



RFS7000

Wireless LAN Switch for Secure and Resilient Large Enterprise Deployments



FEATURES

Wi-NG — Motorola's Wireless Next Generation architecture

Enables seamless campus-wide roaming, more robust failover capabilities, enhanced security, improved mobile client battery life and increased voice capacity

Unified wireless voice and RF management platform

Improve business process flow with one platform for wireless voice, data and multiple RF technologies on a single switch — such as RFID and Wi-Fi (including 802.11n and Wi-MAX)

Adaptive AP: extending the enterprise

Enables centralized management of mesh access points at remote sites including automatic firmware upgrades as well as site survivability of those remote locations

Centralized multicore/multithreaded architecture

Security and high performance for bandwidth-heavy applications; a single point of management lowering the overall cost of network deployment and administration

Robust, scalable features for demanding enterprise networks

Designed for large scale, high bandwidth deployments, the RFS7000 Wireless Switch from Motorola provides robust, highly scalable support for seamless enterprise mobility. Motorola's Wi-NG architecture, optimized for enterprise mobility and multimedia applications, simplifies network deployment and management, provides superior performance, security and scalability, and supports emerging RF technologies. Built on this platform, the RFS7000 enables campus-wide roaming across subnets, and offers powerful failover capabilities, exceptional quality of service (QoS) and increased voice capacity. Integrated security features include intrusion detection and protection, secure guest access and protection against denial of service attacks.

Raising the bar on enterprise-class performance

Taking advantage of multicore/multithreaded architecture, the RFS7000 is intended for large scale, high bandwidth enterprise deployments. It is designed to handle from 8,000 to 96,000 mobile devices, up to 256 802.11 dual-radio a/b/g access ports, up to 3000 dual-radio a/b/g APs in a cluster and is 802.11n ready. Failover capabilities and cluster management provide high availability.

Converged RF management for cutting-edge enterprise mobility

In addition to providing enterprise-class performance, the RFS7000 is designed to support seamless mobile access to multiple RF networks. Interfaces to locationing systems simplify asset tracking throughout your network, while Layer 3 roaming and external fixed/mobile convergence (FMC) solutions allow personnel to seamlessly roam from subnet to subnet, and from cellular to Wi-Fi

networks. When used in concert with enterprise-class application-intensive Wi-Fi handheld devices, the RFS7000 enhances fast roaming capabilities.

Granular network control at the client level

The ability to automatically control bandwidth and load balancing at the client level helps ensure an "always-on" highly available network for superior performance and a superior user experience. Access port and access point utilization is improved, and the opportunity for individual users to impact network availability is eliminated.

Enterprise security for voice and data

The RFS7000 provides comprehensive network security features that maintain constant compliance of HIPAA and PCI standards, including integrated MAC-based authentication, intrusion detection, AAA/Radius server (for WPA/WPA2 termination on the box) and hotspot provisioning capabilities for secure guest access. The stateful packet inspection firewall offers protection against denial of service attacks while optimizing network traffic.

End-to-end support

As an industry leader, Motorola offers the experience gained from deploying mobility solutions all over the globe in some of the world's largest enterprises. Leverage this experience through Motorola Enterprise Mobility Services, which offer the comprehensive support and technical expertise required to design, deploy and maintain highly successful mobility solutions.

For more information, visit us on the web at www.motorola.com/rfs7000 or access our global contact directory at: www.motorola.com/enterprisemobility/contactus

Comprehensive layered security

Exceptional level of data and network protection without sacrificing fast roaming, including: WPA2-CCMP (with 802.11i fast roaming options), integrated RADIUS Server, IPsec VPN Gateway, Secure Guest Access Provisioning and advanced wireless intrusion detection

Real Time Locationing System (RTLS)

