# WIRELESS LAN SOLUTIONS

**AT-A-GLANCE** 







## GET THE LESS COMPLEX AND LESS EXPENSIVE WIRELESS LAN THAT GIVES YOU MORE.

When you choose Motorola you get a network that is more intelligent, more reliable, more secure and more manageable, with a reduction in infrastructure requirements and operational costs. You simply have less equipment to purchase and less equipment to manage.

#### **MORE INTELLIGENCE**

Motorola delivers a truly intelligent WLAN. With our new distributed architecture, every point in your network — every single access point and controller — is completely network aware, automatically choosing the best possible route for all wireless traffic. Network performance and the user experience are preserved — regardless of whether users are making VoWLAN calls, accessing back-end business applications or the Internet or using streaming video to watch a training presentation.

#### **UNMATCHED RELIABILITY**

You count on your wireless network to keep your business up and running — so we loaded our WLAN infrastructure with features that provide a wireless connection that is every bit as dependable as your wired connections. Our access points adapt to the ever-changing RF environment, able to identify and automatically correct network issues before they impact network performance — without administrator intervention.

#### **UNMATCHED SECURITY**

Our hardware and software security solutions work together to create a fortress around your wireless network, protecting the wired and wireless network and your data from unauthorized access. The Layer 2 firewall on our access points adds an extra layer of protection as your data travels from sender to recipient. And since our WLANs automatically detect and respond instantly to any wireless threat — from rogue devices to network vulnerabilities — security has never been easier nor compliance with government regulations more cost-effective, from HIPAA to PCI.

#### **UNMATCHED MANAGEABILITY**

While the self-healing capabilities of Motorola's adaptive wireless networks automatically spot and address many network problems before they impact service quality, other network issues do require human intervention to troubleshoot and resolve. Motorola's AirDefense Network Assurance solution allows IT to proactively and remotely optimize, identify and resolve network issues — often eliminating the need to dispatch a technician to the site. The result? Network availability and reliability with minimal management effort and cost.

## GET MORE OUT OF YOUR MOTOROLA MOBILE COMPUTERS

Our WLANs work hand-in-hand with our mobile computers to provide your users with a superior wireless experience. Fast roaming keeps users connected as they move throughout your facility. And since our WLANs prevent the delivery of irrelevant traffic to our mobile computers, the resulting reduction in processing requirements extends battery life and improves device performance.

#### LOW TOTAL COST OF OWNERSHIP (TCO)

Our WLANs are designed to minimize infrastructure requirements and management time, lowering the overall cost of purchasing and managing your WLAN. With higher power and receiver sensitivity, fewer access points can now cover the same area. Since traffic no longer travels primarily through our controllers, fewer controllers are required, further reducing hardware, rack space, power requirements and their associated costs. In addition, we give you more license-free native features, from RADIUS servers and firewalls to wireless IPS, VPN gateways and built-in support for Wi-Fi and RFID locationing. No need to purchase additional equipment that must be integrated into your network and managed separately, further reducing capital and operational network costs.

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## THE MOTOROLA WLAN PORTFOLIO

Motorola's comprehensive integrated portfolio of wireless products meets virtually any wireless networking need. Unlike typical point solutions, our WLAN product line offers everything required to create, install and easily manage an end-to-end wireless enterprise. And our entire portfolio offers the proven interoperability, simplifying and reducing the cost of your mobility deployments — from our access points and controllers to mesh, point-to-point and point-to multipoint bridges, wireless IPS and Voice-over-WLAN solutions.



#### EVERYTHING YOU NEED — HARDWARE, SOFTWARE, SERVICES AND A WORLD OF EXPERTISE

#### **WIRELESS CONTROLLERS**

Our controllers deliver the most features for one price, including wireless network control, scalability, security, and reliability. The result is a flexible, cost-effective wireless solution that meets the needs of any size organization — from small offices to the largest distributed global enterprises.

## INDOOR AND OUTDOOR WIRELESS ACCESS POINTS

No matter where you need wireless connectivity, we have an access point ready to do the job — from indoor carpeted spaces to dusty warehouses and even outdoors in campus-style environments. Our access points can operate in standalone or adopted modes, providing maximum networking flexibility. With our powerful adaptive technology, Motorola wireless controllers can adopt Motorola access points, providing the best of both worlds — the ease of centralized and remote management as well as the ability to deliver uninterrupted wireless service in the event of a WAN link outage.

## A POWERFUL WIRELESS NETWORK MANAGEMENT TOOLKIT

We offer all the tools required to better plan and manage every aspect of your WLAN. LANPlanner is a powerful WLAN planning tool that allows you to easily architect a high-performance and highly-reliable WLAN. Motorola's AirDefense Services Platform (ADSP) provides a suite of tools that allows you to easily monitor, manage and secure all your WLAN infrastructure — including Motorola and non-Motorola equipment.

#### **WORLD-CLASS SERVICE AND SUPPORT**

Our engineers have installed WLANs in practically every industry and in businesses of all sizes. Our comprehensive services allow you to put this vast storehouse of experience to work for you. We can help you with any aspect of your WLAN implementation — from planning and integration to post-deployment support.

