

Cisco IOS Software Release 15.1(1)S Continues New Era for Cisco 7600 Series Routers

Product Bulletin No. 635813

The latest release of Cisco IOS[®] Software for the Cisco[®] 7600 Series Routers introduces new features and provides continued operational benefits for service providers. Cisco IOS Software Release 15.1(1) is the second from the new release model, so it is a short release that will have fewer maintenance releases. Nevertheless it includes many solution-oriented features as well as features from all the previous Cisco IOS Software releases.

New Features

The Cisco 7600 Series Routers offer advanced wireless and wireline service and transport capabilities enabling Fix Mobile Convergence. Service providers who want to increase their return on investment can take advantage of more than 26 new features for mobile, video, business, and residential services that are now available with Cisco IOS Software Release 15.1(1)S.

Major features and benefits include:

- **DS3 SFP Support for ES+ for c7600:** Provides an end-to-end DS-3 solution for the IP Radio Access Network (RAN) backhaul while taking advantage of all the benefits of the ES+ line cards and offering a cost-effective means to migrate to the Cisco IP Next Generation Network (IP NGN)
- **Hot standby PW Support for ATM and TDM Access Circuits:** Improves pseudowire resiliency with faster convergence time and support for ATM, TDM, and Ethernet access circuit types with Scale.
- **MPLS Encapsulation Support for Inline Video Monitoring:** Allows monitoring of real-time quality of video traffic transported by any MPLS-encapsulated packet, with complete support for MPLS Layer 3 VPN, Layer 2 VPN, Virtual Private LAN Services (VPLS), Label Distribution Protocol (LDP), Multicast LDP (MLDP), and Resource Reservation Protocol – Traffic Engineering (RSVP-TE) transport
- **mLDP MVPN Extranet:** Allows multicast content originating from one site to be distributed to other sites and other VPNs (for example, it lets MVPN-B import content from MVPN-A); mLDP MVPN extranet uses LDP in the core instead of Protocol Independent Multicast (PIM), which is used in MVPN generic routing encapsulation (GRE)
- **Service Groups for Subinterfaces and Access Subinterfaces:** Improve quality of service (QoS) implementations for business, residential, and wholesale services across N:1 and 1:1 service models to save bandwidth and simplify provisioning
- **VPLS InterAS Option B:** Allows service providers to interconnect their networks and provide Inter-AS VPLS services; Border Gateway Protocol (BGP) Option B allows secure and operationally efficient deployment of interservice provider Layer 2 VPN services

Cisco IOS Software Release 15.1(1)S includes all the features of Cisco IOS Software Release 15.0(1).

The new Cisco IOS Software Release 15.x(x) numbering uses a simplified approach aligned with consistent feature delivery.

Operational and business benefits of Cisco IOS Software Release 15.1(1)S include:

- Faster Time To Market (TTM): Feature releases every 4 months
- Improved quality: Earlier production-ready releases due to Componentization and hardening of functions in Cisco IOS Software
- Broadened operational consistency of features and advanced technologies
- Predictable schedules for new features and rebuilds
- Proactive communication about software selection, support lifecycle, and migration

Upgrade Paths

Customers can upgrade Cisco 7600 Series Routers from Cisco IOS Software Release 15.0(1)S to Release 15.1(1)S.

Cisco IOS Software Release 15.1(1)S includes the features of Cisco IOS Software Releases 15.0(1) and 12.2(33)SRE, and earlier releases, providing upgrades that reduce impact on existing services.

Ordering Information

To place an order, visit the Cisco Ordering homepage. To download software, visit the Cisco Software Center.

