

Success Story
RAN Site & Core Site Engineering

Market Served
Telecommunications



Location Bahrain

Scope Design, Engineering,
Manufacturing,
Installation and
Project Management

Client Motorola/Menatelecom

Duration 4 years

Summary

WiMax or Worldwide Interoperability for microwave access provides a robust, reliable, and cost effective means to deliver broadband services in metropolitan and rural areas. Menatelecom deployed and managed a nationwide 802.16e-based mobile WiMAX and IP Multimedia Subsystem (IMS) network in the Kingdom of Bahrain. The project aimed at delivering wireless broadband connectivity and advanced data services to both business and residential customers across the kingdom. The evolution of Menatelecom's WiMax infrastructure and the need to pace up with the technological development required a competent partner. Motorola, an American multinational telecommunication company, was selected to deploy and manage this system and Irinatech Bahrain, with its vast experience in the local telecommunication market, was chosen as the preferred contractor to Motorola to realize this goal.

Irinatech - plays a vital role in building the nationwide telecommunication network in Bahrain - meeting the region's business and residential demand as well as technological development.

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Background

RAN (Radio Access Network) deals with the air interface part of the WiMax network which includes site acquisition, building cell sites, designing frequency plan, selecting antennas and network optimization. Irinatech has a strong understanding of the specific requirement of Bahrain and is experienced in overcoming the challenges in achieving the goals of developing the RAN network.

Roof top towers and greenfield towers, based on the need of landscape where these telecommunication structures were to be installed, were designed and deployed by our team of Engineers. This was a challenging task that required stringent requirement of safety of material and manpower especially at heights during the installation phase.

Services

Irinatech was commissioned to handle the concrete foundations, including excavation/backfill, dewatering, shoring, formwork, epoxy-coated reinforcement, using sulphate resistant cement concrete 5,000psi was constructed under normal soil condition. Dry raft foundations were preferred in areas where soil was suspected to subsidence. It is required where soils have low bearing capacity and have to support heavy structural loads. Subsidence may occur from different sources like change in ground water level due to climatic change. Non-penetrating towers ranging between 3 to 70 metres including painting and outdoor cabinets were installed right up to their power terminations.

All works were completed by our experienced telecommunication engineers, in compliance with the local and international regulations. As a result, Irinatech was able to ensure that the design was optimal and enabled sound communications.

Irinatech at a glance

We contract to local, regional and multinational corporations and public institutions. Our general scope of work includes Engineering, Procurement, Construction and Handover to end-user. Our current growth strategy focuses on leveraging opportunities in the emerging markets of the Middle East, South Asia and Africa. Primarily focused in the power

infrastructure market, we work across a range of industry sectors including energy, water, telecommunications and infrastructure.

Our services include:

- Turnkey Construction
- Technical Support Services
- Engineered Products

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