

Medianet

Q. What is medianet?

A. A medianet is an intelligent network optimized for rich media. It is media-, endpoint- and network-aware to ensure an optimal quality of the total experience while automating many aspects of configuration and optimization. A medianet can format video to best match the characteristics of the end device. It detects traffic conditions and ensures proper transmission of all the needed streams. A medianet recognizes the types of media going over the network and makes sure that they are properly created, sent, and delivered. For example, sending a high-definition (HD) video stream from a surveillance camera to a mobile device requires adapting the media type to suit the mobile device (resolution and format) as well as the speed of the wireless connection (Wi-Fi, third-generation [3G], or Global System for Mobile Communications [GSM] or edge connection).

Q. Why do I need medianet now?

A. Video is rapidly becoming the dominant traffic type on networks. The Cisco® Video Networking Index projects that video will comprise 90 percent of network traffic by 2012. Lower technology barriers make the production, distribution, and access to video available to anyone. Video is becoming a mainstream capability for consumers and businesses alike, and globalization is accelerating a desire for more personal contact and expressiveness across distance and cultural boundaries. Businesses are more aware of how they transform critical business processes to create competitive advantage, lower costs, and reduce environmental effect. And consumers have a growing appetite for “long-tail” entertainment choices.

Q. How is medianet relevant in the enterprise, service provider, and consumer spaces?

A. As mentioned previously, with medianet businesses can create competitive advantage, lower costs, and reduce environmental effect, and consumers want more entertainment choices.

A medianet is relevant to service providers on all dimensions (revenue, capital expenditures [CapEx], and operating expenses [OpEx]) because of the current economic challenges they face.

Q. How will medianet help change my existing network?

A. A medianet represents the evolution of converged IP networks. This evolution consists of adding new medianet technologies, services added to existing devices as well as new classes of devices. Services are added to routers, switches, and rich-media endpoints. The medianet technologies deliver the media-, endpoint-, and network-aware capabilities that conventional IP networks lack. Video applications are raising new requirements in terms of bandwidth, latency, and jitter. The network is uniquely positioned to understand the source and destination of video streams as well as the ever-changing capacity characteristics of the connection. It can therefore apply the necessary media transformations (transcoding) as well as changing media and signal encoding to adapt to changing network conditions. A medianet helps enable a new degree of interoperability between previously incompatible video endpoints as well ensuring a consistent and optimal quality of experience.

Q. How do I incorporate medianet into my existing infrastructure?

A. From the headquarters campus and data center to the remote branch office and teleworker, Cisco provides a flexible network infrastructure that can readily adapt to new requirements over time. A media-ready network must support the delivery of unified communications, video, and collaboration applications and address the capability of the network for multimedia application delivery, granular control, and application intelligence. Cisco solutions are available to support specific deployment requirements now and into the future. Visit Cisco Design Zone for Video at www.cisco.com/go/designzone for guidance for specific video solution deployments.

Q. How do I know what I need to change in my current infrastructure?

A. In order to realize the collaborative benefits of video, you should assess what video is currently running on your network and establish an action plan to support current and future rich-media requirements. Cisco Validated Design guidance for video deployments is available at www.cisco.com/go/designzone; it provides technical guidance for designing and deploying business video solutions, including digital media systems, IP video surveillance, TelePresence, and video collaboration.

Q. How does medianet support my current video applications?

A. Interactive video has the most stringent network requirements. A network capable of supporting interactive video can easily handle the less-demanding requirements for the delivery of voice and data.

A medianet has built-in intelligence that optimizes rich media by providing adaptability, predictability, and guaranteed experiences to deliver visual networking experiences transparently to any device. A medianet provides specific capabilities to address the unique challenges of video and rich media in six critical areas:

- Quality of experience
- Content virtualization
- Mobility
- Session control
- Security
- Management

Q. Is medianet something I buy?

A. This evolution of traditional IP networks to medianets consists of adding new medianet technologies, as discussed previously.

Q. How do visual networking and medianet fit together?

A. Visual networking broadly describes the experiences delivered by video systems (such as IPTV, TelePresence, etc.). A medianet is the underlying networking platform that has the capacity and the intelligence to handle the load that these multistream applications place on the network so that visual networking experiences are delivered transparently.

Q. Why is Cisco leading this evolution on networks?

A. Cisco is uniquely positioned to address video from an end-to-end perspective, taking full advantage of comprehensive expertise in network platform, video systems, and customer solutions.

Q. How is medianet relevant to the current economic environment?

A. Enterprises and service providers are not immune to the global economic environment. To this end, enterprises and service providers will need to invest in protection for IP Next-Generation Network (NGN) infrastructure to manage the bandwidth explosion of video. As the corporate sphere learns to economize, investment in visual networking technologies and support is critical to cutting costs, starting with reduced travel expenses. A medianet ensures the quality of experience for these visual networking experiences.

Q. How can I learn more?

A. Visit the medianet website: www.cisco.com/go/medianet



Americas Headquarters
Cisco Systems, Inc.
San Jose, CA

Asia Pacific Headquarters
Cisco Systems (USA) Pte. Ltd.
Singapore

Europe Headquarters
Cisco Systems International BV
Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

CCDE, CCENT, Cisco Eos, Cisco Lumin, Cisco Nexus, Cisco StadiumVision, Cisco TelePresence, Cisco WebEx, the Cisco logo, DCE, and Welcome to the Human Network are trademarks; Changing the Way We Work, Live, Play, and Learn and Cisco Store are service marks; and Access Registrar, Aironet, AsyncOS, Bringing the Meeting To You, Catalyst, CCDA, CCDP, CCIE, CCIP, CCNA, CCNP, CCSP, CCVP, Cisco, the Cisco Certified Internetwork Expert logo, Cisco IOS, Cisco Press, Cisco Systems, Cisco Systems Capital, the Cisco Systems logo, Cisco Unity, Collaboration Without Limitation, EtherFast, EtherSwitch, Event Center, Fast Step, Follow Me Browsing, FormShare, GigaDrive, HomeLink, Internet Quotient, IOS, iPhone, iQuick Study, IronPort, the IronPort logo, LightStream, Linksys, MediaTone, MeetingPlace, MeetingPlace Chime Sound, MGX, Networkers, Networking Academy, Network Registrar, PCNow, PIX, PowerPanels, ProConnect, ScriptShare, SenderBase, SMARTnet, Spectrum Expert, StackWise, The Fastest Way to Increase Your Internet Quotient, TransPath, WebEx, and the WebEx logo are registered trademarks of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries.

All other trademarks mentioned in this document or website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (0809R)