Business Case Analysis

For

Federal

Agency

CS-Solutions' ***Platinum CS Protection ™*** A Software Solution for 99.999% System, Application and Data High Availability

Submitted by:

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Preface

This business case analysis is to provide the guidelines and understanding to Total Coast of Ownership, TCO, and Return on Investment, ROI, with respect to the management of Personal Computers and Server within an enterprise. Consistent with best business IT practice processes, this business case is to provide its readers an informed basis to conclude the value of managed systems measured against industry standards. The deployment of CS-Solutions' Platinum CS Protection™ solution provides the necessary management of these systems thus maximizing TCO across the enterprise. Current IT ROI matrixes with other Department of Defense forward deployed units that have experienced software related issues as high as 30-35%, have dropped to ZERO with the adoption of the Platinum CS Protection solution. The contents provided describes both direct and indirect cost basis of ownership.

Direct Costs of Total Cost of Ownership

CS-Solution's goal is to provide Operational and Mission Continuity across the Enterprise consisting of operational servers, mobile and fixed end-user assets with its flagship Platinum CS Protection™ solution. However, assessing the Total Cost of Ownership (TCO) and Return on Investment (ROI) are financial matrixes that must not be overlooked. In attaining true Return on Investment, ROI Matrix questions, illustrated below, provide the framework to understanding the hours spent from Tier1 to Tier3 levels of support related to application and Operating System related issues that arise of a monthly basis. From these ROI matrixes, true cost avoidance numbers are attained that are used in evaluating IT solutions to measure ROI for the organization.

ROI Matrix Questions

Help Desk Costs
Average Monthly Number of calls related to software for Desktop/Laptops
Average call length in minutes
Number of Helpdesk personnel
Average % of calls that get deferred to IT Support personnel (TIER 2)

IT Desktop/laptop Technical System Troubleshooting Process Costs
Technical support Helpdesk trouble calls
% of calls that require a Technical support Visit
or
Number of visits required per month
Average amount of time (end-to-end) to visit customer (hours)
Technical support Helpdesk Internal Support Cost
Number of systems that require device to be brought back to IT Support
Number of systems that require re-imaging
Time spent to Troubleshoot initial Application/system error (hours)
Time spent researching/error (hours)
Time spent attempted to fix error (hours)
Time Spent to restore data files (hours)
Time to test device once fixed (in hours):
Time to ship or deliver Device From Customer (hours)
Time to ship or deliver Device To Customer (hours)
Time to reimage a device in Hours to include restoring end-user data and test (hours)

According to Gartner, "the most effective way for an enterprise to reduce the total cost of ownership of its PCs, is through the implementation of management best practices across all phases of the PC life cycle." (Gartner, January 2006) Gartner estimates that "a locked and well-managed desktop PC can be 43% less expensive to keep than an unmanaged one." (Gartner, January 2008) The cost savings attained by using Platinum CS Protection is easily achieved by managing these systems. Gartner estimates that by using a PC configuration management tool, a company would achieve "savings in direct costs of $87 per user, per year." (Gartner, March 2008)

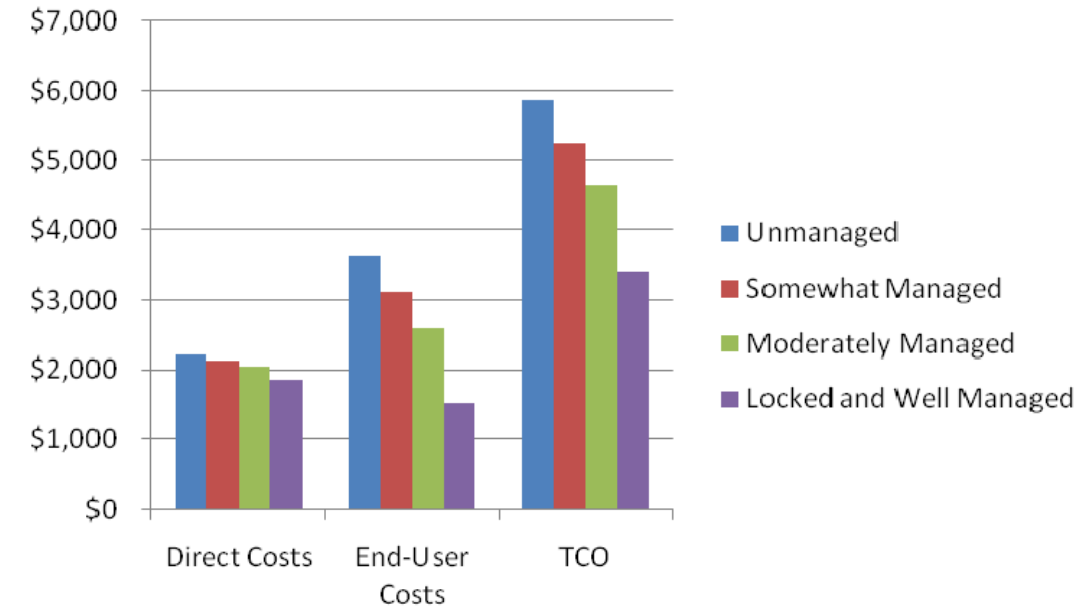
The following chart, Figure 1, offers a comparison of four management scenarios and their associated costs. Gartner's assumptions: PC cost $1,200, a four year life cycle, organization has 50 web-based, thin client and 200 application.

