

WS5120 Wireless Switch

High Performance Wireless LAN on an IBM eServer™ BladeCenter®

WIRELESS SWITCH SYSTEM

Rapid implementation and return on investment with plug and play high performance WLAN

The WS5120 Wireless Switch from Symbol Technologies integrates all the functionality of Symbol's next-generation wireless LAN (WLAN) architecture on an IBM eServer BladeCenter, delivering a new level of simplicity and cost-efficiency to wireless networking. This elegant platform combines the separate components traditionally required to deploy a wireless network — server, wireless switch, Ethernet switches, wireless security and applications, and more — into a single, simple plug-and-play device. By simply sliding the WS5120 into the IBM eServer BladeCenter chassis, enterprises with large distributed locations can quickly deploy a powerful WLAN server that delivers extremely scalable, secure and reliable wireless connectivity for mobile workers. For retailers and distribution centers to hospitals, banks, factories and more, the WS5120 delivers high enterprise-level WLAN performance, exceptionally low implementation and management requirements — and a low total cost of ownership.

Maximum performance and scalability at a lower cost

Features and functionality are centralized in the WS5120 and distributed to low-cost thin Access Ports that are easily upgraded and centrally managed, significantly reducing the capital and operational costs associated with first generation wireless networking. Adding capacity is as easy as adding up to 48 Access Ports per WS5120, or simply sliding another WS5120 into the chassis. And Symbol's unique mobility features ensure peak wireless performance, delivering the continuous and reliable wireless connection users need to remain up and running — and productive.

Superior wired and wireless network integration

The WS5120 leverages standard multi-layer networking principles, offering an overlay architecture that enables superior integration with the wired network. Instead of the stand-alone ad-hoc approach of first generation WLANs, the WS5120 preserves network integrity, extending wired network levels of predictable high availability and redundancy to the wireless LAN.

End-to-end layered wireless security

The WS5120 delivers unmatched WLAN security. This single point of entry greatly enhances protection for the wired network. And the WS5120 offers the broadest selection of security options to meet the unique needs of each application, including WPA, WPA2, Integrated AAA Server, and Rogue AP detection.



FEATURES

Secure architecture: A single point of entry

Security with mobility: 802.11i, WPA2 and Symbol's unique mobility features

IBM eServer BladeCenter compatibility: plug-and-play combination server, wireless switch, security, and more

Encryption: WEP, WPA-TKIP, KeyGuard™ MCM and WPA2

Authentication: Access Control Lists (ACLs), 802.1X, Kerberos and Integrated AAA / RADIUS Server

Upgradeable to support new 802.11 standards and features, including radios, mobility, security, and QoS

Automatic Channel Selection (ACS): Automatic selection of the best channel based on noise and signal properties

Load Balancing and Pre-emptive Roaming

Per Device Bandwidth Allocation: Weighted Fair Queuing; Power Save Protocol and more

Virtual AP: "Wireless Virtual VLAN" support

Radio support: 2.4 GHz/5 GHz frequencies, direct sequence, OFDM encoding techniques and 802.11a/b/g

BENEFITS

Easy to secure; delivers maximum network protection

Highest level of data and network protection without sacrificing wireless performance

Rapid implementation, superior integration with wired network, fewer components to purchase and manage

Ensures privacy of data during transmission

Ensures that only authorized users are granted access to your network

Outstanding investment protection, faster ROI and lower TCO; eliminates forklift upgrade to support new standards or expand infrastructure

Reduces installation costs by eliminating the need for manual configuration of Access Ports

Ensures devices roam before connection quality erodes

Ensures performance quality for all applications, even when network is congested

Ensures broadcast traffic reaches only intended devices; saves battery life; improves network security

Broadest and most flexible radio support; ability to accommodate new coverage, radio types, channels and spectrum

Symbol offers complete solutions that include world-class products as well as the comprehensive support and technical expertise you need to design, deploy and maintain successful enterprise mobility solutions. For more information on the WS5120, contact us at +1.800.722.6234 or +1.631.738.2400, or visit: www.symbol.com/ws5120