## WIRELESS CONTROLLERS (continued)





|   | NX 9000 Integrated Services Controller   | RFS 4000 Integrated Services Controller   |
|---|--|---|
|   | •  | -   |
| Product Overview  | The NX 9000 NOC Controller can centrally control networks of 1,000 to 10,000 WLAN access points, geographically dispersed over many small or medium-sized enterprise locations. Clusters of up to 24 WiNG 5 access points intelligently handle traffic flows, QoS, mobility and security at remotely distributed locations, while the NX 9000 provides a single point for configuration, policy setting and remote troubleshooting. Hotspot configuration, security policy management, statistics aggregation and DHCP/Radius/FTP services are all done by one powerful NOC controller. This efficient WLAN architecture makes controlling the network easier, reducing the hardware OPEX needed to support large networks.                  | The Motorola RFS 4000 802.11n wireless services controller features Motorola's next generation Wi-NG operating system and integrates wired, wireless and security networking features into a compact and easy-to-use form factor, enabling organizations to create survivable branch networks using a single platform. The RFS 4000 is also available with an integrated dual radio dual band 802.11n access point that features extensive coverage and performance — meeting all the needs of SME/SMB. |
| General Characteristics                                 | Centralized control for Distributed WLAN networks Easily grow the wireless network across multiple geographic locations, scaling to 10,000 WiNG 5 network access points. Fast and easy deploymentRapidly deploy and configure multiple distributed locations automatically using auto provisioning policies, with zero pre-staging on the access points.  Multi-level network resiliency Your network is assured high availability and redundancy with 1:1 failover.  Comprehensive troubleshooting and visualizations Remotely debug problems, use packet capture and aggregated statistics/ system logs to quickly pinpoint issues, and use heat maps and client visualizations to get a complete picture of the health of the RF network. | Supports up to 36 802.11a/b/g/n access points per controller     Supports 24 WLANs with 500 users per controller     Redundancy: Active:Standby; Active:Active and N+1 redundancy with access point and MU load balancing; Critical resource monitoring     5 POE Plus (802.3at) switch ports,1 Express Card, 1 USB     Supports PCI,HIPAA, and SOX right out of the box  |
| Gap-free Security                                       |  |   |
| 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, EAP-PEAP (includes a built in user name/password database; supports LDAP), and EAP-SIM  |   |
| Encryption  | WEP 40/128 (RC4), KeyGuard, WPA—   | -tkip, wpa2-ccmp (AES), wpa2-tkip   |
| IDS/IPS   | Multi-mode rogue AP detection, rogue AP containment, 802.11n rogue detection, ad-hoc network detection, Denial of Service protection against wireless attacks, client blacklisting, EAP Flood, Fake AP Flood, ID theft, ad-hoc advertising authorized SSID   |   |
| Guest Access  | Time of day, and day of week access with guest role policies as well as "free zone" access   |   |
| 24x7 Monitoring for Premium Security                    | Secure guest access on AP 300 *, AP 621, AP 650, AP 6511, AP 6521, AP 650, AP 5131*, AP 5181*, AP 6532 and AP 7131   |   |
| IPSec VPN   | Supports DES, 3DES and AES-128 and AES-256 encryption, with site-to-site and client-to-site VPN capabilities   |   |
| NAC Support   | NAC support with third party systems from Microsoft®, Symantec®, Bradford, Infoexpress, Forescout, and Packetfence   |   |
| Role-based Wired/Wireless Firewall                      | Role-based wired/wireless firewall with stateful inspection for wired and wireless traffic protects against IP spoofing and ARP cache poisoning  |   |
| Geofencing  | Control or limit network or application  | access base on a user and their location  |
| Motorola Value Adds                                     | Pre-emptive roaming; fast roaming with opportunistic channel scan; load bala   | ancing; Power Save Polling (PSP); Virtual AP and location-based access control  |
| Unmatched Reliability                                   |  |   |
| QoS   | Voice prioritization; wireless bandwidth management and user band  | dwidth contracts; WMM AC; SpectraLink voice prioritization; SIP CAC   |
| SMART RF  | Self optimizing: dynamically tunes channels and  | power to eliminate RF and spectrum interference   |
| WAN Backhaul  | Support for 3G wireless ca   | rds to backhaul WAN traffic   |
| WiNG 5 AP with Site<br>Survivability and Mesh           | Motorola's adaptive MESH access points (AP51X1* a/b/g and AP 7131 a/b/g/n) can be deployed at remote locations yet centrally managed in the Network Operations Center (NOC) by any of the WiNG controllers. Remote Site Survivability (RSS) mesh access points deliver secure uninterrupted wireless service — providing unparalleled resiliency to survive a WAN link outage, with advanced RF and Networking Services with WiNG v5.  |   |
| Built-in Dual Radio Dual Band<br>802.11n Access Point . |  | Cost effective high performance .11n network with wired/wireless convergence as well as Mesh, 3G WAN and Guest Access Capabilities  |
| SMART BAND Control                                      | Allows for load balancing of clients between bands, and betwe  | een channels in the congested bands for optimal RF Performance  |
| Best Return on Investment (ROI) — and L                 | owest Total Cost of Ownership (TCO)  |   |
| Integrated Network Services                             | PoE switching, AAA server, DHCP server, NAT, wired and wireless firewall,  | intrusion and rogue protection, and VPN — all built-in at no additional cost  |
| Ease of Installation                                    | Plug-and-play deployments for L2 and L3 saves  | installation time and ongoing maintenance costs   |
| Services  |  |   |
| Warranty  | Hardware — 1 Year;   | Software — 90 days  |
| Recommended Services                                    | Service from the Start Advance Exchange Support  | t; Wireless Infrastructure Device Software Support  |

## **WIRELESS CONTROLLERS**





|   | RFS 7000 Wireless Services Controller  | RFS 6000 Wireless Services Controller   |
|---|--|---|
| Product Overview                              | The RFS 7000 delivers unmatched performance, security, resiliency, scalability and manageability for the large wireless enterprise/campus/warehouse, providing a single platform capable of delivering carrier-grade wireless voice and data for 16,000 users. A FIPS 140-2 certified version of this product is also available (RFS7000-GR)*. | The RFS 6000 provides a single platform capable of delivering carrier-grade wireless voice and data inside and outside the enterprise for medium to large organizations with 4,000 users.                                 |
| General Characteristics                       | Supports up to 1,024 802.11a/b/g/n access points per controller     Supports up to 256 WLANs     PCI/HIPAA/S0X capable out-of-the-box WiNG 5     Distrubuted Architecture  | Supports up to 256 802.11a/b/g/n access points per controller     Supports up to 32 WLANs     ExpressCard™ slot for redundant broadband wireless connection & PoE+ Switching     PCI/HIPAA/SOX capable out-of-the-box     |
| Gap-free Security                             |  |   |
| Authentication                                | Access Control Lists (ACLS); pre-shared keys (PSK); 802.1x/EAP—transport layer security (TLS), tunneled transport layer security (TTLS), protected EAP (PEAP); Integrated AAA/RADIUS server with native support for EAP-TTLS, EAP-PEAP (includes a built in user name/password database; supports LDAP) and EAP-SIM**                          |   |
| Encryption                                    | WEP 40M28 (RC4); KeyGuard; WPA-TI  | KIP; WPA2-CCMP (AES); 802.11i WPA2  |
| Guest Access                                  | Secure guest access on all APs   |   |
| 24x7 Monitoring for Premium Security          | Supported on the AP 300, AP 621, AP 650, AP 6511, AP 6521, AP 5131**, AP 5181**, AP 6532 and AP 7131   |   |
| IPSec VPN                                     | Supports DES, 3DES, AES-128 and AES-256 encryption; supports site-to-site and client-to-site VPN capabilities  |   |
| NAC Support                                   | NAC support with third party systems from Microsoft®, Symantec®, Bradford, Infoexpress, Forescout, and Packetfence   |   |
| Role-based Wired/Wireless Firewall            | Identity based stateful L2-L7 firewall provides protection against DHCP spoofing and ARP cache poisoning   |   |
| Geofencing                                    | Location based access provides physical security as an additional parameter to network security  |   |
| Motorola Value Adds                           | Pre-emptive roaming; fast roaming with opportunistic channel scan; load balancing; Power Save Polling (PSP); virtual AP and location-based access control  |   |
| Unmatched Reliability                         |  |   |
| QoS   | Voice prioritization; wireless bandwidth management and user band  | width contracts; WMM AC; SpectraLink voice prioritization; SIP CAC  |
| High Availability Networks and Clustering     |  | bility networks with single console management that provides multiple levels<br>e license sharing enables HA deployment of cost-effective networks.   |
| SMART RF                                      | Self optimizing: dynamically tunes channels and  | power to eliminate RF and spectrum interference   |
| WAN Backhaul                                  |  | 3G cellular backhaul for primary access or failover   |
| WiNG 5 AP with Site<br>Survivability and Mesh | Network Operations Center (NOC) by any of the WiNG controllers. Remot  | a/b/g/n) can be deployed at remote locations yet centrally managed in the se Site Survivability (RSS) mesh access points deliver secure uninterrupted link outage, with advanced RF and Networking Services with WiNG v5. |
| Best Return on Investment (ROI) — and L       | owest Total Cost of Ownership (TCO)  |   |
| Integrated Network Services                   | PoE switching***, AAA server, DHCP server, Advanced Wirele   | ess Intrusion Protection, VPN, NAT, wired and wireless firewall   |
| Ease of Installation                          | Plug-and-play deployments with NO pre-staging  | installation time and ongoing maintenance costs   |
| SMART License Sharing                         | Clustering capabilities allow for virtual license sharing among  | controllers to provide highly scalable high availability networks   |
| Services                                      |  |   |
| Warranty                                      | Hardware — 1 Year;   | Software — 90 days  |
| Recommended Services                          | Service from the Start Advance Exchange Support  | t; Wireless Infrastructure Device Software Support  |

<sup>\*</sup> RFS 7000 FIPS 140-2 specifications; \*\* Available in WI-NG v4.x ; \*\*\* RFS 7000 does not have POE switch ports

