



Cisco Videoscape Policy and Resource Management

DELIVER DYNAMIC VIDEO SERVICES MORE EFFICIENTLY AND AT A LOWER COST

What Is the Value of Cisco Videoscape Policy and Resource Management?

To provide nearly any type of modern video service – from video on demand (VoD) and cloud-based digital video recording (DVR) to delivering linear TV to mobile devices – you need session and resource management (SRM) tools. But most of today's control planes are "siloed" systems, with each video application and device type requiring its own standalone mechanisms for session, policy, and resource management. These closed systems cannot easily scale to handle growing volumes of traffic. They also prevent you from optimizing the edge network as efficiently as you otherwise might.

Cisco Videoscape™ Policy and Resource Management, part of the Cisco Videoscape Control Suite, provides a session, resource, and policy management solution for all of your video services, across both QAM and IP environments. With these flexible, cloud-based session and resource management capabilities, you can lower capital and operational costs, increase efficiency in the video headend, and gain the flexibility to easily adapt to new video services and trends.

What Problems Does Cisco Videoscape Policy and Resource Management Solve?

To deliver a modern video experience, you need to:

- **Support dynamic video services** by providing core session management capabilities – managing content requests from subscribers, checking entitlements, and so on – across multiple video services and devices for both transport stream-based and adaptive bit rate (ABR) content formats
- **Lower total cost of ownership (TCO)** by managing resources in the video headend and edge network more efficiently
- **Simplify operations** by providing centralized command and control for both traditional and newer delivery services
- **Improve service availability** by using widely deployed methods for application load balancing and distributed memory caches
- **Increase scalability** by providing SRM capabilities that can expand dynamically in response to traffic growth through the use of virtualization and cloud services

- **Accelerate service velocity** with workflow-based session and resource management capabilities that can adapt to new devices and applications without requiring additional development

Unify Policy Across All Devices and Services

Cisco Videoscape Policy and Resource Management provides the SRM capabilities you need to efficiently deliver modern video services across all device types and environments. At the core of these capabilities are the solution's intelligent workflow capabilities and advanced resource management algorithms.

Traditional session management solutions are purpose-built for each application, using dedicated storage and tightly defined business logic. With Cisco Videoscape Policy and Resource Management, SRM capabilities function as a flexible cloud service that operates across all video applications (switched digital video [SDV], VoD, cloud DVR, and so on), using common content storage, according to workflow rules that you define. So instead of having to deploy separate proprietary SRM systems for each application or device type, you can use a common SRM and delivery platform for your entire environment and define different business logic workflows for each application.

With these capabilities, you can:

- **Boost efficiency:** In traditional environments where subscriber set-tops are statically mapped to session managers, there is no easy way to share resources. If any segment becomes resource-constrained, you have to upgrade the entire system. With the Cisco Videoscape model, all applications are intelligently allocated SRM capabilities from a shared pool, and you can scale SRM resources for individual applications dynamically.
- **Increase availability:** When session managers are statically mapped to specific devices, each stores stateful information. If an SRM goes down, all connected subscribers lose their session. The Cisco® solution stores all session information in the distributed memory cache. If one session manager becomes unavailable, another can be used to resume the session with no noticeable effect to the subscriber.



- **Share edge resources:** Unlike traditional environments, where each QAM is mapped to a specific set of subscriber devices, cable providers can share QAM resources from a common pool that fills requests on a first-come, first-served basis, using advanced resource management algorithms. This reduces the number of QAMs needed in a given headend or service group, translating to reduced capital expenditures (CapEx) and lower operational costs (OpEx) to maintain and update QAM equipment.
- **More readily adapt to change:** In the Cisco Videoscape model, all SRM business logic is based entirely on workflows and so is fully customizable. As a result, you can easily add support for new applications and client devices today and in the future.

Cisco Videoscape Policy and Resource Management Elements

Cisco Videoscape Policy and Resource Management includes:

- Support for SDV, VoD services, network DVR services, and linear broadcast
- ABR adaptive support for IP environments (managed and unmanaged) and for delivering content to connected mobile and personal devices
- QAM Edge Resource Manager to handle QAM sharing and policy
- IP Policy Server to efficiently allocate network resources and manage quality of service (QoS) (This can be used to guarantee the delivery experience based on information in the session data.)

Business Benefits

- **Lower TCO** with the ability to share edge bandwidth more efficiently; reduce equipment in the video headend; and reduce ongoing power, cooling, and maintenance costs associated with that equipment
- **Improve operational efficiency** with the ability to provision and manage policy and session management capabilities for all services and devices, across QAM and IP environments, from a common shared platform
- **Accelerate service velocity** with the ability to easily and quickly extend needed SRM capabilities to new services and devices, and roll out new features with the same speed as over-the-top (OTT) providers

- **Increase flexibility and scalability** with the ability to dynamically scale up SRM capabilities wherever needed, and manage capacity intelligently rather than overprovisioning
- **Increase service reliability** with stateless SRM capabilities that use cloud and data center high-availability techniques

Why Cisco?

As you expand your video offering to support new dynamic applications and a broad range of legacy and new IP devices, yesterday's static, inflexible SRM model can no longer suffice. You need the flexibility and scalability to easily adapt your services to new requirements and viewing models. And, you need a more efficient SRM platform that can consolidate previously siloed SRM systems and share resources more efficiently. Cisco Videoscape Policy and Resource Management provides the next-generation SRM framework you need for today's more diverse and complex services. Drawing on the flexibility, scalability, and efficiency of cloud-based service delivery, you can reduce your headend TCO and position your organization to more readily adapt to tomorrow's video requirements.

To find out more about Cisco Videoscape Policy and Resource Management and the Cisco Videoscape Control Suite, contact your local Cisco representative or visit www.cisco.com/go/videoscape.