

## Retail Marketing Support



### CASE STUDY

## The Express Group deploys Aruba Wireless Solution to support warehouse wireless scanners.

The IT department at The Express Group (TEG) was getting ready to move the companies entire IT infrastructure into a brand new building, and along with the new building, they needed a new Wireless LAN solution that would allow the company to increase efficiency. With an annual growth rate of 15% year over year for the past 22 years, the company was quickly outgrowing their current building.

“One of the driving reason’s we needed to deploy a new wireless network was so that our warehouse



personnel could use Microsoft Pocket PC Symbol scanners for warehouse operations. They use these handheld wireless scanners to scan product into and out of our production system for pick-n-pack operations and shipping/receiving, among other things” said Jonathan Martin, System Administrator at TEG.

With construction for the new building well underway it was time to start evaluating WLAN equipment



and vendors. “I spent over six months reading brochures, literature, white papers, etc. in trying to decide what wireless network system I should implement into my network. My research of wireless network components and systems boiled down to a decision between the Aruba Wireless Switching System and the offering from Cisco” said Daniel Mullins, Vice President - Information Systems at TEG. Dan goes on to say “The reason that I chose the Aruba solution is three-fold.”

“First, the Aruba system is a TRUE centrally-managed system. The access points and the control software are all managed within the centrally located controller. The Aruba controller serves as a layer 2 switch, layer 3 router, VPN server and ICSA certified firewall all in one composite box. Because the access points are centrally controlled, the Aruba controller not only provides the Ethernet connection to the access points, but also provides PoE (Power-over-Ethernet) and SoE (Serial over Ethernet). So, from my data center, I provide a dedicated network, power, and serial connection to my access points throughout the facility. This also means, because of my battery backup and generator within my facility, that my wireless network operates during a power outage – an important factor when you’re a shipping company.”

### THE EXPRESS GROUP STORY

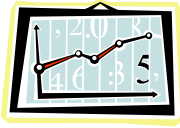
Twenty-two years ago, The Rebate Express™ was formed to help a major national retailer solve its many problems of coordination in the production, distribution and management of rebate selling materials. The consolidation program that was created, as a first in the industry, solved the problems of running ads without support material, and insuring that retail stores were always in stock with those materials. That program served 30,000 retail stores for twenty-two years. For all that time, The Rebate Express™ /The Express Group (TEG) grew at a 15% rate annually, and we have become known as The Problems Solvers for manufacturers and retailers who need specialized help in a multitude of areas.

TEG’s offerings now number in the dozens, and their client base number in the thousands. They have grown to be an international provider of rebate and distribution services, serving dozens of market segments. They have opened offices on both US coasts, and a mail operation in Canada.

Since the launch of the Web-Based TEG-Online in 2001, The Express Group has been setting new industry standards for technological advancement, speed of procedures and operations, and superior customer service.

The Express Group is located close to the heart of America, in Southeast Michigan, within a thousand miles of 85% of two nation’s population centers.





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**“My** second reason we went with the Aruba system was cost-driven. Because the Aruba Switch is the central control unit for the Thin Access Points, the Access Points are less expensive per unit to deploy, so I was able to deploy seven access points to cover my 72,000 square foot facility and still have enough coverage to have one access point work as a dedicated rogue network Sniffer.”



**“Finally,** my third reason for choosing Aruba was the relationship I had established with Delta Network Services through the costing and sales process. I really appreciate vendors that are local and take the time to know and understand your business to make the sale. The Cisco reseller only talked to me for about 30 minutes on the phone and sent me over a quote – which did not cover the majority of my needs.”

The core of the Aruba system at TEG consists of a single Aruba 800 controller configured in “Master” mode centralizing all configuration and security parameters for the entire wireless network.

**At** the edge, TEG has deployed Aruba AP-52 dual purpose 802.11a + b/g “thin” APs. There are several benefits associated with using “thin” APs as opposed to traditional “fat” APs. Thin APs don’t retain any configuration information in them once they are powered off and removed from the network. This in itself is a great security feature that prevents sensitive information about your network from being revealed if an AP were to be stolen. A second benefit is software upgrades and management. In a network where thin APs are deployed, all software upgrades and configuration information are controlled centrally on the Aruba Wi-Fi switch. This is a real benefit to the support staff when it comes time to roll out a new software version to support a new feature or function. “You simply upgrade the software on the Aruba Switch and the updates automatically get pushed out to every AP in the network”, said Jonathan Martin.

