THE CLIPPER GROUP Navigator™

Dell Offers Simplified I.T. Management — "Have I.T. Your Way"

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Management Summary

How many children do you have: one, two, or perhaps four? This will determine how often you need to go shopping for birthday presents, and we are not talking about clothes or the typical "batteries not included" remote-controlled car here; no, we are looking at multi-page assembly booklets for everything from bicycles to model train sets. You know the ones – "Ten Easy Steps for Assembly" for a ten-year-old; unfortunately, the ten-year-old is asleep in bed and you have hours of work ahead of you with the hope that (a) All of the pieces are there, and (b) You will not have any parts left over. About 2:00 a.m., you are thankful that you didn't have twins and you are reconsidering that option for pre-assembly.

In reality, the decision to buy that toy pre-assembled is a minor event. **The option of acquiring an integrated, business-critical data center application or acquiring the pieces and putting it together yourself becomes a major decision that can affect the I.T. staff not only for the deployment and installation of the application, but also for on-going daily monitoring functions**. When that application deals with the management of the entire data center infrastructure – from heterogeneous servers and storage to a variety of communications nodes – the significance of deploying the *right* systems management functionality is even more important. Every server, every storage device in your data center comes with management applications to deploy, install, and configure it, perhaps as separate options, and the I.T. staff must handcraft the total management suite. Unfortunately, no two vendors deploy the *same* systems management application. That means that the typical enterprise also has multiple systems management applications running in its data center. It is often up to the I.T. staff to ensure that they can manage all of these disparate systems, usually from multiple locations. **The data center needs a better option to simplify the day-to-day management of the enterprise infrastructure.** One alternative is to employ a single systems management application that will deploy, install, monitor, and update heterogeneous servers and storage within a simplified, integrated package. An even better alternative might be to enable the industry-leading management packages with the capability to interface automatically with your new systems. Dell has done both.

Dell has recently updated their *OpenManage* software suite to integrate all of the functions you need in a single package. They have also collaborated with such systems management industry leaders as Altiris, HP, and IBM, among others, to integrate Dell toolkits into each of their systems management applications. To learn more about the Dell OpenManage solution, please read on.

Today's Enterprise Data Center

The data center in a typical enterprise today is a heterogeneous mess. Some CIO's have deployed their mission-critical applications on a variety of mainframes and UNIX servers to take advantage of the superior RAS capabilities of these platforms, and their business-critical and infrastructure applications on a multitude of open systems servers from the usual suspects, Dell, HP, and IBM, among others. Still other CIO's, unhappy with the costs involved in the acquisition and deployment of mainframes and scale-up UNIX servers, have standardized on x86 systems for all of their mission- and business-critical applications. Unfortunately, for the I.T. staff, it is rare that you will find an enterprise with a homogenous set of servers, storage arrays, and communications nodes acquired from a single vendor. Whether it is for financial reasons or fear of losing leverage, the typical data center will consist of hardware from at least two vendors, and frequently more. Further, this does not take into account the platforms acquired by independent department managers or remote offices, who might acquire the lowest-priced platform that will fit within their budget. How they were acquired is of little concern to the I.T. staff; the only matter of significance is that they are responsible for their installation and management.

This heterogeneous mix of platforms means that there are multiple tools in place in the data center to deploy, install, configure, monitor, and update them. In all likelihood, there are different I.T. personnel assigned for each set of applications. Furthermore, there is a different set of costly management tools on hand to manage each vendor's hardware and software. *It has reached the point where the IT staff has to manage the management tools,* as there is no simple way to view the entire infrastructure from a single pane-of-glass.

This creates a complex and costly process to qualify any new solution that the data center needs to roll out, increasing the time to deploy from test to production. It also makes it next to impossible to determine whether the data center is meeting performance/availability goals, complying with the SLAs agreed to with data center users.

In order to simplify the server management problem, Dell has addressed specific customer requests regarding systems management tools, especially the number of applications and consoles, the complexity of the infrastructure, and the degree of integration required to manage a data center. They can now provide the data center with the right tools to reduce the length of the rollout process, reduce the cost to qualify new solutions, and enable every enterprise to meet their business goals without adding further to their management woes. To do this, Dell has released the latest version of their systems management solution, *OpenManage 5.3*.

Dell's OpenManage Solution

In order to lower the total cost of ownership (TCO) of the enterprise data center, server manufacturers across the board have implemented programs to facilitate the consolidation of multiple, older, inefficient servers onto new, multi-core platforms. These new servers support virtualization applications that enable the data center to utilize upwards of 75% of the CPU processing power. **While consolidation and virtualization do address the acquisition costs of the hardware, they do nothing to reduce the burden being placed on the IT staff to rollout new systems and to reduce administrative overhead and, in fact, administrative staffing.** With OpenManage 5.3, Dell has employed open systems standards to simplify the deployment of new business solutions, monitor the health of all servers and storage devices in the infrastructure, and implement a change management system to reduce data center costs, lowering the TCO of the enterprise data center.

