Digital Community Deployments

Intel, working with other industry leaders worldwide, is helping communities deploy advanced digital technologies to transform the way their citizens live, work, and play.

The Intel® Digital Communities Initiative is helping progressive cities, regions, and communities worldwide enhance quality of life for their citizens with advanced government services based on broadband connectivity.

Today, Intel is working with other industry leaders to help governments plan and deploy wireless technology and innovative applications to form model Digital Communities. Key partners include Accela, Airpath Wireless, Alvarion, British Telecom, Cap Gemini, CDW-G, Check Point, Cisco, Civitium, Dell, IBM, iMove, Panasonic Computer Solutions Company, Pronto Networks, SAP, Szintezis Rt, Telindus, Tropos and Vertex.

The goals for Digital Communities are to improve government services, increase economic opportunity, and enhance livability. In a Digital Community, police officers can submit detailed reports from the field, parents can collaborate electronically with teachers, contractors can submit permit applications directly from job sites, and citizens can renew their driver's licenses online.

Digital Community services are based on a digital infrastructure that includes wireless broadband connectivity, core computing technologies, and interoperable applications. In a Digital Community, services delivery takes advantage of increased mobility from metropolitan-wide broadband wireless networks such as Wi-Fi and WiMAX*. It also takes advantage of powerful yet affordable computing and communications platforms based on Intel® architectures.

Taipei, Taiwan; Cleveland, Ohio; and Corpus Christi, Texas are among the worldwide model Digital Communities planning and deploying government services based on advanced digital services.

Taipei, Taiwan "Mobilizes" in a Big Way

In 1999, the Taipei City Government rolled out its Cyber-City Initiative. The aim of this initiative was to increase the city's overall competitiveness by raising government efficiency and increasing the ability of its 2.63 million residents to make use of digital information. The plan was to build an information infrastructure, universalize eLearning, build an eGovernment, and provide convenient, automated public services.

In order to build a digital community, the government's IT Steering Committee drafted the Taipei CyberCity Initiative Follow-Up Guidelines (2003-2006). These Guidelines focused on developing wireless broadband connection, mobile services and applications, creating an eBusiness environment, and increasing IT literacy. As the city has forged ahead with its CyberCity deployment, Intel has become a trusted advisor.

eEducation—The Taipei eUniversity online learning program has been in place for three years, offering courses in management, information technology, language training, and humanities. More than 654 classes covering 82 courses were provided for 29,279 students. There are now forty-nine private elementary and secondary schools connected to a system that enables electronic sharing of paperwork.

eGovernment—The information systems of various agencies under the Taipei City Government have been integrated through the information network and telecommunication technologies. The 436 agencies connected to a paper exchange system share about 400,000 government documents every month. Four major databanks—land registration, civic affairs, building management, and urban development—have been connected by a common interface to become the Taipei City Government Databank. This Databank now functions as a single portal to provide 155 types of administrative services without the need to submit paper certificates or household registration copies.

Security Surveillance—A community surveillance system was constructed to combine the security resources of each community with the city government. A total of 10,241 government agencies, schools, financial institutions, supermarkets, businesses and households have joined the General Household Surveillance System. An online Report System is also in place for citizens to file reports to the police.

Real-Time Transportation System and Parking System—An advanced transportation information system can quickly collect traffic information and help plan traffic control strategies. Forty-two closed-monitor systems allow people to obtain real-time images from the Internet. More than 40 public and private parking spaces in the Hsinyi District are linked into a Parking Guidance and Information System. People can check sign boards at the roadside, access the Internet, or make city calls to obtain real-time parking information. A voice and Internet information system enables people to check on parking dues and payment deadlines. This system also provides reminder calls about dues in advance of deadlines, thus reducing fines on unpaid parking dues.

GIS—The Taipei City Government Geographical Information System (GIS), a topographic data and management system, is updated annually. The information includes urban planning and land management, sewage and waste system maintenance, broadband connectivity, crime prevention, garbage disposal, parking services, and job placement. The system is linked to the Taipei City eMap to provide detailed address information about particular houses and buildings. Access allows police or firefighters to pinpoint the exact location of a particular building or person and raise an alarm within seconds, so the nearest emergency personnel can reach the scene rapidly.

