

# Cisco Catalyst 2950 Series

## Software Feature Comparison—Standard Image (SI) and Enhanced Image (EI) Feature Comparison

The Cisco Catalyst® 2950 Series switches include two software image versions that support different degrees of functionality—the Standard Image (SI) and the Enhanced Image (EI) Software. The version of software depends solely on the model of switch selected, with no upgrade capabilities.

The SI version is embedded in Cisco Catalyst 2950-12, 2950-24, and 2950SX-24 switches, and supports basic Cisco IOS® functionality, Fast Ethernet connectivity, and cluster management.

The EI version supports all that and more. The EI version of software is embedded in Cisco Catalyst 2950T-24, 2950C-24, and 2950G-12, 2950G-24, 2950G-48 switches, and supports advanced intelligent services, gigabit connectivity, and a richer set of features. These include Cisco Spanning-Tree Protocol enhancements for high availability, access control parameters (ACPs) for enhanced security, and Differentiated Services Code Point (DCSP) and rate limiting for advanced quality of service.

The following tables highlight feature comparisons between the fixed-configuration Cisco Catalyst 2950 Series switches with the SI or EI software, and the fixed-configuration Catalyst 2900 Series XL (fixed-configuration Catalyst 2900 XL switches have been discontinued, modular configurations still available).

Table 1 Catalyst 2950 Series Switches

Product	Software Image
Catalyst 2950-12	Standard Image (SI)
Catalyst 2950-24	Standard Image (SI)
Catalyst 2950SX-24	Standard Image (SI)
Catalyst 2950T-24	Enhanced Image (EI)
Catalyst 2950C-24	Enhanced Image (EI)
Catalyst 2950G-12-EI	Enhanced Image (EI)
Catalyst 2950G-24-EI	Enhanced Image (EI)
Catalyst 2950G-24-EI-DC	Enhanced Image (EI)
Catalyst 2950G-48-EI	Enhanced Image (EI)



Table 2 Feature Comparison of Catalyst 2900 XL, Catalyst 2950 EI, and Catalyst 2950 SI Switches

Feature	Fixed-Configuration Catalyst 2900 XL	Catalyst 2950 EI	Catalyst 2950 SI
VLANs supported	64	250	64
4096 VLAN Ids	No	Yes	No
Number of STP Instances	64	64	64
64 bit counters on Gig ports	No	Yes	N/A
CWGM GBIC support	No	Yes	N/A
<b>Trunking</b>			
ISL Trunking	Yes	No	No
802.1Q	Yes	Yes	Yes
802.1Q Tunneling	No	No	No
VTP Server, Client, Transparent Mode	Yes	Yes	Yes
User configurable management VLAN	Yes	Yes	Yes
<b>Security</b>			
Static Access Ports	Yes	Yes	Yes
Port Security	Yes	Yes	Yes
Port Security MAC Aging	No	Yes	Yes
Private VLAN Edge (Protected Port)	Yes	Yes	Yes
802.1x	No	Yes	Yes
ACEs/ACPs (Layer 2-4 IP Security Filtering)	No	Yes	No
Port based ACLS (PACL)	No	Yes	No
TACACS+	Yes	Yes	Yes
RADIUS	No	Yes	Yes
BPDU Guard	No	Yes	Yes
STRG	Yes	Yes	Yes
<b>Quality of Service</b>			
Number of Queues	2	4	4
802.1p Priority	Yes	Yes	Yes
Strict Priority Scheduling	Yes	Yes	Yes
Weighted Round Robin	No	Yes	Yes
Weighted Round Robin Detect	No	Yes	No



Table 2 Feature Comparison of Catalyst 2900 XL, Catalyst 2950 EI, and Catalyst 2950 SI Switches (Continued)

Feature	Fixed-Configuration Catalyst 2900 XL	Catalyst 2950 EI	Catalyst 2950 SI
Intelligent Ethernet (Policing/Metering, Marking, Classification, Queuing & Scheduling)	No	Yes	No
Unicast/Multicast/Broadcast Storm Control	Yes	Yes	Yes
DHCP Option 82	No	No	No
DSCP Mapping	No	Yes	No
<b>IP Multicast</b>			
CGMP	Yes	No	No
IGMP Snooping	No	Yes	Yes
IGMP Filtering	No	Yes	Yes
MVR (Multicast VLAN Registration)	Yes	Yes	Yes
NTP	Yes	Yes	Yes
<b>Link Aggregation</b>			
CNS Agent Support (IE 2100)	No	Yes	No
Clustering	Yes	Yes	Yes
Fast EtherChannel	Yes	Yes	Yes
Gigabit EtherChannel	Yes (limited to Catalyst 2900M XL)	Yes	Yes (only supported on Catalyst 2950SX-24)
Rapid Spanning Tree (802.1w)	No	Yes	No
Multiple Spanning Tree (802.1s)	No	Yes	No
PAgP	No	Yes	Yes
DTP	No	Yes	Yes
VTP Pruning	Yes	Yes	Yes
Filtering & Throttling	No	Yes	Yes
SPAN	Yes	Yes	Yes
Mini-jumbo Frame Support	Yes	Yes (Catalyst 2950G switches only)	No
Static and Dynamic MAC Addressing	Yes	Yes	Yes
Dynamic Access Ports	Yes	Yes	Yes
CDP v2	Yes	Yes	Yes
UDLD	Yes	Yes	Yes
Protected Port (PVLAN Edge)	Yes	Yes	Yes



Table 2 Feature Comparison of Catalyst 2900 XL, Catalyst 2950 EI, and Catalyst 2950 SI Switches (Continued)

Feature	Fixed-Configuration Catalyst 2900 XL	Catalyst 2950 EI	Catalyst 2950 SI
Port duplex/speed	Yes	Yes	Yes
Port Flow Control	Yes	Yes	Yes
SysLog	Yes	Yes	Yes
HTTP Enhancements	Yes	Yes	Yes
MAC Addresses	2000	8000	8000
IP Host connectivity equivalent to 2900XL/3500XL such as telnet, DHCP, BootP Client, DNS	Yes	Yes	Yes
<b>Spanning-Tree Protocol</b>			
CrossStack UplinkFast	Yes (limited to 2900M XL)	Yes	N/A
PortFast	Yes	Yes	Yes
UplinkFast	Yes	Yes	Yes
BackboneFast	No	Yes	Yes
<b>VLANs</b>			
Voice VLAN	Yes	Yes	Yes
Per port enabling/disabling of unknown unicast/multicast flooding	Yes	No	No
Multi-VLAN ports	Yes	No	No
Network (Drain) Port	Yes	No	No



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