Cisco Videoscape Control Suite Foundation

SIMPLIFYING THE PROCESS OF DEPLOYING, OPERATING, AND SCALING VIDEO APPLICATIONS

What Is the Value of Cisco Videoscape Control Suite Foundation?

As you continue to virtualize your video services, you want to capitalize on the promise of the cloud: delivering applications that are highly scalable; are hardware independent; and can be rapidly developed, deployed, and upgraded. Cisco Videoscape™ Control Suite Foundation (VCS-Foundation) provides the ideal base for a new generation of video services, providing multiscreen offer and catalog services, centralized device account management and entitlements, addressable advertising, and much more, all operable from a cloud-based environment. Now you can access a set of universal, scalable services across all of these applications to help you deploy, operate, and scale your video applications much more easily.

Cisco® VCS-Foundation provides the software backplane you need for your next-generation video applications. It provides a common set of monitoring, provisioning, logging, analytics, and manageability functions across all Cisco Videoscape applications, as well as powerful application-specific services such as persistence, caching/data grid, messaging, and workflows that make your video applications more efficient and scalable. Cisco VCS-Foundation also provides out-of-the-box support for private Openstack and VMware virtualization environments and public cloud environments and supports hybrid public-private cloud models that offer more deployment flexibility. Together, all of these capabilities make it easy for you to use, operate, upgrade, and deploy state-of-the-art multiscreen video services.

What Problems Does Cisco Videoscape Control Suite Foundation Solve?

To efficiently deploy, operate, and scale multiscreen video services, you need to:

- Communicate with customer premises equipment (CPE) that uses legacy command-and-control protocols, as well as IP video devices (including subscribers' personal devices) that use new APIs, through a single platform.
- Establish a rational and transparent migration path from traditional video deployments to cloud-based environments.
- Simplify operations by running video applications on an open-source private cloud platform such as Openstack and provide a foundation to apply platform-as-a-service (PaaS) and software-as-a-service (SaaS) efficiencies to your video environment.
- Put in place a scalable, reliable, and flexible platform to deploy, operate, and update all video services, even when using diverse applications with their own unique requirements.

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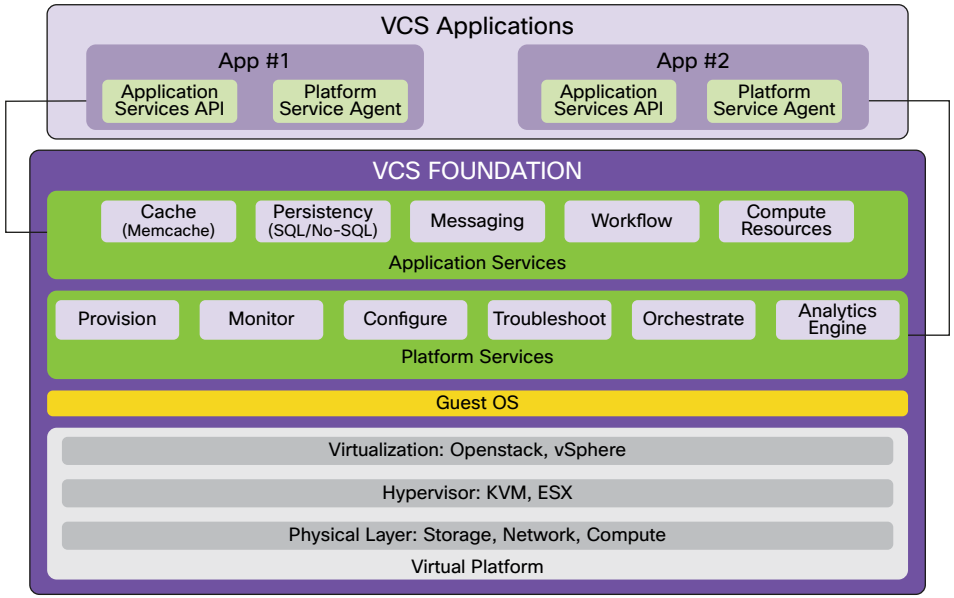
With many of today's complex video applications, a large staff of subject matter experts is needed to manage all the various elements of each application. For example, different video applications might use unique databases, memory caches, messaging infrastructures, operating systems, and so on. This degree of complexity makes it more difficult, slower, and more expensive to deploy, operate, and upgrade your various services.

