

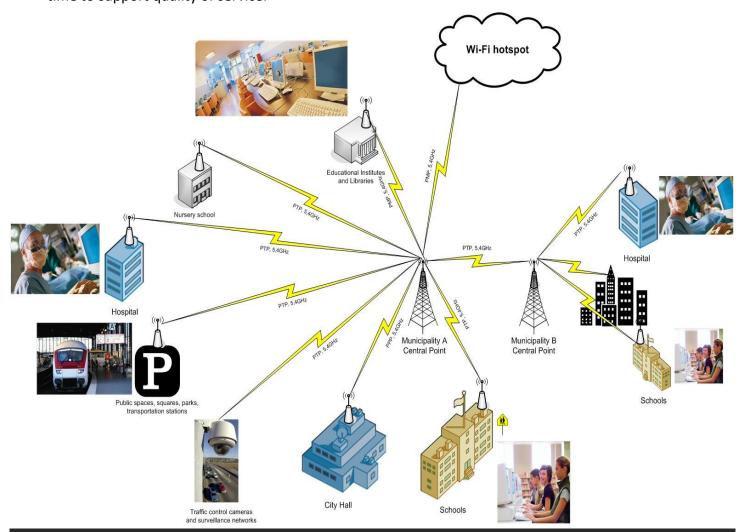
Application Note



Wireless Municipality Networks

A variety of services and applications can be supported from a modern wireless broadband network. In most of the cases, the wireless network extends the wired network either by connecting remote points where no other connection is possible or affordable, or by providing access and services to municipal citizens.

The major advantage of such networks is that they operate as high capacity "wireless bridges" in order to connect remote sites. In this way, they can transfer high speed data traffic and in the same time to support quality of service.







Marac is in position to provide "turn key" solutions for Wireless Municipality Networks. Marac's product portfolio includes modern OFDM based high capacity wireless systems and pre-WiMAX equipment that realize such networks.

Marac can also provide the planning and design of the solution, as well as integrated services with existing systems and infrastructure.

Indicative Applications

- Connecting schools, libraries and hospitals
- Wi-Fi backhauling Internet access to civilians
- Extending municipality networks
- e-government applications
- e-learning applications, virtual classroom
- Video conference
- Voice over IP applications
- Telemedicine
- Video surveillance and traffic control systems
- Remote monitoring and sensing for fire etc
- VPNs for enterprises and other organizations
- Providing services to Multiple Tenant Units
- Buildings and facilities interconnection
- Municipalities interconnection

Application Note

Wireless Municipality Networks

Key OFDM Features

- Robust wireless links even in the presence of multipath interference
- Ability to operate in some non line of sight conditions
- · Ranges up to 80 km
- Extremely low latency for time sensitive applications like VoIP and video conferencing
- Adaptive modulation is used to changing line conditions for robust link reliability
- · High speed communication
- Carrier class remote Network Management System support
- Over the air encryption

Operation in license free frequency bands



In 2008 Marac was awarded and successfully completed several municipality wireless networks all around Greece, supporting a variety of services and applications

About MARAC

MARAC Electronics, S.A. was founded in 1976 in Piraeus and is considered as one of the most important groups in the field of technology and integration of wireless/wireline access and transmission networks, corporate telecom and datacom solutions.

Its 30 years of experience and its benefits, have established very well the company into the Greek Market as well as in most of the countries in South-Eastern Europe, helping operators, service providers, enterprises and government organizations roll out broadband networks and solutions to support advanced communications.

Marac is certified according to ISO 9001/2000 and has been a member of the Stock Exchange of Athens since 2003.