## **ACCESS POINTS**





|   | AP 5131 Access Point   | AP 5181 Outdoor Access Point   |  |  |
|---|--|--|--|--|
| Product Overview                                      | The AP 5131 802.11a/b/g adaptive access point offers enterprise-class wired and wireless networking and security features for small to medium businesses and enterprise small branch office locations. The 24x7 dual-band WIPS sensing and mesh networking combine to deliver gap-free security and the cost-effective extension of the corporate network in difficult-to-cable areas. | Motorola's AP 5181 outdoor 802.11a/b/g adaptive access point delivers enterprise class access wireless networking in harsh environments. Support of MESH networking enables rapid and inexpensive deployment in difficult-to-cable areas   |  |  |
| General Specifications                                | 802.11a/b/g; DSSS and OFDM     Dual and single radio options     802.3af Power-over-Ethernet (PoE)     Mesh networking     Adaptive AP support (enables adoption of Motorola adaptive access points)     Plenum-rated housing     Up to 127 devices supported     -4°F to 122°F/-20°C to 50°C     Desktop; wall; above drop and under-ceiling     Standalone, dependent or adaptive    | 802.11a/b/g; DSSS and OFDM     Dual and single radio options     802.3af Power-over-Ethernet (PoE)     Mesh networking     Adaptive AP support (enables adoption of Motorola adaptive access points)     Plenum-rated housing; IP56; NEMA 4X     Up to 127 devices supported     -22°F to 131°F/-30°C to 55°C     Mounts on wall or pole |  |  |
| Gap-free Security                                     |  |  |  |  |
| 24x7 Wireless IPS Sensing                             | Supports gap-free detection and security with 24x7 of  | dual band WIPS sensing and concurrent client access  |  |  |
| Authentication  | Pre-shared keys (PSK); 802.1x/EAP - transport layer security (TLS  | S); tunneled transport layer security (TTLS); protected EAP (PEAP)   |  |  |
| Encryption  | WEP 40M28 (RC4); WPA-TKIP; WPA2-CCMP (AES); 802.11i WPA2   |  |  |  |
| Guest Access  | Secure guest access with onboard or external RADIUS authentication   |  |  |  |
| IPSec VPN   | Supports DES, 3DES, AES-128 and AES-256 encryption; supports site-to-site VPN capabilities   |  |  |  |
| Stateful Firewall                                     | Stateful packet filtering wireless firewall; Access Control Lists  |  |  |  |
| PCI   | Out-of-the-box PCI capable   |  |  |  |
| Unmatched Reliability                                 | Unmatched Reliability  |  |  |  |
| Failover Adaptive Network<br>Services at the Edge     | Layer 3 routing; 802.10 VLAN trunking and tagging; AAA Server; DHCP services; Dyn DNS; PPPoE   |  |  |  |
| QoS   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS   |  |  |  |
| Mesh Networking                                       | Stand-alone MESH; Adaptive MESH; self-healing MESH failover; Layer 2 wired MESH failover   |  |  |  |
| Adaptive AP with Site Survivability                   | Full featured Access Point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge   |  |  |  |
| WAN Connectivity/Failover                             | Dual Gigabit Ethernet for LAN/WAN o  | connectivity and WAN failover options  |  |  |
| 3G WAN Backhaul                                       | N,   | /A   |  |  |
| Best Return on Investment (ROI) — and                 | Lowest Total Cost of Ownership (TCO)   |  |  |  |
| Integrated Network Services w/<br>Network-in-a-Box    | Routing, security and network services integration eliminates p  | oint products and appliances, saving significant capex and opex  |  |  |
| 802.3af Dual Radio High Performance                   | Eliminates costly upgrad   | des to PoE infrastructure  |  |  |
| Mesh Networking                                       | Eliminates expensive PoE infrastructure in greenfield of   | Eliminates expensive PoE infrastructure in greenfield deployments and cost of cabling in hard-to-cable areas   |  |  |
| Easy to Provision and Deploy                          | Takes up to 75% less time to configure that<br>market, reducing deploymen  | n comparable enterprise AP offerings in the<br>t and management overhead   |  |  |
| Single Platform with Adaptive ID for all environments | for all environments (carpeted or rugged) and all scenarios (campus, edge, remote  | des one platform with a single firmware to manage<br>deployments in standalone or adaptive mode), reducing complexity and overhead<br>oyment   |  |  |
| Services  |  |  |  |  |
| Warranty  | Hardware — 1 Year;   | Software — 90 days   |  |  |
| Recommended Services                                  |  | ; Wireless Infrastructure Device Software Support  |  |  |





|   | AP 650 Access Point  | AP 621 Access Point  |
|---|--|--|
| Product Overview                                      | The AP 650 is a thin (dependent) multipurpose802.11a/b/g/n access point designed to lower thecost of deploying and operating a secure, reliable 802.11n wireless LAN (WLAN) in branch offices or headquarters facilities. Either of the two radios can be used as a sensor for dual-band security or network troubleshooting, either fixed or repurposed in real time. | The AP 621 is a thin (dependent) multipurpose access point designed to lower the cost of deploying and operating a secure, reliable 802.11n wireless LAN (WLAN) in branch offices or headquarters facilities. The access point features a MIMO radio, superior receive and transmit sensitivity, and a GigE WAN uplink port. The AP 621 is easily managed remotely by a Motorola RFS 7000 or other wireless controllers. The embedded WiNG 5 intelligence ensures that traffic is locally forwarded along the most efficient paths without sacrificing quality of service and security implemented at the access point itself. |
| General Specifications                                | 802.11a/b/g/n; DSSS and OFDM     Dual or single radio options     802.3af Power-over-Ethernet (PoE)     Plenum-rated housing option     32°F to 122° F/0°C to 50° C     Wall, above drop and under-ceiling     Powerful 24 dBm radios     Use any radio as dual-band sensor     Dual-band (band unlocked) radios for concurrent 2.4 and 5.0 gHz sensing                | 802.11a/b/g/n; DSSS and OFDM     Dual-band single radio option     802.3af Power-over-Ethernet (PoE)     Plenum-rated housing option     32°F to 104° F/0°C to 40° C     Wall, above drop and under-ceiling     Powerful 24 dBm radios     Dual-band (band unlocked) radio for concurrent 2.4 and 5.0 gHz sensing  |
| Gap-free Security                                     |  |  |
| 24x7 Wireless IPS Sensing                             |  |  |
| Authentication  |  |  |
| Encryption  |  |  |
| Guest Access  | Supports gap-free security with RFS 4000, RFS 6000 and RFS 7000 Wireless Controllers, and NX 9000 Integrated Services Controller, including 24x7 dedicated WIPS sensor   |  |
| IPSec VPN   |  |  |
| Stateful Firewall                                     |  |  |
| PCI   |  |  |
| Unmatched Reliability                                 |  |  |
| Failover Adaptive Network Services at the Edge        |  |  |
| QoS   |  |  |
| Mesh Networking                                       | Supports unmatched reliability in dependent access point mode in conjunction with RFS 4000, RFS6000 and RFS7000, and NX 9000 Integrated Services Controller; does not offer stand-alone or adaptive network services   |  |
| Adaptive AP with Site Survivability                   | •  | ·  |
| WAN Connectivity/Failover                             |  |  |
| 3G WAN Backhaul                                       |  |  |
| Best Return on Investment (ROI) — and                 | Lowest Total Cost of Ownership (TCO)   |  |
| Integrated Network Services w/<br>Network-in-a-Box    |  |  |
| 802.3af Dual Radio High Performance                   |  |  |
| Mesh Networking                                       | Low tot  | al cost of ownership   |
| Easy to Provision and Deploy                          |  |  |
| Single Platform with Adaptive ID for all environments |  |  |
| Services  |  |  |
| Warranty  | Hardware — Lifetime; Software — 90 days  |  |
| Recommended Services                                  | Service from the Start Advance Exchange Support; Wireless Infrastructure Device Software Support   |  |





