



Ruckus Wireless™ ZoneDirector™

Enterprise-Class Smart Wireless LAN Controller



Benefits

- Simple to use and manage
- IT Lite deployment in 5 minutes or less
- Advanced WLAN features and functions
- SmartMesh™ Networking streamlines costly and complex deployment
- Automatic user security
- Easy monitoring and troubleshooting
- Distributed forwarding architecture
- Flexible deployment options
- Complete integration

The Ruckus Wireless ZoneDirector controller is the first enterprise-class Smart Wireless LAN system that delivers a secure, robust and easily expandable WLAN solution at an unmatched total cost of ownership.

The Ruckus ZoneDirector controller provides simplified configuration, ongoing control and automatic coordination of Ruckus ZoneFlex™ multimedia access points (APs).

With simplicity and ease of use in mind, the Ruckus ZoneDirector 1100 Series is purpose-built to address the gap between standalone, feature-deficient APs that must be individually managed and the costly, complex high-end enterprise systems that are overkill for most small business environments. Capable of managing up to 50 APs, this series is ideal for small businesses that require a robust and secure WLAN that can be easily deployed, centrally managed and automatically tuned. The series is also perfect for operators who want to offer business class hot spot services such as voice over Wi-Fi,® IP-based video, secure enterprise access and tiered Wi-Fi services in venues such as hotels, airports, schools and public buildings.

Capable of managing up to 500 ZoneFlex Smart Wi-Fi APs from a single location, the Ruckus ZoneDirector 3000 Series is designed for simplicity and ease of use. Unlike conventional wireless LAN systems that are costly, complex and cumbersome to deploy, the ZoneDirector 3000 Series is ideal for any enterprise that requires a high-performance wireless LAN that can be easily deployed and managed.

The Ruckus ZoneDirector easily integrates with network, security, and authentication infrastructure already in place and is easily configured through a point-and-click web wizard. Ruckus ZoneFlex APs automatically discover and are configured by the ZoneDirector interface.

Redundant and secure, the Ruckus ZoneDirector provides WLAN-wide network, security, RF and location management within a single, easy-to-use and affordable WLAN system.

Benefits

Simple to use, simple to manage

Centralized management, quick setup, IT-Lite and automatic, real-time optimization of entire WLAN.

IT Lite deployment in 5 minutes or less

A web-based configuration wizard lets any computer user configure an entire WLAN in minutes. Ruckus ZoneFlex™ APs auto-discover the ZoneDirector. Centralized management and automatic, real-time optimization of entire WLAN.

Advanced WLAN features and functions

Advanced wireless networking features include rogue AP detection, interference detection, band steering, airtime fairness, role-based user policies, rate-limiting, hotspot and guest networking services.

SmartMesh™ Networking streamlines costly and complex deployment

Integrated SmartMesh Networking technology automates deployment, eliminates the need to run Ethernet cable to every Smart Wi-Fi® AP. Adaptable architecture with Hybrid Mesh extends the wireless network through Ethernet-connected Aps, increasing system performance through better spatial reuse.

Automatic user security

Dynamic PSK eliminates the requirement to configure and update individual PC client devices with unique encryption keys. Dynamic VLAN assignment seamlessly extends existing security policies to the WLAN.

Easy monitoring and troubleshooting

Customizable dashboard provides comprehensive at-a-glance network snapshot and allows drill down to troubleshoot wireless problems.

Distributed forwarding architecture

Maximizes data throughput by sending all data traffic directly from the APs to the wired network.

Flexible deployment options

ZoneDirector interacts with existing network and security infrastructure and provides dynamic RF management across APs to eliminate AP placement issues.

Complete integration

Combines network management, dynamic RF management, location management and AP control within a low-cost solution.

