

EMC Data Protection Advisor Streamlines Management

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Abstract: Since acquiring WysDM a year ago, EMC has leveraged its longstanding experience in enterprise storage and data protection to enhance Data Protection Advisor (formerly known as Backup Advisor). In addition to collecting data for various components in the backup realm, the latest version includes expanded coverage for databases and VMware servers, further streamlining management of the data protection environment.

Overview

Explosive data growth, complex infrastructures, and governance and compliance pressures have created challenges for data protection. Coupled with the current economic climate and the resulting cost reduction initiatives impacting staff levels, IT organizations are tasked to manage more with less while still meeting service level agreements (SLAs). IT staffs need to leverage automation, implement best practices, and gain the insight needed to drive operational improvements.

Some gain visibility into the data protection environment and processes using ad hoc tools, manual processes, and scripting, while others utilize backup reporting tools included with backup applications. Oftentimes, administrators resort to cobbling together the information they need in a reactive fashion. The result is stove-piped data and manual efforts that come up short.

For example, simply determining whether or not a backup operation was successfully completed has long been a vexing problem for backup administrators. ESG research found that 40% cited “difficulty validating backup/recovery success” as a major challenge in their current data protection environment.¹ When asked which technologies—if any—their organizations currently use to monitor backup and recovery operations, the majority of respondents revealed that they are most frequently using the tools that are packaged with backup applications, while 12% percent of organizations surveyed indicated that they had no formal tools or processes to monitor the success and failure of backup operations.

When IT staffs take advantage of some form of reporting and monitoring solution, success rates for backup operations tend to be higher. For those ESG respondents using formal tools or processes, the percent of backup jobs successfully completed was 87%, compared with 78% for those users with no formal tools or processes (see Figure 1).²

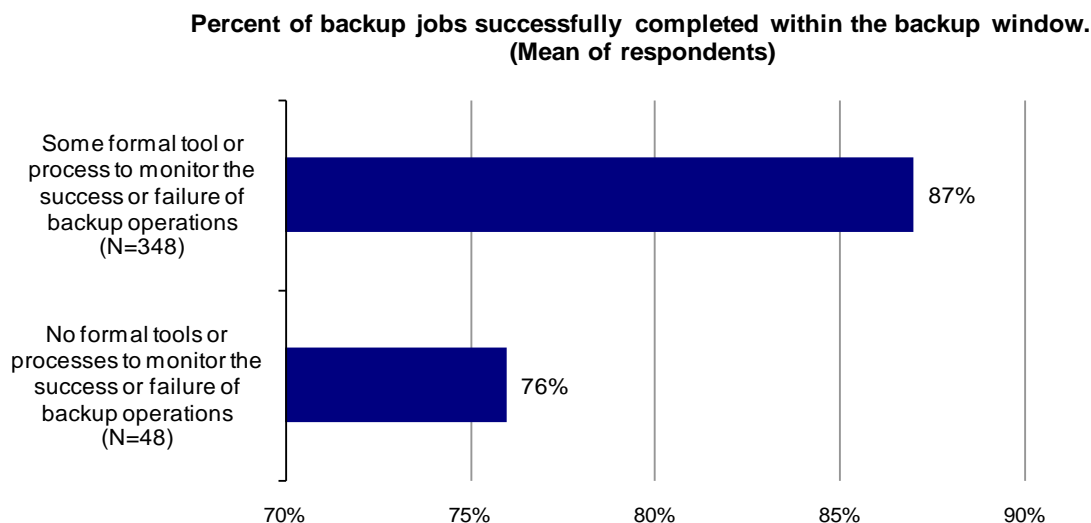
More progressive IT organizations may venture beyond the tools within backup applications and log files to a data protection management (DPM) solution that delivers automated, cross-technology, cross-domain data collection and correlation to provide custom reporting and powerful analytics.

