



EMC Smarts: Delivering Better Management, More Security with IP Availability Manager 7.0 and Service Assurance Manager 7.0

EMC demonstrates an astute market sense in combining acquisitions¹ with existing products to provide additional functionality to service management solutions set. This time EMC focuses on adding secure, cross-domain support as they expand the scope of their management solutions for IT and the red-hot service provider markets. The rollout continues with the announcement of EMC Smarts Service Assurance Manager 7.0 and IP Availability Manager 7.0. Products designed to continue leveraging the power of the Smarts analytics and improving the security. These products provide improved management of Multiprotocol Label Switching (MPLS)-based environments and add compatibility for a broader range of application and system instrumentation. Let's examine what EMC is bringing to the market this time.

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What is EMC targeting?

With this announcement EMC is talking integrated resource management (IRM). IRM uses three key products (nLayers, Smarts, and Control Center) as building blocks to address the challenges facing today's enterprise IT and communications service providers. EMC delivers a set of integrated solutions to address the four major challenges in IT resource management:

1. Managing growth in all its forms – from the explosion in data and information collected and preserved to the problem of escalating complexity in the infrastructure to the management changes resulting from integration of new technologies like SOA, virtualization, and IP services;
2. Assuring integrity – providing for continuity of business operations, guarding against data loss, and ensuring compliance with enterprise and legislated mandates;
3. Increasing operational effectiveness – reducing costs, improving the adaptability and flexibility to assure IT responds to business demands and delivers services to meet SLA commitments;
4. Creating new value for the enterprise – by leveraging and applying IT technology and services in new ways, eliminating the silos in IT technology and operations to improve

¹ *EMC acquisition of nLayers heats up CMDB Battles*, Commentary by Ptak, Noel & Associates, July, 2006

the delivery of services so IT can creatively apply the infrastructure to drive business success.

EMC summarizes the challenge and task of today's enterprise IT as one where IT must: Store – Protect – Optimize – Leverage enterprise resources. This new definition of responsibility marks the shift in enterprise IT's focus from infrastructure and technology management to the task of defining and delivering services. These services require cross-domain integration and interoperation of technologies long isolated in operational silos. While still responsible for infrastructure availability and performance, the more important measure of IT performance will now be measured in terms of their ability to optimize IT service delivery.

IT must have integrated management solutions that operate with a view across multiple technology and infrastructure domains that include storage, network, server, and application operations. To do this requires an intimate, up-to-date knowledge of linkages, relationships, interactions, and dependencies between applications, application components, and infrastructure elements. Key to the success of these solutions will be the ability to map and adapt in real-time to the underlying changes in relationships, dependencies and operational priorities that occur within the infrastructure as part of service delivery to meet business needs. EMC believes it has what it needs to deliver solutions that meet these requirements with nLayers², Smarts, and ControlCenter.

EMC has rightly analyzed the problem and described the requirements of the solution. IT's role in the enterprise is undergoing rapid change especially in the area of networks and communications. EMC understands the changes taking place in IT's roles and responsibilities as they face new and complex problems as they respond to demands for better and faster services. Using core acquired technologies; EMC is building robust, automated management solutions that meet the needs of the day-to-day operations. They are delivering to IT the management tools of increasing sophistication and complexity it needs and able to provide the necessary end-to-end view of IT operations.

EMC Smarts IP Availability Manager 7 / EMC Smarts Service Assurance Manager 7.0

The task of Smarts IP Availability Manager is to automate the process of real-time root-cause analysis of critical network connectivity layers. It operates for all network devices including connectivity for network-attached storage (NAS). Both Smarts Availability Manager and

² *EMC Smarts: Application discovery and more!*, Commentary by Ptak, Noel & Associates, April, 2006

Service Assurance Manager leverage EMC’s unique model-based architecture. Three core disciplines reside at the heart of this architecture allow EMC to accelerate the development and delivery of intelligent, automated management solutions. These core disciplines and key features are:

1. **Abstraction** – enables understanding complex environments by focusing on common properties of components rather than getting lost in specific product details;
2. **Analysis** – to more easily pinpoint the root-cause of problems wherever they occur and calculates their impact on the business;
3. **Automation** – use automation of high-cost, labor-intensive tasks to allow the enterprise to improve service levels, increase revenue, cut operating costs and reduce business risk.

The building block of the EMC Smarts management suite is the Smarts Service Assurance Manager (SAM). SAM performs the task of automatically integrating and correlating topology, events and analysis coming from multiple sources and across multiple technology and functional domains in the enterprise. See Figure 1 below.

