

# WORKING AS ONE

Nawras, Oman, deploys a fast and effective GSM network

## Highlights

### Customer Objective

- Deploy new GSM network within six months
- Rapid acquisition of large market share

### Ericsson Solution

- Turnkey GSM core and radio network deployment
- Managed Services
- MINI-LINK
- EDGE-enabled base stations
- MMS, Automatic Device Configuration (ADC) and charging systems

### Customer Benefits

- Advanced end-user functionality from network launch
- Tailored high-quality network design
- Ability to focus on core business

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In 2005, Nawras, Oman, launched its new network, facing geographic and deadline challenges. With a turnkey solution from Ericsson, the network is now among the best in the world.

The Sultanate of Oman is one of the fastest developing countries in the world. In 2005, competition for the second license in Oman was so fierce that it attracted 28 international bids. Ericsson worked with operator Nawras in the initial stage of its business plan, prior to the signing of an official agreement for network deployment. Having secured the second telecoms license, Nawras was required to deploy a GSM/GPRS network to cover over 60 percent of the Omani population within six months.

Peter Rubeck, CTO, Nawras, comments on the main reasons for partnering with Ericsson: "We selected Ericsson for different reasons, including its ability to use experience from Oman and around the world. We have also chosen a very aggressive model for outsourcing. Not only is Ericsson the vendor, but it is also the partner in the outsourcing, so it is actually planning, delivering and running the network."

Nawras realized that controlling the activity required for the project's successful completion was of paramount importance. As a result, after winning the license bid, Nawras contracted Ericsson for full turnkey network deployment, using a comprehensive range of solutions and services. With a very limited time in which to deliver a competitive network, Ericsson established well-defined Key Performance Indicators (KPIs) to ensure success. Robert Clark, Key Account Manager, Ericsson, comments on the benefits of Ericsson's solution: "Ericsson has a complete solution from core network, transmission and radio to service layer, all tested within Ericsson before being provided to operators."



Peter Rubeck,  
CTO,  
Nawras

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Oman presents a number of geographical challenges in terms of network deployment. It has a combination of coastline and mountains and is over 300,000 square kilometres in area with a humid climate. Expert analysis of the region and detailed network planning from Ericsson was essential in order to create a tailored network infrastructure. The subsequent design was studied and reviewed intently by both parties to ensure that the required quality of network coverage was achieved. Understanding the large distances involved and experience of delivering communications effectively in this environment, gained from providing similar solutions across the Middle East region, were brought to the project by Ericsson. As a result, EDGE-enabled network infrastructure including MINI-LINK was coordinated in an optimal way in order to maximize capacity.

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**Ross Cormack,**  
CEO,  
Nawras

“We have tremendous figures on quality; we are already one of the best networks in the world.”

200 sites were acquired for Nawras and Base Transceiver Stations (BTS) were deployed to establish the network efficiently. MINI-LINK was employed throughout the coastal regions in order to connect and access various BTSs. Deployment took place in a coordinated and carefully planned fashion, in order to optimize Nawras' investment capital. Thanks to Ericsson's careful initial planning, the network build phase of the project was delivered in record time, with an internal launch after only five months. A key component in operation was Ericsson MINI-LINK Manager, linking the Network Operations Center with the different sites employing MINI-LINK. The system allowed Nawras to maintain visibility of its network performance, ensuring that outages anywhere could be identified and adjusted for.

Sheikh Abdulla Al Rawahi, Chief Technical Advisor, Nawras, outlines the combined efforts that went into the successful network deployment: “To achieve all this in six months needed an effort from everybody and we worked as one team. Ericsson has a big shopping list, but we knew what we wanted.”

Ericsson's scope of responsibility included site acquisition, network build, testing and the integration of individual sites for radio, transmission and switching functionality. Global GSM and EDGE expertise meant that Ericsson brought with it the ability to deploy future-facing network infrastructure efficiently. As part of the agreement, Ericsson delivered tailored systems and services to increase Nawras' functionality, giving the new operator a critical competitive edge. Ericsson's Service Layer solutions included Multi-media Messaging Services (MMS) and charging systems. Other features, including Automatic Device Configuration (ADC), have proven highly attractive to end-users in operation.

## Project Milestones

### September 2004

- **Contract signed**

### February 2005

- **Completion of network deployment and supply for GSM system in the Sultanate of Oman comprising 200 BTS sites**
- **12 transmission-only sites, associated transmission equipment and the deployment of core access network equipment**

### August 2006

- **Deployment of further MSC, BSC and RBS sites and an additional 25 transmission-only sites**

### February 2007

- **Future expansion of network infrastructure**
- **MINI-LINK upgrade**

In order to support a high level of functionality in Oman, a large number of local personnel benefited from Ericsson Training Programs. This also helped Nawras abide by a countrywide initiative for 'Omanization' – the development of skilled personnel from within Oman. Ericsson's tailored education solution has ensured that the new operator has a localized workforce specifically qualified to meet the challenges of a rapidly-growing subscriber base.

Nawras has been able to build an entirely credible company and a real force for change in Oman in a very short time. The operator also launched with a large number of advanced services for its market. Ericsson's partnership approach to the project was focused very much on the long-term progression of the operator. The end-to-end solution went beyond providing and establishing infrastructure, deploying a service that would serve the operator into the future and meeting vital business goals along the way.

Ross Cormack, CEO, Nawras, underlines the strengths of the network that has been delivered by Ericsson: "Critical to our success was having great service quality and a network that did what we said it would, which was to deliver high-quality voice services with an extremely low dropped call rate. We have tremendous figures on quality and we are already one of the best networks in the world."