



The Cisco Turn It On Program

Turn It On At-a-Glance

Get the most functionality and ROI from your Cisco routers and switches

The Cisco Turn It On program is designed to help organizations like yours get the most value from the powerful features already residing on your Cisco routers and switches. Along with your expertise, these tools empower you to take full advantage of Cisco's powerful core networking solutions to maximize your productivity, efficiency, and technology investment. All you have to do is turn them on!

Protective Quality of Service (QoS) Features

Ample Quality of Service (QoS) is critical to realizing the most value from today's advanced, bandwidth-intensive applications (high-quality video, real-time voice, etc.). Two of the most beneficial features in achieving secure, predictable, measurable, and even guaranteed QoS already reside in your Cisco switches and routers.

- **Control Plane Policing (CoPP)** – Turn it on to maintain packet forwarding and protocol states despite an infrastructure attack or heavy traffic load on the router or switch.

▪ Network-Based Application Recognition (NBAR) –

Turn it on to guarantee bandwidth to mission-critical applications, limit bandwidth to other applications, drop selective packets to avoid congestion, reduce wide area network (WAN) expenses, and improve web response.

Virtual Routing and Forwarding (VRF-Lite) / Multi-Virtual Routing and Forwarding Customer Edge (Multi-VRF CE)

Virtual Routing and Forwarding (VRF)-lite, also known as Multi-VRF Customer Edge (CE), provides a valuable solution for virtual private network (VPN) separation by enabling a single routing device to support multiple virtual routing tables, delivering measurable increases in security, privacy, scalability, and ROI.

- Turn it on to give routers the ability to function like multiple virtual routers, enabling each VRF to support a separate community of interest.

Advanced Virtual Private Network (VPN) Services

Dynamic Multipoint Virtual Private Network (DMVPN) and Group Encrypted Transport Virtual Private Network (GET VPN) eliminate the need to choose between QoS-enabled branch interconnectivity and transport security. This empowers agencies to reliably and securely take advantage of today's advanced networked voice and video applications





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- **DMVPN** – Turn it on for spoke-to-spoke functionality that enables the secure exchange of data between two branch offices without traversing the head office, thereby improving network performance by reducing latency and jitter, and optimizing head-office bandwidth utilization.

- **GET VPN** – Turn it on to eliminate the need for tunnels and to empower distributed branch networks to scale higher while securely maintaining network-intelligence features critical to voice and video quality such as QoS, routing, and multicast.

Catalyst Integrated Security Features (CISF)

A rich set of industry-leading integrated security features that proactively protect the critical network infrastructure against the most common — and potentially damaging — layer 2 security threats.

- Turn them on to intelligently and proactively protect your critical network infrastructure and guarantee network security on open campus networks.

Spanning-Tree Protocol (STP) Toolkit

An advanced suite of tools that makes it easy to add layer 2 hardening on Cisco's Catalyst enterprise LAN switches, which use STP (the IEEE 802.1D and 802.1w bridge protocols) on Ethernet port-based VLANs.

- Turn them on to dramatically improve stability and performance of the basic STP algorithm, providing the functionality necessary for a layer 2 Ethernet network to function properly, including path redundancy and prevention of undesirable forwarding loops.

Encapsulated Remote Switching Port Analyzer (ERSPAN)

A valuable enhancement to the SPAN feature supported by Cisco Catalyst switches, ERSPAN enables monitored traffic on ports or VLANs to originate from and be sent to different chassis separated by a layer 3 routed network.

- Turn it on to virtually mirror traffic and analyze packets from any port on any remote switch, all without manually connecting, capturing, and analyzing packets at specific ports using a network analyzer tool (or, "sniffer").

Dynamic Routing Intelligence Solutions

Together, IP Service Level Agreements (IPSLAs), Performance Routing (PfR) and Embedded Event Manager (EEM) enable powerful real-time measurement, management, and network failure-detection capabilities, empowering your network to remain at maximum capacity.

- **IOS IP SLAs** – Turn them on for active, automated monitoring that empowers you to continuously, reliably, and proactively assure IP service levels, verify network operation, monitor network health, and identify and resolve bottlenecks.

- **PfR** – Turn it on for intelligent application routing that maximizes network performance by automatically detecting path degradation and determining the best load balancing to optimize throughput and cost effectiveness across all available WAN and Internet links.

- **EEM** – Turn it on to harness the network intelligence intrinsic to Cisco IOS and customize its behavior based on real network events as they happen, transforming routers or switches into active participants rather than passive slaves to external network management systems.

Learn More

Visit www.cisco.com/go/turniton, contact your Cisco Engineer, or email turniton@external.cisco.com for more information and assistance in turning on the full functionality and advantages of your Cisco routers and switches.