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.

Converged 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.

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.

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

#### Wireless Networking
- **Wireless LAN:** Support for 802.11a/b/g/n/ac, multi-ESS/BSSID traffic segmentation; VLAN to ESSID mapping; Auto Assignment of VLANs (on RADIUS authentication); Power Save Protocol Polling; preemptive roaming; VLAN Pooling.
- **Network Security:** Supports 250 VLANs; multi-ESS/BSSID traffic segmentation; VLAN to ESSID mapping; Auto Assignment of VLANs (on RADIUS authentication); Power Save Protocol Polling; preemptive roaming; VLAN Pooling.
- **Bandwidth management:** Supports VLAN control per VLAN; 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 (800 11a/b/g); L2 and L3 deployments with static IP support; AP51X1 – Adaptive AP mode.
- **Radio frequency automatic channel select (ACS):** Transmits power control management (TPC).
- **Country code-based RF configuration:** 802.11g – 3 non-overlapping channels (ready).
- **Transmit power control management:** (TPC).
- **Radio frequency automatic channel select (ACS):** Transmits power control management (TPC).
- **Country code-based RF configuration:** 802.11b – 3 non-overlapping channels.
- **Transmit power control management:** (TPC).
- **Radio frequency automatic channel select (ACS):** Transmits power control management (TPC).
- **Country code-based RF configuration:** 802.11a – 3 non-overlapping channels (ready).
- **Transmit power control management:** (TPC).
- **Radio frequency automatic channel select (ACS):** Transmits power control management (TPC).
- **Country code-based RF configuration:** 802.11g – 3 non-overlapping channels (ready).

#### Network Security
- **Packet Forwarding/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), tunnelled 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:** 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): •User Based VLANs (Standard); •MAC Based Authentication (Standard); •User Based QoS (Motorola VSA); •Location Based Authentication (Motorola VSA); •Allowed ESSID IDs (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 (MC3600-G RFID).
- **Optimized Wireless QoS:**
  - **RF priority:** 802.11 traffic prioritization and precedence.
  - **Wi-Fi multimedia extensions:** WMM-power save with Admission Control.
  - **Classification:** Layer 1-4 packet classification; 802.1p VLAN priority; DiffServ/TOS.
- **System Resiliency & Redundancy:**
  - **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/serve/relay), switch auto-configuration and firmware updates with DHCP options; multiple user roles (for switch access), Syslog, MIBs (MB-II, Ethetrens, wireless switch specific monitoring and configuration).
- **Physical Characteristics:**
  - **Form factor:** 1U Rack Mount.
  - **Dimensions:** 47.5 mm H x 440 mm W x 390.8 mm D.
  - **Weight:** 4.5 kg (9.9 lbs).
  - **Physical interfaces:** 4 RJ45 ports (10/100/1000 Mbps), 2 SFP ports (1000 Mbps), 2 USB slots (USB 2.0), 1 serial port (RS-422/485), 1 CF card slot, 2 USB slots (USB 2.0), 1 serial port (RS-422/485).
  - **MTBF:** >65,000 Hours.
- **Power Requirements:**
  - **AC input voltage:** 90 – 264 VAC, 50/60 Hz.
  - **Max AC input current:** 6A@115 VAC, 3A@230 VAC.
  - **Input frequency:** 50 / 60 Hz.
  - **Storage humidity:** 5% to 85% (w/o condensation).
  - **Operating humidity:** 5% to 85% (w/o condensation).
  - **Storage temperature:** -40°C to 70°C.
  - **Operating temperature:** 0°C to 40°C.

#### 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-7010-10020-WR:** 16 Port Upgrade License Certificate.

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### 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.

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SPECIFICATION SHEET

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