



SYSTEMS MANAGEMENT SIMPLIFIED

Enterprises are getting hit by a double whammy as systems management complexity spirals out of control and outstrips infrastructure spending. By giving administrators single-pane access to comprehensive management functions and scalable process automation across a broad range of Dell and partner systems, the new Dell™ Management Console Powered by Altiris™ from Symantec™ can free vital IT resources to advance innovation and help lower the cost of doing business.

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Over time, IT environments naturally become more complex. Servers, platforms, and applications require increased management resources as they age. Decentralized data centers and departmental silos can result in data duplication and inconsistencies. Hardware and software deployments, migrations, compliance enforcement, patching, and administrator training all sap resources that might otherwise be directed to strategic projects. And operational silos—for example, asset management, service desk, client and mobile management, server and infrastructure management, and security and compliance—typically lead to a lack of integration and communication, not to mention redundant responsibilities.

To compound these issues, decreasing budgets are forcing IT departments to do more with less while the cost of systems management continues to rise. All too often, provider-centric management tools lock organizations into products from a particular vendor rather than simplifying management tasks. Moreover, management can be time-consuming when administrators must use different tools for different tasks. And keeping systems running is often people intensive because the complexity of the task requires a team of administrators.

Despite these everyday realities, garnering support for a cohesive systems management strategy can be a tough sell outside the IT department. Smooth systems operation is critical to business success, but it is not often recognized as a strategic contribution that positively affects the bottom line. Executives need to understand the connection between centralized, simplified systems management and competitive advantage.

REDUCING THE COMPLEXITY OF THE PIECEMEAL APPROACH

Today, administrators often use a variety of systems and network management software to manage computing resources for individual end users, small businesses, departmental workgroups, and global enterprises. However, while systems management tasks have grown in complexity, many vendors have taken a

piecemeal approach—which often requires numerous tools to manage different components in an IT environment. For example, administrators might be using separate tools for some or all of the following tasks:

- Hardware management
- OS deployment, monitoring, and patching
- Application management
- Event automation
- Job scheduling
- Output management
- Performance management
- Backup and recovery
- Security and threat management
- Change and configuration management
- Problem management, troubleshooting, and diagnostics
- Network and storage management
- Service desk and workflow management

Many popular solutions were essentially pieced together through multiple acquisitions. The products themselves typically have limited integration capabilities, which can require a significant investment in services to perform the integration work. A large back-end infrastructure encompassing a variety of servers and management databases creates costly overhead, including the burden to manage the management software. And using multiple consoles to manage different aspects of the enterprise can lead to error-prone manual processes, increased troubleshooting time, and people-intensive infrastructure management.

Effective systems management tools help to create competitive advantage by freeing IT organizations to focus on strategic system initiatives. In this way, the Dell approach to systems management is designed to advance business innovation, enhance customer satisfaction, and reduce the cost of doing business.

GUIDED TOUR: THE DELL MANAGEMENT CONSOLE

The Dell Management Console redefines much of the systems management paradigm, through a holistic, Web browser–based “single pane of glass” approach to managing enterprise-wide IT assets. Out of the box, the default portal home page offers a comprehensive console view and a straightforward, wizard-based path to easily migrate existing Dell systems discovery ranges and credentials from the Dell OpenManage IT Assistant tool—a good way to get started on the path to simplified management. But it would be a shame to stop there, bypassing much of the added management depth the console offers, which can be easily harnessed by snapping in “Web parts” from the extensive library provided.

The *Dell Power Solutions* editorial team remotely connected to the Dell TechCenter labs, where the TechCenter team had deployed a Dell Management Console instance in a default configuration to manage their data center. Some key portal views, features, and customization capabilities are shown here:

- **Getting started:** Dell Management Console deployment begins by launching the installer (see Figure A), which offers several options for initiating installation or learning more through tutorials. For many organizations with existing Dell PowerEdge™ servers, using the wizards for migrating Dell OpenManage IT Assistant discovery settings (see Figure B) would be among the first tasks.
- **Monitoring and alerting:** The Monitoring and Alerting portal view (see Figure C) offers single-click drill-down to reveal details on troublesome server nodes.

- **Customizing reports:** A comprehensive library of default reporting templates is available (see Figure D), and all offer extensive customization capabilities. New reports can be readily added.
- **Configuring portal pages:** Portal pages, which are a library of configurable Web page views, can be easily customized by the addition or removal of snap-in Web parts (see Figure E).