Hardware Features

- Thin 1U rack mountable footprint
- Easy discovery from PC using UPnP
- Manage multiple locations and ZoneDirectors with FlexMaster™
- Two 1000 Mbps ports for full redundancy
- Lifetime warranty coverage



Software Features

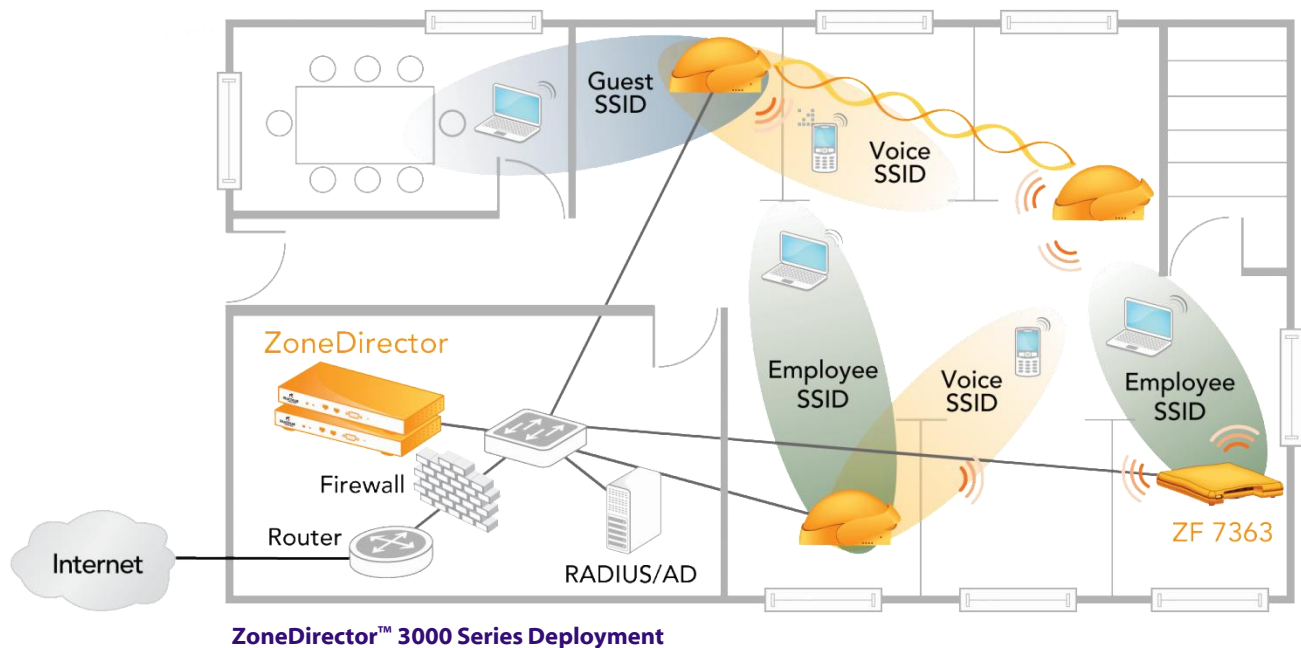
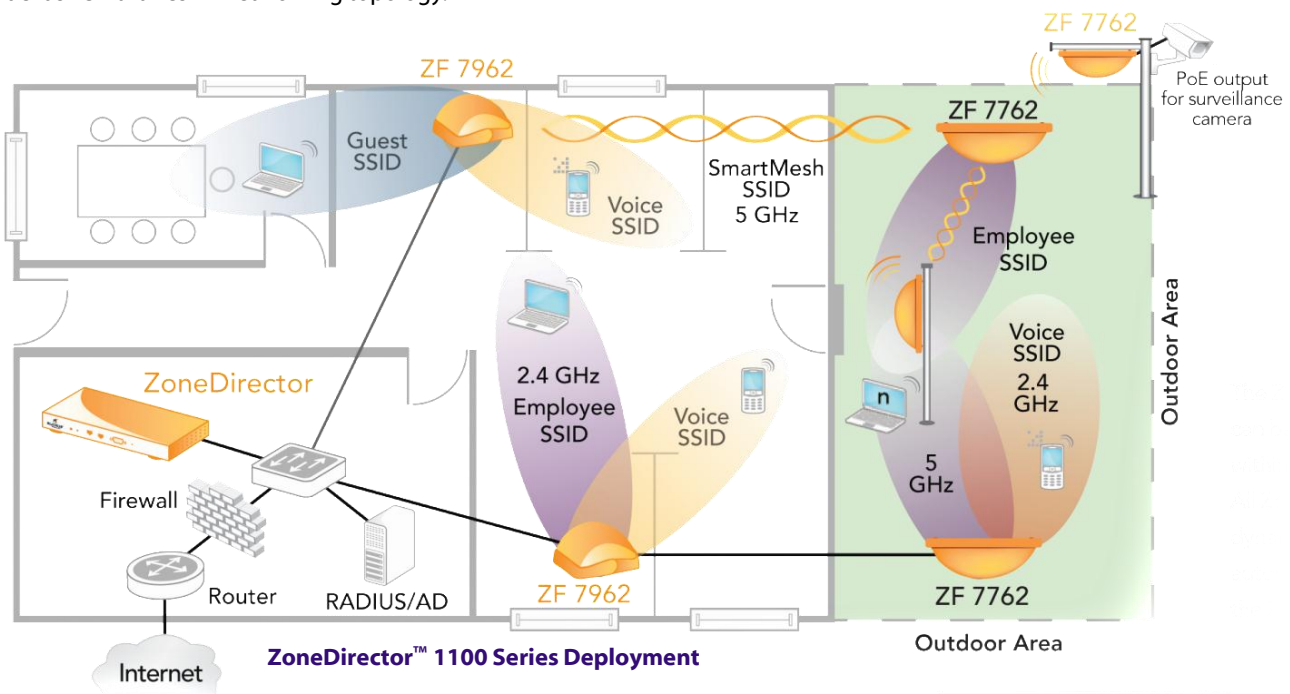
- Central control and configuration of up to 50 ZoneFlex APs (1100 Series) and up to 250 ZoneFlex APs (3000 Series)
- Support for 32 WLANs
- Integrated DHCP server
- Easy-to-use setup wizard
- Ultra-intuitive GUI
- 1+1 redundancy with auto synchronization
- SmartMesh Networking control and monitoring
- Real-time client admission control
- Load balancing
- Customizable dashboard
- Dynamic RF channel and power management
- Quality of service with WLAN prioritization, band steering* and airtime fairness
- Integrated captive portal
- Native ActiveDirectory/RADIUS/LDAP support
- Local authentication database
- Dynamic VLAN assignment
- Guest networking
- Dynamic generation of unique Pre-Shared Keys
- Rogue AP detection and graphical map view
- Aeroscout location services support
- Hot spot authentication using WISPr
- Performance monitoring and statistics
- SNMP