|  | AP 6521 Access Point   | AP 6532 Access Point   |
|--|--|--|
| Product Overview                                   | The AP 6521 is a multipurpose access point designed to lower the cost of deploying and operating a secure, reliable 802.11n wireless LAN (WLAN) in branch offices or headquarters facilities. The access point features a MIMO radio, superior receive and transmit sensitivity, and a GigE WAN uplink port. The embedded WiNG 5 intelligence ensures that traffic is locally forwarded along the most efficient paths without sacrificing quality of service and security implemented at the access point itself. The AP 6521 can also be used as a sensor for both 2.4 Ghz and 5.0 Ghz frequency bands for multi-band intrusion protection or troubleshooting. | The AP 6532 is a performance-focused 802.11n access point that offers higher throughput along with WiNG 5's direct forwarding, security, QoS services and site survivability. The second radio can be used for access or as a sensor for troubleshooting and security. With it's WiNG 5 intelligence, this access point can serve as a virtual controller and coordinate the operation of up to 23 neighboring access points.  |
| General Specifications                             | 802.11a/b/g/n; DSSS and OFDM     Dual-band single radio option     802.3af Power over Ethernet (PoE)     MESH networking     Adaptive AP support (enables adoption of Motorola adaptive access points)     Plenum-rated housing option     Up to 127 devices supported     32°F to 104° F/0°C to 40° C     Wall; above drop and under-ceiling     Dual-band (band unlocked) radio for 2.4 and 5.0 gHz sensing     Powerful 24 dBm radios   | 802.11a/b/g/n; DSSS and 0FDM     Dual radio     802.3af Power over Ethernet (PoE)     MESH networking     Adaptive AP support (enables adoption of Motorola adaptive access points     Plenum-rated housing option     Up to 127 devices supported     32°F to 122° F/0°C to 50° C     Wall; above drop and under-ceiling     Use either radio as dual-band sensor     Dual-band (band unlocked) radios for concurrent 2.4 and 5.0 gHz sensing     Powerful 24dBm radios |
| Gap-free Security                                  |  |  |
| 24x7 Wireless IPS Sensing                          | Supports gap-free detection and security with 24x7 dual band WIPS sensing when used as a sensor  | Supports gap-free detection and security with 24x7 dual band WIPS sensing and concurrent client access   |
| Authentication                                     | Pre-shared keys (PSK); 802.1x/EAP – transport layer security (TLS); tunneled transport layer security (TTLS); protected EAP (PEAP)   | Pre-shared keys (PSK); 802.1x/EAP — transport layer security (TLS); tunneled transport layer security (TTLS); protected EAP (PEAP)   |
| Encryption   | WEP 40M28 (RC4); WPA-TKIP; WPA2-CCMP (AES); 802.11i WPA2   | WEP 40M28 (RC4); WPA-TKIP; WPA2-CCMP (AES); 802.11i WPA2   |
| Guest Access                                       | Secure Guest Access with onboard or external RADIUS authentication   | Secure Guest Access with onboard or external RADIUS authentication   |
| IPSec VPN  | Supports DES, 3DES, AES-128 and AES-256 encryptions; supports site-to-site VPN capabilities  | Supports DES, 3DES, AES-128 and AES-256 encryption; supports site-to-site VPN capabilities   |
| Stateful Firewall                                  | Stateful Layer 3 packet inspection; Stateful L2-L7 wireless firewall available in Adaptive AP mode with Wi-NG platforms; Access Control Lists  | Stateful Layer 3 packet inspection; Stateful L2-L7 wireless firewall available in<br>Adaptive AP mode with Wi-NG platforms; Access Control Lists   |
| PCI  | Out-of-the-box PCI capable   | Out-of-the-box PCI capable   |
| Unmatched Reliability                              |  |  |
| Failover Adaptive Network<br>Services at the Edge  | Layer 3 routing; 802.1Q VLAN trunking and tagging; AAA Server; DHCP services;<br>Dyn DNS; PPPoE  | Layer 3 routing; 802.1Q VLAN trunking and tagging; AAA Server; DHCP services;<br>Dyn DNS; PPPoE  |
| QoS  | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS   |
| Mesh Networking                                    | Stand-alone MESH; adaptive MESH; self-healing MESH failover; layer 2 wired<br>MESH failover  | Stand-alone MESH; adaptive MESH; self-healing MESH failover; layer 2 wired MESH failover   |
| Adaptive AP with Site Survivability                | Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge   | Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge   |
| Best Return on Investment (ROI) — and              | Lowest Total Cost of Ownership (TCO)   |  |
| Integrated Network Services w/<br>Network-in-a-Box | Routing, security and network services integration eliminates point products and appliances, saving significant capex and opex   | Routing, security and network services integration eliminates point products and appliances, saving significant capex and opex   |
| 802.3af Dual Radio High Performance                | Eliminates costly upgrades to PoE infrastructure   | Eliminates costly upgrades to PoE infrastructure   |
| Mesh Networking                                    | Eliminates expensive PoE infrastructure in greenfield deployments and cost of cabling in hard-to-cable areas   | Eliminates expensive PoE infrastructure in greenfield deployments and cost of cabling in hard-to-cable areas   |
| Easy to Provision and Deploy                       | Takes up to 75% less time to configure than comparable enterprise AP offerings in the market, reducing deployment and management overhead  | Takes up to 75% less time to configure than comparable enterprise AP offerings in the market, reducing deployment and management overhead  |
| Services   |  |  |
| Warranty   | Hardware — Lifetime; Software — 90 days  | Hardware — Lifetime; Software — 90 days  |
| Recommended Services                               | Service from the Start Advance Exchange Support; Wireless Infrastructure Device Software Support   | Service from the Start Advance Exchange Support; Wireless Infrastructure Device<br>Software Support  |
|  |  |  |



|   | AP 7131 Adaptive Access Point  |  |  |
|---|--|--|--|
| Product Overview                                      | The AP 7131 is the industry's first high performance 802.11a/b/g/n adaptive access point that cost- effectively delivers secure and resilient network services and enables high performance mobility applications in a wireless enterprise. The AP 7131 in a stand-alone or switch-managed adaptive mode provides 24x7 dedicated dual-band wireless IPS sensing, high speed client access for data, voice and video and mesh networking. This integrated network-in-a-box delivers gap-free security services, unmatched reliability and high performance at the industry's lowest TCO. The AP 7131 is the only tri-radio solution that provides dual-band client access and wireless IPS sensing; all at the same time. In addition, the only 11n access point in the market that can provide WAN backhaul over 3G. |  |  |
| General Specifications                                | <ul> <li>802.11a/b/g/n; DSSS and 0FDM</li> <li>Tri, dual and single radio options</li> <li>802.3af and 802.3at Power over Ethernet (PoE)</li> <li>3G WAN backhaul option</li> <li>MESH networking</li> <li>Adaptive AP support (enables adoption of Motorola adaptive access points)</li> <li>Plenum-rated housing option</li> <li>Up to 127 devices supported</li> <li>-4°F to 12°F/-20°C to 50°C</li> <li>Wall; above drop and under-ceiling mounting options</li> <li>Use any radio as dual-band sensor (put it under the Tri, dual, or single radio options)</li> <li>Dual-band (band unlocked) radios for concurrent 2.4 and 5.0 gHz sensing</li> <li>Powerful 27.7dBm radios</li> <li>Standalone, dependent or adaptive</li> </ul>   |  |  |
| Gap-free Security                                     |  |  |  |
| 24x7 Wireless IPS Sensing                             | Supports gap-free detection and security with 24x7 dual band WIPS sensing and concurrent client access on both bands   |  |  |
| Authentication  | Pre-shared keys (PSK); 802.1x/EAP – transport layer security (TLS); tunneled transport layer security (TTLS); protected EAP (PEAP)   |  |  |
| Encryption  | WEP 40M28 (RC4); WPA-TKIP; WPA2-CCMP (AES); 802.11i WPA2   |  |  |
| Guest Access  | Secure Guest Access with onboard or external RADIUS authentication   |  |  |
| IPSec VPN   | Supports DES, 3DES, AES-128 and AES-256 encryption; supports site-to-site VPN capabilities   |  |  |
| Stateful Firewall                                     | Stateful Layer 3 packet inspection; Stateful L2-L7 wireless firewall available in<br>Adaptive AP mode with Wi-NG platforms; Access Control Lists   |  |  |
| PCI   | Out-of-the-box PCI capable   |  |  |
| Unmatched Reliability                                 | Unmatched Reliability  |  |  |
| Failover Adaptive Network<br>Services at the Edge     | Layer 3 routing; 802.10 VLAN trunking and tagging; AAA Server; DHCP services; Dyn DNS; PPPoE   |  |  |
| QoS   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS   |  |  |
| Mesh Networking                                       | Stand-alone MESH; adaptive MESH; self-healing MESH failover; layer 2 wired MESH failover   |  |  |
| Adaptive AP with Site Survivability                   | Full featured access point for local or remote edge deployments is centrally managed by controller with<br>Remote Site Survivability (RSS) options and full network and security services at the edge  |  |  |
| WAN Connectivity/Failover                             | Dual Gigabit Ethernet for LAN/WAN connectivity and WAN failover options  |  |  |
| 3G WAN Backhaul                                       | 3G backhaul or failover  |  |  |
| Best Return on Investment (ROI) — and                 | Lowest Total Cost of Ownership (TCO)   |  |  |
| Integrated Network Services w/<br>Network-in-a-Box    | Routing, security and network services integration eliminates point products and appliances, saving significant capex and opex   |  |  |
| 802.3af Dual Radio High Performance                   | Eliminates costly upgrades to PoE infrastructure   |  |  |
| Mesh Networking                                       | Eliminates expensive PoE infrastructure in greenfield deployments and cost of cabling in hard-to-cable areas   |  |  |
| Easy to Provision and Deploy                          | Takes up to 75% less time to configure than comparable enterprise AP offerings in the market, reducing deployment and management overhead  |  |  |
| Single Platform with Adaptive ID for all environments | Industrial grade design with adaptive facade provides one platform with a single firmware to manage for all environments (carpeted or rugged) and all scenarios (campus, edge, remote deployments in standalone or adaptive mode), reducing complexity and overhead of deployment  |  |  |
| Services  |  |  |  |
| Warranty  | Hardware — Lifetime; Software — 90 days  |  |  |
| Recommended Services                                  | Service from the Start Advance Exchange Support;<br>Wireless Infrastructure Device Software Support  |  |  |





