



# Parnaíba (Piauí), Brasil

*The citizens of Brazilian municipality of Parnaíba can now enjoy free wireless broadband Internet connection using Motorola networks.*

**The city located in the state of Piauí has implemented a network based on Motorola's Point-to-Multipoint, Point-to-Point and Wireless Local Area Network (WLAN) platforms, providing nearly 140.000 inhabitants with free Internet access.**

Parnaíba, a city located on the coastline of the Brazilian state of Piauí and the second most populated city in the region has chosen Motorola's technology to upgrade its communication infrastructure. The municipality has deployed a wireless network based on Motorola's Point-to-Multipoint distribution and access network, Point-to-Point wireless Ethernet bridges for backhaul, Wireless LAN and PRIZM Element Management System to provide free broadband access in the major areas of the municipality.

The implementation was conducted by the company Safety Way; in conjunction with Interway do Brasil and Minascontrol Equipamentos e Sistema Ltda, Motorola's retailer and distributors, respectively. This project is the first phase of the Parnaíba Digital City program, aiming at democratizing access to information to the entire municipality population through widespread access to the Internet.

The wide coverage offered by the wireless network has made it possible to connect various municipal entities including healthcare centers, hospitals, and public safety bases, such as police stations. Once the project is complete, students from over 100 schools will enjoy the benefits of Internet access, teachers and professors will have access to new ways of delivering their training, and communication between the various educational and research institutions will be greatly improved.

The solutions deployed are characterized by their high-performance and reliability. Point-to-Point wireless Ethernet bridges deliver uninterrupted and secure access to databases and the Internet, as well as connectivity in areas of the city that were previously inaccessible. Additionally, these products provide traffic backhaul, whether of video surveillance cameras, Mesh nodes and hotspots. Point-to-Multipoint links allow for the replacement of leased lines and eliminate the need for costlier wired networks. WLAN networks offer the possibility to securely and reliably build public or private wireless networks indoor and outdoor.

**Implementation summary**

**Customer:**  
Municipality of Parnaíba

**Location:**  
State of Bahia, Brazil

**Solution:**  
Implementation of Motorola's Point-to-Multipoint, Point-to-Point, WLAN and PRIZM platforms.

**Applications:**  
Wireless broadband services, integrated communication and data transmission

**Website:**  
[www.parnaiba.pi.gov.br](http://www.parnaiba.pi.gov.br)

**Project Integrator:**  
Safety Way

**Distributor of Motorola Equipment for the Project:**  
Interway do Brasil and Minascontrol Equipamentos e Sistema Ltda





"The Parnaíba Digital City project was devised to foster technology inclusion, especially aiming at those citizens who have no resources at all to access this new worldwide knowledge means which is the Internet. Our inspiration was the city of Macaé, which enabled the democratization of knowledge by providing free Internet access" stated *Jean Carlos Galvão Mourao*, Coordinator in charge of the Parnaíba municipality project.

Macaé is a city located in the state of Rio de Janeiro, Brazil, whose main economic activity swirls around oil-related business. Macaé authorities have chosen Motorola's Point-to-Multipoint platform to conduct a project aiming at using wireless broadband to enhance the management of the municipality besides offering faster and more practical services to the population.

#### **The Go-digital Project**

The go-digital project contract entered in November 2007 stipulated the deployment of a broadband wireless network via radio, including the installation of a cluster in the city administrative center. The project was completed in November, 2008 with the installation of Motorola's Point-to-Multipoint and Point-to-Point technologies. Motorola is the provider of the Internet backbone to the municipality within an area covering 16 kilometers around the central tower.

In order to further expand the coverage of Parnaíba access points providing citizens with Internet free access, a WLAN network was also created. This network uses access gateways and wireless switches distributed in seven remote locations.

Besides the so-called "Wi-Fi islands", both local population and visitors to Parnaíba can enjoy wireless Internet access at the João Silva Filho International Airport, at the Bus Station Terminal, at the Universidad Federal and the Education Federal Center, among several significant spots in Piauí.

"It is important that municipalities become aware that access to information is one of the main factors involved in a community's growth and development. At Motorola, we are proud to provide technology that fosters social inclusion and improves public communications", stated *Vanderlei Ferreira*, Sales Regional Director for Enterprise, at Motorola Brazil.

#### **The Expansion of the Project Entails New Benefits**

The second phase of the project, which began in 2009, includes the installation of wireless digital cameras in strategic points of the city which will broadcast images to a surveillance center belonging to the Municipal Civil Guard.



At the same time, the entire public healthcare system is expected to be networked, resulting in great benefits for the population. This healthcare system will make it possible to review patients' medical records remotely, video conference from remote places and most specially provide a solution to one of the major issues regional hospitals are facing: shortage of doctors. Now, consultations conducted remotely over the Internet will greatly increase the number of patients doctors can treat.

"Thanks to this project, Piauí will be a reference featuring the benefits brought about by becoming a digital city. Apart from bridging the digital gap and optimizing local government, digitalization has also proved helpful when it comes to reinforcing public safety by enhancing communication in the public forces and enabling video surveillance systems. The efficiency of the health system also benefited from the new network since uninterrupted connections can be maintained between hospitals, ambulances, doctors and patients. The intelligent traffic system will, in turn, facilitate the flow of vehicles and greatly reduce traffic jams", *stated Joeval Martins, Wireless Broadband Channels Management of Motorola Brazil.*

The expansion of the project using Motorola's wireless solutions aims at optimizing of all the administrative processes related to the local government and the improvement of the entire communications system between the state and municipal dependencies.

"As we are proceeding with the project next stages, we plan to deploy more radio clusters equipped with Motorola solutions, expanding the current network coverage", *stated Reginaldo Marreiros, Safety Way General Manager.*

#### **Motorola Wireless Broadband**

Motorola's Wireless Broadband and 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 fixed and mobile applications for public and private systems.



**MOTOROLA**

[www.motorola.com/caribbean/wirelessbroadband](http://www.motorola.com/caribbean/wirelessbroadband)

MOTOROLA and the stylized M Logo are registered in the U.S. Patent and Trademark Office. All other products or service names are the property of their registered owners. © Motorola, Inc. 2008