

The Breakthrough WLAN Architecture with Intelligence Centralized at the Switch

REALIZE THE POTENTIAL OF WIRELESS MOBILITY



Symbol's Wireless Switch System—greater mobility performance, stronger security, easier network management and lower cost of ownership.

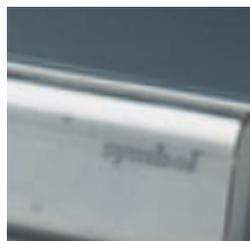


The Wireless Switch System from Symbol Technologies.

Symbol's breakthrough WLAN technology delivers significantly enhanced functionality and mobility management along with lower cost of deployment and ownership. Now, you can more fully realize the tremendous business benefits of mobility— from large to medium size enterprises to retail and branch offices.

This latest innovation in Symbol's wireless solution set features Symbol's WS 5000 Wireless Switch for media independent, switch-based wireless networking; a complete wireless security software suite that protects your mobile data, applications and network through VLAN and other proven mobile security technology; Ethernet-based power solutions that reduce deployment and installation time and costs; and management software that provides greater control, flexibility and services.

The Wireless Switch System—a new definition in wireless local area networking. From Symbol Technologies.



Maximizing and protecting your investment— enabling the future

The Wireless Switch System goes far beyond the traditional dual-mode wireless LAN approach, providing an open, extensible and expandable architecture that grows with your needs. Media independence provides support for frequency hopping, 802.11b, 802.11a and emerging standards. An upgrade path enables you to easily add legacy access points. And Class of Service functionality provides flexible, secure user access and application management without sacrificing performance.

All at a lower TCO

Yet, with everything that the Wireless Switch System delivers, there is one it doesn't: increase costs. In fact, it significantly lowers the cost of deploying network infrastructure, driving down the cost of managing, maintaining and upgrading wireless systems. And its unique scalability and flexibility provides long-term investment protection for your wireless infrastructure, delivering support for your users, services and standards today—as well as tomorrow.



It's more than a redefinition— it's a new definition.

The Wireless Switch System represents a fundamentally new definition of wireless local area networking—a new architecture that organizes infrastructure into new, more powerful component parts.

The brains and heart of the system: the WS 5000 Wireless Switch

Until today, the intelligence of a wireless network was designed into access points. Symbol moves that intelligence into the WS 5000 Wireless Switch, reducing the cost of a wireless network while delivering a major increase in functionality: greater flexibility, extensibility, as well as centralized control and management. The wireless switch is based on Linux-based RTOS, allowing new functions to be added easily. And its 1U rack-mount form factor allows it to be physically secured with other network equipment. A new and more powerful WLAN infrastructure, the WS 5000 centralizes the intelligence of a wireless local area network (WLAN). The result? Media independence and scalability—from FH to 802.11b to 802.11a to emerging standards. Easier definition of rules for QoS and security—for greater management efficiency. And unified network access, security, policy management and QoS, all at the switch level, provide the highest level of wireless security to protect your network, data and devices—without compromising service.



The WS 5000 Wireless Switch can be rack-mounted along with other network equipment.

Value at the edge: Access Ports

The WS 5000 connects via standard 100BaseT cabling and related components—including standard Ethernet hubs and switches—to Access Ports, which contain the WLAN radio and antenna. Two models enable you to support your wireless network cost-effectively—today and tomorrow. The AP 100 supports 802.11b, and the modular AP 200 provides a dual-mode platform that supports 802.11a/b, and the future 802.11g. Access Ports are much less expensive than traditional access points, delivering smooth, cost-effective incremental growth. New technologies can be easily deployed without disrupting your existing wireless LAN installation. Plenum-rated, Access Ports can be mounted essentially anywhere. And a complete line of Power-over-Ethernet products enables quick and easy distribution of power to your Access Ports regardless of location, dramatically simplifying installation and eliminating the need—and the cost—to run separate power lines.



AP 100 Access Port



AP 200 Access Port



In contrast to traditional access points, the Wireless Switch System features Access Ports for more cost effective incremental growth and simplified installation—without the need for separate power lines.



The WLAN System that does more. Much more.

Traditional WLAN implementations simply cannot compare to Symbol's Wireless Switch System... in functionality, network performance, business benefits, ROI, TCO, and most of all, in value.

Centralized management

System Management functions are available via an XML-based graphical user interface, a command line facility (using telnet, the WS 5000's serial port, or PPP), and Java-based browsers. A complete set of installation tools is also provided, including site surveys to assist in determining the optimal placement of Access Ports. All network policy management is centralized as well, with full support for SNMP.