Figure A. Launching the Dell Management Console installer to reveal installation, tutorial, and migration options

CREATING A FLEXIBLE, COHESIVE SYSTEMS MANAGEMENT STRATEGY

For several years, Dell OpenManage™ tools have helped administrators effectively manage hardware deployment, monitoring, and updates. However, there has been limited support for the non-hardware management tasks that IT departments perform regularly. Using a different tool for each management task added a layer of complexity that made it difficult for IT administrators to work efficiently.

What has been lacking is a comprehensive systems management strategy focusing on simplicity and flexibility. To that end, the new Dell Management Console—based on the modular Symantec Management Platform architecture—offers a holistic view of the data center and unified management of enterprise-wide IT assets through a single console and database.¹ The Dell Management Console is designed to provide a single “pane of

glass” for administering tasks throughout the entire IT management life cycle (see the “Guided Tour: The Dell Management Console” sidebar in this article).

The Dell Management Console replaces the existing Dell hardware management console, Dell OpenManage IT Assistant. It is designed to allow organizations to grow functionality without expanding infrastructure as enterprise needs evolve. By enabling IT departments to deploy additional features through the same console, it can also facilitate data sharing through a single configuration management database (CMDB)—which helps reduce overall management costs. Basic management features are offered for Dell servers out of the box at no additional cost, providing the foundation for a comprehensive range of advanced management functions across the enterprise IT infrastructure.

Figure 1 illustrates where the Dell Management Console fits in the overall

Dell OpenManage suite of products. The console platform is designed to replace Dell OpenManage IT Assistant only, and to work with all other Dell OpenManage tools.

EXPANDING THE CAPABILITIES OF DELL OPENMANAGE IT ASSISTANT

The Dell Management Console dramatically expands on the capabilities of Dell OpenManage IT Assistant with broad-ranging functionality in key areas. This section provides an overview of features provided at no additional cost with the Dell Management Console:

- **Enhanced hardware reporting:** The console offers a holistic view of the IT environment—providing information, rather than just data, to enhance enterprise decision making. Administrators can choose from a device tree view, graphical reports, or exportable tables, and can drill down into devices to see

¹The Dell Management Console had not yet been released to ship at press time (February 20, 2009); features and capabilities in the production version are subject to change.

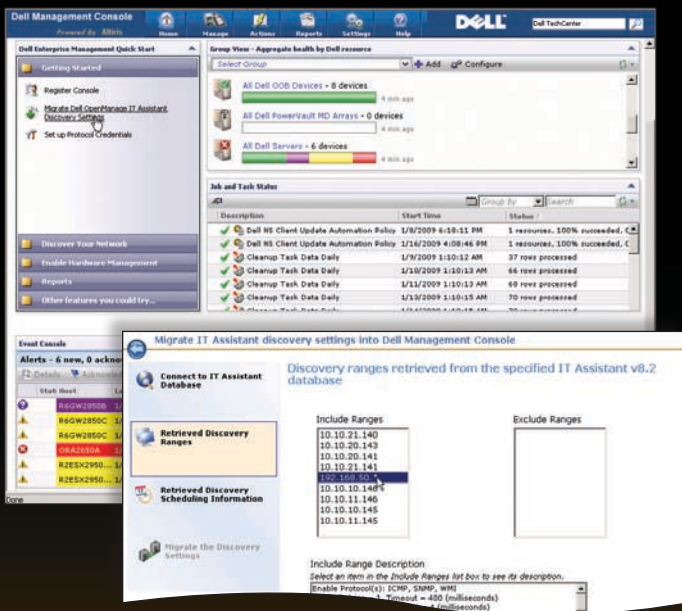


Figure B. Selecting the Migrate Dell OpenManage IT Assistant Discovery Settings option from the default Dell Management Console home page

