

# ARRIS Wireless Solutions

## Carrier-class Smart Wi-Fi® and Wireless LAN Solutions for Service Providers

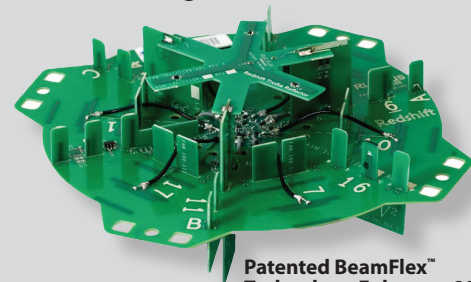
ARRIS provides wireless network solutions from Ruckus™ Wireless. Ruckus is best known for its Smart Wi-Fi technology, which uses an intelligent, high-gain directional antenna system and quality of service technologies to extend the range of Wi-Fi signals and automatically adapt to environmental changes. This results in Wi-Fi that, for the first time, reaches farther and is inherently more reliable. Ruckus Smart Wi-Fi technology steers signals around interference, obstructions, and obstacles, to ensure unprecedented coverage and consistent performance. As part of its comprehensive wireless portfolio, ARRIS also offers a strand mounted, outdoor access point, with an integrated DOCSIS® 3.0 modem, specifically for deployment by MSOs.

ARRIS now provides cable operators with a number of unique benefits that speed time to market, reduce subscriber churn, enable innovative new multimedia services and increase the quality of subscriber Wi-Fi connections by providing:

- Adaptive Wi-Fi that automatically optimizes in highly noisy RF environments
- Extended Wi-Fi signal range
- More consistent Wi-Fi performance over longer distances
- Minimized packet loss
- Increased stability for subscriber Wi-Fi connections
- Unprecedented multimedia support for streaming voice, video and data
- Simplified configuration, installation and deployment
- Better support for service level agreements
- Full suite of professional services from walk-outs and designs to installation and technical support



### Extended Coverage Means Fewer Access Points



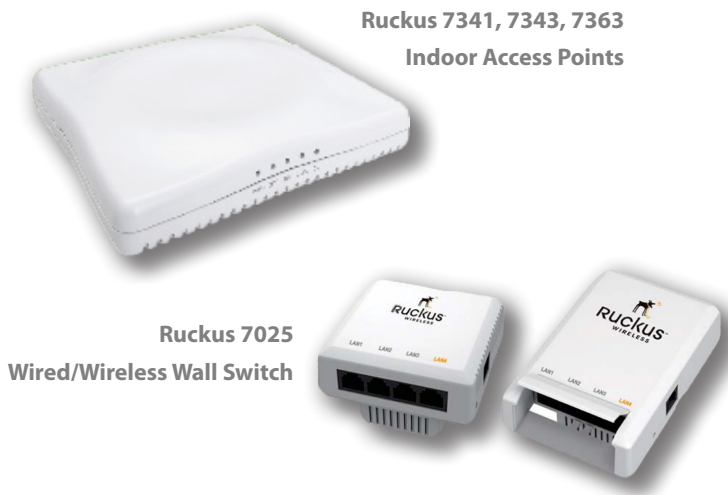
**Patented BeamFlex™  
Technology Enhances 802.11**

Proprietary adaptive antennas with unique interference avoidance technology combine with industry standard beamforming to provide unmatched Wi-Fi range and reliability. Directional, high-gain antennas dynamically rearrange per packet per user to deliver 2X to 4X the coverage of competing access points, resulting in 30 – 40% fewer access points needed for deployment.

## SUPERIOR PRODUCTS

### ZoneFlex™ 802.11n Outdoor Access Points

- ZoneFlex 7761-CM ARRIS strand mount, 3X3:2 dual-band, 802.11n outdoor access point with integrated DOCSIS® 3.0 modem, 12+3 antenna elements, and 4,000+ combinations
- ZoneFlex 7762 Ruckus Pole Mount 3X3:2 dual band, 802.11n outdoor AP with 12 antenna elements, and 4,000+ combinations
- ZoneFlex 7731 Point to Point Bridge, 5.8 Ghz, 802.11n Outdoor AP, Pole Mount



### ZoneFlex 802.11n Indoor Access Points

- ZoneFlex 7300 Series Access Points, 2X2:2 Single or Dual-band, 802.11n, Smart Wi-Fi Access Points, with 14 antenna elements, 300+ combinations, and 1 - 3 Ethernet Ports
- ZoneFlex 7025 Multi-service, 802.11n, Wired/Wireless Wall Switch

### ZoneDirector™ Enterprise-class Smart Wireless LAN Controller

The Ruckus Wireless ZoneDirector provides simplified configuration, ongoing control, and automatic coordination of Ruckus ZoneFlex multimedia access points (AP). 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 access points automatically recognize and are configured by the ZoneDirector.

