? How much / what kinds of functions are you sending there, how much could ultimately go over? How does this impact M&A targets who might have concerns for employee well-being.

Early results from lowering return threshold for larger deals? Mark's worry was total company-mentality toward returns would gravitate down. Talk through what you've seen thus far. Thank you!

### **Response - Jamal**

Less than 4% of our staff work at Contour. Contour staff assist with programming and back office functions.

Note that the lower return threshold is only for very large acquisitions. We have acquired only a handful of businesses at the lower return threshold. Mark's concern was around lowering the return threshold for all acquisitions in an effort to deploy more capital.

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### **Question**

Hi, As a long-term shareholder who plans to remain a shareholder for a long time, one of the most important metric that I'd like to have to be able to judge the health of the company is related to organic growth. You've talked about it a lot in letters and do break it out between licenses/services/hardware/maintenance, but there's another big factor under the surface of the aggregate number that is having a big influence but that I have zero visibility onto. You buy some businesses that grow over time, or at least don't shrink, but you also buy some distressed assets and turnarounds, some that are no doubt shrinking rapidly, at least at first. You even were paid to take a business off someone else's hands... So when I see an aggregate organic growth number that seems low to me, I have to wonder, is it where it is because most business units are doing poorly lately (and if so, is it temporary or a more long-term inflection in the wrong direction?), or is it because you bought more distressed and shrinking assets lately (which can still create a lot of value if you paid a low enough price for them) that mask the good results of the growing business units? So that's the problem. I don't know what the best solution is, but if I was on the board of the company, I would certainly ask for some kind of way to track what is going on underneath the surface with organic growth. Maybe just to know what percentage of businesses or revenues are in each buckets, so that I could track if the "distressed/run-off" bucket has grown lately. Something like that. I know it's complicated, but it would help shareholders understand what is going on better, and they'd better be able to make intelligent decisions about CSI as a whole. Thank you.

### **Response - Jamal**

It should be noted that maintenance organic growth has been 4% in each of 2016, 2017, 2018 and 2019. If the mix of shrinking businesses were increasing it would be unlikely that the maintenance organic growth percentage would remain so stable. By focusing on maintenance organic growth, you should be able to flag any concerns around what's going on beneath the surface.

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### **Question**

You mentioned in a prior response regarding capital allocation that: "Moderate leverage with "friendly" debt (similar to our existing debentures) might be worth considering if our acquisition growth slows considerably." I am wondering (even outside acquisition considerations) if your current listed debt instrument is optimal for the company anymore considering the availability of extremely low cost of debt

for highly rated companies. For example, Citrix systems (which has not too dissimilar a capitalization mix) has a 10 year USD bond outstanding with a cost of capital in the mid-low 2 percent range. The redemption terms of the debentures make a refinancing awkward, but it would appear the CSI Software debentures may have a much higher longer term cost (especially if you consider the asymmetry of the range of outcomes of inflation) than what is currently possibly on offer in the market on a fixed rate basis. Given this, it would seem that a 30 year investment grade (ultra cov light) bond issue may be in the best interests of shareholders. What do you think about more traditional long debt issuance for the company? Is the redemption mechanism in the debentures too awkward to make any refinancing actually more than a ~20% probability at current rates? Since they are both stakeholders of the company, can you speak about how the board weighs the interests of shareholders against the interests of debenture holders in the context of its liability management? Thank you.

#### **MHL Response**

Jamal and I would be pleased to hear from any friendly neighbourhood i-bankers regarding the availability of 30 year ultra-covenant-light bonds.

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#### **Question**

Speaking of Mark Miller making investments, he joined the board of CMG (Computer Modelling Group), which on the surface looks like a CSI type business and potential prospective CSI acquisition. Would appreciate some colour on how that went down (ie was permission sought/granted by the board). This invites question about CSI execs serving on external boards - is there a policy on this in place? Would a CSI exec being on a board nullify said company from consideration?

#### **MHL Response**

Our Operating Group managers generally check with me before going on an outside board. Some ask me for leads or ideas regarding finding a directorship. We don't have a hard and fast policy about outside board service. My advice to them is that they should serve on a board or two. It can be educational. I also warn them that the attraction of board membership soon pales unless you have a big chunk of your net worth invested in the company or are staking your career on the outcome. Only then do you pay attention, dig in, and fight over the important but frequently unpleasant issues.

