

Fostering Interoperability and Collaboration in Divergent Networks

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IT professionals face a myriad of problems and issues in today's technological landscape. Unfortunately, there isn't a single "cure all" product to solve all of these issues and as a result IT administrators are forced to use a vast array of products to manage their networks, protect their endpoints and secure and back up their data. A lack of collaboration and integration between these products can cause frustrations and multiple consoles can complicate the IT infrastructure. To address this issue, Symantec is enabling interoperability and simplifying collaboration among its diverse products by leveraging a technology direction called the Open Collaborative Architecture (OCA).

The Need for OCA

There are many new and relatively recent IT and industry trends that continue to drive transformation and evolution in the enterprise IT organization. Among these trends is the proliferation of endpoints and varied work locations. In addition, the consumerization of IT is constantly changing employees' locality and what corporate or personal devices and applications are used. Outsourcing and Software as a Service (SaaS) further change the domain and scope of the control IT organizations have.

IT organizations, now more than ever, are faced with stringent requirements around access control, privacy and IP data leakage, security complexity and demonstration of regulatory and corporate compliance. Along with this, there has been explosive data and application growth that has increased the threat landscape with greater criminal intent, causing a significant increase in complexity.

While dealing with this increase in complexity, IT budgets are being scrutinized and are requiring more focus on resource management through data center consolidation; application, server, storage and endpoint virtualization; and outsourcing of less strategic areas and applications. The interest in being more "green" has also increased among businesses and has either been imposed morally by regulation (carbon Tax) or simple cost increase (e.g. energy cost, consumption growth, waste disposal). This has driven the need for improved agility with equal or less resources.

The common thread through all of these trends, is their enterprise-wide scope and the impact that each of these trends imposes upon the organization, its personnel, its processes and the infrastructure and technology. None of these trends impact just one single area.

As a result enterprises, small, medium and large, are in need of an IT toolset that by nature is process focused and spans the entirety of an enterprise. IT must be able to adopt and integrate multi-vendor, multi-platform, multi-discipline and cross-infrastructure solutions. Implementation of the next generation toolset cannot require a wholesale overhaul of the IT production environment and must leverage existing investments.

OCA Provides Multiple Levels and Methods of Collaboration

In order to address these issues that are a direct result of the above industry trends, businesses are using multiple products to meet the needs of a multi-disciplinary enterprise, but point product solutions are not always sufficient to satisfy the more dynamic needs of a business and require an IT toolset with a broader scope. One supplier or vendor is not able to provide all the needed components of this toolset, therefore multiple suppliers and vendors must participate in and contribute to the larger eco-system of such a toolset.

The OCA provides a span of control and process automation across these point products and also provides the implicit ability to leverage and build on other products' presence; for example, sharing infrastructure discovery, server-end-point trust relationship, application and business value assessment or shared infrastructure.

The OCA is essentially a way to open up the capabilities of the vulnerability assessment, backup and recovery, and services management that came out of Symantec's acquisition of Altiris. Through this acquisition, Symantec has used the Altiris technology to develop its Symantec Management Platform, and the OCA has provided a way for outsiders to make use of that platform as a set of Web services.

The Architecture

The architecture itself is aimed at improving and simplifying the interoperability and integration across Symantec, third party and partner products by establishing well-defined data, task interfaces and behavior, as well as common models. It thereby establishes a "plug, configure and play" solution approach, using the highly distributed infrastructure data and process automation while providing openness to multi-platform, multi-vendor environments. The architecture roadmap prescribes how a product suite can evolve over time while at the same time leveraging capabilities that exist today.

At the ground level, the architecture is based on a loosely coupled interoperability model that mandates products adhere to a limited set of technology requirements and well-defined interfaces. At its core, the OCA simply enables independent products to interoperate, or in other words, to provide the ability to share data among multiple products, allow task and operational control of one product to be initiated by another and create a loosely integrated process automation solution for IT domain specific processes.

Another benefit of using this architecture is that businesses have the capability to more effectively and rapidly automate IT processes across participating products. It also contributes to greater cost effectiveness and risk management for the enterprise as a whole.

The OCA offers a common solution and software architecture that enables various forms and multiple models for interoperability, none of which are mutually exclusive. OCA can be of help whether a solution's use-case requires the export of infrastructure data from one product to another or involves a multi-step workflow that invokes commands in various products.

How It Works

The OCA as an architecture is defined by the set of services provided by the individual Symantec products as well as third-party products. The services include data, task and operational-oriented services for the purpose of data access and sharing, completion of product specific tasks and invoking command and control within a specific product or across multiple products and services. The services are complemented by a set of central, so-called platform services that provide the minimal services infrastructure to support the OCA based collaboration. For example, this includes services registration and discovery, CMDB related services as well as security services.

This collaborative solution is the functionality provided by the collection of one or more products and its services (Symantec and/or third party), the platform services and an optional layered module that builds on top of these services and provides incremental/integrated functionality. The solution may expose itself through a console (independent, Web-based, console framework or dashboard style) or as a set of services itself.

Summary

The OCA enables and simplifies information, data sharing and operational interaction among existing as well as newly deployed products based on its open, standards based, loosely coupled integration approach. The architecture provides product and solution teams a variety of options to create cross discipline, cross vendor, cross platform solutions that customers can deploy and/or extend solutions based on the OCA principles and achieve cost, customization and efficiency benefits immediately. As additional products adopt the OCA guidelines, APIs and services over time, customers will benefit not only from a greater scope, but also increased depth of interoperability and collaboration among products.