Belgrade Embraces Motorola's MESH for Broadband Services

First Balkan City to Host High-Speed Wireless Networking for Delivery of Metropolitan VoIP and Internet Access

Founded around the 3rd century BC and one of Europe's oldest cities, the Serbian capital of Belgrade is home to 1,5 million people and covers an urban area of some 360 km². Renowned for its contribution to science and the arts, this progressive city has taken another monumental step in its development by being host to the country's first metropolitan Mesh-based WiFi wireless network.

Pioneered by local ISP and Motorola partner, ZoviMe (meaning Call Me in English), the network offers broadband speed Internet access and VoIP (Voice over Internet Protocol) and is expected to attract in excess of 60,000 users by the end of 2009. The company has earmarked €2 million for the development of the network which will provide a much-needed platform to enhance local business and bolster the delivery of public services.

Currently around 100 4300 series Mesh Access Points are installed around the city centre with an additional 600 to be deployed to accommodate the predicted growth in the user base.

Ubiquitous Connectivity and High-Speed Performance Guaranteed

The aim was to build a reliable, cost-effective wireless network that could host bandwidth-intensive applications such as web browsing, email and telephony using VoIP. It would also need the scalability to host future applications such as video surveillance and other public and private services.

Motorola's Mesh Wide Area Network (MWAN) standards-based technology was chosen after tests showed its ability to deliver high-speed communication with the flexibility to meet network performance and capacity. Motorola's in-country support and 24-hour global technical help desk were other significant factors in the decision-making.

An initial problem was the availability of suitable sites for installing hardware, which requires a reasonable height to ensure good coverage. Belgrade has strict laws governing the protection of historical buildings, so Zovime had to negotiate with utility companies to obtain permission to deploy equipment on lamp posts and other high-rise infrastructure.

Company
Zovime ISP / City of Belgrade, Serbia

Technology Partner
ZoviMe d.o.o

Industry Name
ISP/Government/Municipal

Product Name
- Motorola Mesh Wide Area Network
- AP4300
- Element Management System (EMS)
- One Point Wireless Manager

Solution Features
- Flexible Design
- High-performance Routing
- Quality of Service
- Minimising Total Cost of Ownership

"Zoran Markovic, CEO at Zovime, said: "I'm very confident that the network will achieve its goal of providing reliable, high-speed broadband access across the Belgrade city centre – early indications already show a significant user base so we're already on target to expand. This is truly amazing technology that is opening up our country to the world."

Wireless Network Puts Belgrade on the Broadband Map

The Serbian capital city of Belgrade has become host to a revolutionary wireless broadband network based around Motorola's Mesh Wide Area Network technology for the delivery of high-demand services such as Web browsing, email and VoIP accessed via mobile devices.

Leading the Field in Broadband Metro WiFi Technology

The first phase of the Mesh network is focused on an area of approximately 5km² in and around Belgrade's city centre, concentrating initially on the highly-populated Terazije and Nikola Pasic squares and Knez Mihailova and Cika Ljubina Streets. This pilot phase also offered free 'trial' network access to early adopters during April and May this year.

Motorola's MWAN 4300 series technology is a high performance, meshed WiFi solution which enables users to wirelessly access broadband applications seamlessly. The dual radio functionality (operating in the unlicensed 2.4GHz and 5.4/5.8GHz frequency bands) allows for a second radio to be enabled to cater for an increase in network capacity. This improves overall network throughput, reduces latency (the time it takes for a packet of data to travel from one point to another) and enables more clients to be served by a single backhaul link (the physical gateway access.to the Internet).

The network hardware comprises easily-installed, small and lightweight access points which not only deliver WiFi to users, but act as router repeaters for other access points in the network. The network offers economic flexibility and investment protection as it is easy to install, configure and maintain; delivers superior quality of service; is highly secure; provides excellent performance and is specifically designed to meet strict cost per kilometre and ROI targets.

The result is a powerful, self-forming, self-healing, interconnected wireless broadband network that can blanket a campus, downtown or entire city with wireless broadband access.

Broadband Access a Boost for Private Business and Public Services

The advantages and benefits of the Mesh network are manifold. In addition to providing sorely-needed broadband access, applications such as VoIP provide for low cost telephony, particularly international calls.

The short-to-medium term ramifications of broadband-on-demand for companies (SMEs in particular) include a significant reduction in communication costs, enhanced efficiency due to easy access to company networks and information, improved mobility and freedom of communication, an extended geographical customer base and a cost-effective platform for research and multi-media marketing.

In the longer term, the network has the potential to expand exponentially and incorporate extended broadband-based applications such as video surveillance for public and private security, the consolidation of municipality services into a single system, secure online utility payment systems, school networks including online learning applications and a myriad other public and state services. And once the Belgrade network achieves critical mass, it can be extended to include other cities and towns across the country.

TEMPLATE/CASESTUDY-ENG(02/08)

www.motorola.com

Motorola, Ltd. Jays Close, Viables Industrial Estate, Basingstoke, Hampshire, RG22 4PD, UK