

Wireless LAN Data Capture — Pulling All the Pieces Together

Converging Technologies Create an Ideal Wireless Data Capture Environment

Integrated wide-area wireless voice and data solutions using automatic data capture are now possible on a single hardware platform. This combination of point-of-activity computing, automatic data capture and communications provides a new basis for compelling business solutions. Correctly implemented wireless wide area network solutions provide major improvements to business efficiency and a platform for new levels of service delivery.

The proliferation of GSM/GPRS wireless networks is providing the previously missing "link" to bring core technology requirements together. Businesses cannot afford to pay the large communications bills inherent to deploying applications that have not been designed and optimized to operate in the wide-area wireless environment. However, one of the most potentially confusing things for businesses trying to formulate a wireless strategy is the flood of "convergent" hardware devices. Devices with installed applications that are inherently mobile in nature, such as laser scanning, bar coding and hand-held computer technologies, are a natural fit in the wireless LAN environment.



Key Points

- › Businesses want to invest in wireless for genuine enterprise reasons
- › Automatic Data Capture in the form of bar coding or RFID should be an essential consideration in any wireless deployment
- › Bar codes and laser scanning allows critical data to be entered automatically and accurately in milliseconds
- › Mobile devices allow for flexibility with cost-effectiveness

Laser Scanning

Laser scanning, as an enabling technology, has revolutionized the data capture industry. Previously, most data capture methods were on equal par with each other, all requiring an immense amount of manual data entry and error checking. Consequently, inventory and other backend business support systems all relied on manual management of captured data.

A premier global player in this technology since 1980, Symbol Technologies was the first company to develop and bring to market the hand-held laser scanner. Today, it is estimated over 20 million scanners and scan engines are in use around the world today, with more adopted every day. And due to the reduction in size and cost, Symbol scan engines are found in an almost endless variety of products.

Pen-Based Computing vs. Bar Codes

One of the biggest drawbacks of pen-based computing is the inability to enter data quickly and simply. Handwriting using a pen or stylus can be difficult, tedious and prone to errors, and voice-to-text technology has not yet reached the practical point for deployment.

Bar code laser scanning overcomes this major barrier by allowing critical data to be entered automatically and accurately in a few milliseconds. Bar code scanners provide an inexpensive and reliable way to fulfill this need with "point and click" ease.

RFID Systems

RFID (radio frequency ID) systems work in a similar fashion to bar code systems, allowing for accurate and quick data entry in milliseconds. The difference is that a clear line-of-sight between the scanner and RFID tag is not necessary, as radio waves travel through most materials.

Hand-Held Computer Technology

The emergence of hand-held computer technologies and applications based on popular operating systems, such as Microsoft Pocket PC and Palm OS, ensure that software developers and solution providers can develop customer applications in a time and cost-effective manner.

The choice of hardware depends on the business requirements and objectives. The Symbol approach is to focus on the needs of the customer through the design of hardware that will withstand the demands of the field with laser-scanning and wireless communications for both data and voice.

In Today's Real World

In many different business sectors -- from the manufacturing or factory floor, to production scheduling or order processing, to retail or point-of-sale establishments -- wireless LANs are proving to be reliable and viable options to the wired LAN for a variety of reasons:

- › Laying cable proves to be cost prohibitive or not feasible because of the size of facility or retrofit requirements in scaling
- › Increased demand for mobile scanners for real-time data capture efficiency and access
- › Increased need for real-time access to accurate information for better order tracking, production runs, and production quantities

These devices are linked to mainframes or servers that usually have a software application running, such as inventory collection, order fulfillment, and shipping/receiving applications. By connecting wirelessly to inventory records and purchase orders, companies can reduce the inefficiencies of transferring data through paper forms.

Symbol Solutions: WiFi Infrastructure Management

Symbol's Enterprise Mobility Services provide comprehensive support and technical expertise for designing, deploying and maintaining successful mobility solutions. With a full suite of products -- from wireless switches, access points and wireless handheld devices to the Mobility Services Platform (Symbol's network management system) -- Symbol's diverse service

offerings enhance enterprise business operations, providing you with value and uptime throughout the entire lifecycle of your mobility solution.

Our Mobility Services give enterprise customers access to Symbol's expertise in designing and deploying global mobility solutions. The following products are included in Symbol's Enterprise Mobility Services product suite:

- ▶ **WS5100 and WS2000** -Symbol Wireless Switches provide integrated wired and wireless networking solutions, offering enterprise class security (802.11i, site-to-site IPSec VPN), public/private network segmentation and 802.11a/b/g support.
- ▶ **AP300** -Symbol's Access Ports represents the evolution of the access point from a difficult to scale network node to a simple RF media access device for the wireless switch with true "plug-and-play" (zero configuration) that is operational right out-of-the-box. The AP300 Access Port delivers robust and feature rich The AP300 Access Port delivers robust and feature rich
- ▶ **MSP** -Symbol's Mobility Services Platform (MSP) is a scalable hardware and software enterprise management solution, providing a single point of visibility into the mobile enterprise. With MSP, customers can rapidly deploy new mobile devices, upgrade existing devices, monitor health and performance, and quickly isolate and troubleshoot faults.
- ▶ **MC50/MC3000/MC9000** -Symbol's small lightweight wireless MC50/MC3000/MC9000 Symbol's small lightweight wireless PDA -style appliances support numerous data and voice enterprise-level communication applications.
- ▶ **MK1000/MK2000** -Symbol's retail microkiosk merchandising tools provide automated customer self-service for bar code pricing lookups while improving customer satisfaction via quick and easy usability.

Lower Total Cost of Ownership—Outstanding Investment Protection

Symbol's wireless portfolio removes the overhead and complexity of first-generation access point-based wireless LANs, delivering a wireless network that is less expensive to implement and manage. The extensive functionality, expandability, and centralized management eliminate the time and management costs associated with access point-based solutions, providing a lower total cost of ownership. And the flexibility to support the standards of today and tomorrow as well as the legacy wireless networks of yesterday provides outstanding investment protection.

Services and Support

Symbol Enterprise Mobility Services provides access to the deepest, richest technical expertise for mobility. Symbol is equipped to deliver the level of repair service that is required for your mission critical solutions. Through a flexible and relevant service portfolio, we provide the comprehensive support capabilities needed to keep this technology accessible and meaningful.

Customer Services ensure that your infrastructure is running efficiently and that their systems and solutions are running optimally. Symbol Enterprise Mobility Services delivers the knowledge and expertise to help you create new advantage through end-to-end mobility solutions.

Call to Action

For more information, contact Symbol at +1.800.722.6234 or +1.631.738.2400, or visit us on the web at: www.symbol.com or contact your local Symbol Sales Representative.

Summary

Symbol's wireless LAN solutions deliver an all encompassing SMART value proposition, enabling:

- ▶ Security and Scalability
- ▶ Manageability
- ▶ Availability
- ▶ Reliability
- ▶ TCO Savings

About Symbol Technologies

Symbol Technologies, Inc., The Enterprise Mobility Company™, is a recognized worldwide leader in enterprise mobility, delivering products and solutions that capture, move and manage information in real time to and from the point of business activity. Symbol enterprise mobility solutions integrate advanced data capture products, radio frequency identification technology, mobile computing platforms, wireless infrastructure, mobility software and world-class services programs. Symbol enterprise mobility products and solutions are proven to increase workforce productivity, reduce operating costs, drive operational efficiencies and realize competitive advantages for the world's leading companies.

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