OpenManage 5.3 improves the basic systems management functionality included in the standard Dell Server and Storage products, at no additional charge, while at the same time, simplifying systems administrations, thus enabling the data center to respond in a timely fashion to changing business requirements, maximizing server performance throughout the system lifecycle. Dell has reduced the management complexity by limiting the number of management tools required for systems deployment, monitoring, and change management. A major component of OpenManage 5.3 to administer the server network is the Dell *Systems Build and Update Utility*, with monitoring provided by the *OpenManage Server Administrator 5.3*, the *IT Assistant 8.1*, the *Baseboard*

Management Controller, and the Dell *Remote Access Controller*.

Dell Systems Build and Update Utility

The Systems Build and Update Utility is a single server lifecycle-management tool to manage the deployment and update of Dell servers throughout the enterprise. It enables a simple, automated deployment, from a single console, replacing multiple consoles required in competitive products. This utility is included with every Dell server, at no additional charge, to guide the administrator through setup, configuration, and operating system installation with Dell-approved drivers, diagnostics, and utilities. The Dell Systems Build and Update Utility replaces three different interfaces:

- *The Dell Server Assistant*,

- *The Deployment Toolkit*, and

- *The Server Update Utility*.

This provides the IT staff with a more holistic view of their infrastructure.

The Dell Systems Build and Update Utility includes an in-line firmware update capability, enabling the data center to perform an update without taking a disk device off-line, and a script generator with custom update policies. It provides support for both *Windows* and *Linux* with both a common graphical user interface (GUI) and a command line interface (CLI) available.

OpenManage Server Administrator 5.3

The OpenManage Server Administrator is a secure tool that enables the data center staff to manage individual servers and their internal storage. It also enables the staff with the capability to implement configuration changes or updates at any time. It also addresses power and thermal issues in the data center by monitoring energy usage and issuing alerts to enable the IT staff to make timely, informed decisions regarding server utilization. This will allow the staff to reduce overall energy consumption and help to lower the TCO.

IT Assistant 8.1

The IT Assistant provides automatic discovery and inventory reporting, eliminating the time required to conduct a manual inventory. It assists the administrator to view the status of all Dell servers, clients, storage, network switches, and printers, applying changes to multiple servers from a single console. The IT Assistant will also identify systems with a problem and alert the system administrator. New features in this release include virtual machine discovery and monitoring, as well as power monitoring and reporting.

Baseboard Management Controller

The Baseboard Management Controller enables basic remote access services. By proactively monitoring server hardware, the data center can log server errors, operate the server remotely, and reset the system.

Dell Remote Access Controller

Dell's Remote Access Controller is an optional feature providing more secure authentication options to remote systems. It can send alerts to the data center staff to correct server problems, enables a variety of virtual media for booting the server to diagnostic utilities or a known, good image and supplies a secure method for redirecting the text and video console for access to remote server management.

Manage IT Your Way

In addition to the homegrown OpenManage 5.3, Dell has facilitated the integration of Open-Manage components into the most popular systems management applications. Dell provides a developer toolkit so that third parties may embed OpenManage functionality into their own applications, and then Dell certifies that the integration meets Dell standards.

Dell has significantly enhanced their system management partner program, expanding these relationships to include Altiris, BMC Software, Microsoft (*MOM*, *SMS*, etc.), Dorado Software (*Redcell*), LANDesk, and Novell (*Zenworks Linux Management*). Dell provides its own plug-in modules for monitoring servers from HP (*OpenView*) and IBM (*Tivoli*). This provides Dell's customers the flexibility to choose between OpenManage 5.3 in a homogeneous Dell environment, or to continue to use an existing, well-known systems management solution (e.g., SMS, OpenView, Tivoli, etc.) to deploy Dell platforms in a multi-vendor environment.

Conclusion

If you listen to radio or watch television, you know that when you are looking for a quick burger, they can go to *Burger King* and "Have it your way!" Well now, when the data center is looking for a simplified systems management, they can go to Dell and "Have IT your way!"

The costs associated with the day-to-day operation of a data center can be divided into several different buckets, the most notable being hardware, software, and services. Server manufacturers have taken a tremendous amount of cost out of the hardware with the latest multi-core systems to consolidate the architecture. Standard operating systems, such as *Windows* and *Linux*, enable significantly lower costs for the acquisition of application software. Now, Dell is attacking that third bucket by simplifying systems management and enhancing security and power management to lower the TCO of the enterprise infrastructure.

With OpenManage 5.3 the data center will be able to deploy multiple systems faster, run them better, and grow them smarter, enabling the enterprise to get mission-critical solutions to the user community faster and at no extra charge. This cannot help but improve the bottom line on the balance sheet. If your enterprise is looking to simplify the systems management of the data center, look at Dell's Open-Manage 5.3. It may be the IT solution that you need.

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