

Product Brief

EMC Smarts 9.1 Provides End-to-End Visibility

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Abstract: Enterprises are under significant pressure to deliver higher levels of service in an increasingly complex and virtualized IT environment. EMC Smarts 9.1 is enabling operations teams to expand their visibility of performance, configuration, and service levels into storage and wireless environments while delivering a number of tools to increase efficiency and accommodate future requirements.

End-to-end Visibility Is a Requirement

Enterprises rely on IT to power their business; however, in a highly dynamic global market, organizations need to remain flexible and agile. In a bid to remain competitive or gain advantage, organizations have consolidated and virtualized their data center environments, adopted innovative application architectures, and embraced mobile computing initiatives to increase employee productivity.

ESG research validates these claims, as seen in Figure 1.¹ In fact, increased use of server virtualization has been either the number one most important IT priority reported by respondents, or tied for number one, for the last three years in ESG's annual IT spending survey. New application deployments and upgrades also made it into the top five of that list. A separate ESG research report on data center networking indicates that SOA and web-based applications are on the rise, with 24% of respondents reporting widespread use and another 60% reporting some use.² And it's not just the servers and applications: Managing data growth is also in the top five IT priority list as reported by respondents to the ESG annual spending intentions survey every year and data center consolidation has been in the top ten for the last three years. As organizations consolidate, they are also likely to create multitenant environments to support different business units. At the same time data centers are consolidating, IT is finding that it has to deliver corporate applications to mobile computing devices such as smartphones and tablet computers as well as PCs and Macs, which ranked as the ninth top IT initiative. Lastly, organizations are maturing their virtualization environments and moving beyond the simple consolidation benefits so they can achieve greater levels of flexibility. This shift is causing them to build out private clouds, which made it into the top ten for the first time this year.

As a result of many of these initiatives, the IT environment is becoming far more virtualized and abstracted, which creates its own set of challenges. Traditional monitoring and management tools struggle to keep up as virtualized environments create blind spots or only provide information for one specific technology area. Yet, in order to be able to guarantee service levels, optimize performance, and remediate problems as quickly as possible, complete visibility of the end-to-end environment is required. This includes not only visibility from the application to the storage, but also from the application to the end-user. The latter is the larger challenge, being driven by pervasive use of mobile computing devices as a result of bring your own device (BYOD) initiatives, which require visibility from the applications to the wireless networks as well.

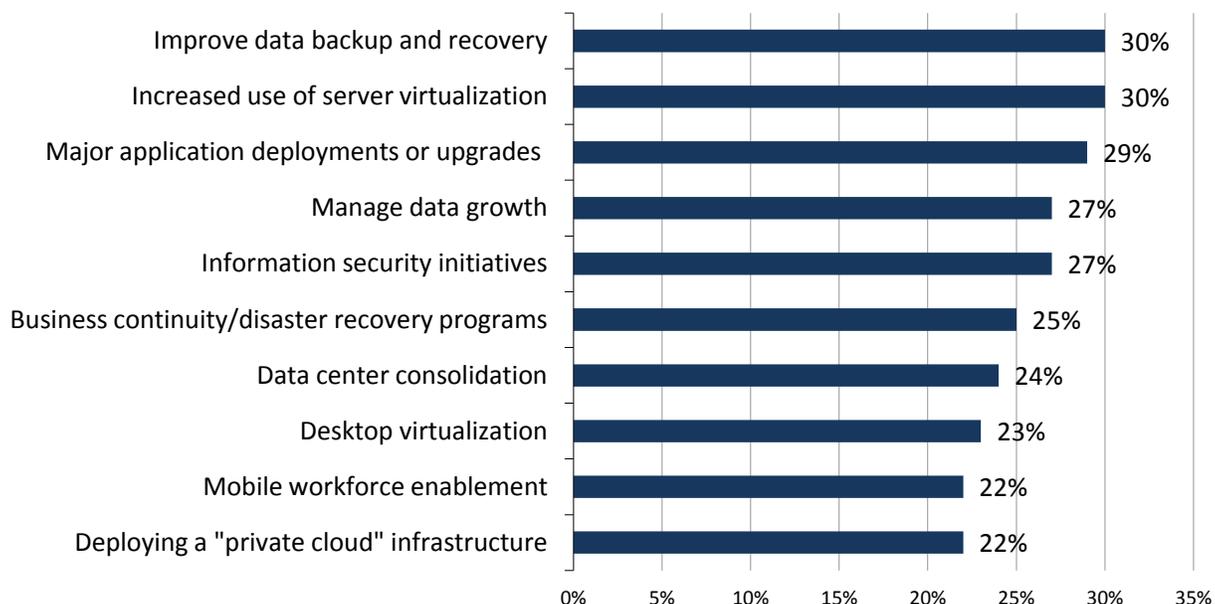
EMC Smarts has been providing network and server solutions for enterprise and service providers' customers for a number of years and it is constantly adding new capabilities to solve customer problems. Its latest iteration, EMC Smarts 9.1, seeks to specifically address some of the issues outlined above.