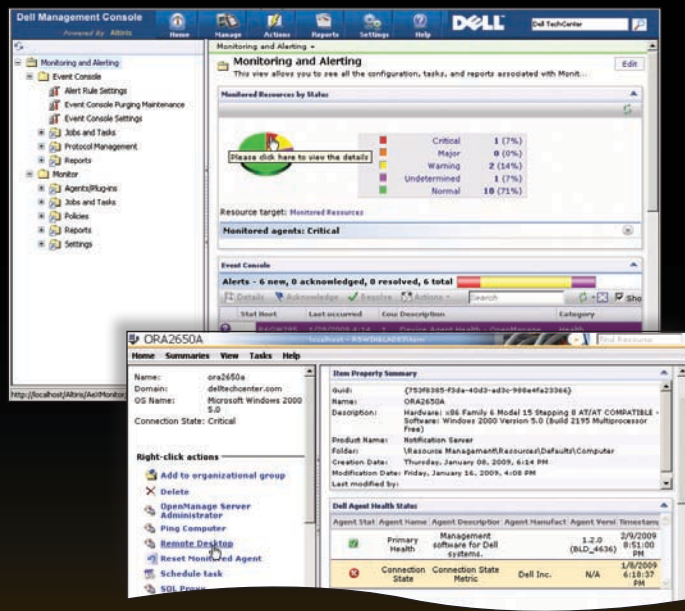


Figure C. Drilling down into a troublesome server node from the Monitoring and Alerting view's Monitored Resources by Status Web part

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in-depth hardware inventory data. A wide variety of preconfigured graphical and tabular reports are available, and administrators can configure their own reports to help meet particular enterprise requirements.

- Heterogeneous hardware monitoring:** The console can perform proactive heartbeat monitoring on an administrator-defined schedule as well as asynchronous event reception for Dell systems. Management information bases (MIBs) can be imported for non-Dell devices.
- Additional device and hypervisor support:** The console includes support for additional devices (such as Fibre Channel switches) and hypervisors (such as VMware® ESXi). The platform can not only monitor the health of hardware running VMware, Microsoft®, or Citrix® hypervisors, but also discover virtual machines and associate them back to a physical host server. In addition to the list of devices supported by Dell OpenManage IT Assistant—Dell

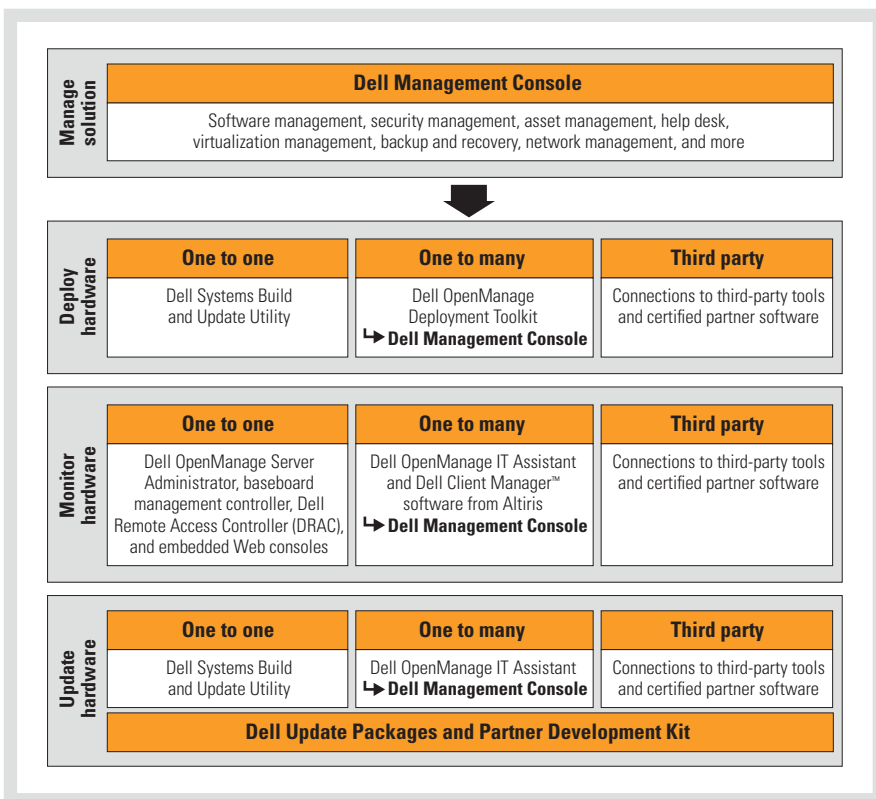


Figure 1. The Dell Management Console provides a sweeping view of enterprise-wide IT assets to help simplify management