Figure 1. TCO of a Desktop PC with Various Levels of Management – Source: Gartner, 2008

	Unmanaged	**Somewhat Managed**	**Moderately Managed**	**Locked and Well Managed**
Hardware & Software	$1, 312	$1,306	$1,271	$1,226
IT Ops. Labor	$690	$639	$572	$438
Admin. Labor	$216	$215	$214	$210
Direct Costs	$2,218	$2,147	$2,056	$1,874
End-User Costs	$3,649	$3,122	$2,594	$1,539
TCO	$5,867	$5,269	$4,650	$3,413

The folowing graph, Figure 2, highlights the comparison of direct costs, end-user costs and TCO between differing levels of management

Figure 2. Direct Costs, End-User Costs, and TCO of a Desktop PC with Varying Levels of Management



Platinum CS Protection provides cost mitigation resulting in savings by managing and controlling the Server and PC operating environment. As illustrated in Figures 1 and 2, PCs that are managed with Platinum CS Protection, for example, as compared to those that are not managed, provides significant cost avoidance. Listed below are the features of Platinum CS Protection, that depict the reduced direct costs of TCO points:

- Enforce Change Management policies
- Allow customized configurations and enforcement rules
- Increase SLA (Service Level Agreement) by 99.999% high-availability
- Increase Operational Continuity and Mission Readiness
- Maintain Compliance standards

Indirect Costs Defined

Indirect costs are decreased and cost avoidances are realized with the Platinum CS Protection solution when recovery from software or application errors is taken into account. Moreover, increased productivity (Mission Continuity) with decreased loss of user data provides invaluable indirect (soft costs) savings. Gartner estimates an average of at least $500 per-year per user.

After implementation of the Platinum CS Protection solution, our customers report that troubleshooting software related problems is almost eliminated. Those more frequently occurring software application problems that occur are solved quickly because the support personnel can immediately isolate the problem(s) to external components (outside of the problematic PC or Server), once the PC or Server is rebooted because it is now operating on a "pristine" gold baseline. This process alone has saved hours of diagnostics, typically comprised of application elimination and guesswork tactics, thus considerably reducing total call-lengths. Justifiably, Gartner predicts that the labor component of TCO is greater than 50% of the TCO, which in our case is dramatically reduced.

Taking that point aside, increased labor rates and "the amount of labor effort is increasing on an hourly basis," (Gartner, December 2007) due to the increased complexities of applications and Operating Systems. Therefore, it is likely that the percentage for the labor component of TCO will only increase further. The Platinum CS Protection solution will significantly reduce the increasing labor costs associated with failed applications, Operating Systems and certainly the data restoration efforts with associated costs.

Moreover, for mobile or remote users with limited IT support, a failed system can equate to days of downtime and degradation of Mission capabilities. As Gartner has recorded "the turnaround time for repairs can be as much as three to five days." (Gartner, December 2007) One cost / labor component that is often overlooked is the shipping costs associated with transporting failed systems to and from the support facility and with the engineering costs for reimaging the systems.