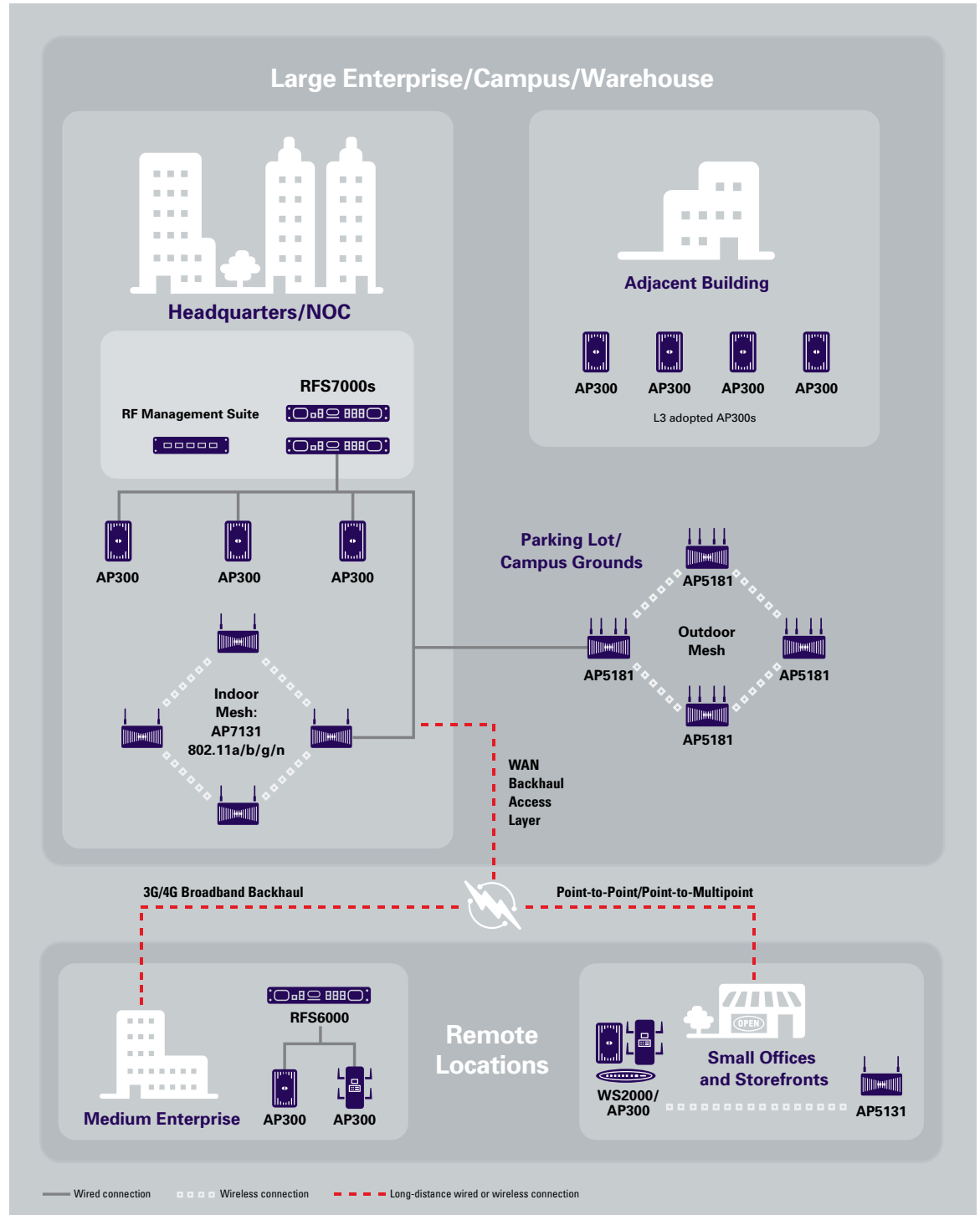
Provides rich locationing services to enable real-time enterprise asset-tracking through support for 802.11, RFID and third party locationing solutions — including industry leaders AeroScout, Ekahau, and Newbury Networks. Standards-based support for: EPC Global ALE interface for processing and filtering data from all active and passive tags; and EPC Global LLRP interface for passive RFID tag support

L2 and L3 roaming

Seamless roaming of mobile clients even across complex distributed networks

RFS7000 network architecture

The RFS7000 offers the comprehensive functionality necessary to extend wireless voice and data access inside the largest of enterprises — as well as to remote locations inside and outside the enterprise campus walls.



