Cisco Explorer 1640HD Digital-Only Interactive Set-Top Series with Security and MoCA Options

Deliver Advanced Services, Expand Opportunities

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.

The Cisco Explorer® 1640HDC High-definition (HD) Set-top Series combines the quality of QAM-delivered video with IP-based interactivity, resulting in innovative service possibilities that can help differentiate you from the competitors. This set-top series merges HD video capability and broadband digital video services, making it easier than ever before to convert basic or expanded basic service subscribers to an HD digital video service level. With the Explorer 1640HD, your customers can enjoy a whole home video experience.

Cisco offers multiple models within the series to address your specific objectives:

▪ **Explorer 1640HD**: HD digital-only interactive set-top where Conditional Access Security is embedded with a SmartCard interface on to the set-top hardware.

▪ **Explorer 1640HDC**: HD digital-only interactive set-top that features an M-Card interface, which complies with the Federal Communications Commission (FCC) mandate for separable security.

▪ **Explorer 1642HDC**: HD digital-only set-top that features an M-Card interface and Multimedia over Coax Alliance (MoCA™) configuration. MoCA enables content distribution throughout the home.

Cisco Explorer 1640HDC Digital-Only Interactive Set-Top Front Panel

Cisco Explorer 1640HDC Digital-Only Interactive Set-Top Back Panel

Cisco 1640HDC Features and Capabilities

Power, flexibility, and advanced security are cornerstone attributes of the Explorer 1640 Series. The 1640HD Series features:

- Cisco sixth-generation Application Specific Integrated Circuit (ASIC) for a 300 percent improvement in processing power.
- Digital Transmission Content Protection over Internet Protocol (DTCP-IP)[1] industry-leading chipset offering greater Connected Home interoperability between devices, encrypting content as it is being distributed across devices.
- Bandwidth optimization with 1 GHz tuning and MPEG-4 Advanced Video Coding (AVC).
- IP services support through DOCSIS 2.0 data transmission and optional Ethernet configuration.
- Support for CableLabs® Advanced Set-top Gateway (ADSG), enabling 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.
- tru2way™ capability to maximize flexibility to create and deploy new services.
- Optional content distribution capabilities throughout the home with Multimedia over Coax Alliance (MoCA) technology.

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 data rate of MPEG-2, with higher video quality. It can be applied with Switched Digital Video (SDV) or VoD mode, or Internet video content on TV.
- DOCSIS 2.0 – Provides greatly increased upstream throughput for future advanced services and provides a path for future Internet Protocol (IP) video services (optional software).

Optional tru2way and 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 – Will support tru2way applications, such as service navigators and games.
- 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 – Navigation and user interface DAVIC reverse path transmission are also available.

Home Networking Features

- DTCP-IP – Industry-leading chipset offers greater Connected Home interoperability between devices, encrypting content as it is being distributed across devices.
- 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.
- USB 2.0 Connection – Enables a host connection to peripheral devices such as navigation controllers, network adapters, and memory media readers.
- Digital Living Network Alliance (DLNA™) Software – Optional software framework that enables devices to connect, discover and communicate with one another over a home network.

High-Definition Features

- Video output to the HDTV displays in multiple resolutions and allows subscribers to maximize their HDTV image display.
- Stretch and zoom of the video picture enables subscribers to maximize the viewable area of their HDTV display.
- Connection from the Explorer 1640 series set-top to the HDTV through the YPbPr, HDMI™ or 1394 connectors.

Multimedia over Coax Alliance (MoCA)[2] Configuration Available (1642C Model Only)

MoCA creates a common standard for distributing IP-encapsulated digital video and other content through existing coaxial cable in the home. Benefits of MoCA include no new wires; no installation or truck roll; no interference with existing networks; operation within any coaxial environment; complements any wireless network.

Our MoCA set-tops, particularly when combined with the Cisco DRG2800 IP Services Gateway, can help you prepare for delivering the advanced features and capabilities consumers demand, while providing outstanding opportunities to increase average revenue per subscriber, reduce customer turnover through expanding and protecting the customer bundle, and boost service differentiation. Set-tops with the MoCA option function as client devices for HD Whole Home Video services.

Learn More

For more information about the Cisco Explorer 1640HDC Set-top Series and its role in intelligent end-to-end media-aware networks, contact your Cisco sales representative or email sales@cisco.com.

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[1] DTCP-IP option is available on the Cisco 8600, 4600, 1640, and 1540 Series
[2] MoCA options are available on specific models within the Cisco 8600, 4600, 1640, and 1540 Series

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