

## Ruckus ZoneFlex

- 20 Questions (or more) -

### 1. What is the new Ruckus ZoneFlex line of products?

Ruckus Zoneflex is new line of Smart Wi-Fi wireless LAN products targeted at the small and medium-business environment. ZoneFlex was created to fill the market gap between feature-poor consumer Wi-Fi access points and high-end costly and complex enterprise WLAN systems.

ZoneFlex was designed with a single idea in mind: **simplicity**. It gives small and medium businesses, for the first time, a very simple, yet robust & secure, wireless LAN environment that can be easily deployed with a minimal IT impact.

ZoneFlex was also developed to deliver a true industrial-strength, multimedia wireless LAN in minutes and at a fraction of the cost of alternatives.

It is the first WLAN system to uniquely combine state-of-the-art advances in smart antenna technology, automatic user security, quality-of-service and centralized management within a single, cost-effective system.

### 2. What's the target market for the ZoneFlex products?

ZoneFlex is aimed directly at the small-to-medium business (SMB) of up to 500 employees. This demographic requires a robust yet cost-affordable and simple to use and deploy wireless LAN system that provides maximum performance, coverage, features and functions without requiring extensive IT expertise or support.

In addition to the SMB market, the ZoneFlex system is also ideal for hot zone operators looking to provide next generation business class hot spot services that require one or more multimedia access points. Some of the targeted hot zone applications include hotels, small hospitals, hot spots, airports, public access areas, libraries, government offices, and shopping malls.

### 3. What products comprise the ZoneFlex line?

The initial ZoneFlex products (available immediately) consist of a new ZoneFlex line of Smart Wi-Fi 802.11g multimedia access points and a ZoneDirector 1000 line of centralized control platforms. The ZoneDirector line includes models to manage 6, 12, and 25 ZoneFlex APs.

Future products (to be delivered by year's end) will include Zoneflex 802.11g/n access points, wireless mesh capabilities and the FlexMaster remote management system.

### 4. What does the ZoneDirector do exactly?

The ZoneDirector provides simplified configuration, ongoing control and automatic coordination of Ruckus ZoneFlex multimedia access points.

## 5. This sounds like a generic appliance controlling low-cost APs. Is that correct?

No. The Ruckus ZoneFlex system marries the best of the centralized controller model with state-of-the-art advances in RF engineering such as beam steering, RF management, and interference avoidance delivered "Smart Wi-Fi" antenna technology.

The Ruckus ZoneFlex system is based on the same split-MAC principles popularized by the early WLAN switch companies. The difference is that the Ruckus ZoneFlex system is purpose-built for small and medium businesses – providing unique features and functions that are important to this market.

In addition, the Ruckus ZoneFlex system adds smart Wi-Fi technology that two key breakthroughs: Zero IT Configuration and Network BeamFlex that providing advanced RF management and Wi-Fi optimization.

## 6. How is ZoneFlex different, unique or innovative?

The Ruckus ZoneFlex system is the only industrial-strength multimedia WLAN solution that can be configured and deployed in a matter of minutes. It uniquely combines state-of-the-art advances in smart antenna technology with quality of service, automatic user security and centralized management but makes them simple to use and deploy for a small business.

ZoneFlex also combines two new breakthroughs – **Network BeamFlex and Zero IT Config** - that radically change the way in which WLANs are deployed and operate.

BeamFlex is Ruckus patented technology that transforms Wi-Fi transmissions by providing predictable performance and extended reach. This is achieved through a smart antenna array and sophisticated signal path selection algorithms integrated within each ZoneFlex AP. In turn, each ZoneFlex AP continually determines the best signal path for any given Wi-Fi signal on a per packet basis while automatically avoiding sources of interference in real time. Network BeamFlex is an extension of this technology on a system-wide basis with the addition of wireless meshing and dynamic power and channel management.

The ZoneDirector dynamically controls the RF channel assignment and transmit power level for each ZoneFlex AP. In addition, RF management is further optimized through beam forming techniques that focus the RF energy toward associated clients and only where needed. This provides unprecedented optimization of the RF environment without IT or user intervention. Wireless meshing enables ZoneFlex APs to be deployed without Ethernet cabling to further simplify deployment. Up to 10 ZoneFlex APs can be deployed in a high-performance wireless mesh cluster with each AP acting as a wireless cluster node.