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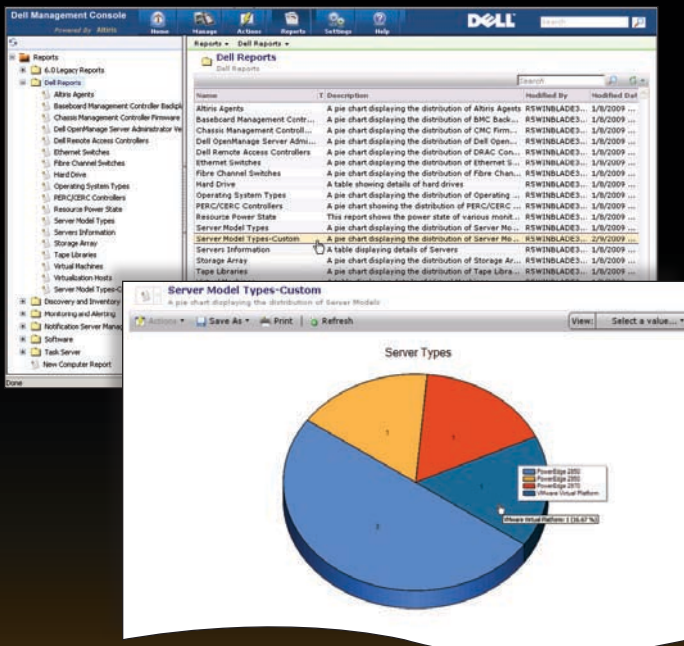


Figure D. Displaying a customized Server Model Types report from the Reports menu

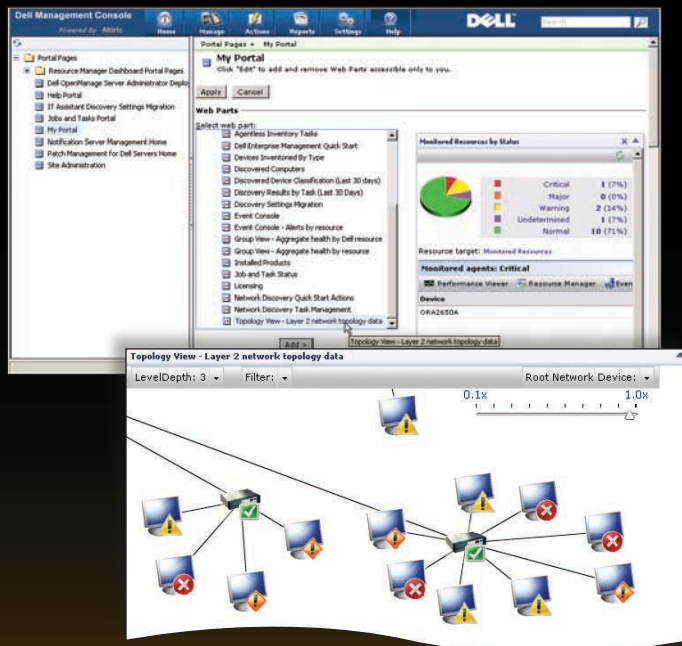


Figure E. Customizing an existing portal page by snapping in a Topology View Web part (functionality enabled through purchase of the Altiris Server Management Suite™ plug-in)

desktops, notebooks, printers, servers, storage arrays, Ethernet switches, KVM (keyboard, video, mouse) switches, and tape libraries—the console adds support for Fibre Channel switches and additional hypervisors such as VMware ESXi.

- **Configurable dashboards and portals:** By providing a dashboard view for associated devices, the platform is designed to make it easy for administrators to spot potential problems before they become major issues. Administrators can configure their own portal pages by adding the modular components that are most relevant to their daily activities.
- **Role-based security:** Devices can be segmented or viewed by geographical location, device type, or functional area. Users can import Microsoft Active Directory® roles or create new roles with the console to assign permissions such as ability to view.
- **OS monitoring:** The console monitors utilization of memory, processors,

free space, and I/O across the data center. Historical reporting and live graphs are available for monitored devices. The system can generate alerts based on administrator-defined thresholds.

- **Multi-site hardware updates:** The console offers the ability to push agent, BIOS, driver, and firmware updates to Dell servers and to child nodes in different regions or data centers. In addition, the console can be configured to download the latest updates from the Dell Web site on a scheduled basis.
- **Hardware configuration:** The tool enables administrators to push configuration changes to many devices simultaneously, using graphical representations and wizards designed to further streamline the hardware configuration and patching process. For example, administrators can roll out BIOS changes easily by selecting preferences from drop-down menus, without scripting.

CUSTOMIZING A HIGHLY EXTENSIBLE FRAMEWORK

The Dell Management Console offers an à la carte functionality menu designed to simplify, consolidate, and automate IT processes. An intuitive wizard guides administrators through the initial installation. After installation is complete, IT departments can build a dashboard portal that is customized with their own reports, devices, and views.