That’s where EMC Data Protection Advisor (DPA) 5.0 comes in. The software enables backup reporting, alerting, monitoring, and analysis of heterogeneous server and storage infrastructures. With DPA, IT organizations can be more proactive with data protection management, enabling them to confidently analyze data recoverability, predict risk vulnerability, and identify opportunities for cost reduction. It monitors the data protection environment, providing the timely information and historical perspective that enable IT organizations to anticipate problems and make effective decisions.

¹ Source: ESG Research Report, *Data Protection Market Trends*, January 2008.

² Ibid.

FIGURE 1. BACKUP SUCCESS RATE BASED ON USAGE OF BACKUP MONITORING TOOLS OR PROCESSES



Source: Enterprise Strategy Group, 2008

Analysis

EMC Data Protection Advisor doesn't just gather data from the major backup applications; it collects system information from backup servers and clients, physical and virtual tape libraries, and SAN/LAN/WAN switches in the data protection environment. Leveraging DPA's reporting capabilities, this collection of data helps identify areas of exposure and also aids in planning by providing a view into the utilization of resources for backup/recovery operations. Planning for growth can be more streamlined and efficient with improved visibility into the data protection environment and actual usage of resources.

Some of the key functions of EMC DPA include:

Monitoring and alerting. DPA performs real-time activity and event monitoring of resources in the data protection environment, including disk space, CPU, memory, network utilization, missed service levels, slow backups, and changes in backup volume or backup time. Consolidated information from systems, applications, and backup applications in multiple locations is presented in a single interface, streamlining administration. Proactive alerting notifies administrators of out-of-policy events.

Troubleshooting. DPA provides access to information to aid in quickly identifying problems. All components of the backup data path are examined, and data is collected and presented to facilitate troubleshooting. The ability to drill down into specific devices or components to determine the cause of issues saves time.

Performance optimization. Charts and reports help identify performance bottlenecks, over- and under-utilized resources, and high- and low-utilization timeframes. Armed with activity information, workloads can be better balanced across resources to optimize performance. Significant time savings can be achieved by automating the analysis and tuning of the environment.

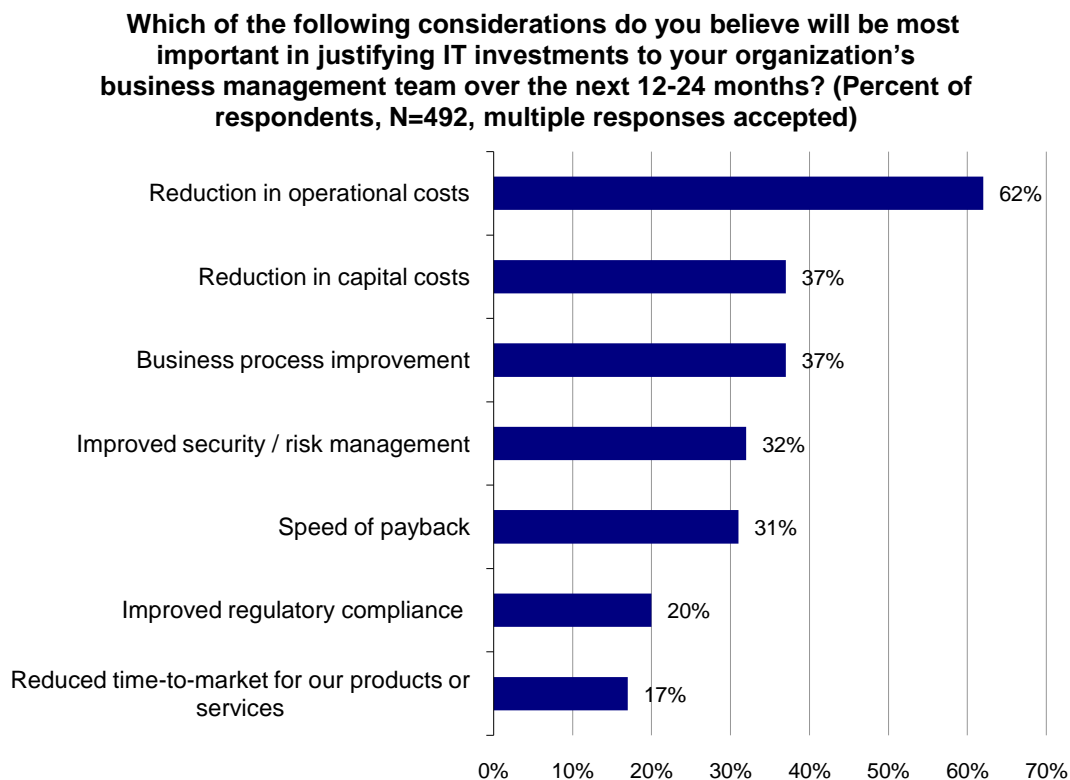
Capacity planning. Capacity trend analysis and forecasting demonstrates how requirements will evolve over time, allowing for better planning and budgeting. Formerly manual processes are automated via reports and alerting, eliminating fire drills and the over-expenditures that typically accompany them. Anticipation of problems leads to early action, which improves service levels.

