



Turn It On

Power Up

Turn on all these features to leverage the full value of Cisco routers and switches.

- Protective QoS Features
 - Control Plane Policing (CoPP)
 - Network-Based Application Recognition (NBAR)
- VRF-Lite/Multi-VRF CE
- Advanced VPN Services:
 - Dynamic Multipoint VPN (DMVPN)
 - Group Encrypted Transport (GET VPN)
- Catalyst Integrated Security Features (CISF)
- Spanning-Tree Protocol (STP) Toolkit
- **Encapsulated Remote Switched Port Analyzer (ERSPAN)**
- Dynamic Intelligent Routing Solutions
 - IP Service-Level Agreement (IPSLA)
 - Optimized Edge Routing (OER)
 - Embedded Event Manager (EEM)

Contact your Cisco Systems Engineer for more information and assistance in turning on the full functionality of your Cisco routers and switches.

To learn about enabling additional Cisco features, visit www.cisco.com/go/turniton.

To help you get the most functionality, value and ROI from your Cisco routers and switches, we want to ensure you're aware of the many powerful features residing within. Our **Turn it On** program is designed to empower Federal agencies like yours to take full advantage of Cisco's powerful core networking solutions to maximize your productivity, efficiency and technology investment.

Encapsulated Remote Switched Port Analyzer (ERSPAN)

Cisco Catalyst switches support a Switched Port Analyzer (SPAN) feature that enables you to monitor traffic on one or more ports or VLANs and send the monitored traffic to one or more destination ports on the same chassis. Providing a valuable enhancement, Encapsulated Remote SPAN (ERSPAN) allows the source and destination to be in different chassis separated by a Layer 3 routed network. And, unlike Remote SPAN (RSPAN) that requires the source and destination chassis to be in the same layer 2 domain, ERSPAN uses the Policy Feature Card 3's hardware to encapsulate the mirrored traffic within a Layer 3 routable Generic Routing Encapsulation (GRE) tunnel.

Now instead of using a network analyzer tool (or, "sniffer") to manually connect, capture and analyze packets at specific ports, you can connect from any port in your network and virtually mirror traffic and analyze packets from any port on any remote switch, all without physically moving the analyzer tool – improving efficiency, productivity and ROI. Best of all, this powerful solution already resides on your Cisco Catalyst 6500 switch. All you have to do is turn it on.

Powerful functionality

- ERSPAN is easily configured to meet your networking and business needs.
- Consists of an ERSPAN source session, routable ERSPAN GRE-encapsulated traffic, and an ERSPAN destination session.
- Separately configure ERSPAN source sessions and destination sessions on different switches.
- Source session copies traffic from the source ports or source VLANs and forwards the traffic using routable GRE-encapsulated packets to the ERSPAN destination session.
- Destination session switches the traffic to the destination ports.
- To configure an ERSPAN source session on one switch, associate a set of source ports or VLANs with a destination IP address, ERSPAN ID number, and optionally with a VRF name.
- To configure an ERSPAN destination session on another switch, associate the destination ports with the source IP address, ERSPAN ID number, and optionally with a VRF name.
- Source sessions do not copy locally sourced RSPAN VLAN traffic from source trunk ports that carry RSPAN VLANs.
- ERSPAN source sessions do not copy locally sourced ERSPAN GRE-encapsulated traffic from source ports.
- Each ERSPAN source session can have either ports or VLANs as sources, but not both.

Impressive benefits

Cisco's ERSPAN is a highly versatile solution supporting source ports, source VLANs and destination ports on different switches. This enables easy, remote monitoring of multiple switches across your network.

- Virtually connect an analyzer at your desk to almost any port in the network.
- Allows easy monitoring of access ports from across the network.
- Data Centers can now consolidate monitoring devices on one device and replicate traffic from a source port to that central device.

FYI

Consider these facts before taking advantage of ERSPAN's impressive functionality.

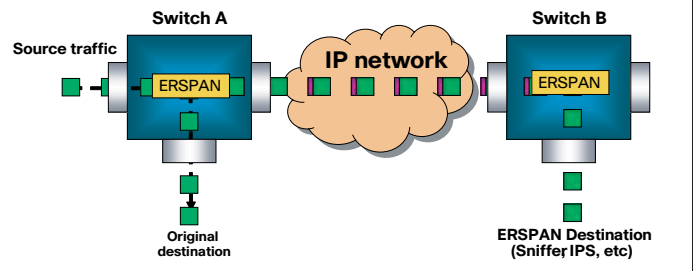
- ERSPAN requires the use of a Supervisor 720 in the chassis where both the source and destination ports are located.
- Devices in between the source and destination chassis can be any device capable of forwarding IP packets.
- Using ERSPAN can potentially increase network traffic.

Supporting your technology and goals

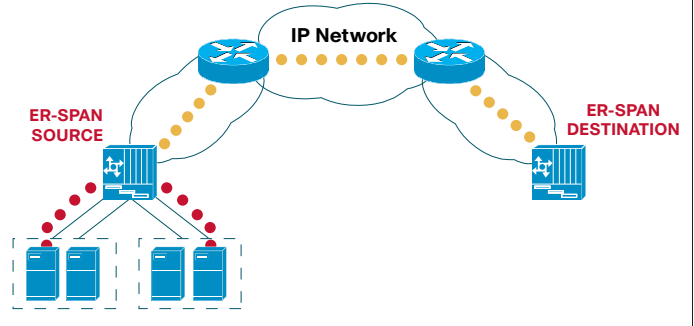
Cisco's ERSPAN is supported on Catalyst 6500 Sup720-3B and 3B-XL, as well as Sup720-3A version 3.2 or higher.

Cisco ERSPAN

Encapsulated SPAN (ERSPAN) is similar to RSPAN, except the source and destination ports can be on separate chassis **across a multi-hop L3 network**. Traffic is sent between source and destination using GRE encapsulation.



Encapsulated Remote SPAN



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