Table 1. Ordering Information

Product Name	Part Number
Cisco 7600-RSP720 IOS ADVANCED ENTERPRISE SERVICES SSH	S76GAEK9-15101S
Cisco 7600-RSP720 IOS ADVANCED ENTERPRISE SERVICES SSH	S764AEK9-15101S
Cisco 7600-RSP720 IOS ADVANCED IP SERVICES	S76GAIS-15101S
Cisco 7600-RSP720 IOS ADVANCED IP SERVICES	S764AIS-15101S
Cisco 7600-RSP720 IOS ADVANCED IP SERVICES SSH	S76GAIK9-15101S
Cisco 7600-RSP720 IOS ADVANCED IP SERVICES SSH	S764AIK9-15101S
Cisco 7600-RSP720 IOS IP SERVICES	S76GIS-15101S
Cisco 7600-RSP720 IOS IP SERVICES	S764IS-15101S
Cisco 7600-RSP720 IOS IP SERVICES SSH	S76GISK9-15101S
Cisco 7600-RSP720 IOS IP SERVICES SSH	S764ISK9-15101S
Cisco 7600-SUP32 IOS ADVANCED ENTERPRISE SERVICES SSH	S732AEK9-15101S
Cisco 7600-SUP32 IOS ADVANCED IP SERVICES	S732AIS-15101S
Cisco 7600-SUP32 IOS ADVANCED IP SERVICES SSH	S732AIK9-15101S
Cisco 7600-SUP32 IOS IP SERVICES	S732IS-15101S
Cisco 7600-SUP32 IOS IP SERVICES SSH	S732ISK9-15101S
Cisco 7600-SUP720 IOS ADVANCED ENTERPRISE SERVICES SSH	S763AEK9-15101S
Cisco 7600-SUP720 IOS ADVANCED IP SERVICES	S763AIS-15101S
Cisco 7600-SUP720 IOS ADVANCED IP SERVICES SSH	S763AIK9-15101S
Cisco 7600-SUP720 IOS IP SERVICES	S763IS-15101S
Cisco 7600-SUP720 IOS IP SERVICES SSH	S763ISK9-15101S
Cisco 7600-SUP720 IOS ADVANCED IP SERVICES	S763AI-15101S
Cisco 7600-SUP720 IOS IP SERVICES SSH	S763IPSK9-15101S

Cisco Services

Cisco Services span each phase of the network lifecycle, provide expertise unique to Cisco, and assist service providers in achieving risk mitigation, lower costs, and accelerated time to market for new services.

The Cisco Lifecycle approach defines the activities needed to promote service excellence at each phase of the network lifecycle: preparation, planning, design, implementation, operation, and optimization. Among the many Cisco Advanced Services offerings, the Cisco Test and Validation Services can be particularly helpful in a transition to Cisco IOS Software Release 15.1(1)S. These services are adapted to the service provider's specific needs. Test engineering expertise and Cisco laboratory environments provide service verification, supporting adherence to end-customer service-level agreements (SLAs). Services include validation of features, scale, and multivendor solutions that result in higher availability, increased capacity, risk mitigation, and shorter deployment cycles.

In addition, Cisco Upgrade and Refresh Services are helpful when moving to a new software release or for any product, technology, or service migration. These services work with the service provider's specific attributes and provide a cost-effective methodology to prepare, plan, design, and implement an IP NGN transition for increased business agility, high availability, security, and subscriber acquisition and retention. Cisco intellectual capital, automation tools, and cumulative migration expertise help make the network transition predictable, with faster adoption of new services.

By using the extensive tools, best practices, and experts offered through Cisco Services, service providers can mitigate risks, bring new services to market faster, lower costs, improve the customer experience through service assurance, and increase the value of their investments. With a collaborative delivery methodology that joins the forces of Cisco, our highly skilled network of partners, and our customers, Cisco helps service providers achieve outstanding results.

For More Information

For more information about the Cisco 7600 Series Routers, visit <http://www.cisco.com/en/US/products/hw/routers/ps368/index.html>.

For a detailed introduction to the new features of Cisco IOS Software Release 15.1(1)S for the Cisco 7600 Series, visit http://www.cisco.com/en/US/products/hw/routers/ps368/products_data_sheets_list.html.

For more information about Cisco Services, visit the [Advanced Services Routing and Switching](#) webpage or the [Cisco Services for Service Provider](#) webpage, or contact your local account representative.

Additional information about Cisco IOS Software releases is available at the following websites:

- Cisco IOS Software: <http://www.cisco.com/go/ios>
- Release notes for Cisco IOS Software: <http://www.cisco.com/cisco/web/psa/default.html>
- Cisco IOS Software Download Center, which allows you to download Cisco IOS Software releases and access software upgrade planners: <http://www.cisco.com/public/sw-center/>
- Cisco Feature Navigator, a web-based application that allows you to quickly match Cisco IOS Software releases to features in hardware: <http://www.cisco.com/go/fn/>
- Cisco Software Advisor, which can help you determine the minimum supported software for selected hardware: <http://tools.cisco.com/Support/Fusion/FusionHome.do>



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