Two options are available: the 1100 Series is capable of managing up to 50 access points, and the 3000 Series manages up to 500 access points.

Features include:

- Adaptive wireless meshing
- Automatic traffic redirection
- Elegant and simple guest networking functions
- Rouge AP detection and advanced Wi-Fi security features
- Flexible WLAN groups
- Extensive authentication support
- Robust network management



## FlexMaster™ Global Wi-Fi Managed Service Platform for Enterprises and Service Providers



The Ruckus FlexMaster Management System is a comprehensive Wi-Fi management platform for building and managing enterprise and carrier-grade Wi-Fi service infrastructures. It enables network administrators to set up, maintain, and optimize the deployment of business Wi-Fi networks from a single point. This solution is ideal for MSOs and other service providers looking to monetize Wi-Fi services.

Features include:

- Detailed client data for planning and troubleshooting
- SLA visibility tools
- Trending reports and customizable graphs
- Automated and customizable Super Dashboard
- Advanced Wi-Fi troubleshooting
- Carrier-grade scalability

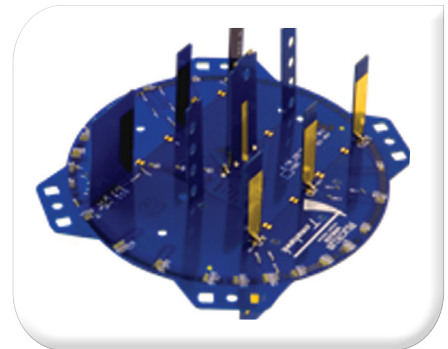
## PATENTED TECHNOLOGY

### BeamFlex™

BeamFlex uses an agile antenna array to deliver carrier-class Wi-Fi services by continually forming and directing Wi-Fi transmissions over the best signal path on a packet-by-packet basis. To ensure consistently higher data rates, BeamFlex incorporates unique interference rejection techniques that minimize packet loss by ignoring RF noise that would normally degrade Wi-Fi service using conventional Wi-Fi technology.

BeamFlex chooses the best path to clients using dynamically adaptive smart antennas in the following ways:

- Actively rejects interference
- Engages dynamic beam-steering
- Selects path with highest signal to noise ratio, per packet, per user
- Dramatically improves throughput and range, resulting in 30-40% fewer access points that need to be deployed

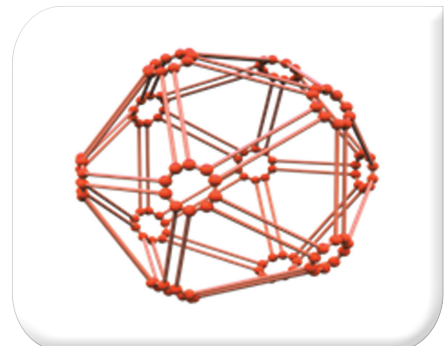


### SmartMesh™

SmartMesh lets MSOs more quickly and flexibly deploy Wi-Fi access points where and when needed - bypassing the cost and complexity of running Ethernet cabling to every AP. With proven carrier scalability SmartMesh self-organizes, optimizes and heals network connections as the environment changes.

SmartMesh results in fewer hops and greater bandwidth using hybrid mesh technology. SmartMesh also provides:

- Self-provisioning
- Self-healing
- Automatically, dynamically re-provisions links as the RF environment changes



## SmartCast QoS™

SmartCast gives cable operators the confidence to better deliver multimedia content and services over standard Wi-Fi. SmartCast automatically classifies, prioritizes and schedules multimedia traffic for transmission over smart antenna arrays to ensure the best possible experience for wireless subscribers.

SmartCast enables proprietary traffic prioritization to protect important voice and video streams. SmartCast also provides:

- Heuristics-based auto-detect for voice, video, and data services
- Configurable rate limit per client
- Weighted round-robin queues per client to prevent “head-of-line” blocking



## Load Balancing

Load Balancing facilitates control of the distribution of clients and bandwidth in high-density environments. This is ideal for auditoriums, conference halls, and public venues where many users try to concurrently connect to the WLAN. Load Balancing features include:

- Band-steering directs dual band clients to less congested band
- Airtime fairness enables 802.11n clients to experience much higher throughput
- Clients are distributed evenly across access points



## ARRIS Company Overview

ARRIS is a global communications technology company specializing in the design, engineering and supply of technology supporting triple- and quad-play broadband services for residential and business customers around the world. The company supplies broadband operators with the tools and platforms they need to deliver reliable telephony, demand driven video, next generation advertising and high speed data services.

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