As demonstrated through the features of the Platinum CS Protection solution, listed below are the reduced indirect costs of TCO points:

- Seamlessly repair PC s and Servers with a reboot
- Repair Applications, Operating System, bad or corrupt Windows Registry entries with a reboot
- Eliminate any Viruses Botware, Malware malicious Trojans with a reboot
- Have systems enter your enterprise environment always with compliant baselines
- Eliminate the waste of valuable IT resources troubleshooting applications or OS problems
- Manage your enterprise assets using Platinum CS Protection solution using currently invested enterprise end-point management system, i.e., SMS, AD.
- Eliminate the need and time for system engineering staffing reimaging failed systems
- Reduction of helpdesk calls that Gartner estimates to be "$18 per call" (Gartner, June 2008)
- Reduction of system engineering time spent with problems associated with patch and service pack updates that bring systems down.
- Minimize truck-rolls of customer site visits
- Shipping costs for shipping failed systems back to IT support facilities

Conclusion

In summary, the Platinum CS Protection solution provides real value to both deployed and enterprise systems with 99.999% high-availability to application, OS and user data. This equates to immediate cost avoidance of IT services and unproductive time (Mission Disruption) associated with outages relating to software. Below are a series of tables depicting a conservative yearly estimated cost avoidance savings measured against the current operational enterprise matrixes.

ROI Matrix Answers

Questions	Answer
Help Desk Costs	
Average Monthly Number of calls related to software for Desktop/Laptops	5,000
Average call length in minutes	15
Number of Helpdesk personnel	15
Average % of calls that get deferred to IT Support personnel (TIER 2)	35%

IT Desktop/laptop Technical System Troubleshooting Process Costs	
Technical support Helpdesk trouble calls	
% of calls that require a Technical support Visit	15%
or	
Number of visits required per month	263
Average amount of time (end-to-end) to visit customer (hours)	4
Technical support Helpdesk Internal Support Cost	
Number of systems that require device to be brought back to IT Support	92
Number of systems that require re-imaging	28
Time spent to Troubleshoot initial Application/system error (hours)	1
Time spent researching/error (hours)	1
Time spent attempted to fix error (hours)	1
Time Spent to restore data files (hours)	1
Time to test device once fixed (in hours):	1
Time to ship or deliver Device From Customer (hours)	6
Time to ship or deliver Device To Customer (hours)	6
Time to reimage a device in Hours to include restoring end-user data and test (hours)	8

Enterprise Itemized Results and Breakout Costs

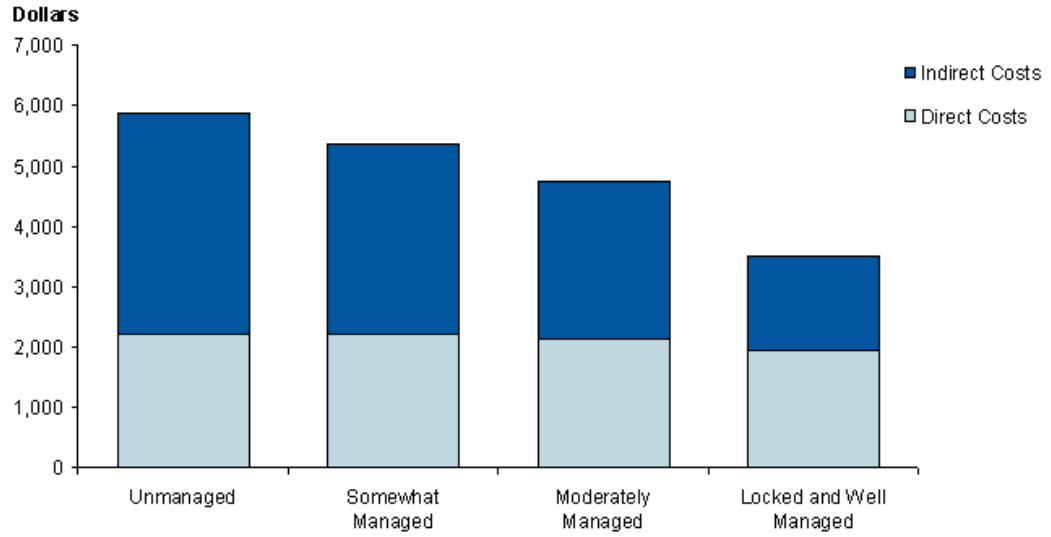
Help Desk Costs	
Average Monthly Number of calls related to software for Desktop/Laptops	5,000
Average call length	15
Number of Helpdesk personnel	15
Average % of calls that get deferred to IT Support personnel	35%
Time spent on calls in Hours per-month	1250
Monthly Cost Savings from Helpdesk:	**$68,750**
Yearly Cost Savings from Helpdesk:	**$825,000**

