



## Introduction

### What is a Medianet?

A medianet is an intelligent network optimized for rich media; the evolution to a network where video is the dominant traffic. By infusing new capabilities into all aspects of the network infrastructure, it enhances the ability of the network to send, deliver and optimize rich media. It automatically optimizes the experience and efficiency in the delivery of multimedia experiences. It expands the capability of the network to deliver new services. A medianet utilizes the network intelligence to help simplify network complexity and accelerate deployment of rich media solutions, and is the driver behind the Cisco video strategy.

### What problems does it solve?

Video consumes significantly more bandwidth than voice, so over-provisioning in the network to avoid potential problems is not a viable option. Also, the requirement is not simply about the bandwidth, it's about rich service capabilities that must be enabled in the network; for example, how to protect multimedia sessions in progress against the risk of quality impairment due to intermittent extreme network conditions, and how to efficiently deliver one-to-many interactions.

The emerging collaborative video applications are engaging in multistream interactions where a session consists of multiple video, audio and data streams combined to deliver the immersive experience. These different streams need to be synchronized and handled as one in order to ensure the Quality of Experience (QoE).

Video is used increasingly in diverse business applications with a correspondingly diverse set of client devices. The video streams for these devices are different. The network can resize and change the video format, or adapt to the underlying transmission requirement for the type of device, to produce the best possible quality transparent to the end user.

Enterprise customers are challenged to deliver more rich media services to drive user productivity and gain a competitive advantage. However, adding new video services radically changes the demands on the network, coupled with the complexity around video applications and endpoints, makes deploying rich media services challenging. A media-aware network can reduce complexity and administrative overhead to accelerate deployment of rich media services.

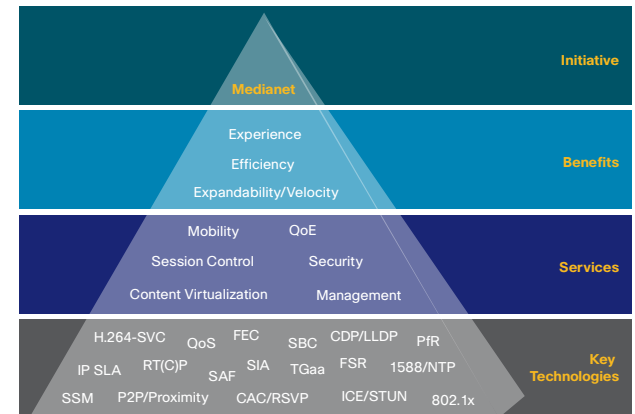
### The Cisco Vision

A medianet can build on Cisco IP network assets with rich service capabilities to meet a new set of requirements such as Quality of Service (QoS), reliability, scalability and security, for more demanding multimedia applications. A medianet becomes media and endpoint aware in order to provide a better experience to the end user and automatically adapt to dynamically changing network conditions. The experience includes more efficient use of network resources, a more predictable network and complexity reduction for IT organizations, by leveraging discovery mechanisms to move towards a self-optimizing and self-managing model. A medianet network by Cisco has a design baseline and is tested and documented to support reliable predictable customer deployments.

A medianet enables powerful and innovative ways for applications to interact with the network and draw on the intelligent network services using a medianet application-to-network interface. This interface provides mechanisms for the application to convey information to the network and vice versa. A "network as a platform" approach enables new collaboration between the network and the application, and augments the richness of the application and the network.

Cisco extends service capabilities to support transparent generation, movement, consumption of content among applications, hiding many details such as transport, delivery and transformation from the user, and creating location and device independent capabilities. The Cisco vision is to enable users to consume video anytime, anywhere and from any device.

## Medianet



Services Categories	Definitions
<b>Quality of Experience</b>	Optimizes user experience by becoming media aware, network-aware, user-aware and adapting to real-time environment and business policies.
<b>Session Control</b>	Enhances multimedia session coordination and responsiveness across applications and network boundaries.
<b>Content Virtualization</b>	Allows for content to be generated, delivered and consumed among any application using mechanisms transparent to the end-user.
<b>Mobility</b>	Provides the ability to maintain active multimedia sessions while the user moves among locations and/or devices.
<b>Security</b>	Provides end-to-end security for multimedia
<b>Management</b>	Simplifies provisioning and monitoring of multimedia services using discovery mechanisms to move towards a self-managing model.

For more information, visit <http://www.cisco.com/go/medianet>.