Data center and cloud management

Enabling data center modernization and IT transformation while simplifying IT management
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IT imperatives: Modernize infrastructure and simplify management

Across a range of industries, organizations are working to modernize their data centers and transform IT from a provider of technology to a trusted business partner. They are adopting virtualized and cloud-based computing models to increase flexibility, improve agility, enhance efficiency and support a mobile workforce. These changes can deliver important benefits to the business, but they can also introduce new costs and complexity.

Improving IT operational efficiency is critical for supporting new data center modernization and transformation projects. Organizations are already investing in new IT management solutions that help enhance efficiency while improving service quality and supporting new business and IT initiatives.

In response, Dell offers a broad portfolio of data center and cloud management software solutions that can help you achieve your IT modernization objectives and meet new business requirements while streamlining IT management. Dell™ solutions focused on application and service management, administration and automation, and physical and virtual infrastructure management can help IT groups maintain high service quality, keep up with changing business needs and support heterogeneous IT environments without adding complexity.
Challenges
Agility: Keeping up with fast-changing business needs

Business leaders are looking to IT to help provide a competitive advantage. Delivering new, innovative applications and services allows the business to increase productivity which results in higher revenue, reduced cost of sales, or both!

While these technologies and services can provide fast and flexible solutions for business users, they can also create new challenges. IT teams must ensure data security and compliance, provide effective data protection and deliver the technical support that users need. They need solutions that can accommodate new trends and changing user requirements without giving up the control that is necessary to protect the business.

Expectations have never been greater for IT to deliver new applications and IT services that provide continuous performance and availability in support of growing and changing business needs. Gaining new levels of agility in responding to business needs and using IT as a competitive advantage have become part of the new paradigm for data center leaders.

Efficiency: Refocusing on innovation

Data center modernization often requires new, more efficient hardware along with new computing models like private and public clouds. Meanwhile, many IT groups today spend at least 70 percent of their time and budgets just to maintain the status quo. To achieve their efficiency goals, they must find new ways to streamline and automate time-consuming administrative tasks so they can refocus on innovation and driving the business forward.

In many cases, IT groups need to revisit how they manage client systems, servers, storage, network equipment, virtualization and applications. They need to improve the efficiency of discovering, provisioning, backing up and securing an increasingly diverse array of client systems, from company laptops to user-owned smartphones and tablets.

At the same time, they must efficiently manage a potentially complex and heterogeneous infrastructure of physical and virtual servers, running a wide range of applications, from collaboration and communication systems and databases to customized business-critical applications. They need to efficiently migrate applications to virtual and cloud environments and then accelerate provisioning, ongoing configuration and management, as well as conduct performance monitoring for those environments.

Many data center leaders continue to virtualize more and more of their IT infrastructure while introducing private, public or hybrid cloud computing models to accelerate provisioning of new applications and services. The ultimate goal is to enhance availability, provide greater flexibility for peak loads and reduce costs. As a result, IT teams need management solutions that span not only the physical, virtual, and cloud-based infrastructure, but also today’s modern applications. Today’s IT management solutions must help automate key IT tasks and facilitate the implementation of self-service capabilities. Standing up new systems or migrating from legacy ones – while maintaining IT service levels – is also a key requirement.

As data centers evolve, business users are also quickly adopting new technologies, new services and new ways to communicate and collaborate. They are using their own smartphones and tablets in addition to company PCs, and they are accessing information from within and beyond the corporate network. They are also employing a wide range of web- and cloud-based applications and services for customer relationship management (CRM), financial collaboration, shared storage and more.

[IT groups] need solutions that can accommodate new trends and changing user requirements without giving up the control that is necessary to protect the business.
Service quality: Providing a strong, consistent user experience

As customers and business users adopt new technologies, services and applications, organizations must deliver the outstanding and consistent service quality that their business and end users have come to expect. Customers expect web searches and online transactions to go through without interruptions or performance problems; organizations can quickly lose customers if something goes wrong. As business users increasingly rely on computing systems and enterprise applications for a full range of work functions, they require a reliable and responsive experience. Interruptions or poor performance can rapidly sap productivity and generate IT service requests.