IT Desktop/laptop Technical System Troubleshooting Process Costs	
Technical support Helpdesk trouble calls	
Number of Trouble calls deferred to Technical support (=x% of differed calls)	1750
% of calls that require a Technical support Visit	15%
Number of visits required per month	263
Average amount of time end-to-end to visit customer	4
Average number of total hours	1050
Monthly cost for Technical support visits	**$73,500**
Yearly Cost savings from Technical support Helpdesk trouble calls	**$882,000**
Technical support Helpdesk Internal Support Cost	
Number of systems that require device to be brought back to IT Support	92
Number of systems that require re-imaging	28
Time spent to Troubleshoot initial Application/system error (hours)	1
Time spent researching/error (hours)	1
Time spent attempted to fix error	1
Time Spent to ship/or turn in device	1
Time to troubleshoot device (in hours):	1
Time to ship or deliver Device from Customer (hours)	6
Time to ship or deliver Device to Customer (hours)	6
Total Hours to reconfigure device without reimage (hours)	**17**
Time to reimage a device (in hours) to include restoring end-user data	8
Total Engineer time to reimage time per month in hours	221
Monthly Total cost for systems internal support of devices acquired for repairs	**$109,331**
Yearly Total cost for systems internal support of devices acquired for repairs	**$1,311,975**
Monthly Total cost for systems that require reimaging	**$425,427**
Yearly Total cost for systems that require reimaging	**$5,105,126**
Total Cost Savings per Month with PCSP Solution:	**$677,008**
Total Cost Savings per Year with PCSP Solution:	**$8,124,101**

Forester states that the "greatest IT operations sins are an inability to respond quickly to unpredictable events in the infrastructure, and a failure to reduce overall IT service delivery costs through greater use of automation and alignment with internal processes" (Forrester, November 2007). As demonstrated in a cyber security attack, for example, Platinum CS protection solution can eliminate the propagation of a worm/virus spanning across the network. The cyber attack can be stopped with all enterprise systems cleaned in the time it takes for a system(s) to reboot with the issue of one command from C2, "REBOOT SYSTEMS;" thus the entire enterprise is back to operational readiness state.

Platinum CS Protection offers savings in both direct and indirect costs. The graph below illustrates the direct and indirect cost points associated with the amount of management and control over these assets.

Figure 3. Desktop TCO with Varying Levels of Management –Source: Gartner, 2008



Industry Averages

In addition to the above TCO cost breakouts, CSSI provides in Figure 4 an industry baseline of direct and indirect costs from leading Fortune 100 companies.

Figure 4 Industry Average Cost Matrix

#	Industry Average Costs Matrix for System Outages	Cost
1	**Direct labor costs**	
		$814.00
2	**Time user spent trying to fix the unit or interfacing with IT to affect the repair. (3.4 hours according to IT, 2.8 according to Users, times $136 per hour, reported by users as their loaded cost)**	
		$642.00
3	**Number of days the user did not have access to their own notebook (5.2 days according to IT, 5.4 days according to Users, items $25 per day estimated cost to the company-depreciated, financing and administration costs)**	
		$135.00
4	**Times shifting data to the substitute notebook/PC (average 1.5 hours according to IT, 1.6 hours according to Users, times $136 per hour)**	
		$218.00
5	**Time spent by user to recover work lost (17.9 hours according to IT, 21 hours according to Users, times $136 per hour)**	
		$928.00
6	**Time IT spent with user to effect repair (7.5 hours according IT, 4.7 according to Users, times $65 per hour, help desk, admin, troubleshooting and packaging for shipping)**	
		$488.00

7	**Average daily cost of substitute notebook or PC (5.2 days according to IT, 9.9 according to Users)**	
		$54.00
	Total Costs	_____
		$3,099.00
	***Note: Above costs and hours to recovery are general industry averages and are meant to address your program's MTTR (Mean Time to Recover)**	
	What is the cost for lost Mission, Operation, irreplaceable data, or security compromise?	

Appendix A

ROI Matrix Assumptions:

Average IT Technical Employee Loaded Hourly Cost	$70
Loaded cost per Helpdesk/IT Employee Hourly Rate	$55
Total Number Devices Managed	100,000