Cisco VCS-Foundation provides the common software platform you need to assure persistence and scalability, automate provisioning and deployment, and provide service assurance and monitoring for all of your next-generation video applications. It provides a platform for all of the common services your video applications require, including virtualization, databases, endpoint messaging, analytics, and resource orchestration. It also incorporates data center best practices for redundancy, high availability, storage, networking, and addressing power and space requirements. With support for private, public, and hybrid cloud environments, the solution provides a data center–ready platform for your video applications that simplifies operations and reduces capital expenses.

Cisco VCS-Foundation was created in the cloud, designed to scale in even the most complex public cloud and data center environments. As you continue evolving your back-end systems to a cloud-based model, you will be able to call on and scale all Cisco VCS-Foundation services as needed to support diverse video applications. As a result, you can take advantage of the same kind of flexibility and scale as Internet services, with the ability to deploy, operate, and scale new applications quickly and easily.

Cisco Videoscape Control Suite Foundation Elements

Cisco VCS-Foundation provides a common virtual platform to run your various multiscreen video applications, using a common operating system and technology choices. On top of this foundation, the solution provides two sets of services to support your video applications: platform services that all video control plane applications use, and application-specific services that are used by some applications but not others.



Common platform services include:

- **Provisioning:** Common provisioning tools automate and simplify the process of deploying all Cisco Videoscape control plane or service provider–built applications.
- **Configuration, monitoring, and troubleshooting:** Cisco VCS-Foundation provides a common user experience and set of tools to configure, monitor, and troubleshoot all video applications instead of requiring separate tools, troubleshooting techniques, and interfaces for each.
- **Orchestration:** Orchestration intelligence identifies dependencies in video applications — for example, services required for an application to successfully deploy or update — and turns up the appropriate services automatically, simplifying deployment and operation.
- **Analytics engine:** The analytics engine provides a consolidated set of real-time reporting and analytics resources for all Cisco Videoscape products and applications.

Cisco and third-party video applications can access all common platform services using the Cisco Videoscape Open API.

Application-specific services include:

- **Caching (memcache):** Memcache-based technology provides the data grid that gives Cisco Videoscape applications high-speed access to transient data (for example, active session data).
- **Persistence:** The persistence element provides storage (SQL and NoSQL) for more permanent data. This could include a subscriber's "season pass" request to record every episode of a show, VoD bookmarks, and so on.
- **Messaging:** Cisco VCS-Foundation provides a state-of-the-art messaging infrastructure to communicate with both legacy endpoints and newer IP endpoints, including subscribers' personal devices. The messaging infrastructure can support diagnostic information, multiscreen emergency alert service (EAS) messages, and more.
- **Workflow:** The workflow engine lets you easily add logic and decision points in the software execution process for Cisco Videoscape applications. Multiple workflows can be run simultaneously depending on the application, and versioning is supported to enable on-the-fly changes.
- **Cisco Videoscape API:** All Cisco VCS-Foundation services can also be accessed by third-party applications, giving you the flexibility to continually innovate and optimize your video services.

Applications can access the application-specific services through application-specific APIs.

Cisco VCS-Foundation also provides a common set of mechanisms for:

- **High availability for transient storage:** Cisco VCS-Foundation provides a rigorous approach to protecting transient data. The solution can be configured to support multiple copies of data within a single data center and to back up across multiple data centers, allowing services to withstand a blade or virtual machine failure within a data center or even an entire data center going offline.
- **High availability for persistent storage:** High availability for persistent storage also stores multiple copies of data but uses a technique called sharding. This process splits large data stores up into manageable chunks and stores them across the environment.

Business Benefits

With Cisco VCS-Foundation, you can:

- **Simplify operations** with the ability to deploy, manage, and scale applications more easily.
- **Lower costs** by consolidating separate technologies and interfaces into a single, common platform and UI to facilitate troubleshooting and system management.
- **Accelerate service velocity** with the ability to more quickly develop, test, deploy, and scale video applications.
- **Maximize resource utilization** with the ability to provision capacity elastically for all video applications and the services they require and the ability to expand system capacity only as necessary and temporarily if needed.
- **Increase flexibility and resiliency** with the ability to extend video services across public and private clouds.

Why Cisco?

As your video offering evolves to include more services and applications, you need a way to rein in growing management complexity and migrate video services to a cloud-based platform. Cisco VCS-Foundation gives you the common, consolidated tools you need to simplify the deployment and ongoing operation of diverse video services and capitalize on the scalability and efficiency of the cloud.

To find out more about Cisco VCS-Foundation and the larger Cisco Videoscape Control Suite, contact your local Cisco representative or visit http://www.cisco.com/go/videoscape.

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