



# Next-Generation Set-Top Solutions At-A-Glance

Expand video services to a whole new level with IP-based capabilities

At-A-Glance

Your customers are demanding new services quickly, and they want these services delivered on more and more devices. At Cisco®, we call this the Connected Life at Home. The Connected Life at Home requires a deep integration between a provider's network and the home.





Cisco's expertise in both network and customer premise technologies enable the differentiable services your customers demand. You can accelerate the transition from service provider to experience provider by evolving your network to a medianet. A medianet is an intelligent network optimized for rich media **that is media, end point and network aware to ensure an optimal quality of the total experience.** Cisco next generation set-tops are an extension of medianet and serve as media gateway enablers of The Connected Life at Home. When combined together, cable service providers have a foundation for innovative new multimedia experiences.

We believe that the Connected Life at Home, enabled by Cisco, can deliver three benefits to your site:

1. Strengthen your bundle offering by bridging services and experiences that were once separate.
2. Open new revenue opportunities built around multimedia experiences consumers can enjoy today and into the future.
3. And finally, maximize the efficiency of your network operations so that it is more intelligent, integrated and cost-effective.

Cisco brings the next generation of devices to help your site address the increasingly divergent needs of the subscriber base. Cisco next-generation set-top solutions range from sophisticated high-definition digital video recorders (HD DVRs) that can securely distribute content throughout the home, to standard-definition digital-only interactive models that support basic tier and video-on-demand (VoD) programming. Our set-tops combine the quality of QAM-delivered video with IP-based interactivity, resulting in innovative service possibilities that can help differentiate you from the competitors.

Applications enabled by our next-generation set-tops can include Whole Home DVR, and when combined with the Cisco DRG2800 IP Services Gateway, mobile video and remote content access. Our next-generation set-tops are also optimized to perform within our tru2way open architecture solutions to maximize your site's flexibility to create and deploy new services.

Cisco Explorer 1540 Series	Cisco Explorer 1640 Series	Cisco Explorer 4600 Series	Cisco Explorer 8600 Series
			
<ul style="list-style-type: none"> <li>• Cost-effective, powerful yet compact standard-definition solution</li> <li>• Features Cisco sixth-generation</li> <li>• ASIC for a 300 percent improvement in processing power</li> <li>• MPEG-4 and MPEG-2 video decode</li> <li>• 1 GHz tuning</li> <li>• ADSG and tru2way capable</li> <li>• Digital-only tuning</li> <li>• IP-enabled video distribution through optional MoCA and Ethernet builds</li> <li>• DTCP-IP encryption of content as it is being distributed across devices</li> </ul>	<ul style="list-style-type: none"> <li>• Next-generation digital interactive and multimedia gateway (non-DVR)</li> <li>• Features Cisco sixth-generation ASIC for a 300 percent improvement in processing power</li> <li>• MPEG-4 and MPEG-2 video decode</li> <li>• 1 GHz tuning</li> <li>• ADSG and tru2way capable</li> <li>• Digital-only tuning</li> <li>• IP-enabled video distribution through Optional MoCA and Ethernet builds</li> <li>• DTCP-IP encryption of content as it is being distributed across devices</li> <li>• Supports expanded HD and VoD advanced services</li> <li>• Ideal for additional outlets in the home</li> </ul>	<ul style="list-style-type: none"> <li>• Full-featured next-generation digital interactive and multimedia gateway (non-DVR)</li> <li>• Features Cisco sixth-generation ASIC for a 300 percent improvement in processing power</li> <li>• MPEG-4 and MPEG-2 video decode</li> <li>• 1 GHz tuning</li> <li>• ADSG and tru2way capable</li> <li>• Digital-only tuning options available</li> <li>• IP-enabled video distribution through Optional MoCA and Ethernet builds</li> <li>• DTCP-IP encryption of content as it is being distributed across devices</li> </ul>	<ul style="list-style-type: none"> <li>• Full-featured next-generation video HD-DVR Features Cisco sixth-generation ASIC for a 300 percent improvement in processing power</li> <li>• MPEG-4 and MPEG-2 with dual video decode</li> <li>• 1 GHz tuning</li> <li>• ADSG and tru2way capable</li> <li>• Digital-only tuning options available</li> <li>• IP-enabled video distribution through Optional MoCA and Ethernet builds</li> <li>• DTCP-IP encryption of content as it is being distributed across devices</li> <li>• 160GB hard disk drive space with options for up to 320GB</li> </ul>

## All of Our Next-Generation Set-Top Solutions Deliver Advantages for Your Site

### Network Utilization Enhancements

- **1 GHz Tuning** – Allows service providers to expand network bandwidth.
- **MPEG-4 (H.264) Codec** – Video compression technology at about half the bandwidth requirements of MPEG-2, with higher video quality.