Because the console is designed to be device agnostic, it can manage hardware devices and operating systems from multiple vendors to deliver a single view and a common data source for the entire IT infrastructure. Its centralized systems management capabilities also allow administrators to track storage resources, monitor performance, and perform updates quickly. The single back-end architecture of the platform helps provide the flexibility to cover every aspect of the IT infrastructure—including hardware from other vendors and virtualized as well as physical systems. This approach allows

organizations to avoid replacing existing management tools when they integrate new applications into the environment.

The console offers an extensible framework to help meet specific organizational needs through a variety of plug-ins that can be purchased individually and installed easily on top of the base platform (see Figure 2). Plug-in upgrades enable IT departments to preserve their existing investments by connecting information systems, enhance visibility of key information within the organization, and minimize total cost of ownership by avoiding costly systems integration projects. For example, console plug-ins can leverage inventory data from the base product to help easily roll out OS patches, monitor applications, take regular system snapshots, track trouble tickets, and automate complex business processes.

Additional plug-ins can take advantage of organizational information by helping to integrate human resources, financial, service delivery, and other enterprise systems—helping to reduce complexity and curb the growth of IT administration costs. The list of available plug-ins is expected to grow as third-party software vendors transition existing consoles and develop features designed to work with the Dell open framework.

In addition, Dell facilitates peer-to-peer communication between IT professionals across company lines through the Dell Management Console section of the Dell TechCenter community (www.delltechcenter.com). There, administrators can view demo videos, wikis, and blog postings; share experiences; post scripts; and contribute functionality they have developed that could be of value to the community as a whole.

SIMPLIFYING SYSTEMS MANAGEMENT THROUGH INTEGRATED ACCESS

Organizations that take a piecemeal approach to systems management can easily become mired in a tangle of administrative tools. The Dell Management

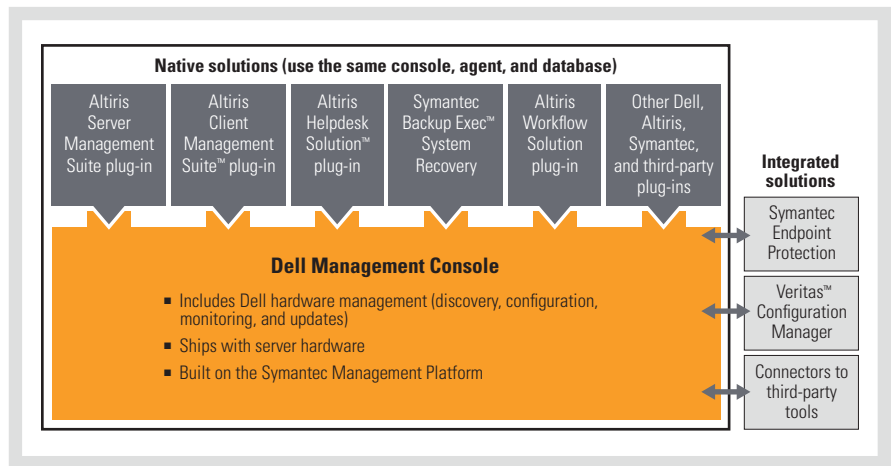


Figure 2. Dell Management Console plug-ins expand management functionality to a broad range of Dell and partner tools

Console enables a device-agnostic strategy that allows administrators to simplify IT and control costs through integrated, automated access to the entire IT infrastructure. A single easy-to-understand interface enables administrators to drill down into relevant information quickly and easily, while a modular foundation provides basic out-of-the-box hardware management at no additional cost and supports optional suites for advanced server and client management features such as asset and security management. These connector capabilities help avoid costly integration projects by allowing IT organizations to populate a common CMDB with data from other systems, import and export among key data sources, and integrate to and from enterprise business systems.

Between rising costs and reduced IT budgets, simplified systems management has become an urgent consideration for many enterprises. The new Dell Management Console is designed to provide the framework for a cohesive, comprehensive approach to IT management that can help overcome the pitfalls of skyrocketing cost and complexity. By giving administrators a single centralized tool to help them perform the myriad tasks they contend with on a daily basis, organizations free IT staff to focus on strategic initiatives and innovation—which can

ultimately help increase competitive advantage and make a direct impact on the business bottom line.

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