Building Business Agility and Efficiency with Network-Powered Mobility

The promise of wireless mobility has encouraged IT executives to seriously consider its many business benefits. But before making the leap, chief information officers seek to clearly understand the full impact that wireless LAN mobility services will have on their organizations. Common questions focus on the ongoing management of existing and emerging mobile technologies, the impact of mobility on enterprise security, and the cost. To address these challenges, a growing number of companies are working with Cisco® Systems to turn existing infrastructures into *intelligent* infrastructures that unify wireless and wired networks. Organizations can then securely and cost-effectively extend mobility services across a variety of mediums and devices. This enterprisewide architecture approach reduces operational costs and security threats as it increases the user's ability to access resources wirelessly. Read further to see how Cisco is helping to build business agility and efficiency with network-powered mobility services such as location services, advanced security services, guest access services, and voice services.

Market research firm, IDC predicts that wireless-enabled laptop PCs will represent 100 percent of laptop PC sales in 2007 and by 2009 there will be more than 878 million mobile workers worldwide—Worldwide WLAN Semiconductor 2005–2009 Forecast, IDC, April 2005 and Worldwide Mobile Worker Population 2005–2009, Forecast and Analysis, IDC, October 2005

LOCATION SERVICES: PROMOTING ASSET VISIBILITY

Today, many IT organizations are being asked to transform IT from a cost center to a business enabler. Network-powered mobility services can help deliver measurable benefits, especially when they aid departmental interaction within an organization. For example, for years Bronson Methodist Hospital in Kalamazoo, Michigan lost time, productivity and money whenever employees from any department had to leave their normal duties to go hunting for wheelchairs. Bronson's IT networking department, the applications group, and the nursing staff worked together to address this challenge and transformed the process of finding assets with Cisco® location services. Today, patients wait no more than a few minutes for a wheelchair, and Bronson saves $28,000 a month by eliminating manual searches. Because Bronson has put an overall IT architecture into place, it is easier for the hospital to expand these services in the future by tagging other devices such as hospital beds, infusion pumps and more. Location services can, of course, benefit any enterprise. Tagging corporate assets such as handheld devices, laptops, and servers not only helps prevent theft, it also saves IT departments hundreds of hours of unproductive time spent tracking these assets.

In a commissioned case study on mobility services prepared by Forrester Consulting for Cisco Systems, Forrester interviewed organizations and found that location tracking provided quantifiable benefits in terms of the reduction of time spent locating assets and a reduction in the cost to replace missing assets. For the study, Forrester conducted a series of in-depth interviews with 12 organizations. The ROI for a composite company was 55 percent, with a breakeven point of 16 months after deployment—Forrester Consulting, *The Total Economic Impact of Deploying Mobility Services*, April 21, 2006.

ADVANCED SECURITY SERVICES: EXPANDING SECURITY OPTIONS

Advanced security services can unify wired and wireless environments and ensure the integrity of network information. Advanced security services use the pervasiveness of the wireless network to quickly and cost-effectively detect and resolve rogue wireless networks. Wireless intrusion detection provides 24-hour RF surveillance, which can detect malicious attacks that hamper business effectiveness. Pep Boys, the leading automotive aftermarket and service chain in the United States, takes advantage of advanced security services from Cisco to extend the use of its new point-of-sale system. With single user identification and enhanced intrusion detection and prevention features, Pep Boys can improve threat visibility and reduce the time spent monitoring and containing rogue access points. The same wireless security services make it possible for Pep Boys to provide its 20,000 employees with flexible wireless access to training material, as well as to wireless time and attendance applications. These benefits also extend to five Pep Boys warehouses, further taking advantage of a cohesive architecture model and making it possible for knowledge workers across the enterprise to collaborate more efficiently and effectively.

In the Forrester Consulting study on mobility services Forrester examined two advanced security features: intrusion detection and prevention, and single user identification through integrated 802.1X on the wired and wireless networks. Organizations attribute quantifiable benefits in the form of faster identification and containment of rogue access points, and also in a reduction of exposure to losses from viruses with IDS/IPS. Organizations credit *single user identification* with a reduction in operating expenses as well as improved protection against unauthorized users and theft of proprietary information. The ROI for a composite company was 114 percent, with a breakeven point of 14 months after deployment—Forrester Consulting, *The Total Economic Impact of Deploying Mobility Services*, April 21, 2006

GUEST ACCESS SERVICES: PROVIDING ACCESS FOR ALL

Dayton, Ohio, a three-time winner of the "All-America City Award," is ushering in an era of free Internet access for its citizens. Building upon its existing indoor and outdoor high-speed WLANs, the city is covering its 55 square miles with free Wi-Fi guest access. To accomplish this, the city deployed a Cisco® Wireless Mesh Networking Solution and a Cisco wireless LAN controller that helps to enable remote configuration and management of multiple Cisco wireless mesh access points. In the future, Dayton plans to put mesh access points on city buses to provide commuters with truly mobile access to the Internet. Because it planned ahead, Dayton implemented a dual-radio design with remote access points that can segment the wireless network for different types of users. That means the wireless network provides for shared resources and services that simultaneously meet the needs of public users, local businesses, and municipal departments—including police and fire departments. With guest access services, the network separates visitor and non-employee traffic from production traffic. This allows the city to securely segment the network for various constituents and also use the network as a revenue source by provisioning public access services. These features also help the city to protect the network through the fast identification and restriction of network activity.