Scalability

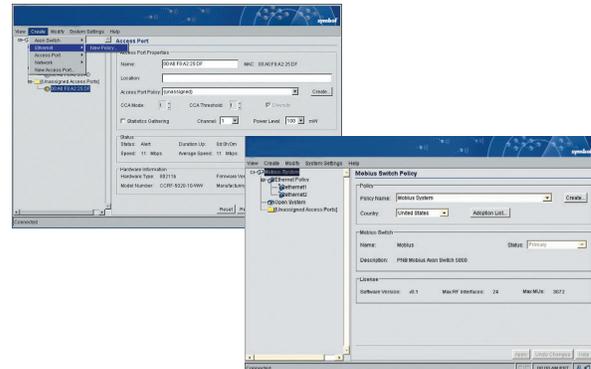
The Wireless Switch System is designed to grow and adapt to changing network requirements and organizational needs, based on your ever-changing business requirements. Adding additional capacity is much easier and less expensive than expanding traditional WLAN solutions, due to unified management and an architecture designed for flexibility. Integration with the wired LAN network is transparent, and adding more wireless capacity or coverage is seamless, eliminating the complexity associated with managing a traditional access point-based infrastructure.

Performance

The Wireless Switch System supports load balancing (moving users from a congested Access Port to one with more available capacity), pre-emptive roaming, clear-channel detection for improved bandwidth utilization, and other mobile performance features.



Symbol's Power Injectors provide power-over-Ethernet functionality to reduce the time and expense of running power to every Access Port, lowering deployment costs and simplifying installation.



Policy setting, QoS, network flexibility

In addition to support for multiple radio technologies, the Wireless Switch System also provides service classification, Quality of Service (QoS) management via IEEE 802.1p, service fairness, support for virtual LANs (VLANs, via IEEE 802.1q), the ability to provide multiple simultaneous ESS domains (in effect providing multiple wireless LANs on a single infrastructure), layer 2/3 filtering, DHCP, NAT, Mobile IP, and more.

Virtual LAN (VLAN) support

VLANs allow different classes of service—with their own security policies, if desired—to be implemented on a single wireless LAN infrastructure. Bandwidth allocations and quality of service can be easily adjusted to meet the needs of different user groups.

Lower deployment and ownership cost; installation ease

Access Ports are less expensive than traditional access points. Plenum-rated, they can be easily mounted wherever required, and include features like Power-over-Ethernet support to reduce the time and expense of running power to every Access Port. With security, policy and network management functions in a single switch, you realize great investment and network management savings. Symbol's Wireless Switch System delivers the lowest total cost of ownership and the best possible return on investment through the life cycle of your investment—plus a longer investment cycle.

Symbol's wireless security software suite meets the most rigid requirements with today's most comprehensive and effective mobile security solutions.

There is no element of networking—wired or wireless—more important than security. As a pioneer and leader in wireless LANs, Symbol Technologies has put security at the heart of the Wireless Switch System, delivering end-to-end robust standards-based security. Symbol's wireless security software suite meets all relevant industry standards, provides support for those in development, and integrates easily with your network infrastructure and applications. And extensibility allows the integration of new functionality or custom application requirements to best meet your needs.

Today's most comprehensive and effective wireless security solution

Symbol's wireless security is designed around a set of interlocking features that deliver enhanced functionality and every element required in a complete security solution.

Wired Equivalent Privacy

Symbol supports the 802.11 Wired Equivalent Privacy (WEP) standard at 64 and 128 bits. This allows full interoperability with legacy clients or less-critical environments where only basic over-the-air security is required, such as an open public-access application.

KeyGuard™

KeyGuard is Symbol's implementation of the Temporal Key Integrity Protocol (TKIP), also called SSN, which is based on draft 802.11i with Symbol enhancements for mobility. TKIP is the industry's response to WEP vulnerabilities. TKIP rotates the keys and adds Message Integrity Check (MIC) to address replay attacks, further increasing security levels by making it more difficult for an eavesdropper to obtain enough information to crack WEP keys.

Advanced authentication

Equally important with encryption is the management of who—as well as what devices—can access your network. Symbol provides support for Kerberos, the Extensible Authentication Protocol/Transport Layer Security (EAP/TLS), 802.1x, and RADIUS. Our security suite provides for the easy integration of any additional upper-level functionality you might need—even proprietary solutions for specialized applications.

AirBEAM® Safe Virtual Private Networking (VPN)

VPNs are critical to security in both wired and wireless environments. AirBEAM Safe is a complete, end-to-end VPN with advanced management features, providing VPN security for authentication, encryption and data integrity.



Mission-critical in virtually every enterprise.

In markets ranging from retail to manufacturing to healthcare, the freedom and flexibility that mobility enables are quickly moving wireless networks to the mainstream.

