# EXSW-1600 Wireless LAN Switch

The Wi-Fi CERTIFIED™ n EXSW-1600 Wireless LAN Switch is a central component of Extricom's award-winning WLAN system, and the key building block for a new generation of business-class wireless infrastructure that scales from a single office to multi-building corporate campuses. The EXSW-1600 provides two uplink Gigabit Ethernet ports to connect to the wired LAN, and sixteen Gigabit Ethernet ports with Power over Ethernet (PoE) to attach any of Extricom's UltraThin Access Points.

The EXSW-1600 delivers voice, data, video, and location services with a robust and mobile connection to any Wi-Fi client, in any environment. The Extricom system reduces WLAN complexity, delivers high performance with predictable service, works seamlessly with existing wired network infrastructure, and future proofs your network for tomorrow's multi-service demands. It is an IEEE 802.11-compliant solution, combined with Extricom's unique Channel Blanket™ architecture, that revolutionizes the Wi-Fi experience for both IT administrators and wireless users.

The EXSW-1600 takes full advantage of 802.11n, with every port supporting Gigabit Ethernet. The Extricom WLAN system enables a gradual introduction of 802.11n into the enterprise. Using Channel blankets to separate 802.11n clients from legacy 802.11a/b/g clients provides full performance for all types of clients. And only Extricom allows co-existence of both 802.11n and legacy 802/11 b/g devices in the 2.4 GHz band without throughput degradation.

Channel Blanket Architecture: Simplicity and Performance without Compromise
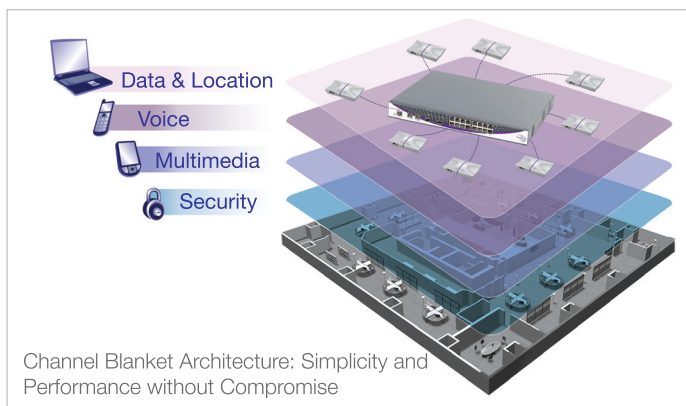
The Extricom Difference

Simpler Design and Maintenance	The Extricom WLAN System reduces the complexity of RF surveys and cell planning. Extricom's UltraThin APs are placed where needed for best coverage and do not require configuration. All APs use the same channel in the Channel Blanket architecture, and the Extricom Wireless LAN Switch coordinates the connected APs to eliminate co-channel interference.
Superior Wireless Connectivity	With every AP on the same channel, the Extricom switch receives multiple copies of each client transmission and chooses the best AP to transmit the reply, making the system highly resilient to RF interference and ensuring the highest possible throughput.
Continuous Mobility	Client devices move anywhere within the Extricom Channel Blanket without experiencing inter-AP handoffs, re-authentication or latency, enabling no-handoff mobility for enterprise wireless LANs.
Designed for 802.11n	The 802.11n Draft 2 compliant EXSW-1600 delivers a smooth migration to 802.11n for enterprises. The Extricom Channel Blanket Architecture is a perfect match for the unpredictable coverage patterns of 802.11n APs. In an Extricom system, overlapping coverage from adjacent APs is not a problem.
Centralized Access	Extricom switches coordinate media access for all of the connected APs and eliminate co-channel interference, which leads to higher performance and more stable operation under heavy load.
Centralized Power	The Extricom WLAN switch supplies power for all the connected Extricom UltraThin APs through built-in PoE, eliminating the need for AC power at the APs. The EXSW-1600 supports up to sixteen Extricom 4-radio UltraThin APs from a single standard 802.3af POE connection.
Service Flexibility	Extricom's multi-layer, multi-channel architecture with overlapping Channel Blankets provides physical segregation of wireless clients and applications. Voice clients can be isolated on one channel, data clients use another, and legacy 802.11b clients can be separated from newer 802.11n clients. This flexible approach translates into more stable and predictable wireless LAN performance and the ability to offer service level guarantees.
TrueReuse	TrueReuse™, an Extricom patented technology, increases capacity by permitting simultaneous transmission on the same channel within the Channel Blanket.