Performance monitoring solutions must help identify potential problems before they occur and help address problems rapidly when they arise. Additionally, with the changing nature of the data center, data protection strategies must be considered to ensure support across the data center and beyond.

With the right solutions for ensuring and improving service quality, organizations can consistently deliver responsive experiences to the business and end users, helping retain customers and keep employees productive. In the end, IT’s primary goal is to support the needs of their end users, wherever they may be.
Solutions
Dell’s Data Center and Cloud Management solutions enable IT to automate administration and optimize infrastructure investments. This broad portfolio of software products also ensure that modern applications perform at the highest levels as well as meet the needs of the end users and the business.

Application and service management

Organizations are adopting computing models that ensure application availability - whether in the cloud or in the data center. They are also adopting public clouds for many emerging workloads or new business demands. All of this supports their requirements for agility, efficiency and service quality. Dell solutions for application and service management can help you streamline application and IT service delivery, improve application performance, protect application data and bolster availability, whether your applications are running on your own servers, in the cloud or in a virtual desktop infrastructure (VDI). With Dell solutions, you can streamline management, optimize configurations, conduct upgrades and migrations, and back up application data while reducing administrative complexity.

Dell’s solutions for application and database performance monitoring deliver the exceptional — and consistent — service quality that customers and business users expect by monitoring application and database performance across on- and off-site data centers and cloud environments. Capture the user experience and address the root causes of problems before they affect end users while lowering the operational cost of managing IT environments.

Additionally, our application workload management solutions help improve IT agility and enable you to respond more rapidly to business needs by improving the efficiency of workload, application and service deployment. Automate application orchestration across on- and off-site data centers as well as cloud environments.

Finally, to help maintain productivity and minimize downtime, Dell offers data protection solutions for key enterprise applications and databases. These solutions enable you to accelerate backups and ensure verified recovery for applications running in physical or virtual environments, on-site or remotely. Avoid user disruptions during planned upgrades and migrations, and simplify management by using a single, intuitive console.

Related products:
- Foglight®
- Foglight for cross-platform database environments
- Active System Manager
- KACE™ systems management appliances
- NetVault™
- ChangeBASE™
- AppAssure™
- Dell Multi-Cloud Manager (formerly Enstratius)

Administration and automation

As virtualization, cloud computing, mobile computing and new application architectures continue to change the IT landscape, IT groups need to increase administrative efficiency and automate routine tasks to stay afloat. Dell solutions for administration and automation can help you keep up with the fast pace of change while reducing costs and complexity. By centralizing management functions and automating key tasks, you can streamline application migration and consolidation as well as simplify enterprise workload management and comply with IT governance mandates.

Solutions for migration and consolidation enable you to achieve your organization’s goals for efficiency, agility and service quality by ensuring a fast and successful migration and consolidation of key enterprise applications. Reduce risks and minimize the time and complexity related to consolidation projects. Then, simplify ongoing management.
Dell solutions for compliance and IT governance help you reduce enterprise risks and maintain policy compliance through application change management with detailed, real-time assessment, auditing, alerting and remediation. Identify vital configuration changes to key applications in real time, without the overhead of native auditing.

Dell also offers solutions designed specifically to simplify the administration and management of Microsoft® Windows–based application and workload environments. These solutions can help you improve efficiency with tools that automate key tasks for Active Directory®, Exchange Server, OCS/Lync® and SharePoint® software. Email reporting and analytics tools help reduce the complexity of Microsoft Exchange Server management.