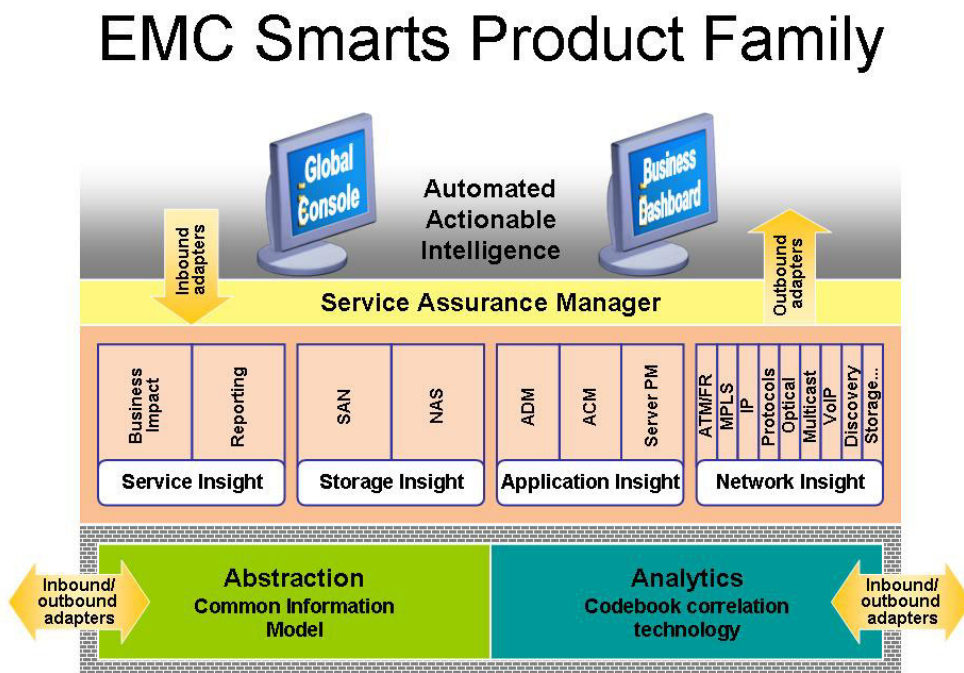


Figure 1 EMC provides a comprehensive solutions approach

From this information and data it builds and maintains the real-time end-to-end view of what is happening in the IT environment, reports on the health of the total environment, and reports on the potential impact of events on core business services. With these solutions EMC puts the burden of analysis of what is happening into the management technology freeing scarce human resources to do more creative and innovative tasks.

With version 7.0, EMC delivers improved network security that exceeds Federal standards with SNMPv3 authentication and encryption services. They expanded application and systems instrumentation capabilities to acquire more data that used for more detailed and extensive cross domain correlation. To allow customers to leverage investments in existing products, EMC adds gateway support to share alerts and logs between Smarts software and Mercury SiteScope. This allows SiteScope generated alerts to be processed by Smarts.

Finally, with these releases EMC delivers enhanced support and security for IP and Multiprotocol Label Switching (MPLS)-based environments. EMC provides extended capability to help managers with triage of MPLS services in its support to resolve two major problems – management of overlapping network addresses and fast detection of backplane failures. These are addressed via IP Tagging and LSP (Label Switched Paths) Pinging. IP Tagging neatly handles the problem of multiple IP addresses – a problem when managing multiple networks. LSP Ping permits scheduled or ad hoc pings of routing instances (in an LRF, Location Retrieval Function) – providing another way to interrogate the provider or customer network edge. Operating systems support is extended to include Solaris 10, Windows 2003 EE R2, RedHat Linux 4 and, as well as virtualized environments, in the form of VMware ESX Server 2.5.

The Final Word

The convergence of voice and data, a vision for over 30 years, is fast becoming a reality with the maturation of technologies, markets, and capabilities. EMC astutely acquired companies and technologies that could be used to extend and enhance existing products (their storage and data management strengths) while providing them entry into an expanded IT services market (IP-based services, MPLS, converged networks).

Rather than making a big issue of their vision of the future and how good it was going to be when it all arrived, EMC concentrates on identifying and solving real problems immediately. They do this by building a model-based architecture that gives them extreme flexibility for implementation and evolution. Then, they focus on implementing

and delivering product functionality that will address today's operational pain points while laying the groundwork for future expansion.

With this announcement EMC as a corporation and EMC Smarts, in particular, demonstrates how a well executed process of acquisition of companies, products, and technologies can sometimes, but only too rarely, pay off. We believe that EMC's goal here is to bring together and integrate its range of existing and new product capabilities in order to deliver enhanced management solutions. These are being positioned to address the growing needs of an emerging market consisting of a convergence in operations and services between enterprise IT and communications service providers. EMC is demonstrating intelligence and focus that will help them in the battle to extend their role out of plain vanilla storage systems, to a for a leading place in information management and storage.

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With a belief that business success and IT success are inseparable, Ptak, Noel & Associates works with clients to identify, understand and respond to the implications of today's trends and innovations on the future of IT Operations.

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About the Author

Richard Ptak has over 30 years experience in systems product management working closely with Fortune 50 companies in developing product direction and strategies at a global level. Previously Ptak held positions as senior vice president at Hurwitz Group and D.H. Brown Associates. Earlier in his career he held engineering and marketing management positions with Western Electric's Electronic Switch Manufacturing Division and Digital Equipment Corporation. He is frequently quoted in major business and trade press such as The Wall Street Journal, BusinessWeek, InformationWeek, and ComputerWorld and is author of "Manager's Guide to Distributed Environments," (John Wiley & Sons, 1998). In addition, Ptak was technical editor of "Cisco Internet Architecture Essentials Study Guide: Cisco Internet Solutions Specialist" by Mathew Recore, Jeremy Laurenson, and Scott Herrmann (Cisco Press, 2002). Ptak holds a master's in business administration from the University of Chicago and a master of science in engineering from Kansas State University.

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