EMC Service Assurance Suite 9.3 Advances Integrated, Service-Aware Management

Executive Summary

The drive for integrated, unified approaches to IT and service infrastructure monitoring and management is unmistakable. Comprehensive approaches offer deeper, more insightful operational visibility combined with the opportunity to apply advanced analysis that encompasses the diversity and complexity typical in today's service delivery architectures. The challenge is to find integrated approaches that can successfully keep pace with the fast-evolving demands brought about by cloud, virtualization, mobility, big data, SDN, and other forms of the continuous onslaught of technology change. EMC's Service Assurance Suite is designed to meet precisely such challenges, and the latest release exhibits the company's focus on allowing those who adopt the solution to not only keep pace, but to put themselves ahead of the game.

HIGHLIGHTS

Vendor name: EMC

Product name: Service Assurance Suite 9.3

Product function: Application-aware infrastructure monitoring and reporting

Announced: May 2014

Availability: June 2014

Issues

Technology marches on, and with it comes ever-expanding challenges for assuring that new technologies can be successfully transitioned into production IT and service environments. Making sure that the infrastructure is available, healthy, and performing to expectations requires assembling a comprehensive, inclusive view into all of the components that must work together flawlessly in order for the end result – applications and services – to be delivered successfully to internal and external customers.

Monitoring and management systems that seek to provide effective assurance results must cover all technology domains, including current servers, networks, storage, and application component technologies, while accommodating a steady influx and evolution of new ones. For instance, software-defined networking and software-defined storage are revolutionary within their own functional areas, but have wide-ranging impacts on related and surrounding technologies. Evolutionary changes in mobility are having similar effects – directly changing the means and mechanisms required to manage user/subscriber experience, whether end clients are leveraging Wi-Fi or the latest generation of LTE mobile connectivity services to reach data and application services.

Service assurance solutions are also expected to go further than just keeping up with managed technologies. Increasingly, such solutions are expected to directly embed automated, advanced data analysis so that operators can keep pace with the growth in volume and complexity that is typical in today's large managed environments. Further, they must be designed to deliver monitoring and management insights tuned to the needs of multiple constituents and organizational roles in a concise, effective manner, so that customer expectations can be properly set and reactive/proactive responses to incidents can be executed as quickly as possible.

Product Description

EMC formally launched the Service Assurance Suite in the first half of 2013, bringing together a powerful combination of availability, performance, and configuration management products for integrated, multi-function support of mixed physical, virtual, and cloud environments. The suite's

constituent elements each have long histories of successful deployments across both enterprise and service provider settings, so the Service Assurance Suite represents a convenient method to gain full advantage of existing, proven technology, rather than a brand new approach.

While the full scope of capabilities within the Service Assurance Suite spans a broad range of management needs, the primary theme is visibility, monitoring, troubleshooting, and control functions for maintaining high levels of operational availability and performance. In order to accomplish this, the Service Assurance Suite includes such features as automated discovery, advanced event correlation and root-cause analysis, incident impact analysis, performance thresholding and trending, configuration management, and service-level monitoring and reporting. Collectively, this represents the features required to assure operational integrity for some of the world's largest IT and service infrastructures.

New capabilities added in the 9.3 release of the Service Assurance Suite reflect a steady focus on extension, expansion, and continuously improving effectiveness. Highlights include:

1. **Support for VMware NSX SDNs (Software-Defined Networks):** Service Assurance Suite 9.3 not only recognizes the presence and performance of NSX virtual network elements such as controllers, switches, routers, and gateways, but also where those elements reside in both physical and virtual topological contexts. This allows the Service Assurance Suite's advanced root-cause analysis to be fully applied across mixed and hybrid physical/virtual/cloud infrastructures, recognizing the impact of physical layer issues and incidents on virtual/cloud tenant services. Further, since the Service Assurance Suite incorporates availability, performance, and configuration monitoring, it can automatically correlate configuration changes with observed and reported symptoms to help in resolving root cause. The system supports automated recognition and awareness of service relationships by drawing data directly from VMware NSX Manager.

2. **Application monitoring:** Perhaps best known for infrastructure monitoring, the Service Assurance Suite is adding increasing degrees of direct application awareness, now including automated process discovery and monitoring/reporting of top CPU and memory consumers. A further example can be found in the new specialized solution pack for deep-dive process and application performance monitoring via VMware's Hyperic product line.

3. **Integrated storage assurance:** EMC has continued to leverage its unique aptitudes, furthering levels of deep, integrated monitoring and management of storage systems infrastructure with this release. Highlights include new impact analysis for events and incidents such as SAN switch outages, Fibre Channel or PowerPath failures, and even the impact that a disk rebuild has on individual VMs. These insights are shared via consolidated alarm notifications and impact views that include affected services, VMs, applications, and even SLAs at risk.

4. **Enhanced operator UI:** EMC has been on a long journey to modernize and redesign the primary operator console interfaces within the Service Assurance Suite, and that journey is largely completed with this release. A new use-case and role-based design paradigm facilitates rapid, intuitive navigation of views and data around pre-defined, customizable templates, detailed analysis views, and enriched alarm management screens. All forms of data presentation are now much more customizable on the fly, including capabilities such as one-click column sorting in tables and flexible search. A new set of topology mapping features have also been added, enriching the information presented in and around each device icon, status-embedded topological links, mouse-over info pop-ups, right-click menus, and even spark lines of key performance metrics for each node/icon.

5. **LTE support:** One of the ways that the EMC Service Assurance Suite shines is the ease with which the solution can be tuned and optimized for specific managed environments. Such is the case with newly-added support for mobile LTE environments, with the solution now offering operators the ability to fully visualize and monitor all components that comprise the mobile LTE network. In addition, EMC has added several new solution packs optimized for Ericsson LTE infrastructure components, and plans to add support for other vendors' LTE solutions on an ongoing basis.

Key Benefits

The newly updated EMC Service Assurance Suite 9.3 solution extends existing, proven capabilities in several important and beneficial ways:

1. **Supporting the latest technologies:** Adding support for new technologies is a common aspect of most management solution updates, and this release does not disappoint. The newly added support for VMware NSX and mobile LTE, combined with significant extensions for integrated storage management, put operations teams across a number of types and sizes of organizations in a better position to support and assure the success of critical technology transitions.

2. **Visualizing mixed physical/virtual network environments:** While many are still trying to solve the mystery of how to fully integrate discovery, monitoring, and analysis of mixed environments, EMC is quietly delivering the answers, paving the way for making the shift to increasingly virtualized network infrastructures.

3. **Establishing service awareness:** In the end, it's all about protecting service quality and monitoring service levels, whether in a telecoms setting or in support of internal IT cloud transformations. EMC's Service Assurance Suite has always offered such capabilities, and with this release has automated the process to make accuracy and completeness even faster to achieve and simpler to maintain.

4. **Optimizing presentation of operational insights:** The newly redesigned UI will translate into more intuitive navigation, faster task execution, and better situational awareness. And all of this means improved availability, performance, and (ultimately) service quality.

EMA Perspective

The integrated, service-aware EMC Service Assurance Suite is relatively new in concept, but is deeply rooted in well-established, proven technologies. The latest enhancements and extensions embodied within the version 9.3 update will help operators in both service-provider and enterprise environments keep on top of the most recent major shifts in technology, so that the business and revenue potential of new initiatives and offerings can be fully captured. Further, the embedded application and service awareness that permeates the solution is strategically invaluable for getting IT operations' attention and actions in line with business priorities.