Zero IT Config is another breakthrough that radically simplifies the deployment and operation of multimedia wireless LANs. Zero IT config combines an intuitive Web-based wizard that allows any computer-literate user to set up an entire WLAN in a matter of minutes. Zero IT Config also provides automatic user security that eliminates the need for IT staff or users to manually configure wireless settings or security on their end devices. Users merely connect to the LAN and authenticate through a Web-based authentication portal. Upon successful authentication, the ZoneDirector system automatically downloads an applet to the user device that configures a unique encryption key along with the requisite wireless settings.

These innovations are unique to Ruckus and currently not found in any other WLAN system on

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the market.

## **7. What's driving the introduction of ZoneFlex?**

Driving the introduction of ZoneFlex is the market demand for a more industrial-strength Wi-Fi solution that delivers extended range, ease of use and advanced features – all specifically designed for the underserved small/medium business market. Ruckus Wireless is leveraging its success in deliver high-value/low cost solutions in the triple play market to multi-AP environments.

Because Wi-Fi has become the defacto standard for the last 100 feet of connectivity it is being rapidly deployed everywhere for everything. But today's iteration of Wi-Fi isn't designed to perform predictably, extend range or avoid interference. This is one of the primary reasons why Wi-Fi has largely remained a data-only solution.

Meanwhile small and medium businesses want to implement a robust and secure WLAN system but do not have the IT resources or budgets to do so. Their choices are extremely limited. In response, they have been forced to use feature-poor consumer-grade access points or costly and invariably complex high-end Enterprise WLAN systems. Neither of these options provide the feature/functionality and price point that meets their needs.

The Ruckus ZoneFlex system solves this problem, filling the gap with a robust and secure solution which is simple to configure, use and manage. Zoneflex is a WLAN system that delivers all the capabilities needed by the small and medium business at a fraction of the hassle and cost of the current alternatives

## **8. Against what products does ZoneFlex compete?**

The Ruckus ZoneFlex system is currently the only WLAN system purpose built for the SMB market. ZoneFlex uniquely combines capabilities not found in any other WLAN system – features such as automatic interference avoidance, extended range, beam steering, effortless configuration, automatic user security and high performance wireless meshing.

Currently the biggest competition comes from the low-to-mid tier solutions from companies such as 3Com, Linksys, Meru and Trapeze. These systems however are not designed to support multimedia applications or to provide such advanced functionality at an affordable price point for the SMB market.

## **9. Doesn't ZoneFlex compete against other centralized systems from companies like Aruba, Cisco (Airespace) or Trapeze?**

No. ZoneFlex is decidedly different from "traditional" centralized WLAN in five key respects: 1) ease-of-deployment (with full security) 2) multimedia support 3) predictable Wi-Fi performance 4) extended range and coverage and 5) low cost

ZoneFlex is currently the only WLAN system designed for IT-free configuration and operation. An entire WLAN with multiple Zoneflex APs can be deployed and configured in five minutes or less.

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ZoneFlex is also the only WLAN system on the market with built-in support for delay-sensitive voice and video traffic. A patented smart antenna system – BeamFlex - in each ZoneFlex AP picks the best signal path for a specific type of traffic. This ensures predictable performance for Wi-Fi signals – even in the presence of interference - to uniquely support multimedia applications.

Designed primarily for large enterprises, the WLAN systems developed by Aruba, Cisco, etc. sit directly in the data path forcing all traffic through them in order to provide packet processing functions such as firewalling, encryption/decryption and policy enforcement. Consequently these controllers must be equipped with expensive processing, encryption/decryption engines firewalls, etc. – making them extremely expensive, highly complex and total overkill for all but the largest corporation.

ZoneFlex streamlines this architecture by providing centralized control of APs and the WLAN without requiring all traffic to flow through the ZoneDirector all the time. Once a user is centrally authenticated by the ZoneDirector, all traffic from that user bypasses the controller. This allows a lower-cost and more scalable solution especially as faster speed wireless technologies, such as 802.11n emerge.

#### **10. Why is ZoneFlex needed now?**

1. Wi-Fi is now no longer a data-only technology.
2. Users now have handheld devices of all sorts that 1) support Wi-Fi and 2) enable rich multimedia applications
3. Small and medium business have no purpose-built WLAN systems available to them today that will help them put in place an easy to use and manage secure wireless LAN

#### **11. Is Ruckus changing directions with ZoneFlex?**

On the contrary, Ruckus Wireless is actually extending its unique triple play experience and product leadership into the small and medium business sector.