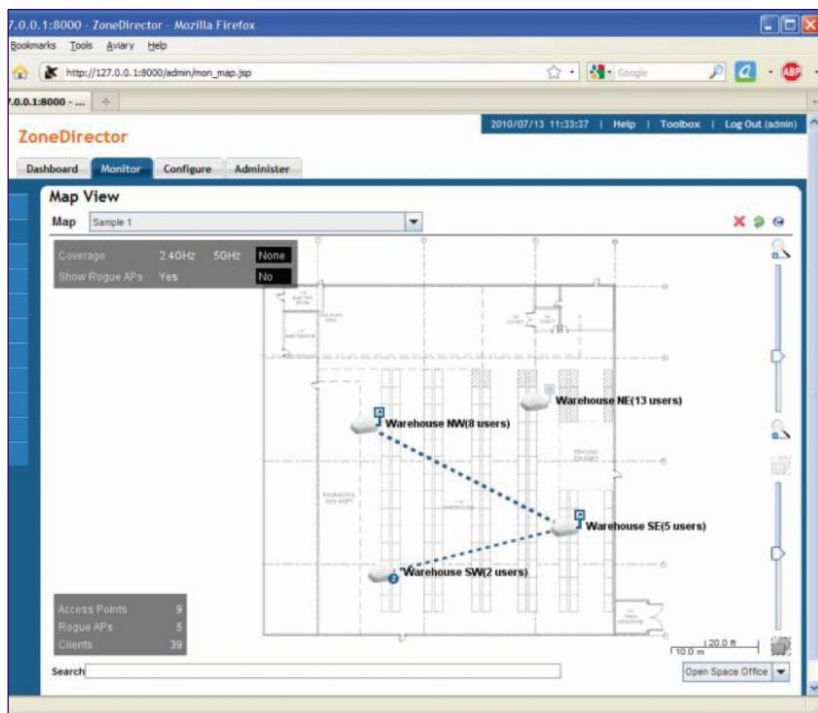
*For ZoneFlex 7962, 7762 and 7363 dual-band APs