WS5120 Specifications

Packet Forwarding

802.1D-1999 Ethernet Bridging; 802.11-802.3 Bridging; 802.1Q VLAN Tagging & Trunking; Proxy ARP; IP packet steering-redirect

Wireless Networking

Wireless LAN:	Supports 32 WLANs; Multi-ESS/BSSID traffic segmentation; VLAN to ESSID mapping; Power Save Protocol Polling; Pre-emptive Roaming; congestion control with bandwidth allocation
Access Port Radios:	Supports 1-48 Access Ports; automatic Access Port adoption with ACLs; Access Port load balancing; AP-4131 Direct Sequence Access Point-to-Access Port Conversion
Supported Access:	Access Ports — AP100 (802.11b); AP300 (802.11a/b/g ready) Access Points — AP4131
Radio & Frequency Management:	Automatic Channel Select (ACS); Transmit Power Control (TPC); Country Code based RF Configuration; 802.11b – 3 Non-overlapping channels; 802.11a—11 Non-overlapping channels; 802.11g—3 Non-overlapping channels (ready)

Network Security

Packet Filtering:	L2/3/4 Packet Analysis
Authentication Mechanisms:	Access Control Lists (ACLs); Pre-Shared Keys (PSK); 802.1x/EAP—Transport Layer Security (TLS), Tunneled Transport Layer Security (TTLS), Protected EAP (PEAP); Kerberos
Transport Encryption:	WEP 40/128 (RC4), KeyGuard, WPA — TKIP, WPA2 (AES)
Key Exchange and Management:	Extensible Authentication Protocol (EAP); Kerberos

Optimized Wireless QoS

Per Device Weighted Fair Queuing:	8 queues per device; bandwidth management controls; Power Save Protocol (PSP) integration
RF Priority:	802.11 traffic prioritization and precedence; SpectraLink Voice Prioritization

Classification & Marking: Layer 1-4 packet classification; 802.1p VLAN priority; DiffServ/TOS

System Resiliency & Redundancy

Redundant warm-standby switch; Access Port load balancing; hardware and software based watchdog timer; NIC level redundancy

Management

Command Line Interface (Serial, Telnet); secure web based GUI (SSL); Telnet server; SNMP v1/v2/v3; SNMP traps—40+ user configurable options; Syslog; TFTP client; Simple Network Time Protocol (SNTP); text-based switch configuration Files; DHCP (client/server/relay, switch auto-configuration with DHCP options); authentication (Radius client, Kerberos authentication server); MIBs (MIB-II, Etherstats, Wireless Switch specific monitoring and configuration)



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About Symbol Technologies

Symbol Technologies, Inc., The Enterprise Mobility Company™, is a recognized worldwide leader in enterprise mobility, delivering products and solutions that capture, move and manage information in real time to and from the point of business activity. Symbol enterprise mobility solutions integrate advanced data capture products, radio frequency identification technology, mobile computing platforms, wireless infrastructure, mobility software and world-class services programs under the Symbol Enterprise Mobility Services brand. Symbol enterprise mobility products and solutions are proven to increase workforce productivity, reduce operating costs, drive operational efficiencies and realize competitive advantages for the world's leading companies. More information is available at www.symbol.com



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BARCODING, WIRELESS AND DATA COLLECTION

Our customers turn to us to help them become more productive and profitable. TPI's expertise guarantees your project will be successful: on time, on budget and meet your ROI requirements.

TPI will facilitate your entire wireless and data collection project:

- ✓ *Business analysis*
- ✓ *Project justification & ROI*
- ✓ *Wireless design, RF site survey and spectrum analysis*
- ✓ *WWAN, WLAN design & installation*
- ✓ *Custom software*
- ✓ *Integration w/legacy systems*
- ✓ *Mobile computers*
- ✓ *Data collection terminals*
- ✓ *Barcode printers, labels and scanners*
- ✓ *RFID solutions*
- ✓ *Configuration and deployment*
- ✓ *Training and installation*
- ✓ *Service and upgrades*
- ✓ *Remote device management and support*

TPI can share best practices in data collection from a number of industries including wholesale distribution, manufacturing, healthcare and retail/consumer goods. Our expertise allows you to shorten your learning curve and increase your return on investment.

Product specification sheet provided by TPI

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