Reporting. Reporting goes beyond the basic. With standard reports and the ability to filter them (even dynamically updating queries as new components are added and removed) to further customize information, DPA delivers a comprehensive view of the environment. The ability to publish reports, such as backup success/failure, to constituents could also result in higher customer satisfaction.

Through these functions, IT can reduce costs, more effectively manage change, and minimize risk. Cost savings can be achieved in several ways, including higher operations staff efficiency, improved resource optimization, and better purchasing decisions. Change management improvements can be realized via monitoring and automation, resulting in improved performance and reliability, streamlined operations, and faster response time. Risk can be mitigated by resolving vulnerabilities, improving SLAs, providing more predictable recoverability, and improving preparedness for recovery, compliance, and audit events.

The benefits derived from EMC DPA are in line with considerations IT uses to justify investments. ESG research on data center spending intentions revealed respondents' belief that ongoing operational cost reduction is, by a significant margin, the most important justification for IT investment now and over the next 12-24 months (see Figure 2).³ This reinforces the view that organizations favor products and services that allow them to improve management processes, reduce headcount, or otherwise streamline operations.

FIGURE 2. MOST IMPORTANT CONSIDERATIONS FOR JUSTIFYING IT INVESTMENTS



Source: Enterprise Strategy Group, 2009

EMC extends the capabilities of DPA by offering monitoring, analysis, and reporting of file servers, databases (new in 5.0), and VMware server virtualization environments (new in 5.0). The DPA File Server option collects data from EMC Celerra and NetApp file servers to simplify management and improve operations. Key tasks, such as comparing file servers' configuration settings to make sure they are paired for failover, identifying unprotected shares, and managing/monitoring uptime can easily be performed. Similarly, the DPA Database option collects data for Oracle, SQL Server, and PostgreSQL environments and provides reports on performance and other metrics for monitoring and policy enforcement. This allows the database environment to be more effectively managed—automating labor-intensive tasks and accelerating access to information. Finally, the DPA Virtualization option collects data from VMware servers to track performance, resource consumption, data protection, server location of host images, and more. Less time and effort are needed to gain access to information to monitor, manage, and troubleshoot virtual servers, contributing to reduced costs and improved operations.

³ Source: ESG Research Report, *2009 Data Center Spending Intentions*, March 2009.

The Bottom Line

EMC Data Protection Advisor provides the visibility necessary to truly understand the details for managing large and complex data protection environments. Obtaining data on all of the major data protection components, serving up the information in different views and reports—published via a browser interface or sent via e-mail to constituents—and alerting administrators regarding out-of-policy conditions provides business, operational, and financial benefits.

In today's economic climate, it's never been more important to make the most of the existing resources, including the operational staff that manages the data protection environment. EMC DPA provides multiple layers of efficiency that contribute to time and cost savings, as well as capabilities that mitigate risk and, importantly, deliver higher service levels.