# MultiSeries Switch Operating System

The Extricom 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.

Powering the Extricom solution is the Extricom Operating System (EXOS) which serves as the application engine for all MultiSeries 1000 and MultiSeries 500 WLAN switches. The software architecture of EXOS is designed for scalable performance and is enabled through license keys. Together with EXOS, the Extricom WLAN switch delivers voice, data, video, and location services with a robust and mobile connection to any Wi-Fi client, in any environment. The Extricom architecture 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 802.11n-compliant solution, combined with Extricom's unique Channel Blanket™ architecture, which revolutionizes the Wi-Fi experience for both IT administrators and wireless users.

The Extricom WLAN switch, powered by EXOS, directly controls the access points, and manages their configuration.

The entire network can be managed by Extricom's EXNM network management platform, which provides IT staff with unmatched visibility and control of network users, devices, and infrastructure.

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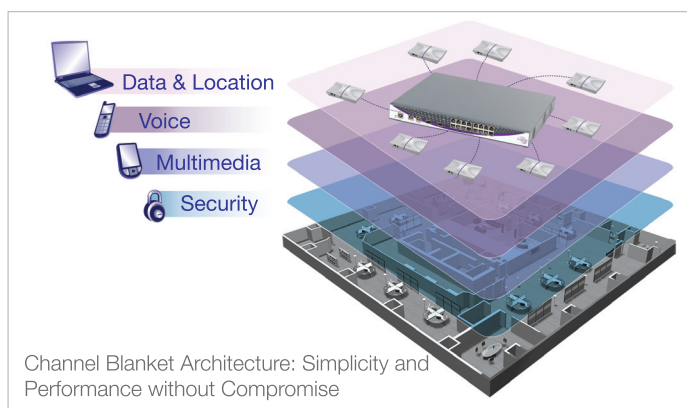
The Extricom Difference

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 compliant EXOS 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 (802.3af), eliminating the need for AC power at the APs. The EXOS provides all firmware functionality to both the WLAN switch and access points.
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 much higher throughput and more stable and predictable wireless LAN performance.
TrueReuse	TrueReuse™, an Extricom patented technology, increases capacity by permitting simultaneous transmission on the same channel within the Channel Blanket.

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Please see MultiSeries 1000 datasheet or MultiSeries 500 datasheet for additional WLAN features.

Standards Compliance

WLAN	IEEE 802.11a/b/g/n IEEE 802.11i IEEE 802.11e/WMM IEEE 802.11d
Ethernet	IEEE 802.3u, auto-negotiate IEEE 802.1q, VLAN tagging

Wireless Performance

Channels	Controls up to four simultaneous WLAN Channel Blankets
Capacity	Configurable rate for each channel 802.11b: 1 to 11 Mbps 802.11g: 6 to 54 Mbps 802.11a: 6 to 54 Mbps 802.11n: 6.5 to 300 Mbps
TrueReuse (requires separate license)	Increases aggregate throughput 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
Load balance	Client load balance between channels using the same ESSID

SSID & VLAN

SSID	Up to 7 ESSID's on channel blanket (radio) 1 Up to 8 ESSID's on each additional channel blanket (radio)
VLANs	4096 Ethernet VLANs SSID to VLAN mapping
Broadcast	Smart Multicast delivery engine

Management

User Interface	Secure web-based management GUI
SNMP	v2c (RFC 2013), Syslog
Redundancy	Master-to-backup auto fallback Uplink port redundancy
Captive Portal	Customizable captive portal for web clients
Upgrades	Firmware upgrade through management GUI
Time	Network Time Protocol (RFC 1305)

Security

Authentication	Captive portal MAC-based 802.1X, EAP, TLS, TTLS, LEAP, PEAP, MD5, FAST/AKA
Encryption	WEP, WPA Pre-Shared Key (PSK), WPA2
Security policy	MAC address-based ACL (Continuous and schedule-based) Per ESSID/BSSID security configuration Built-in wireless intrusion detection (IDS) Captive portal walled garden Per-user dynamic VLAN assignment (RFC 3580)

Ordering Information

EXLC-400G	4-Port EXOS License For MultiSeries 500 Platform
EXLC-800G-8	8-Port EXOS License For MultiSeries 500 Platform
EXLC-800G-16	8-Port EXOS License For MultiSeries 1000 Platform
EXLC-1200G	12-Port EXOS License For MultiSeries 1000 Platform
EXLC-1600	16-Port EXOS License For MultiSeries 1000 Platform

Related Products

EXSU 400GU-8	EXLC-400G To EXLC-800G-8 Upgrade For MultiSeries 500 Platform
EXSU 800GU-12	EXLC-800G-16 To EXLC-1200G Upgrade For MultiSeries 1000 Platform
EXSU 800GU-16	EXLC-800G-16 To EXLC-1600 Upgrade For MultiSeries 1000 Platform
EXSU 1200GU-16	EXLC-1200G To EXLC-1600 Upgrade For MultiSeries 1000 Platform
MutiSeries 500	8-Port WLAN Switch Platform
MutiSeries 1000	16-Port WLAN Switch Platform
EXSW-1632	32-Port WLAN Switch Cascade
EXRP-30n	3-Radio UltraThin 802.11a/b/g/n Access Point
EXRP-40En	4-Radio UltraThin 802.11a/b/g/n Access Point with Connectors for External Antennas
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
EXRE-1000	PoE Range Extender
EXMC-1000	Media Converter
EXNM-2000	Wireless Network Management System

Note: Information is subject to change without prior notice.

Ordering Guide

H/W Platform	License	Resulting Appliance
MultiSeries 500	EXLC-400G	EXSW-400G
MultiSeries 500	EXLC-800G-8	EXSW-800G
MultiSeries 1000	EXLC-800G-16	EXSW-800G
MultiSeries 1000	EXLC-1200G	EXSW-1200G
MultiSeries 1000	EXLC-1600	EXSW-1600