|   | AP 7161 Access Point  | AP 7181 Mesh Wide Area Network Access Point  |
|---|---|--|
| Product Overview                                      | The AP 7161, delivers ruggedized outdoor performance and the ability to defend your perimeters from intrusion. AP7161 brings together the latest in 802.11n 3x3 MiMO tri-radio design with 24x7 Intrusion protection system AirDefense both in software and dedicated sensor radio support. The AP 7161 has been optimized with the Motorola WiNG 5 platform to provide leading capacity, performance, and design and is ideal for industrial and enterprise campus, video surveillance, public safety, and smartgrid utility deployments.  | The AP 7181 is a high performance Mesh outdoor 802.11n wide area access point. It serves the needs of municipalities, enterprises and public safety, offering superior network capacity with a mesh data rate of 300 Mbps. Motorola's ADEPT (ADvanced Element Panel Technology) antenna system, developed exclusively for the AP 7181, provides an integrated MIMO (Multiple Input, Multiple Output) and software adjustable panel antenna system that features dual polarization and avoids notching and shadowing coverage problems associated with multi-stick solutions. The AP 7181 works with the Motorola WLAN 802.11n access point portfolio to provide seamless indoor/outdoor coverage including roaming and MESH. |
| General Specifications                                | 802.11a/b/g/n OFDM, 802.11b - DSS     Single, dual and tri-radio options     Integrated 802.3af Power Over Ethernet (PoE) out     Mesh networking     IP67 rated, corrosion resistant enclosure     ASTM B117 salt, fog, and rust resistance and wind survivability> 160 mph     Operating: -40°F to 158°F/-40°C to 70°C     Storage: -40°F to 185°F/-40°C to 85°C     Operating Humidity: 5 to 100 % RH non-condensing     Maximum Transmit Power for 802.11b/g/n Radio: 26 dBm EIRP (Transmit power may vary based upon the deployed country.)     Adjustable in 1 dB increments     Maximum Transmit Power for 802.11a/n Radio: 25 dBm EIRP (Transmit power may vary based upon the deployed country.)     Adjustable in 1 dB increments | 802.11a/b/g/n OFDM, 802.11b - DSS     Dual radio     Integrated 802.3af Power Over Ethernet (PoE) out     Mesh networking     IP67 rated, corrosion resistant enclosure     ASTM B117 salt, fog, and rust resistance and wind survivability> 160 mph     Operating: -40°F to 131°F/-40°C to 55°C     Storage: -40°F to 185°F/-40°C to 85°C     Humidity: 5 to 95 % RH non-condensing     Maximum Transmit Power for 802.11b/g/n Radio:     36 dBm EIRP (Transmit power may vary based upon the deployed country.)     Adjustable in 1 dB increments     Maximum Transmit Power for 802.11a/n Radio     32 dBm EIRP (Transmit power may vary based upon the deployed country.)     Adjustable in 1 dB increments              |
| Gap-free Security                                     |   |  |
| Client Security                                       | WPA, WPA2-PSK, WEP, 802.11i, RADIUS, 802.1X (includes EAP-TLS, EAP-TTLS)  | WPA, WPA2-PSK, WEP, 802.11i, RADIUS, 802.1X (includes EAP-TLS, EAP-TTLS)   |
| Encryption  | WEP, AES-CCM, TKIP  | WEP, AES-CCM, TKIP   |
| Intra-Mesh Encryption                                 | Secure Mesh with AES  | Secure Mesh with AES   |
| Authentication  | 802.1x (Infrastructure/Client) and MAC address hardware authentication  | 802.1x (Infrastructure/Client) and MAC address hardware authentication   |
| Unmatched Reliability                                 |   |  |
| Failover Adaptive Network Services at the Edge        | Layer 2 based routing providing greater performance and less overhead   | Layer 2 based routing providing greater performance and less overhead  |
| QoS   | 802.11e QoS   | 802.11e QoS  |
| Mesh Networking                                       | Multi-Radio mesh allows meshing on each radio   | Multi-Radio mesh allows meshing on each radio  |
| Best Path Selection                                   | Automatic neighbor detection and route determination  | Automatic neighbor detection and route determination   |
| Session Resilience                                    | Self-healing enabled by dynamic path selection  | Self-healing enabled by dynamic path selection   |
| Best Return on Investment (ROI) — and                 | Lowest Total Cost of Ownership (TCO)  |  |
| Integrated Network Services w/<br>Network-in-a-Box    |   | The electronic down-tilt can be remotely adjusted up or down 15 degrees via the AP 7181 web console, saving the time and expense required to adjust fixed antenna beam patterns, and secure bucket trucks and technician labor to facilitate antenna replacement.  |
| 802.3af Dual Radio High Performance                   | The AP 7161 has an Integrated Wireless IPS sensor option allowing enterprises   |  |
| Mesh Networking                                       | to deploy the most robust solution while saving money – the cost to purchase,   |  |
| Easy to Provision and Deploy                          | deploy and manage a dedicated sensor is eliminated.   |  |
| Single Platform with Adaptive ID for all environments |   |  |
| Services  |   |  |
| Warranty  | Hardware — 1 Year; Software — 90 days   | Hardware — 1 Year; Software — 90 days  |
| Recommended Services                                  | Service from the Start Advance Exchange Support; Wireless Infrastructure Device Software Support  | Service from the Start Advance Exchange Support; Wireless Infrastructure Device Software Support   |