According to the Forrester Consulting study, organizations that use a guest network to provide visitors with wireless access to the Internet stated that one of their quantifiable benefits is a reduction in IT support costs to manage wireless guest access. The ROI for a composite company was 328 percent with a breakeven point of six months after deployment—Forrester Consulting, *The Total Economic Impact of Deploying Mobility Services*, April 21, 2006

VOICE SERVICES: INCREASING COLLABORATION

Inefficient communications lead to project delays on a weekly basis in one of every two companies. This surprising fact was a major finding in a recent study by Forrester Consulting. (Next Generation Communications, Forester Consulting, March 2005) The inability to reach mobile and remote colleagues was one of the top reasons sited for internal decision delays: 93 percent of those surveyed said it commonly takes more than one mode of communication to reach another person, and 74 percent said it typically takes up to a full day to set up conference calls and collaborative work sessions. These and similar facts have made it clear to a growing number of corporations that they must provide employees with solutions that extend to voice communications the same mobility benefits that are found in wireless networks, if they are to ensure future business success.

Voice over WLAN (VoWLAN) enables employees using Wi-Fi enabled phones to receive calls wherever wireless access points exist. Brian Hoepner, a networking specialist with the Luther Midelfort hospital, sees mobility voice services as a "huge opportunity" for streamlining communications among his organization's employees and for better managing the hospital's resources and data. Serving Wisconsin as part of the Mayo Health System, Luther Midelfort regularly sends many of its doctors and employees to some 40 clinical sites in the Mayo system. Wi-Fi enabled phones have made it easier and more cost-effective for the hospital to contact staff as they travel, because these phones take advantage of the convenience and benefits of running voice calls over the hospital's WLANs. In the future, the hospital hopes to take advantage of dual-mode wireless phones capable of operating over Wi-Fi and cellular networks. Of course, a project of this magnitude can involve a large number of departments. To ensure that new components are properly deployed and managed requires careful planning, a well-defined architectural framework, and a collaborative group effort.

> According to the Forrester Consulting study, organizations using voice over the WLAN realize quantifiable benefits in the form of improved mobile worker productivity as well as in the avoidance of cellular or pager chargers. The ROI for a composite company was 157 percent with a breakeven point of nine months after deployment—Forrester Consulting, *The Total Economic Impact of Deploying Mobility Services,* April 21, 2006

CISCO® SERVICE-ORIENTED NETWORK ARCHITECTURE

The Cisco Service-Oriented Network Architecture (SONA) is the architectural framework that helps guide an enterprise's IT evolution from a cost center to a business enabler. Enterprisewide architecture solutions accelerate the deployment of new applications and business processes while promoting operational efficiency, enterprisewide productivity, and business agility. Cisco SONA does this in three ways:

- **Standardization and Planning**—Standardization increases asset *efficiency* by providing useful guidelines for IT implementation. Investments in training personnel, integration, components, and support can be extended across the enterprise. For example, a company with various resources distributed across multiple silos can combine these resources to benefit the larger environment. As a consequence, IT manpower, resources, and incremental investments in the delivery of services are all better utilized.
- **Consolidation and Virtualization**—Network resources and services can be used efficiently and securely by integrating data, voice, and video transport onto a single IP platform. The elimination of information and physical "silos" provides a more flexible, integrated, service-oriented infrastructure that decreases complexity and ongoing costs while increasing overall effectiveness.
- **Extended Services and Applications**—scalable design, support, and integration services offered through partners and finance programs deliver a complete solution.

INTELLIGENT NETWORKING

With Cisco SONA and the vision of intelligent networking, Cisco is helping organizations address today's toughest challenges as those organizations set the stage for future success. With intelligence that's "in" the network, not "on" the network, organizations can improve planning and achieve new levels of interaction that enhance communication and collaboration across the enterprise. By taking advantage of Cisco Life Cycle Services, organizations can better protect and manage the many benefits they gain from having mobility services integrated into a unified wireless and wired infrastructure.

For more information, visit: http://www.cisco.com/go/wireless or http://www.cisco.com/go/iin

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