OneCleveland Streamlines Processes in Cleveland, Ohio

Created by the City of Cleveland, OneCleveland is a nonprofit provider of community-based broadband services to educational, governmental, research, arts, cultural, nonprofit, and healthcare organizations in the Greater Cleveland area. For the 478,000 people of Cleveland, the future benefits of this community-based network include remote security monitoring, first-responder access to real-time data, and online permitting and inspections capabilities.

Mobile Workers—Cisco and IBM are working with the City of Cleveland to streamline a permit, inspection and licensing process based on Accela Communications software. Functionality will be extended to handheld devices in the field.Cleveland's mobile inspection staff will have access to broadband, using Wi-Fi technology, in the most active permit and inspection areas throughout the city. In the field,

workers will be able to upload completed work, reschedule inspections, and download new assignments via hotspots. This solution allows inspectors to remain in the field longer, reduces travel time, and eliminates the need to return to main offices for new assignments or research. The interdepartmental permit review process is now automated. Permits can be issued online and the system provides access to a complete permit violation history. Contractors will benefit from faster permit approval cycles based on expedited auditing and tracking capabilities.

Citizen Access—The online system allows citizen access to the permit process for application submittal, secure online payment, and status reporting. These self-service capabilities save time and provide accurate and consistent information. Citizens can access services and carry out the entire process online—from looking up information, to applying and paying for permits, to printing completed paperwork. This eGovernment solution is available 24 hours a day, enabling agencies to provide more convenient, faster service than ever before. Streamlined processes combined with self-service options mean that permits and applications that took weeks in the past can now be handled in just a few days.

Mobile Solutions Deployed in Corpus Christi, Texas

The 281,000 citizens of Corpus Christi will be able to access many city services online, and the city expects benefits in the areas of education, economic vitality and lower crime rates. Approximately 70 percent of the city's 3,100 employees work in the field and will benefit from dozens of planned mobile solutions. These advantages will also extend to the many employees of county, port authority, state and federal departments who work in the community.

The first step was the installation of an 18.5-square mile mesh network in Corpus Christi. As the project progresses, broadband will be extended to areas where it was not previously available. And the infrastructure of standards-based building blocks will be a foundation for a very cost-effective solution.

Vehicle Location—SAP developed and deployed a vehicle location tool to help the city track vehicles. Using any Wi-Fi device, the tool continuously transmits location data over the city's mesh network. A simple browser application is used to visually track vehicles in real time. Vehicle tracking is an important safety tool for mobile workers and first responders. In addition, SAP is exploring how this solution can be utilized to track and guide firefighters within burning buildings.

Video Surveillance—IBM has enabled Corpus Christi police cars with the ability to monitor and control streaming video content. Now first responders can see activity at a scene in real time prior to arriving. Deploying real-time information tools to the front line is a capability that will be expanded in the future with the new system capabilities.

Building Inspection—Dell has worked with the construction and permits department to enable building inspectors to update permit data from the field. Previously a manual process, the reengineered solution reduces the inspection cycle by six days while also improving accuracy. Contractors also realize savings as faster permit approval cycles result in "reduced time to money" for the business community.

Utility meters—Northrop Grumman is in the process of deploying an automated meter reading solution for gas and water meters. Meters on homes and businesses are being equipped with Wi-Fi devices that report consumption several times a day. The city expects labor savings as well as savings related to the early detection of leaks.

Summary

These three cities, along with many others throughout the world, are delivering comprehensive solutions that will improve government services, increase economic opportunity, and enhance livability. Intel, working with other key industry leaders, is promoting and assisting the development of these "Digital Communities." Digital Communities today, and in the future, will be transforming the way their citizens live, work, and play.

Find out more about the Intel® Digital Communities Initiative. Please visit www.intel.com/go/digitalcommunities.

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