## **WALLPLATE ACCESS POINTS**





|  | MC 802 Wallplate Access Point  | AP 6511 802.11n Wallplate Access Point   |
|--|--|--|
| Product Overview   | The Motorola MC 802 Wallplate access point is a plug and play wireless 802.11 b/g access point powered over analog telephone wires. The MC 802 enables the fast and easy extension of WLAN coverage to multiple dwelling units (MDU) such as hotels, hospitals, dormitories and barracks where installing Ethernet cabling is difficult and expensive. The MC 802 can be installed over any telephone jack that uses only a single pair of wire for backhaul. The solution includes the T3 PowerBroadBand Switch which provides adaptive line power for up to 25 MC 802 Wallplate access points. | Designed to 'hide in sight', the AP 6511 is a sleek and slim access point that can be installed in minutes over any category 5 or 6 structured wiring plate. It features an 802.11n radio, plus the modularity to easily snap-on three to four additional switched Ethernet ports or use the keystone port to snap-on any standard connector such as RJ11, RJ45, COAX f-connector and more. Designed to meet the wireless and wired needs of multi-dwelling units such as hotels, long-term healthcare, and dormitories. Native controller software enables one AP to provide control for 25 AP 6511s. AP 6511s can be adopted and controlled by a Motorola RFS controller. The AP 6511 packs enterprise wireless features and modular add-ons into a deceptively simple design. |
| General Specifications   | Each MC 802 Wallplate Access Point includes one 802.11b/g radio, two 10/100Mb ports, and one pass-through analog telephone port for POTS (plain old telephone service). Operates up to 1,000 ft (300 m) from the T3 PowerBroadBand Switch over single copper wire pair.     T3 PowerBroadBand is a 25 port Switch with 25 downstream UTP ports and 2 GigE uplink Ethernet ports. Each port provides Motorola's patented Adaptive Line Power (ALP) which delivers operating power to the MC 802 over analog telephone service at line rates up-to 75 Mbps down and 10 Mbps up.                    | 802.11a/b/g/n; DSSS and 0FDM     Single radio (Field select 2.4, 5.0 or dual-band sensor)     802.3af Power-over-Ethernet (PoE)     Single hop mesh (available post Rev-A)     Adaptive AP support (available post Rev-A)     -4°F to 104°F/-20°C to 40°C     Wall plate and wall mount     20dBm radio, 2x2 MIMO     Integrated controller software for 25 AP 6511s   |
| Gap-free Security  |  |  |
| 24x7 Wireless IPS Sensing  |  | Can be adopted for opportunistic sensing or dedicated 24x7 dual-band sensing   |
| Authentication   | Court and the MC 200 Wile Low Well-law through the   | Pre-shared keys (PSK); 802.1x/EAP — transport layer security (TLS); tunneled transport layer security (TTLS); protected EAP (PEAP)   |
| Encryption   | Secure management access to the MC 802 Wireless Wallplate through the<br>T3 PowerBroadband Switch. Port and client isolation is guaranteed by a  | WEP 40M28 (RC4); WPA-TKIP; WPA2-CCMP (AES); 802.11i WPA2   |
| Guest Access   | hierarchical VLAN topology that begins at the MC 802 and continues through the connected T3 PowerBroadband Switch. Security features include ACLs and wireless encryption standards from WEP to WPA2/TKIP/AES Enterprise.  | 802.1x authentication on all wireless and wired interfaces via external RADIUS or Motorola RF Controller   |
| IPSec VPN  | Support for EAP types includes TLS, TTLS, PEAPv0 and MD5.  | Not required   |
| Stateful Firewall  |  | Layer 2 and 3 packet inspection; Access Control Lists  |
| PCI  |  | Not required   |
| Unmatched Reliability  |  |  |
| Failover Adaptive Network<br>Services at the Edge  |  |  |
| Services at the Luge   |  | L3 routing; 802.1Q VLAN trunk and tagging; DHCP server   |
| QoS  |  | L3 routing; 802.10 VLAN trunk and tagging; DHCP server  Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS   |
| -  | An easy to use Web-based management interface combines with continuous   | 30 0   |
| QoS  | An easy to use Web-based management interface combines with continuous<br>RF monitoring, peak performance graphs and a self-healing<br>WLAN for the unmatched reliability required to deliver dependable high<br>network availability.   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS   |
| QoS<br>Mesh Networking   | RF monitoring, peak performance graphs and a self-healing<br>WLAN for the unmatched reliability required to deliver dependable high  | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full  |
| QoS Mesh Networking Adaptive AP with Site Survivability  | RF monitoring, peak performance graphs and a self-healing<br>WLAN for the unmatched reliability required to deliver dependable high  | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  |
| QoS Mesh Networking Adaptive AP with Site Survivability WAN Connectivity/Failover  | RF monitoring, peak performance graphs and a self-healing<br>WLAN for the unmatched reliability required to deliver dependable high<br>network availability.   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  Single 10/100Mb uplink Ethernet port  |
| QoS Mesh Networking Adaptive AP with Site Survivability WAN Connectivity/Failover 3G WAN Backhaul  | RF monitoring, peak performance graphs and a self-healing<br>WLAN for the unmatched reliability required to deliver dependable high<br>network availability.   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  Single 10/100Mb uplink Ethernet port  |
| QoS Mesh Networking Adaptive AP with Site Survivability WAN Connectivity/Failover 3G WAN Backhaul Best Return on Investment (ROI) — and Integrated Network Services w/   | RF monitoring, peak performance graphs and a self-healing WLAN for the unmatched reliability required to deliver dependable high network availability.  Lowest Total Cost of Ownership (TCO)  Each access point installs in minutes without the need for pulling cable or adding POE switch ports. The access points are located inside  | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  Single 10/100Mb uplink Ethernet port  None  Basic routing, security and network services. Connect to RF Controller for  |
| QoS Mesh Networking Adaptive AP with Site Survivability WAN Connectivity/Failover 3G WAN Backhaul Best Return on Investment (ROI) — and Integrated Network Services w/ Network-in-a-Box  | RF monitoring, peak performance graphs and a self-healing WLAN for the unmatched reliability required to deliver dependable high network availability.  Lowest Total Cost of Ownership (TCO)  Each access point installs in minutes without the need for pulling cable or adding POE switch ports. The access points are located inside each MDU room, which avoids the radio frequency thwarting perimeter wall. Coverage is increased without AP-to-AP interference — reducing the   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  Single 10/100Mb uplink Ethernet port  None  Basic routing, security and network services. Connect to RF Controller for additional features and more granular control  |
| QoS Mesh Networking Adaptive AP with Site Survivability WAN Connectivity/Failover 3G WAN Backhaul Best Return on Investment (ROI) — and Integrated Network Services w/ Network-in-a-Box 802.3af Dual Radio High Performance  | RF monitoring, peak performance graphs and a self-healing WLAN for the unmatched reliability required to deliver dependable high network availability.  Lowest Total Cost of Ownership (TCO)  Each access point installs in minutes without the need for pulling cable or adding POE switch ports. The access points are located inside each MDU room, which avoids the radio frequency thwarting perimeter  | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  Single 10/100Mb uplink Ethernet port  None  Basic routing, security and network services. Connect to RF Controller for additional features and more granular control  N/A   |
| QoS Mesh Networking  Adaptive AP with Site Survivability  WAN Connectivity/Failover  3G WAN Backhaul  Best Return on Investment (ROI) — and Integrated Network Services w/ Network-in-a-Box  802.3af Dual Radio High Performance  Mesh Networking                                  | RF monitoring, peak performance graphs and a self-healing WLAN for the unmatched reliability required to deliver dependable high network availability.  Lowest Total Cost of Ownership (TCO)  Each access point installs in minutes without the need for pulling cable or adding POE switch ports. The access points are located inside each MDU room, which avoids the radio frequency thwarting perimeter wall. Coverage is increased without AP-to-AP interference — reducing the   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  Single 10/100Mb uplink Ethernet port  None  Basic routing, security and network services. Connect to RF Controller for additional features and more granular control  N/A  Single hop Mesh  Designed for rapid installation and fast configuration.   |
| OoS  Mesh Networking  Adaptive AP with Site Survivability  WAN Connectivity/Failover  3G WAN Backhaul  Best Return on Investment (ROI) — and I Integrated Network Services w/ Network-in-a-Box  802.3af Dual Radio High Performance  Mesh Networking  Easy to Provision and Deploy | RF monitoring, peak performance graphs and a self-healing WLAN for the unmatched reliability required to deliver dependable high network availability.  Lowest Total Cost of Ownership (TCO)  Each access point installs in minutes without the need for pulling cable or adding POE switch ports. The access points are located inside each MDU room, which avoids the radio frequency thwarting perimeter wall. Coverage is increased without AP-to-AP interference — reducing the   | Voice prioritization; WMM; WMM uAPSD; 802.1p; DiffServ/TOS  Standalone and adaptive Mesh available post Rev-A  Full featured access point for local or remote edge deployments is centrally managed by controller with Remote Site Survivability (RSS) options and full network and security services at the edge; post Rev-A  Single 10/100Mb uplink Ethernet port  None  Basic routing, security and network services. Connect to RF Controller for additional features and more granular control  N/A  Single hop Mesh  Designed for rapid installation and fast configuration.   |