**Initially** the system was installed to support the use of wireless handheld scanners, but after the installation TEG has found several other ways to utilize the network. “We have also found that the wireless system allows our IT personnel to carry their laptops around the office and warehouse to troubleshoot user issues that may come up. In addition to this, we have been able to place more PCs into our training room than would otherwise have been possible due to the number of data jacks in the room. An added benefit is that it allows us to provide

### REQUIREMENTS

- Support for 802.11(a,b,g) cards
- Wi-Fi compliant
- Support for Symbol Scanners
- Secure environment
- Support for TKIP
- Seamless roaming between APs
- Centralized management of devices
- Power and Serial over Ethernet

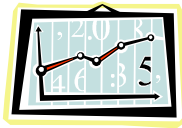
### SOLUTION

- Aruba 800 Wi-Fi switching system
- Aruba AP-52 dual purpose 802.11a + b/g APs
- Aruba AirOS VPN, RF Management and Wireless IDS applications.

### BENEFITS

- Provides Wi-Fi coverage for Symbol Scanners as well as IT staff and guests
- Centralized RF management
- Thin AP model providing security as well as lower cost of ownership
- Wi-Fi “Overlay” simplifying deployment.

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**Daniel Mullins, Vice President - Information Systems at TEG**



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guest access to visitors who have their own laptops with wireless network cards. All of these uses (and the security for each) are completely controlled by the IT department using the Aruba wireless switch web interface” said Jonathan Martin.

**F**urther security was added by configuring the Aruba controller to disable the Access Points after users have gone home for the day and to turn it back on again in the morning prior to the first users arriving. This further protects the company by concealing the fact that they even have a Wi-Fi network deployed during the nighttime hours and on weekends by the casual driver-by. Even though the Aruba controller is a fully ICSA certified firewall, this is just an extra precaution the customer choose to deploy and goes one step further in showing the flexibility of the Aruba system.

**T**he Aruba system software, AirOS, allows the support staff to dynamically create security rules based upon individual users or groups of users - granting them permission to systems, protocols or destinations appropriate for their given role in the wireless domain. The entire wireless system is managed from a single point in the network and includes advanced features such as auto Radio Frequency (RF) calibration (including channel

assignment and AP power level adjustments) and user mobility tracking. This feature is especially important for any organization moving towards Wireless VoIP phones where E911 locator service is critical.

**A**s with any manufacturers equipment, both hardware and software, you will always experience a small percent of failures out of the box, especially within the first 30-days of operation. “I will not tell you that the system has been working without a hitch since we installed it. We had some issues with installation. Delta Network Services spent an entire day onsite diagnosing the problem and determined that the Aruba controller was physically defective. Delta brought in a loaner unit and installed it early am the next day – and we ran on the loaner until they shipped us out a brand new unit. You don’t get that kind of service from a general reseller not specializing in their product” said Daniel Mullins.



**“Overall – I am extremely pleased with my Aruba wireless solution - so much so that we implemented the solution in a second facility out West. That installation went very well and has been up and running since June 2005 with no known troubles.”**

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**Daniel Mullins, Vice President - Information Systems at TEG**

### DELTA NETWORK SERVICES

Delta Network Services was formed in November 2001 to provide high-end network engineering and support services to medium and large scale enterprises. Our core competencies lie in the areas of L2/L3 switch routing, Gigabit and ATM infrastructures, converged IP networks and WLAN security and management. We provide our services, including product sales, to a diverse cross section of industries throughout Michigan and the Midwest. We are a certified Aruba Wireless Networks partner. Our offices are located in Southeastern Michigan.

*“We have also found that the wireless system allows our IT personnel to carry their laptops around the office and warehouse to troubleshoot user issues that may come up”.*

**Jonathan Martin, System Administrator at TEG.**



**We're All About Your Network!**

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