EXSW-1600 Wireless LAN Switch Specifications

Standards Compliance	
WLAN	IEEE 802.11a/b/g/n IEEE 802.11i IEEE 802.11d
Ethernet	IEEE 802.3x, full duplex IEEE 802.1q, VLAN tagging IEEE 802.3af Power over Ethernet

Wireless Performance	
Channels	Control up to four simultaneous WLAN Channel Blankets, regardless of band
Capacity	Configurable rate for each channel 802.11b: 1 to 11 Mbps 802.11g: 1 to 54 Mbps 802.11a: 6 to 54 Mbps 802.11n: 6 to 300 Mbps
TrueReuse	Extricom exclusive: Increase aggregate bandwidth of a Wi-Fi channel by enabling denser re-use than cell planning, without co-channel interference.
Roaming	Intra-switch - 0 mSec; Inter-switch < 50 mSec

SSID & VLAN	
SSID	Up to 8 ESSIDs per (radio) channel blanket
VLANs	4096 Ethernet VLANs SSID to VLAN mapping

Management	
User Interface	Secure Web-based GUI Command Line Interface (CLI)
SNMP	Version 2c
Redundancy	Master-to-backup auto fallback
Captive Portal	Customizable web client captive portal
Upgrades	Firmware upgrade through Web

Security	
Encryption	802.11i hardware-based encryption for: WEP-64 and WEP-128 WPA-TKIP / AES (CCMP) WPA2-TKIP / AES (CCMP)
Authentication	RADIUS (802.1x) Captive portal authentication WPA Pre-Shared Key (PSK), WPA2 EAP, TLS, TTLS, LEAP, PEAP, MD5, MAC
Security policy	MAC Address-based ACL Per ESSID/BSSID security configuration Built-in wireless intrusion detection (IDS) Captive portal walled garden Peruser dynamic VLAN assignment
Rogue AP	Built-in, dedicated dual-band scanning using one channel blanket

Interfaces	
WLAN Ports (to APs)	Sixteen (16) Gigabit Ethernet ports with IEEE 802.3af PoE (software enabled)
LAN Ports (Uplink to Wired LAN)	Two (2) Gigabit Ethernet RJ45/SFP Combo Ports

Physical Properties		
Installation options	Rack mount (19" 1U) and desktop	
Dimensions (W x H x D)	441 x 44 x 371mm	17.4 x 1.7 x 14.6"
Weight	3.6 kg	7.9 lbs
LEDs	Power LAN Activity Activity on AP ports	
Power	100-240V / 5A Max PoE to WLAN ports: 15W per port	

Environmental	
Operational	Temperature: 0°C to 45°C (32°F to 113°F) Humidity: 0% to 90%, non-condensing
Storage	Temperature: - 20°C to +70°C (-4°F to 158°F) Humidity: 0% to 90%, non-condensing

Regulations Approval	
Safety	UL 60950-1 EN 60950-1 IEC 60950-1
EMC	FCC Part 15 Class B EN 300386 VCCI Technical Requirements, V-3/2001.04

Ordering Information	
EXSW-1600	16-Port Extricom GbE Wireless LAN Switch

Related Products	
EXSW400	4-Port Extricom Wireless LAN Switch
EXSW800	8-Port Extricom Wireless LAN Switch
EXSW-1200	12-Port Extricom Wireless LAN Switch
EXSW-2400	24-Port Extricom Wireless LAN Switch
EXSW-800G	8-Port Extricom GbE Wireless LAN Switch
EXRP-20	2-Radio UltraThin 802.11a/b/g Access Point
EXRP-40	4-Radio UltraThin 802.11a/b/g Access Point
EXRP-20E	2-Radio UltraThin 802.11a/b/g Access Point with Connectors for External Antennas
EXRP-40E	4-Radio UltraThin 802.11a/b/g Access Point with Connectors for External Antennas
EXRP-30n	3-Radio UltraThin 802.11a/b/g/n Access Point
EXRP-40En	4-Radio UltraThin 802.11a/b/g/n Access Point
EXNM-2000	Extricom Wireless Network Management System

Note: Information is subject to change without prior notice.