



## Cisco Catalyst 3550 Series Intelligent Ethernet Switches

These multilayer, stackable Intelligent Ethernet switches let businesses deploy intelligence across the network—while maintaining the simplicity of traditional LAN switching.

Cisco Catalyst® 3550 Series Intelligent Ethernet switches bring enterprise-class capabilities to midsize businesses and enterprise branch offices, dramatically increasing network availability, security, and quality of service (QoS).

Available in wire-speed Fast Ethernet and Gigabit Ethernet configurations, these switches can support intelligent services such as advanced QoS, rate limiting, security access control lists, multicast management, and dynamic, high-performance IP routing.

Cisco Catalyst 3550 Series Intelligent Ethernet switches can serve as powerful access layer switches for medium enterprise and branch office wiring closets or as backbone switches for midsize networks.

### Product Benefits

#### High Availability

Increase network uptime and employee productivity with high-performance IP routing, rapid failover recovery, Layer 2 and Layer 3 load balancing, bandwidth aggregation, and other capabilities that optimize performance and reliability.

#### Enhanced Security

Tighten security across the network without compromising performance through access control lists (ACLs) that restrict access to packets within or between virtual LANs (VLANs). Supports the 802.1x standard, which allows users to be authenticated regardless of which LAN port they are accessing.

#### Advanced Quality of Service

Increase network efficiency and ensure urgent needs are met by expediting time-sensitive applications such as IP voice and video—without starving low-priority packets—and providing control over the amount of bandwidth across any configured interface. Weighted Random Early Detection (WRED) on all Gigabit Ethernet ports avoids congestion at the egress queues before a disruption occurs.

### Cisco Catalyst 3550 Series Configurations

Product	Features	Placement
Cisco Catalyst 3550-24	Wire-speed stackable switching and routing with 24 10/100 ports and two gigabit interface converter (GBIC)-based Gigabit Ethernet ports; 1 rack unit (RU)	Ideal for premium desktop connectivity
Cisco Catalyst 3550-48	Wire-speed stackable switching and routing with 48 10/100 ports and two GBIC-based Gigabit Ethernet ports; 1 RU	Ideal for premium desktop connectivity
Cisco Catalyst 3550-12G	Wire-speed stackable switching and routing with 10 GBIC-based Gigabit Ethernet ports and two 10/100/1000BASE-T ports; 1.5 RU	Ideal for stack aggregation, server aggregation, or small network backbones
Cisco Catalyst 3550-12T	Wire-speed stackable switching and routing with 10 10/100/1000BASE-T ports and two GBIC-based Gigabit Ethernet ports; 1.5 RU	Ideal for stack aggregation, server aggregation, or small network backbones

#### Standard and Enhanced Multilayer Software Options

The Cisco Catalyst 3550-24 and 3550-48 switches are available with either the standard multilayer software image (SMI) or the enhanced multilayer software image (EMI). By comparison, the EMI provides a richer set of enterprise-class features, including hardware-based IP unicast and multicast routing, inter-VLAN routing, routed access control lists (RACLs), and Hot Standby Router Protocol (HSRP).

After initial deployment of the SMI version, an EMI upgrade kit gives users the flexibility to migrate to the EMI version. The Cisco Catalyst 3550-12G and 3550-12T are available only with the EMI version.

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### High Availability Ensures employees can access data at all times, locally and remotely.

#### Redundancy

- Cisco Spanning-Tree Protocol enhancements such as BackboneFast/UplinkFast/PortFast, and CrossStack UplinkFast
- Support for the 300W Cisco redundant power supply system 300 (optional)

#### Management

- Award-winning Cisco Cluster Management Suite Software now enhanced to include video/voice configuration templates/wizards
- Dynamic Trunking Protocol (DTP) for dynamic virtual LAN (VLAN) trunk configuration

- Port Aggregation Protocol (PAgP) for automatic creation of Cisco Fast EtherChannel<sup>®</sup> and Gigabit EtherChannel port groups
- Dynamic VLANs (VLAN Membership Policy Server client only) assignment provides flexibility in assigning ports

#### Bandwidth Optimization

- Bandwidth aggregation via Fast EtherChannel<sup>®</sup> and Gigabit EtherChannel technology
- Layer 2 load balancing on redundant links via Per-VLAN Spanning-Tree Plus (PVST+)
- Layer 3 load balancing on redundant links via equal cost routing

- Multicast application management via Internet Group Management Protocol (IGMP) snooping and Protocol Independent Multicast (PIM)

#### High Performance IP Routing

- PIM for IP multicast routing
- Inter-VLAN IP routing for load balancing and redundancy
- HSRP to create redundant failsafe routing topologies

### Enhanced Security Protects sensitive data and network resources from threats.

- 802.1x support for dynamic port-based security
- Private VLAN edge to provide security and isolation between ports

- Port security for Media Access Control (MAC)-based port-level security
- Spanning-Tree root guard (STRG) prevents unauthorized devices from becoming root nodes

- Cisco VLAN ACLs to prevent unauthorized data flows
- Cisco standard and extended IP router ACLs to prevent unauthorized data flows

### Advanced Quality of Service Prioritizes critical traffic and applications to avoid bottlenecks.

- 802.1p class of service (CoS) and Differentiated Services Code Point (DSCP) classification and reclassification
- Weighted Round Robin (WRR) and strict priority scheduling for egress queue servicing

- Weighted Random Early Detection (WRED) for congestion management (Gigabit Ethernet ports)
- Granular rate limiting for managing data flows in increments as low as eight Kbps

- Eight aggregate or individual ingress policers per port and eight aggregate egress policers per port

#### Intelligence Made Easy

Cisco Cluster Management Suite (CMS) Software simplifies repetitive and time-consuming network management tasks, saving tremendous time and resources in deploying intelligence to the edge.

Cisco CMS Software allows users to configure and troubleshoot up to 16 Cisco Catalyst switches at once, regardless of their geographic proximity, using a standard Web browser.

It features wizards that automatically configure voice, video, and high-priority data ports, topology maps for a comprehensive layout of all clustered switches, link graphs and reports for real-time traffic updates, and configuration templates and guide modes to minimize training.

To make things easy right from the start, Cisco CMS Software is embedded in the switch — no installation required.

For more information

[www.cisco.com/asiapac/smb\\_solutions](http://www.cisco.com/asiapac/smb_solutions)



Cisco Systems has more than 200 offices. Addresses, phone numbers, and fax numbers are listed on the Cisco.com Web site at [www.cisco.com/go/offices](http://www.cisco.com/go/offices).