RFS7000 Specifications

Packet Forwarding	
802.1D-1999 Ethernet bridging; 802.11-802.3 bridging; 802.1Q VLAN tagging & trunking; proxy ARP; IP packet steering-redirection	
Wireless Networking	
Wireless LAN:	Supports 250 WLANs; multi-ESS/BSSID traffic segmentation; VLAN to ESSID mapping; Auto Assignment of VLANs (on RADIUS authentication); Power Save Protocol Polling; pre-emptive roaming; VLAN Pooling
Bandwidth management:	Congestion control per WLAN; per user based on user count or bandwidth utilization
Access ports:	Supports 1-256 "thin" access ports; automatic access port adoption with ACLs; access port load balancing; direct sequence access point-to-access port conversion
Adaptive AP:	Supports 1-256 adoption of the Independent Motorola AP51X1 Access Point in Adaptive Mode for remote site and branch office solutions
Layer 2 or Layer 3 deployment of Access Ports	
Layer 3 Mobility (Inter-Subnet Roaming)	
Supported access ports and access points:	AP300 (802.11a/b/g); L2 and L3 deployments with static IP support; AP51X1 – Adaptive AP mode
Radio frequency automatic channel select (ACS) Transmit power control management: (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/Access Control Lists (ACLs):	L2/3/4 stateful packet analysis; network address translation (NAT)
Authentication:	Access Control Lists (ACLs); pre-shared keys (PSK); 802.1x/EAP—transport layer security (TLS), tunneled transport layer security (TTLS), protected EAP (PEAP); Kerberos Integrated AAA/RADIUS Server with native support for EAP-TTLS and EAP-PEAP (includes a built in user name/password database; supports LDAP)
Transport encryption:	WEP 40/128 (RC4), KeyGuard, WPA—TKIP, WPA2-CCMP (AES), WPA2-TKIP
IPSec VPN gateway :	Supports DES, 3DES and AES encryption
Secure Guest Access (HotSpot Provisioning)	Local Web Based Authentication; URL Redirection for User Login; Customizable Login/Welcome Pages; Support for external Authentication/Billing Systems
RADIUS Support (Standard and Motorola Vendor Specific Attributes):	<ul style="list-style-type: none"> • User Based VLANs (Standard) • MAC Based Authentication (Standard) • User Based QoS (Motorola VSA) • Location Based Authentication (Motorola VSA) • Allowed ESSIDs (Motorola VSA)
NAC support with third party systems from Microsoft and Sygate	
Locationing	
RSSI based triangulation for Wi-Fi assets	
Tags supported:	Ekahau, Aeroscout, Newbury, Gen 2 Tags
RFID support:	Compliant with LLRP protocol. Built-in support for the following Motorola RFID readers: fixed (XR440, XR450, XR480); mobile (RD5000); and handheld (MC9090-G RFID)

Optimized Wireless QoS	
RF priority:	802.11 traffic prioritization and precedence
Wi-Fi multimedia extensions:	WMM-power save with Admission Control
Classification and marking:	Layer 1-4 packet classification; 802.1p VLAN priority; DiffServ/TOS
System Resiliency & Redundancy	
Active:Standby; Active:Active and 1:Many redundancy with access port and MU load balancing; self healing (on detection of RF interference or loss of RF coverage); critical resource monitoring	
Management	
Command line interface (serial, telnet, SSH); secure Web-based GUI (SSL); SNMP v1/v2/v3; SNMP traps—40+ user configurable options; Syslog; TFTP Client; secure network time protocol (SNTP); text-based switch configuration files; DHCP (client/server/relay), switch auto-configuration and firmware updates with DHCP options; multiple user roles (for switch access); Syslog, MIBs (MIB-II, Etherstats, wireless switch specific monitoring and configuration)	
Physical Characteristics	
Form factor:	1U Rack Mount
Dimensions:	1.75 in. H x 17.32 in. W x 15.39 in. D 44.45mm H x 440mm W x 390.8mm D
Weight:	13.5lbs / 6.12kg
Physical interfaces:	4 10/100/1000 Cu/SFP Ethernet interfaces, 1 10/100 OOB port, 1 CF card slot, 2 USB slots, 1 serial port (RJ45 style)
MTBF:	>65,000 Hours
Power Requirements	
AC input voltage:	90 – 264 VAC 50/60Hz
Max AC input current:	6A@115 VAC, 3A@230 VAC
Input frequency:	47 Hz to 63 Hz
User Environment	
Operating temperature:	0°C to 40°C
Storage temperature:	-40°C to 70°C
Operating humidity:	5% to 85% (w/o condensation)
Storage humidity:	5% to 85% (w/o condensation)
Regulatory	
Product Safety:	UL / cUL 60950-1, IEC / EN60950-1
EMC Compliance:	FCC (USA), Industry Canada, CE (Europe), VCCI (Japan), C-Tick (Australia/New Zealand)
Part Numbers	
RFS-7010-100R0-WR:	Zero Port Wireless Switch
RFS-7010-10030-WR:	64 Port Wireless Switch
RFS-7010-10010-WR:	128 Port Wireless Switch
RFS-7010-10020-WR:	256 Port Wireless Switch
RFS-7010-UC-16-WR:	16 Port Upgrade License Certificate



Clustering and failover features

Supports multiple levels of redundancy and failover capabilities to ensure network availability

True mobility

Virtual AP provides better control of broadcast traffic and enables multiple mobile and wireless applications with quality of service when network is congested; Pre-emptive Roaming ensures Motorola mobile devices roam before signal quality degrades; Power Save Protocol optimizes battery life; Self-healing provides continuous network coverage in the event of loss or disruption of RF coverage

Quality of Service (QoS)

Enhances voice and video capabilities; prioritizes network traffic to minimize latency and provide optimal responsiveness to all users; Wi-Fi Multimedia Extensions (WMM-Power Save with Admission Control) enhances multimedia application support and improves battery life and capacity; and MU- rate-limiting and MU-load balancing provide granular control and management of bandwidth at the mobile device level

SPECIFICATION SHEET

RFS7000

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