### Optional tru2way or Conventional Network Support

- **M-Card Interface** – Multi-stream CableCARD module for separable security. Embedded security options available to cable service providers that qualify.
- **Axiom™ Middleware** – Supports tru2way™ applications, such as service navigators and games.



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Cisco Explorer 8600 Series



Cisco Explorer 4600 Series



Cisco Explorer 1640 Series



Cisco Explorer 1540 Series

- **Support for CableLabs® Advanced Set-top Gateway (ADSG)** – Enables command and control signaling between the set-top and service provider network. DAVIC reverse path transmission and Video-over-DOCSIS 2.0 with downstream channel bonding are available.
- **SARA (Scientific Atlanta Resident Application) DVR software** – Native software for navigation and user interfaces.

## Home Networking Features

**USB 2.0 Connection** – Enables a host connection to peripheral devices such as navigation controllers, network adapters, and memory media recorders (optional software).

**Ethernet Connection** – Enables standard interface connection to the home IP LAN for advanced video sharing applications such as HD-quality video content distributed between the set-top and consumer electronic devices. This capability is further optimized with the Cisco DRG2800 IP Services Gateway.

**Digital Transmission Content Protection over Internet Protocol (DTCP-IP)<sup>1</sup>** – An encryption standard embraced by production studios and cable operators for secure content distribution across all DTCP-IP supported devices, including those available through retail. DTCP-IP is embedded onto the Cisco silicon.

## Improved Application Specific Integrated Circuit (ASIC)

Based on our internally developed sixth-generation set-top chipset, our innovative ASIC provides a 300 percent improvement in processing power over previous generation product. This increase in processor speed delivers an improved experience with current and future tru2way applications. In addition, our ASIC includes an integrated network processor to manage and enhance the connected home experience – providing a performance differentiation against your competition.

## Multimedia over Coax Alliance (MoCA)<sup>2</sup> Configuration Options

MoCA creates a common standard for distributing IP-encapsulated digital video and other content through existing coaxial cable in the home. It allows for content, such as high-definition video, to be distributed across the home. Benefits of MoCA include no new wires; no interference with existing networks; operation within any coaxial environment; complements any wireless network. Cisco provides the MoCA build and point of entry filter needed to execute applications such as HD Whole Home DVR.

## Cisco Explorer 8600 Series

The Cisco 8600HDC DVR Set-top Series is a multimedia gateway, enhancing application capabilities and offering significantly improved processing power to enhance the overall user experience. This dual tuner DVR enables subscribers to watch one program while recording another.

<sup>1</sup> DTCP-IP option is available on the Cisco 8600, 4600, 1640, and 1540 Series

<sup>2</sup> MoCA options are available on specific models within the Cisco 8600, 4600, 1640, and 1540 Series

With its industry-leading chipset featuring DTCP-IP, the 8600 Series enables digitally secure “Whole Home Content,” sharing the DVR or user-generated Internet-based video content across multiple set-tops or personal computers in the home.

Cisco offers multiple models within the Explorer 8600HDC DVR Set-top Series to address your specific objectives, including digital-only tuning.

## Cisco Explorer 4600 Series

The Cisco Explorer 4600HDC Set-top Series is a full-featured digital interactive and multimedia gateway that offers significantly improved processing power to enhance the overall user experience. Each model within this series includes our industry-leading ASIC that features DTCP-IP, and is available with options for digital-only tuning, Ethernet and MoCA configurations.

## Cisco Explorer 1640 Series

The Cisco Explorer 1640 High-definition Digital-only Interactive Set-top Series is designed to offer the same performance and capabilities as the 4600 Series, but with a reduced connector offering and an industrial design that does not include a front panel display. The 1640 Series is ideal for additional outlets and HD television sets in the home.

## Cisco Explorer 1540 Series

The Cisco Explorer 1540 Digital-Only Interactive Series is an ideal next generation service solution for consumers that are taking advantage of digital cable video for the first time. The series delivers video in standard-definition MPEG-2 and MPEG-4 (H.264) formats and includes options for self-install.

## Why Cisco

Cisco next-generation set-top solutions give you the power to create more social, more visual and more personal user experiences featuring in-home and mobile connectivity that help your site battle the competitive pressures in the marketplace. Imagine having 300 percent more processing power in delivering applications, a platform for applications of today and the future, and bandwidth optimization. Cisco brings these next-generation set-tops and end-to-end video solutions to your site. We see the possibilities as boundless in the future with precision advertising, localized syndicated video and network-based video time-shifting.

Cisco has been a proven leader in video and video system solutions for more than three decades. You can count on our knowledge and experience to deliver set-top solutions optimized for your operation. It's time to bring the assets of Cisco together so that your site can reinvent the home.

For more information about Cisco next-generation set-top solutions, contact your Cisco sales representative or email [sales@cisco.com](mailto:sales@cisco.com).