## **BRIDGES**



|                         | CB 3000 Wireless Bridge   |  |
|-------------------------|---|--|
| Product<br>Overview     | The CB 3000 provides robust, enterprise-class wireless connectivity for Ethernet-enabled devices such as printers, scales and point-of-sale equipment without card slots or native wireless capabilities.   |  |
| WLAN                    | • 802.11a/b/g   |  |
| Security                | WEP 40/128     WPA and AES encryption     802.1x support with PEAP      EAP/TLA     EAP/TTLS authentication   |  |
| Features                | Work group bridge with support for up to 16 client devices     Point-of-Sale support for IBM, NEC and others     Ad hoc mode (CB 3000 to CB 3000) for easy sharing of printers and other peripherals      Embedded secure web server for anywhere, anytime management     SNMP v2 support for easy integration with standard management systems |  |
| Warranty                | Hardware — 1 Year; Software — 90 days   |  |
| Recommended<br>Services | Service from the Start Advance Exchange Support     Wireless Infrastructure Device Software Support   |  |

# MULTIVENDOR MANAGEMENT FOR NETWORK, SECURITY AND ASSURANCE

Motorola's powerful set of management applications enable administrators to easily execute end-to-end design and management of wireless LANs.

#### Motorola LANPlanner®

Ensure that your wireless LAN is designed to deliver maximum performance and value with Motorola LANPlanner — regardless of whether you are adding a new wireless LAN, expanding an existing wireless network or need to plan your migration to an 802.11n network. This comprehensive tool enables the design and deployment of wireless networks that meet the specific capacity, reliability and performance requirements in your environment. The ability to predict and visualize the impact of construction materials, network usage and the potential impact of co-channel interference enable the rapid design of wireless networks that provide superior wireless performance, superior quality of service (QoS) — and superior total cost of ownership (TCO). Post deployment reporting enables validation that the network is performing to meet expectations.

#### AirDefense Services Platform

The AirDefense Services Platform (ADSP) offers seamless integration of a 24x7 Wireless Intrusion Prevention System (WIPS) with built-in compliance reporting, multi-vendor WLAN infrastructure management, as well as a full-suite of network assurance tools designed to centrally troubleshoot user connectivity issues and fix WLAN performance problems. The AirDefense Services Platform is the industry's first comprehensive service-oriented platform that can be leveraged by enterprise IT to dramatically reduce the TCO and achieve quicker ROI from their WLAN. The platform provides organizations with a cost effective and simplified way to fully customize their wireless management and monitoring solutions to meet organizational needs or industry requirements. Solutions offered under the platform include:

#### **AirDefense Security and Compliance Solution**

The AirDefense Security and Compliance solution provides complete protection against wireless threats, policy compliance monitoring, robust performance monitoring, and location tracking that can scale to the needs of large global organizations. Powered by the industry's most advanced intrusion detection system (IDS) engines, the solution allows users to identify hackers, network attacks and vulnerabilities, and instantly terminate any connection to a rogue device. The system uses collaborative intelligence with secure sensors that work in tandem with a hardened purpose-built server appliance to monitor all 802.11 (a/b/g/n) wireless traffic in real time.

The innovative add-on modules integrated in the Security & Compliance Solution include:

- Wireless Intrusion Prevention Provides comprehensive detection and prevention of wireless intrusion attempts by analyzing existing and day-zero threats in real-time against historical data. The system is able to accurately detect all wireless attacks and anomalous behavior and can automate responses to mitigate threats.
- Wireless Vulnerability Assessment Offers patented technology that provides remote wireless security testing using AirDefense sensors. This tool circumvents the need to send personnel or consultants to remote offices or stores to manually conduct testing.
- Advanced Forensics Stores and manages hundreds of data points for every wireless device on the network, allowing administrators to rewind and review detailed records of wireless activity that can assist in a forensic investigation.
- **Mobile Workforce Protection** Protects the mobile workforce (inside or outside the corporate network) from the wireless-specific risks that could expose private data and confidential transactions. Enforces corporate polices for all types of wireless networks, including Wi-Fi, EVDO, 3G, GPRS and many more.
- Legacy Encryption Protection Employs patented technology that provides protection for wireless infrastructure secured by legacy encryption protocols.

# MULTIVENDOR MANAGEMENT FOR NETWORK, SECURITY AND ASSURANCE (continued)

#### **AirDefense Infrastructure Management Solution**

The AirDefense Infrastructure Management solution offers centralized management and control for the wireless enterprise — a single console for multi-vendor, multi-architecture, multi-generation and multi-version WLAN management. The solution's vendor and device agnostic user interface ensures consistency in configuration, compliance with policies, while reducing device and model specific expertise required by network administrators. Instead of managing multiple systems, administrators have a centralized management console to update device configurations and firmware, monitor device status, capture faults, audit, and automatically correct device configuration issues, gather network statistics, generate trend and compliance reports, etc.

The innovative add-on modules integrated in the AirDefense Network Assurance suite include:

- WLAN Management Provides administrators with a single, centralized console for muti-vendor deployments, simplifying management and providing consistent configuration across the network. This tool will enhance the visibility and control of wireless infrastructure for organizations with diverse WLAN deployments consisting of multiple vendors and equipment models.
- **Centralized Management Console** Gives administrators and IT staff a single holistic view into the wireless network. For large scale deployments which require thousands of sensors and/or tens of thousands of managed devices, the CMC provides aggregated views of the data on multiple appliances and a single point for configuration changes.

#### **AirDefense Network Assurance Solution**

The AirDefense Network Assurance solution offers a unique set of tools for vendor agnostic, WLAN performance monitoring and remote troubleshooting of RF problems. The solution uses a dedicated network of RF sensors that continuously monitor the airwaves — intelligently scanning different frequencies over time and space to detect WLAN performance problems and policy violations. The remote sensors serve as the "eyes and ears" of the WLAN, observing network behavior 24x7 and allowing an administrator to "look into" a wireless issue from any location with network access. Motorola analyzes traffic flow to interpret WLAN performance and to identify common characteristics that may impede network performance such as interference from neighboring WLANs, channel overlap, over-utilized APs & channels, network congestion, and performance degradation. By providing a view of all WLAN traffic, the Network Assurance tools enable network administrators to remotely troubleshoot problems, identify and respond to network mis-configurations, and monitor network availability.