We have been approached by many small and medium business organizations to provide a wireless LAN solution that provides multimedia support, predictable performance and ease of use. ZoneFlex is this result of this market demand.

Through our customers, we've found that the proverbial 'triple play' transcends the home and carrier market. Given the number of users, types of applications and pervasiveness of Wi-Fi as a connection technology, the need for reliable connectivity and predictable Wi-Fi performance has never been more important.

#### **12. Can the ZoneFlex APs work independently from the ZoneDirector?**

Yes. ZoneFlex APs can be deployed and will operate independently from the Ruckus ZoneDirector.

#### **13. Does the ZoneDirector only work with ZoneFlex APs?**

Yes.

#### **14. Can ZoneFlex APs work with other vendors' controllers?**

No.

**15. What if I want to add APs to a ZoneDirector that only supports a limited number?**

Any ZoneDirector can be upgraded to support more ZoneFlex access points through a simple software license.

**16. How much cheaper is the ZoneFlex solution than alternatives?**

While the Ruckus ZoneFlex system will never be the low-cost leader, the system is positioned as the industry's best value solution. A 'standard' 6 or 12 AP deployment will typically be cost competitive with the low-end of the market while delivering the high-end features set that is typically twice the cost.

**17. How will ZoneFlex be sold?**

Exclusively through two-tier distribution (value-added resellers and master distributors).

**18. How simple is ZoneFlex to configure and manage?**

Configuration and management simplicity is ZoneFlex's strength. A complete ZoneFlex WLAN can be configured and deployed in a matter of minutes. A Web-based wizard on the ZoneDirector provides IT-free configuration for all ZoneFlex APs. Ongoing management is provided through an easy-to-use Web-based GUI. ZoneFlex APs merely attach to any Ethernet network and automatically discover the ZoneDirector system. Once up and running the entire WLAN manages and optimizes itself.

**19. How does ZoneFlex deal with AP and director redundancy?**

In any Zoneflex deployment it is possible to deploy multiple ZoneDirectors to provide redundant back up in the case of a failure.

The ZoneDirector is not required to be in the data path so adding a redundant unit is as simple as plugging in the additional device at a convenient location and copying the primary ZoneDirector configuration across.

In the event that the primary ZoneDirector fails, the Zoneflex APs automatically discover the back-up ZoneDirector and the entire Wi-Fi system operation continues as normal. ZoneFlex APs automatically look for an alternative Director. If one exists on the network, the ZoneFlex APs will join that Director and the network will be up-and-running automatically with no admin intervention.

In the unlikely event of an AP failure, adjacent APs can cover the area previously covered by that AP. ZoneDirector will automatically increase the power level of the adjacent APs (if necessary), and Ruckus's smart antenna technology will take care of any coverage holes immediately. Again, no admin intervention required.

**20. How much does ZoneFlex cost?**

The ZoneDirector 1000 series starts at US \$1200.00 for the six AP model. The ZoneFlex 2945 lists for US \$249. Deployment of one ZoneDirector 1006 and six Zoneflex APs starts from as little as \$2,694.

**21. How does ZoneFlex integrate within the existing network infrastructure and infrastructure elements?**

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The Ruckus ZoneFlex easily integrates into existing Ethernet network and works seamlessly with switches, firewalls, intrusion detection systems, authentication servers, directories and other network infrastructure already in place. It provides the ideal, hassle free WLAN solution for any small business that wants to get wireless up and running quickly with what they already have in place.

## **22. What type of security does ZoneFlex provide?**

ZoneFlex provides state-of-the-art link layer encryption, such as WPA-PSK, TKIP, and WPA-AES, built into every ZoneFlex AP as well as security functions not found in any other WLAN system, such as automatic user security using patent-pending dynamic PSK technology.

In addition, ZoneFlex support authentication through an internal database, the 802.1x framework and any existing RADIUS/ActiveDirector servers.

The ZoneFlex system provides additional client controls, the ability to detect unauthorized (rogue) APs, and client blacklisting.

All clients trying to associate with ZoneFlex APs are sent automatically to the ZoneDirector for authentication and authorization prior to being provided network access.

## **23. What types of advanced feature functionality does ZoneFlex support?**

Ruckus ZoneFlex support some unique and advanced features not found in any consumer or enterprise WLAN solution. These include automatic user security - the ability to automatically generate unique pre-shared encryption keys for each user and auto-configure each end device's wireless setting with no user intervention - Wi-Fi beam steering, extended Wi-Fi signal range and interference mitigation.