



## Smart City Networks Uses AirMagnet Handheld to Bring Wi-Fi Quality-of-Service and Security to the Trade Show Floor

March 2003

*AirMagnet's new generation of wireless tools allow Smart City to plan, implement, and manage new customized wireless networks for its customers every 3 days, with vastly improved performance and security.*

### **The Customer: Smart City Networks**

Smart City Networks is the nation's leading provider of temporary voice and data services, with more than 15 of the country's largest convention centers as customers. As the in-house contractor for these facilities, Smart City provides thousands of end-users with telecommunication and networking services during conventions, trade-shows, and special events. And with nearly two decades of experience punctuated by the delivery of technical services to the five largest computer and electronics tradeshow in the country, Smart City's reputation and expertise are unsurpassed in its industry.

### **The Challenge: Deploy, Manage and Secure Wireless Networks in a Constantly Changing Environment**

The increasing popularity of "Wi-Fi"-based wireless local area networks (WLAN) presented both a great opportunity and significant challenge for Smart City. The flexibility and freedom of movement of WLANs makes them ideal to provide network connections on the bustling show floors of conventions and tradeshow. However, installing a secure, high-performance wireless network meant to support thousands of participants in a short period of time can be a tall order. Exhibitors typically bring their own Access Points (APs) to the shows—conference networks are generally awash in misconfigured wireless hardware, creating security challenges, causing performance to suffer and generally creating a management nightmare for a service provider like Smart City. 2003 Comdex, held in the Las Vegas Convention Center, presented exactly such a dilemma.

### Solution Overview

#### Profile

- Leading Provider of Temporary Voice and Data Services
- Provider of Wireless Services to the 5 largest technology tradeshow.

#### The Need

- Quickly deploy a reliable, secure wireless LAN to serve 100s of trade show exhibitors, many of whom brought their own, incompatible access equipment, while ensuring maximum performance and the ability to troubleshoot problems on the fly.
- Manage the wireless network in a dynamic, constantly changing environment, where new access points and possible security breaches could be introduced at any time—the ability to troubleshoot in real time is absolutely critical.

#### The Solution

- The AirMagnet Handheld allows Smart City to deploy a network with guaranteed quality of service and unprecedented levels of security. With AirMagnet, Smart City can execute proactive channel planning for each event and actively audit exhibitor compliance, and can constantly monitor WLAN performance and immediately identify causes for service problems.

“At Comdex this year we found 123 APs that were brought in by attendees,” explained David Langford, Director of Data Services at Smart City. “None of these APs were configured to work with one another, and as a result we were experiencing overloaded channels, collisions, and all around poor performance.”

The wireless environments at trade shows are constantly changing. Exhibitors come and go, obstructing signals as they set up their booths and displays. The Smart City team must consistently monitor and re-evaluate show floor environments to ensure performance and availability of wireless networks. Before it tried AirMagnet’s Handheld solution, Smart City simply did not have the right tools to handle these situations.

“We were using wireless protocol analyzers and packet sniffers, much like we had when troubleshooting our Ethernet LANs. Honestly, this just wasn’t a helpful approach. We could get some data but it was at the wrong level, and it just took too long to analyze for us to get problems resolved quickly” said Langford.

### ***A Wireless Problem Needs a Wireless Solution***

AirMagnet’s solutions were designed with wireless networks in mind—they are not, like packet sniffers and protocol analyzers, wired solutions repurposed for wireless. As a result, the AirMagnet Handheld allows Smart City to monitor the health of every channel and device in any Wi-Fi-based wireless network quickly and easily. Problems can be proactively identified, and the Find Tool makes it a simple exercise to track down problem stations and Access Points.

A short demonstration of the product helped Smart City realize that the AirMagnet Handheld could significantly improve how its wireless data services are delivered. With the built-in Site Survey tool, Smart City can survey the show floor as often as necessary and create a channel plan for all of the attendees. Hundreds of unrelated exhibitors could bring their own wireless access equipment to a trade show with the assurance that Smart City can make it work together seamlessly as part of a secure, reliable wireless network. Furthermore, Smart City can use the AirMagnet Handheld solution to walk the show floor and audit user compliance with the channel plan it designed. Any problems that arose could be quickly identified by the AirMagnet unit and resolved by the team. The result was a network that could deliver highly predictable performance in constantly changing network environment.

*“...Honestly, I would not be comfortable offering wireless data services without the AirMagnet”*

*-David Langford,  
Director of Data Services,  
SmartCity*

### ***The New Wireless Network: Predictable and Secure***

Use of the AirMagnet Handheld solution allows Smart City to guarantee Quality of Service levels for its wireless data services—a guarantee previously unheard of in the

event services industry. “The AirMagnet has changed the services we are able to offer,” says Langford. “We have completely replaced the wireless sniffers we were using before—quite frankly, I would not be comfortable offering wireless data services without the AirMagnet.”

AirMagnet has also enabled new security services for Smart City. “With the AirMagnet we can validate all of the wireless security protocols in use today, and as a result we can now provide a secure network to our customers as an additional service. This device does everything that we were looking for and more—it’s the only analyzer capable of handling the trade show environment.”

Since its first test of the handheld product in early 2002, Smart City used AirMagnet’s Handheld product to deploy wireless networks at trade shows and conferences in Las Vegas, San Diego, Anaheim and Washington, D.C., with many more on the horizon for 2003.

### ***For More Information***

#### **AirMagnet**

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