¹ Source: ESG Research Report, [2012 IT Spending Intentions Survey](#), January 2012.

² Source: ESG Research Report, [Data Center Networking Trends](#), January 2012.

Figure 1. Top Ten Most Important IT Priorities

**Which of the following would you consider to be your organization's most important IT priorities over the next 12-18 months?
(Percent of respondents, N=614, ten responses accepted)**



Source: Enterprise Strategy Group, 2012.

EMC Smarts 9.1

One of the first things one might notice with this release is the fact that it encompasses multiple products under the Smarts brand. Although it does not represent a fully integrated suite just yet, it appears to be well on track to achieving that status. EMC Smarts 9.1 is focused on providing end-to-end coverage, from application to storage as well as application to end-user via wireless connectivity, while delivering a number of efficiency improvements. The major changes in version 9.1 include:

- **Integration with ProSphere.** By tying in to EMC ProSphere, Smarts is now capable of delivering end-to-end application to storage visibility in the data center. With Smarts already capable of viewing VMs and virtual switches through its long-standing integration with VMware vCenter Server, this linking with ProSphere extends the visibility further into the storage domain (it could previously identify storage paths) and into the storage arrays themselves. Having this holistic view is very important as server, network, and storage environments become virtualized. Being able to pinpoint where a problem is in either the logical or physical environment and understand immediately what applications are impacted will enable operations teams to accelerate problem resolution.
- **Wireless network management.** With BYOD, many employees now bring multiple compute devices into work—typically a laptop, smartphone, and tablet computer. Many see this as a rising tide that can't be easily stopped, so instead of trying to stop it, organizations are going to have to embrace it. However, that also means a significant increase in traffic over corporate wireless networks and, in fact, it is not uncommon for operations teams to report that thousands of new devices are hitting the network after a holiday season. And while there is potential for recreational use, most organizations view this as an opportunity to increase employee productivity. With Smarts 9.1, operations teams will have the capability to incorporate the wireless network into overall network topology and leverage the Smarts algorithms to rapidly isolate problems.
- **A number of efficiency gains related to network configuration management**, including:
 - *The capability to write device drivers.* This enables organizations to quickly start automating configuration management for new or unique network devices.

- *Support for IPv6.* With IPv4 addresses running out, organizations will need this capability to ensure future support. ESG has seen the federal government adding this requirement for new purchases as well as requests from certain geographies such as Asia Pacific and Europe.
- *Enhanced compliance testing and templating.* Network Configuration Manager has added compliance testing against Defense Information Systems Agency Security Technical Information Guide (DISA STIG). In addition, new capabilities allow users to store tests as a template, create a library of components that can be leveraged to make more sophisticated tests, and use a federated data model by including information from external data sources in any test.

Why Service Assurance Is Important

As enterprise organizations continue to virtualize data centers and build out multi-tenant cloud environments, they are looking more and more like service providers. While for enterprise data centers, the customers may be different business units or divisions instead of external customers, there is a need to ensure that each “tenant” receives the expected service levels. Because of this, it makes sense that enterprise IT would deploy solutions that have a strong service provider heritage. Typically, service provider-capable solutions are also designed to rapidly scale to accommodate large environments and are capable of integrating with other solutions.

Enterprise operations teams don’t have time to architect, build, and maintain home-grown solutions and monitor the environment to guarantee service levels. Therefore, commercially available solutions such as EMC Smarts 9.1 can play a vital role in providing the end-to-end visibility to monitor for availability, performance, configuration, and service assurance. The ability to guarantee service levels in highly virtualized and abstracted environments will require organizations to see both the logical and physical environment and be able to correlate events between them. Without this visibility, SLAs will be at risk and the mean time to repair problems will be extended.

The Bigger Truth

Enterprise operations teams need to adapt their tools to accommodate highly virtualized and cloud environments. In a dynamic IT environment, it will be critical to monitor the performance, configuration, and service levels of the entire IT environment. This means monitoring service levels not only from the application to the underlying storage, but also from the applications to the end-user. As mobile compute devices such as smartphones and tablet computers continue to proliferate in the enterprise locations, the wireless network will play a more integral role in delivering applications and services to employees. As the environments scale, it will be more important for operations to be able to add support and more efficiently test and ensure that service levels are being met.

EMC Smarts has been meeting the availability, performance, configuration, and service assurance needs of service providers and enterprises for a number of years in the server (virtual and physical) and data center networking environment. EMC Smarts 9.1 now expands those capabilities to include visibility into storage and wireless network environments, and delivers a number of efficiency and future capabilities for organizations to more effectively manage their highly dynamic, virtualized/cloud computing environments.