
EMC ControlCenter Goes Virtual: Provides End-to-end Visibility in VMware environments

Date: May, 2007

Author: Bob Laliberte, Analyst

Abstract: EMC recently announced ControlCenter 6.0, which incorporates support for VMware. They have also expanded support for heterogeneous storage arrays, enhanced their reporting capabilities and started to integrate the entire family of products.

Overview

EMC recently announced ControlCenter 6.0 to enable IT shops to better manage their complex virtualized server environments. Server virtualization is one of the hottest technologies to hit the data center in recent years. Aided by all the attention given to the improvement of asset utilization, consolidation and the reduction of power and cooling costs, VMware has gained widespread adoption. This proliferation has not come without challenges, however. While VMware has provided great benefits to customers, it has also created new management problems. Making it easy to create and use virtual machines is great, but managing a virtual machine is not really any easier than managing a physical one—and in many cases the ease of creation makes it even harder to control a virtual world. Specifically, how do you map applications and logical connections to the actual physical infrastructure? Especially when you consider that an application might be on a certain physical server one day and then on a different one the next. EMC is the first major Resource Management (RM) vendor to address that question with ControlCenter 6.0.

With this announcement, EMC continues to execute against its vision of providing cross domain visibility, management and intelligence from applications through servers, network and storage. The EMC ControlCenter and SMARTS technology comprise the main components of this vision. This upgrade is only the first of several updates that we expect to hear about this year as EMC incorporates their many recent acquisitions into their model-based management framework. The end goal is to provide customers with solutions that correlate infrastructure issues to business impact. In fact, EMC maps their ControlCenter portfolio to customer use cases, in order to leverage software to instill best practices and discipline that will enable IT to deliver better service levels to the business. EMC has honed these use cases and planned their upgrade path by working with and listening to customers in the ControlCenter user group, now grown to 12 separate communities with over three hundred participants.

EMC ControlCenter 6.0, in addition to providing much needed support for VMware, also delivers unified and open reporting, extended storage platform support (both within EMC and other vendors), improved user interfaces and better upgrade abilities (not forklift upgrades). EMC is also taking a different approach to its rollout of ControlCenter 6.0. Instead of going from Beta to General Availability (GA), they have inserted a step they call Phased Production Release (PPR). Basically, PPR enables EMC to roll out a new version of software into a qualified customer's production environment in a very controlled manner. This enables them to fully test and validate their product and process in real world situations and results in a far better experience for end-users.

Analysis

Let's take a closer look at some of the details of this upgrade. EMC ControlCenter 6.0 includes:

- **Support for Virtual Environments:** EMC is the first major RM vendor to provide end-to-end support for Virtual Server Environments. With this release they will have the ability to view both the logical and physical relationships of the infrastructure stack. The functionality goes beyond just passive mapping. It includes active management with provisioning (including zoning and LUN masking up to the ESX

server). While the view into the ESX server will provide basic information about virtual machines, ControlCenter agents can be deployed on virtual machines and provide information like the type of file system and volume manager being used. This visibility also provides basic troubleshooting capabilities like the ability to provide information regarding the status of the ESX server and individual virtual machines. The support for VMware alone is worthy of an upgrade. As more customers deploy VMware into production environments, this level of support will become mandatory.

- **Enhanced Reporting Capabilities:** EMC has integrated Storage Scope File Level Reporter (FLR) and StorageScope. While they will still be sold as separate products, when used together, they will share agents, reporting servers, user interfaces and data repositories. This is a good first step towards integrating the ControlCenter family. They have also done a good job making this easier to use while providing significant levels of flexibility. To simplify the interface, they have reduced the number of canned reports by just focusing on reports that are use-case-driven and are most useful to end-users. For advanced users they provide the capability to query the database. Custom reports can be generated provided you already have a copy of Crystal Reports. They can also be saved in the EMC repository. If you don't have Crystal Reports—no problem, EMC has opened up access to the database so you can leverage the information in any 3rd party reporting package, or any other package, for that matter. If you prefer, EMC can, through a professional services engagement, create custom reports to fit your specific needs.
- **Expanded Platform Support:** ControlCenter support has been expanded to include health status support for CLARiiON arrays as well as support for other vendors via native APIs or SMI-S 1.1 support. The products for which they are announcing 6.0 support have been “EMC Tested”—which means they have been through EMC's interoperability lab and should work as advertised. The specific supported arrays include: HDS 9900/Tagma/9500, HP XP, IBM DS, FAStT/Engenio and NetApp SAN. The level of support for these heterogeneous arrays is based on what SMI-S 1.1 can provide.
- **Improved User Interface:** EMC has been listening to its customers and is simplifying its user interfaces. Processes are measured by the number of clicks, steps and minutes to perform selected tasks, with a goal of requiring three or less clicks to perform most tasks. An example of this is the process required to view reclaimable storage capacity. In less than one minute, only two steps and three mouse clicks, all the storage that has been masked, but not mapped, can be identified. In 6.0 EMC has improved the operational efficiency in the ControlCenter Console, StorageScope and StorageScope FLR.
- **Simplified Upgrade Procedure:** The transition from 5.2 to 6.0 should go a lot smoother than previous upgrades. This one does not require a forklift upgrade, and can be completed non-disruptively. Combined with Phased Production Release, customers should find this the easiest version of ControlCenter to deploy.

The Bottom Line

ControlCenter has always been a great seller. The fact that it can now support virtualized server environments from VMware will give existing customers and new prospects a reason to take a hard look at 6.0. In addition to the support for VMware, most of the other improvements are based on EMC's serious response to customer feedback. Since creating its user communities two and a half years ago, EMC has been able to improve its customer satisfaction rating for ControlCenter by 8 points, an increase from 87% to 95%. Clearly this is an impressive feat and is trending in the right direction. It's also great to see the heterogeneous support provided by SMI-S 1.1 incorporated. While SMI-S 1.1 doesn't provide the same level of detail and function as custom APIs, it is important to keep developing this standard so that one day it will provide access to all the required functionality. EMC's interoperability lab stamp of approval should also alleviate many heterogeneous support fears.

ControlCenter 6.0 is clearly a step in the right direction. EMC is doing a better job of articulating its vision and explaining how the group of products in the ControlCenter family maps into ITIL segments and customer use cases. It will be important for EMC to get this message out to its existing customers as well as new prospects.

During the last couple of years, EMC has acquired a lot of technology pieces which together complete a very elaborate offering. EMC has still more work to do to further integrate these products, especially with the SMARTS product line, but we expect you will be hearing many more announcements along these lines.

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