Simple to Manage

Once up and running, the ZoneDirector controller automatically manages the ZoneFlex network of APs—automatically adjusting transmit power levels and RF channel assignments as needed to avoid interference, prevent adjacent APs from interfering and enable redundant coverage in the event of an AP failure. Configuration changes can easily be applied to multiple APs or the entire system simultaneously. A customizable dashboard provides instant access to a variety of client and network information and events, and a real time heat map displays AP locations and signal coverage, as well as your Ruckus™ SmartMesh™ Networking topology.

ZoneDirector Smart WLAN systems integrate a unique performance utility from Ruckus called SpeedFlex.™ Ruckus SpeedFlex allows administrators to locally or remotely determine client Wi-Fi® performance over the wireless LAN. With SpeedFlex, administrators can now better plan, troubleshoot, monitor and measure WLAN performance, eliminating the need to use Internet-based speed tools that often provide inaccurate results of the local Wi-Fi environment.





ZoneDirector provides a detailed map view that lets administrators quickly see the Wi-Fi® network topology for all ZoneFlex Smart Wi-Fi access points.

Simple to Secure

ZoneDirector provides innovative new techniques that simplify and automate Wi-Fi security. In addition to enterprise-class 802.1x support and dynamic VLAN assignment capabilities, ZoneDirector supports a patent-pending Dynamic Pre-Shared Key (PSK) capability that streamlines WLAN security.

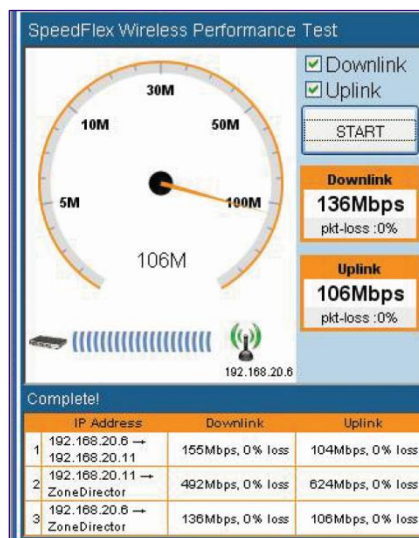
First-time users plug their computers into the LAN and specify a URL that directs them to a captive web portal for a one-time authentication. After successful authentication, ZoneDirector automatically configures the client system with the designated SSID and a dynamically-generated encryption key. The key is bound to the client, and can be removed upon expiration when the user or the user's device is no longer trusted.

ZoneDirector centralizes authentication and authorization decisions for all APs, providing secure admission control across the WLAN. It works with any backend authentication database such as RADIUS and ActiveDirectory and also comes with an internal authentication database. Additionally, clients can be dynamically assigned to a VLAN based on their RADIUS attributes.