Regarding acquiring a business where there is an interlocking board... I haven't seen any studies on the topic, but my initial reaction is that it might lower the risk associated with the acquisition. If the issue ever comes up, I'll check the research to see if the odds are stacked one way or the other.

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## CONSTELLATION SOFTWARE INC.

### TO OUR SHAREHOLDERS

One of our directors has been calling me irresponsible for years. His thesis goes like this: CSI can invest capital more effectively than the vast majority of CSI's shareholders, hence we should stop paying dividends and invest all of the cash that we produce, even if it means lowering our hurdle rates.

I used to argue that we needed to maintain our hurdle rates because dropping them for a few marginal capital deployments would cause the returns on our entire portfolio to drop. The evidence supported my contention, so we kept the rates high for small and mid-sized vertical market software ("VMS") acquisitions and made very few exceptions for large VMS acquisitions. The by-product of that discipline has been a perennial inability to invest all of the cash that we generate.

What have we done with that excess free cash flow available to shareholders ("FCFA2S")? Historically, we have paid three special dividends, and for the last decade we have also paid a regular quarterly dividend.

I have stopped arguing. I have converted, and with the fervour of the newly converted, I am busy demonstrating my new-found faith.

The obvious first step is to stop special dividends in all but the most compelling circumstances. That decision was made by our directors at Friday's CSI board meeting. We have maintained the quarterly dividend for now, but if we are successful in finding better uses for our FCFA2S, the quarterly dividend will also be sacrificed.

We will continue to invest most of CSI's FCFA2S in small and mid-sized VMS acquisitions at our traditional hurdle rates. Our Operating Group Managers have done a spectacular job of growing CSI's market share of acquisitions within this portion of the VMS sector, without succumbing to the siren song of increased centralisation, bureaucracy, and control. Most of these businesses are blessed with big moats and long-tenured employees and customers. The Operating Groups provide a low overhead environment where autonomy, collegiality, and shared knowledge are the cultural norm, and good people thrive. I am incredibly proud of what they have accomplished.

At head office our original objective was to be "good perpetual owners of VMS businesses". Our success forced us to delegate that task to the Operating Groups. Head Office now needs to become a "good steward of our investors' capital". To that end, we are working on two initiatives: 1) increasing the number of very large VMS businesses (i.e., those requiring multi-hundred-million-dollar equity cheques) that we pursue, and 2) developing a circle of investing competence outside of the VMS sphere.

For many years, we have tracked large VMS acquisition prospects as a separate segment of the market. We have invested less than 10% of our FCFA2S in this segment, making only three large VMS acquisitions during our entire 26 year history.

Between 40 and 70 large VMS businesses are sold each year. The vast majority of these transactions are marketed to prospective buyers by less than a dozen major merger and acquisition ("M&A") brokers. Over the last five years, we were aware of about 80% of the large



VMS businesses that were sold, but their brokers only invited us to participate in 16% of the sales processes.

We are building a small, dedicated team at head office to pursue large VMS acquisitions and to work with M&A brokers. If we drop our hurdle rates for these acquisitions, I believe that competent and diligent M&A brokers will include us in more auctions.

Most of our competitors maximise financial leverage and flip their acquisitions within 3-7 years. CSI appreciates the nuances of the VMS sector. We allow tremendous autonomy to our business unit managers. We are permanent and supportive stakeholders in the businesses that we control, even if their ultimate objective is to eventually be a publicly listed company. CSI's unique philosophy will not appeal to all sellers and management teams, but we hope it will resonate with some.

If we are successful in acquiring one or two large VMS businesses per annum, then I anticipate that CSI's return on investors' capital will decrease, but we will not have to return any of our free cash flow to shareholders.

In parallel with our established and growing small and mid-sized VMS practise and our nascent large VMS practise, we are trying to develop a new circle of competence. We are seeking attractive returns, a sustainable advantage, and the ability to deploy large amounts of capital outside of VMS. That will require highly contrarian thinking and is likely to be uncomfortable in the early going. Hopefully, we have built enough credibility to warrant your patience as we explore new and under-appreciated sectors.

Mark Leonard  
President  
Constellation Software, Inc.  
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