Related products:
- Active Administrator™
- ActiveRoles™ Server
- Archive Manager
- ChangeBASE
- ChangeAuditor™
- Domain Statistics Wizard
- GPOAdmin
- GroupWise Migrator for Exchange
- InTrust
- KACE Systems Management Appliances
- Migration Manager for Active Directory
- Migration Manager for Exchange
- Migration Manager for SharePoint
- Migration Suite for SharePoint
- Notes Migrator for Exchange
- OnDemand Migration for Email
- Reporter
- Site Administrator for SharePoint
- Spotlight on Active Directory
- Spotlight on MessagingMessageStats

**Physical and virtual infrastructure management**
Dell solutions for physical and virtual infrastructure management can help you simplify management of your dynamic infrastructure. Implement Dell solutions to help improve performance, intelligently plan capacity, enhance administrative efficiency and protect the data that is at the center of your business.

Provisioning infrastructure and workloads can be a complex and time-consuming process. Dell solutions streamline the delivery of new infrastructure and workloads to support IT and business projects as well as enable application and IT service delivery – across on-premises data centers and public clouds.

Solutions for performance monitoring and capacity planning allow you to optimize the configuration and performance of physical and virtual servers, network devices and storage. Capitalize on extensive real-time monitoring, capacity planning and reporting capabilities for informed decision making.

Desktop and systems management solutions help you streamline management of desktops, servers, storage, network devices and other systems. Accelerate provisioning, deployment, patching, inventory and configuration while reducing administrative complexity. Take advantage of automation and standardization to improve the efficiency of provisioning and managing physical and virtual workloads.

Backup and disaster recovery solutions enable you to protect vital information assets, improve availability of mission-critical applications, and ensure business continuity with robust backup and disaster recovery solutions. You can employ near-continuous backups to applications and databases to provide always-on availability and minimize the potential for data loss. Recover data in minutes, enabling users to get back to work right away.

Related products:
- Foglight for Virtualization
- Foglight Storage Manager
- Foglight Network Management System (NMS)
- KACE systems management appliances
- vWorkspace™
- Active System Manager
- NetVault
- vRanger™
- AppAssure
- Windows workload recovery and availability solutions
Solving customer issues faster with Foglight

Challenge
Thomas Cook, one of the best-known names in travel, wanted to improve the online customer experience and increase conversion rates by quickly detecting and resolving problems related to its websites. The existing monitoring solution provided very few metrics, so gauging the impact of problems was difficult.

Solution
The company adopted the Dell Foglight solution, which provides performance monitoring of applications, databases and infrastructure in a single, adaptive monitoring platform.

Results
• Increased the number of website hits, average transactional value and the number of bookings by 30 percent
• Reduced the time to resolve problems by 97 percent, from 48 hours to just two
• Cut the volume of online customer service calls by 50 percent
• Recaptured £120,000 of lost business

Simplifying and securing account management with ActiveRoles Server

Challenge
The Ann & Robert H. Lurie Children’s Hospital of Chicago has an extensive IT environment used by 6,000 users to access more than 70 core applications plus hundreds of departmental applications. The IT group needed to streamline system access control, password management and account creation tasks, which were too complex and time-consuming for staff.

Solutions
The hospital IT group implemented ActiveRoles Server, which provides secure and automated account management and helps eliminate unregulated access to resources. The IT group also deployed Password Manager, a self-service solution for end users to reset forgotten passwords.

Results
• Contributed to improved patient care by helping to ensure authorized system access for healthcare providers
• Reduced costs and streamlined IT tasks by introducing automation and self-service capabilities
• Improved compliance and security through automation and reporting

[Thomas Cook] reduced the time to resolve problems by 97 percent, from 48 hours to just two.
Conclusion

The right approach to data center modernization

Modernizing on-premises data centers and introducing new cloud computing models can improve agility, efficiency and service quality. The huge potential for benefits from these new technologies and operating paradigms has spurred many organizations to rethink how they are managing these environments. It’s essential that they gain more and more productivity from their IT teams as well as streamline operations to better support business and end user demands.

Dell offers a broad portfolio of data center and cloud management software solutions that can help you achieve your IT and business goals while simplifying management of your IT environments. By enabling IT groups to improve service quality, automate administrative tasks and simplify the management of heterogeneous environments, these Dell solutions can play important roles in data center modernization no matter where you are in your journey.

For more information about Dell software solutions, contact your Dell sales representative or visit: www.software.dell.com.