Avoid Interference, Maximize Performance and Extend Reach with BeamFlex™

Ruckus BeamFlex, a patented Wi-Fi beam-steering technology, ensures predictable performance for multimedia traffic applications and extends range to eliminate Wi-Fi deadspots. With the ZoneDirector, the value of BeamFlex is extended beyond a single access point to the system-wide WLAN and smart wireless meshing.

SpeedFlex™ is a wireless performance test tool integrated within ZoneFlex™ controllers that measures the Wi-Fi throughput of associated wireless LAN clients.



The ZoneDirector automatically controls the channels assignments and transmit power levels of all ZoneFlex Smart Wi-Fi APs. And with BeamFlex, the ZoneFlex system continuously picks the best path for every packet, to both clients outside the network and mesh APs inside the network, automatically avoiding interference to guarantee the highest quality of service.

SmartMesh™ Networking Increases Flexibility, Reduces Costs

Ruckus SmartMesh Networking enables self-organizing and self healing WLAN deployment. It eliminates the need to run Ethernet cables to every AP, allowing administrators to simply plug in ZoneFlex APs to any power source and walk away. All configuration and management is delivered through the ZoneDirector Smart WLAN controller. APs can also be daisy-chained to mesh APs to extend the mesh and take advantage of spatial reuse.

SmartMesh uses patented Smart Wi-Fi technology to extend range and control Wi-Fi signals to minimize inter-nodal hops that degrade performance and automatically adapt Wi-Fi connections between nodes to maintain ultra high reliability.

Specifications

Differences between products are color coded.

	ZoneDirector 1100	ZoneDirector 3000
Physical Characteristics		
Power	External power adapter Input: 110 – 240V AC Output: 12V DC, 1A	220 watt internal power supply 100 – 250V AC Universal, IEC 320 Connector
Physical Size	25cm(L), 15.93cm(W), 3.86cm(H) 9.8" L x 6.3" W x 1.5" H	35.52cm(L), 43.18cm(W), 4.39cm(H) 13.9" L x 17" W x 1.7" H
Weight	2.2 lbs (1 kilogram)	14 lbs (6.37 kilograms)
Ethernet Ports	2 ports, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45	2 ports, auto MDX, auto-sensing 10/100/1000 Mbps, RJ-45
LED Display	Power/Status	Power/Status
Environmental Conditions	Operating Temperature: 32°F (0°C) – 122°F (50°C) Operating humidity: 15% – 95% non-condensing	Operating Temperature: 41°F (5°C) – 104°F (40°C) Operating humidity: 15% – 95% non-condensing
Management		
Configuration	Web user interface, CLI, FlexMaster, SNMP v1, 2, 3	Web user interface, CLI, FlexMaster
Statistics	LAN, wireless and associated stations (available via UI)	LAN, wireless and associated stations (available via UI)
Auto AP Software Updates	Supported	Supported
Captive Portal	Supported	Supported
Guest Accounts	Supported	Supported
VLAN Support	802.1Q (per BSSID), dynamic VLAN	802.1Q (per BSSID), dynamic VLAN
DHCP Server	Supported	Supported
AP Discovery & Control	Layer-2 or Layer-3	Layer-2 or Layer-3
WLANS (BSSIDs)	Up to 32	Up to 32
Radius Accounting	Supported	Supported
Security		
Wireless Security	WEP, WPA-TKIP, WPA2-AES, 802.11i	WEP, WPA-TKIP, WPA2-AES, 802.11i
Authentication	802.1X, local database External AAA servers: ActiveDirectory, RADIUS, LDAP	802.1X, local database External AAA servers: ActiveDirectory, RADIUS, LDAP
Access Lists (ACLs)	Layer-2 (MAC address based ACL) Layer-3 (IP address based ACL) L2 client isolation	Layer-2 (MAC address based ACL) Layer-3 (IP address based ACL) L2 client isolation
Wireless Intrusion Detection (WIDs)	Rogue AP detection DoS attack prevention Password guessing protection Rate limiting	Rogue AP detection DoS attack prevention Password guessing protection Rate limiting
Local Authentication	1,250 user entries	10,000 user entries
Multimedia and Quality of Service		
VoIP Tunneling	Supported	Supported
802.11e	Supported	Supported
Software Queues	Per traffic type, per client	Per traffic type, per client
Auto-Classification	Heuristics	Heuristics
Rate Limiting	Supported	Supported
Performance and Supported Configurations		
Number of Managed APs	Up to 50	Up to 500
Concurrent Clients	Up to 1,250	Up to 5,000
Certifications		
Countries	U.S., Europe, Australia, Canada, Chile, Colombia, Hong Kong, India, Indonesia, New Zealand, Philippines, Saudi Arabia, Singapore, Thailand, UAE	U.S., Europe, Australia, Brazil, Canada, Chile, China, Colombia, Ecuador, Egypt, Hong Kong, India, Indonesia, Korea, Malaysia, Mexico, New Zealand, Pakistan, Philippines, Saudi Arabia, South Africa, Taiwan, Thailand, UAE, Uruguay, Vietnam
Certifications	Wi-Fi Alliance Certification (Wi-Fi Certified™)	Wi-Fi Alliance Certification (Wi-Fi Certified™)