The innovative add-on modules integrated in the AirDefense Network Assurance suite include:

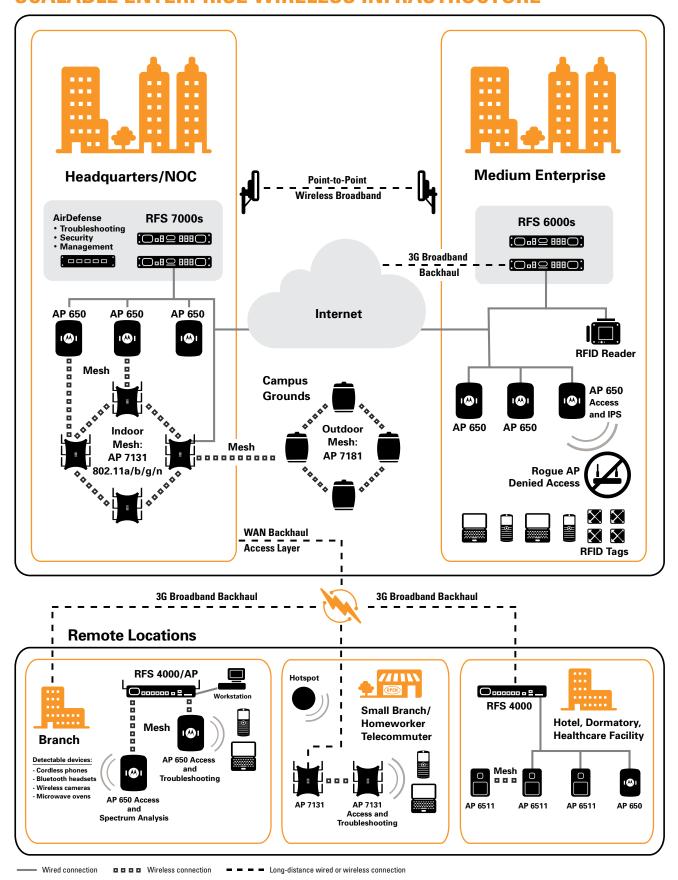
- Advance Troubleshooting Performs expert analysis of wireless connectivity issues and performs end-to-end network testing from the wireless perspective. The
  tool allows administrators to perform both client connectivity troubleshooting and access point connectivity testing across the entire WLAN, remotely using AirDefense
  sensors or Motorola access points.
- Spectrum Analysis Offers the industry's first software only SA solution that can remotely view the physical layer of an enterprise WLAN using distributed sensors (without requiring specialized hardware). The tool allows network administrators to identify and classify possible sources of interference in the 2.4 and 5 GHz WLAN frequency bands.
- LiveRF Provides a remote assessment of network coverage and real time visualization of the wireless network. Administrators can view live heat maps to help understand the current coverage and impact of network changes and interferences sources.
- Advanced Forensics Gives administrators a detailed view of wireless activity. Real-time views or historical records of activity are used to remotely troubleshoot problems or proactively improve network performance

#### AirDefense Mobile

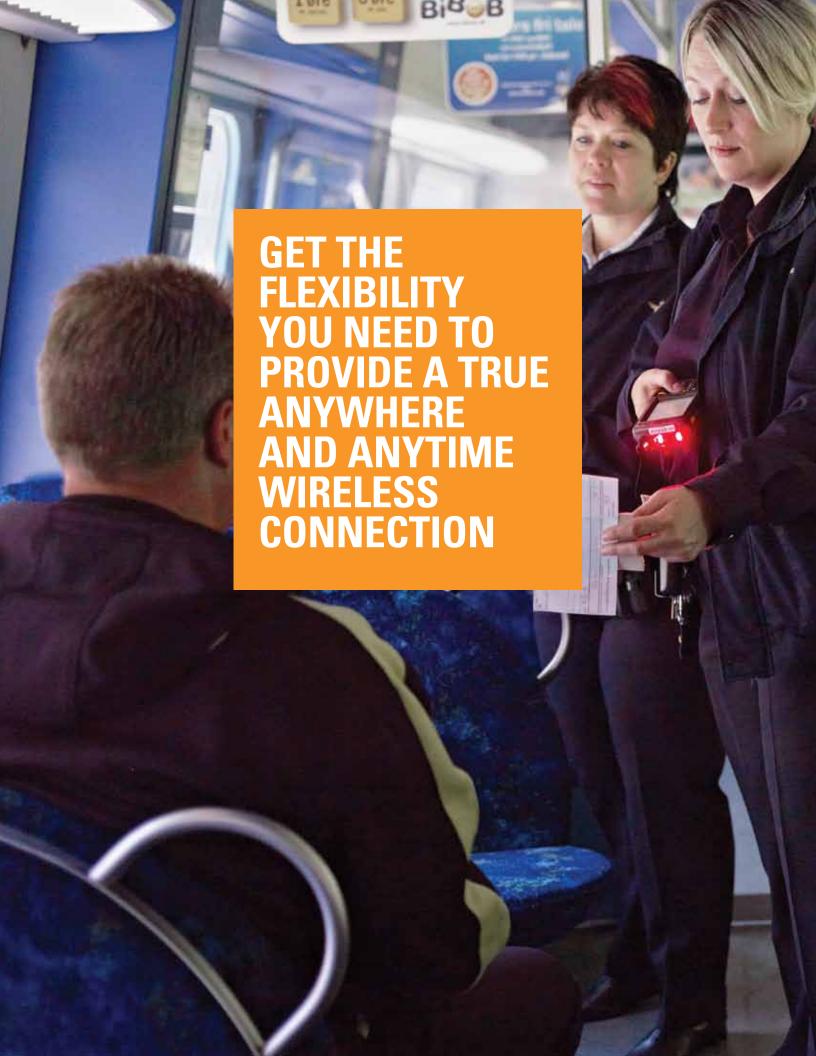
AirDefense Mobile is a laptop-based solution that gives enterprises a mobile product that provides a real-time snapshot of all WLAN infrastructure and activity (802.11 a/b/g/n). With over 175 alarms, Mobile provides the most advanced mobile security tool in the market today. The tool provides wireless device inventory, threat index analysis, location tracking, advanced rogue management and automated protection. A flexible notification engine ensures that critical alerts are communicated in a timely manner. Use Mobile to locate rogue access points and stations, identify mis-configured devices and to take proactive steps to close any security holes as part of a WLAN policy compliance program. Mobile also provides diagnostic tools and signal interference measurements for network troubleshooting thereby ensuring the health of the wireless LAN.

AirDefense Mobile has a simple intuitive user interface and along with the Services Platform, provides a comprehensive view of the wireless network security and health. The mobile analyzer is fully integrated into the AirDefense Services Platform, enabling synchronization of authorized and rogue wireless devices for a specified location. Hence, Mobile is an essential security and network management tool that gives IT professionals a holistic view into their wireless network and provides everything they need to quickly resolve any network issues and mitigate threats.

## **SCALABLE ENTERPRISE WIRELESS INFRASTRUCTURE**



Motorola's family of enterprise WLAN and wireless broadband infrastructure easily scales to meet the needs of any enterprise. Extend cost-effective wireless voice and data throughout your literal and virtual environment with this diverse portfolio — from large enterprise campus environments to mid-size and smaller remote sites.



### ABOUT MOTOROLA ENTERPRISE MOBILITY SOLUTIONS

Motorola delivers seamless connectivity that puts real-time information in the hands of users, giving customers the agility they need to grow their business or better protect and serve the public. Working seamlessly together with its world-class devices, Motorola's unrivaled wireless network solutions include indoor WLAN, outdoor wireless mesh, point-to-multipoint, point-to-point networks and voice over WLAN solutions. Combined with powerful software for wireless network design, security, management and troubleshooting, Motorola's solutions deliver trusted networking and anywhere access to organizations across the globe.

TO LEARN MORE ABOUT MOTOROLA'S WING 5 WLAN SOLUTIONS, VISIT MOTOROLA.COM/WING5 TO JOIN THE CONVERSATION, VISIT WIRELESSNETWORKPULSE.COM

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