



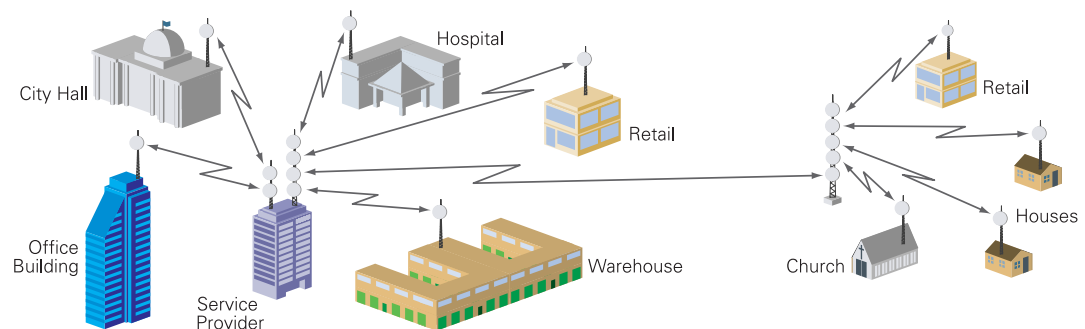
## MOTOROLA WIRELESS BROADBAND

# PTP 800

## Licensed Ethernet Microwave

### Service Providers: Demand-Driven Opportunities

Sample Service Provider Deployment



The U.S. government is offering \$7.2 billion in broadband grants as part of the economic stimulus package, some of which is destined for rural areas.

Source:  
GigaOM.com, March 2009

Around £1bn has been committed by the European Union as part of a project to provide 100% broadband Internet penetration across the territory. "Broadband is of strategic importance because of its ability to accelerate the contribution of these technologies to growth and innovation in all sectors of the economy, and to social and regional cohesion," said the Commission.

Source:  
European Commission, May 2009

Both wireline and wireless service providers find themselves serving a broadband environment where demand is expanding at an exponential rate. Industry trends indicate that wireless bandwidth requirements will increase dramatically over the next four to five years. In fact, broadband has become so intrinsic that it has established itself as a necessity even in the harshest of financial climates. This explosion is explained in part by the consumer's increasing tendency to multitask on various broadband devices at the same time. As an example, a customer may download movies as they check email via a PDA or talk on a cell phone. These next-generation users want to use the Internet in business the way they use it everywhere else, and that is bringing tremendous changes in workplace communications while presenting excellent opportunities for service providers that are equipped for growth.

#### Reaching Remote Locations

Significant opportunities arise to service customers in rural communities. Because many rural communities find themselves severely lacking in broadband capabilities, their populations are typically underserved, some having no broadband access at all. The current broadband gap has left scores of smaller hospitals, schools, financial companies and cultural institutions faltering in their abilities to communicate and educate with the same fluency as their counterparts in larger, better-connected communities.

#### Racing WiMAX and LTE Adoption

In contrast, metropolitan areas are gearing-up for the widespread deployment of WiMAX and LTE networks. Electronics manufacturers around the world have heralded this new paradigm, developing a roster of WiMAX-enabled netbooks, smartphones, PDAs and laptops for both business and consumer use. At the same time, LTE-enabled devices are starting to enter the market. To take advantage of these opportunities while maintaining a profitable business model, service providers need an affordable, quick-to-market wireless broadband solution that utilizes their existing investments effectively and can adapt itself to changing customer needs, even as those needs transform themselves.



Outdoor Unit



Compact Modem Unit

## Powerful Features Facilitate Growth

Recognizing the growing need for wireless broadband and the emergence of WiMAX and LTE networks, Motorola designed its Point-to-Point (PTP) 800 Licensed Ethernet Microwave solutions to provide service providers with an IP-based, wireless connectivity alternative that delivers carrier-grade reliability and high-throughput at an affordable price point. Operating in the 6 to 38 GHz<sup>1</sup> radio frequency (RF) bands with up to 364 Mbps full-duplex throughput and user-configurable channel bandwidths from 7 to 56 MHz, PTP 800 radios can maximize the efficient transfer of data, voice and video to serve a wide variety of service provider applications.

## Exceptional Scalability

PTP 800 systems offer “Pay as You Grow” throughput scalability, allowing you to purchase only the throughput needed today and add capacity when you need it. This flexibility allows you to reduce initial capital expenditures while planning for future growth.

## Migration to IP-Networks

The extraordinary growth of broadband data usage can become an important profit center for providers. Because circuit-switched networks are not ideal to support broadband service, many providers have started or are planning to start the transformation to an IP-based packet switch architecture that is capable of delivering broadband for high-speed data communications. With the movement to IP-based networks beginning to gain momentum, PTP 800 solutions are optimized for IP and can help in that transition.

### Typical applications:

- Wireless backbone
- Last-mile access
- Leased-line replacement
- High-performance backhaul
- High-capacity IP ring
- Connectivity where spectrum is congested

### Key Features:

- 6 to 38 GHz RF bands
- Carrier-grade reliability
- Up to 364 Mbps (full duplex)
- 7 to 56 MHz channel widths
- Adaptive Coding and Modulation
- “Pay as You Grow” throughput
- Easy, fast deployment
- Wind speed survival up to 150 mph (242 kph)
- Flexible wireless network management
- Latency to < 115  $\mu$ s at full capacity

## Invaluable Link Planning and Configuration

Motorola’s PTP LINKPlanner tool lets you accurately predict link performance prior to purchase, so there are no surprises when you are ready to deploy your PTP 800 system. You can plan and optimize a single link or multiple links simultaneously, conduct “what-if” scenarios and instantly see the effects of changes, obtain a detailed performance report and display your wireless network via Google™ Earth, all designed to decrease deployment man-hours and stress. To simplify the planning process, LINKPlanner provides easy-to-use pull-down menus and automatically loads path terrain profiles and environmental factors such as rain fade. Once a link is optimized to your requirements, LINKPlanner’s integrated configuration tool streamlines the purchasing process by giving you a complete licensed microwave Bill of Materials (BOM).

## PTP 800 for Service Providers

Motorola’s PTP 800 Licensed Ethernet Microwave solutions can help you grow your subscriber network economically while establishing or extending services in underserved areas. As a market leader in wireless broadband solutions, we can help you design and deploy reliable, high-throughput, affordable wireless systems to meet your growing demand for broadband services. Plus, PTP 800 Licensed Ethernet Wireless bridges represent a breakthrough solution that provides an easy, smooth migration path to an IP-based Next Generation Network.

## Motorola Wireless Broadband

PTP 800 solutions are included in Motorola’s comprehensive portfolio of reliable and cost-effective wireless broadband solutions that, together with our WLAN solutions, provide and extend coverage both indoors and outdoors. The Motorola Wireless Broadband portfolio offers high-speed Point-to-Point, Point-to-Multipoint, Mesh, Wi-Fi and WiMAX networks that support data, voice and video communications, enabling a broad range of fixed and mobile applications for public and private systems. With Motorola’s innovative software solutions, customers can design, deploy and manage a broadband network, maximizing uptime and reliability while lowering installation costs.

<sup>1</sup> PTP 800 models operating in the 6 to 38 GHz frequencies will be available in a series of product releases.



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