With Symbol's Wireless Switch System, wireless mobile networking is finally mainstream. Now, wireless connectivity can extend to every corner of the enterprise. The front office achieves the operational efficiencies and cost savings of virtually unlimited network flexibility. Associates gain constant, real-time access to vital information and applications. Visiting staff and customers are connected without having to plug in. Road warriors gain access to the data they need. All employees benefit from greater convenience, flexibility and productivity. From re-engineering your key processes to creating a competitive advantage, Symbol's Wireless Switch System delivers more capabilities and tremendous value to your business.



Retail

Wireless networking is one of the most important, transformative technologies in the retail industry. Symbol's Wireless Switch System enables retailers to achieve exceptional operating efficiencies and heightened productivity—while also enhancing customer service and satisfaction. Secure wireless point-of-sale systems. Queue-busting for more sales and better service. Self checkout and personalized mobile commerce applications. Scan-based trading. Hot spots for both staff and customers. Wireless VLANs that allow segmented security. For these and other innovations and opportunities, our Wireless Switch System is the essential enabling infrastructure.



Transportation/Logistics

Wireless LANs allow improved tracking of materials in motion and enable end-to-end management of ever-increasing volumes of goods. With Symbol's Wireless Switch System, you can easily provide secure service capabilities to varied vendors and services throughout logistics operations.



Government

Wireless networks and mobility applications are playing an increasingly important role in countless areas of federal, state and municipal government. From the military to civilian agencies to local public safety organizations, wireless advances are revolutionizing many processes and functions. Wireless data access and sharing on hospital and other multi-building campuses. Military asset tracking all the way down to the unit level. Tactical wireless nets in theatres of operation. Secure, mobile communications in support of homeland defense. For these and so many other needs and applications, Symbol's Wireless Switch System is critical.



Healthcare

Healthcare professionals are using wireless networking to bring desktop applications to the point of care, enhancing patient care, delivering needed communications to doctors and nurses, simplifying recordkeeping, reducing errors and cutting costs. Wireless networks are also playing an increasingly important role in securely compiling and updating patient insurance records, billing information, and more. Symbol's Wireless Switch System can integrate data and voice transmission on the same wireless network—with enhanced security to protect vital, confidential information.



Postal

Moving the mail and packages is a bigger challenge than ever. Wireless networks provide not just tracking, but access to information that improves all aspects of postal operations.



Manufacturing

The need for production efficiencies has never been greater. Instant data collection and dissemination supported by Symbol's Wireless Switch System—combined with its investment protection and scalability—empowers managers and employees on the production floor, with real-time information at their fingertips.



Hospitality

Greater convenience for guests, in the form of improved check-in/ check-out, is just the beginning. Now, with Symbol's Wireless Switch System, hotels can provide high-speed, secure Internet access via wireless LANs, making information resources available anywhere on the property for staff, guests and conference attendees.



Finance

For trading floors, insurance claims adjustment and beyond, the convenience of wireless is undeniable. The Symbol Wireless Switch System is ideal for all demanding, security intensive real-time operations.



Education

The “unwiring” of college campuses is a major factor in higher education today, allowing students, faculty and administrative staff access to information across the campus... anywhere, anytime. The Symbol Wireless Switch System unwires campuses without compromising student records and other secure information, and also enables quick and secure hot-spot networking services for conferences and other activities.

Every day, industries and enterprises are discovering how mobility can create enormous opportunities—from new efficiencies to customer satisfaction to competitive advantage and, ultimately, business success. Now, with the Symbol's Wireless Switch System, the ways wireless can deliver innovation are limited only by your imagination.

Enabling the future with the most complete line of wireless products and services.

Symbol Technologies is the industry leader with everything you need to put wireless mobility to work for your business.

In addition to the Wireless Switch System, Symbol Technologies offers a broad range of wireless LAN clients and technology. CompactFlash™, PC and PCI-format cards enable PDA, laptop and desktop connectivity. Design-in solutions enable integration of our award-winning technology into original designs. Voice-over-IP appliances bring the power of voice communications to your data network.

Rugged and sealed mobile computers—from handhelds to tablets in a wide range of form factors with popular operating systems—integrate data capture and wireless LAN/WAN communications. Real-time location combined with industry-standard WLAN technology provides pinpoint asset management.

Our extensive partner network delivers application software strategic to your initiatives, allowing you to gain greater value and advantage from your wireless mobile technology.

And, SymbolCare™ Global Services provide you with expertise required to maximize system performance and realize the full potential of the Wireless System. Symbol's total solution approach ensures smooth implementation and ongoing 24/7 support.

Symbol Technologies. From wireless innovation and expertise to the most complete range of products, services and solutions, to value and ROI—no other company compares.

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For system, product or services availability and specific information within your country, please contact your local Symbol Technologies office or Business Partner.



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