Ruckus Wireless™ ZoneDirector™

Ordering Information

ARRIS #	Mfg #	Description
ZoneDirector 1100 Series		
795374	901-1106-US00	ZoneDirector 1106 supporting up to 6 ZoneFlex APs
795375	901-1112-US00	ZoneDirector 1112 supporting up to 12 ZoneFlex APs
795376	901-1125-US00	ZoneDirector 1125 supporting up to 25 ZoneFlex APs
795377	901-1150-US00	ZoneDirector 1150 supporting up to 50 ZoneFlex APs
ZoneDirector 1100 Series License Upgrade		
795378	909-1112-ZD00	ZoneDirector 1K License Upgrade from 6 to 12 APs
795379	909-1125-ZD00	ZoneDirector 1K License Upgrade from 12 to 25 APs
795380	909-1150-ZD00	ZoneDirector 1K License Upgrade from 25 to 50 APs
ZoneDirector 3000 Series		
795381	901-3025-US00	ZoneDirector 3025 supporting up to 25 ZoneFlex APs
795382	901-3050-US00	ZoneDirector 3050 supporting up to 50 ZoneFlex APs
795383	901-3100-US00	ZoneDirector 3100 supporting up to 100 ZoneFlex APs
795384	901-3250-US00	ZoneDirector 3250 supporting up to 250 ZoneFlex APs
ZoneDirector 3000 Series License Upgrade		
795385	909-3050-ZD00	ZoneDirector 3K License Upgrade from 25 to 50 APs
795386	909-0050-ZD00	ZoneDirector 3K License Upgrade for 50 APs
795387	909-0100-ZD00	ZoneDirector 3K License Upgrade for 100 APs
795388	909-0150-ZD00	ZoneDirector 3K License Upgrade for 150 APs
795389	909-0200-ZD00	ZoneDirector 3K License Upgrade for 200 APs
795390	909-0250-ZD00	ZoneDirector 3K License Upgrade for 250 APs
795391	909-0300-ZD00	ZoneDirector 3K License Upgrade for 300 APs
795392	909-0350-ZD00	ZoneDirector 3K License Upgrade for 350 APs
795393	909-0400-ZD00	ZoneDirector 3K License Upgrade for 400 APs
795394	909-0450-ZD00	ZoneDirector 3K License Upgrade for 450 APs
795507	DEMO-901-3025-UU00	Controller; Demo NFR - UU-ZD-3025 Supports 25 Access Points – Can be Upgraded to 50 Access Points w/795385 or up to 500 Access Points Using Part#s 795386 to 795394
794015	SVC-CTRCT	1 Year Service Contract Required

Contact ARRIS: (888) 353-9473 www.arrisi.com

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