

Hughes Network Systems in the Middle East/North Africa

HUGHES
NETWORK SYSTEMS



Supporting Advanced
Telecommunications
in the **Middle East/North Africa**

Hughes Network Systems: supporting advanced telecommunications in the Middle East/North Africa.

An Introduction to Hughes Network Systems.

Hughes Network Systems (HNS), a unit of Hughes Electronics Corporation, is a world leader in broadband satellite and wireless networking solutions. HNS holds more than 50 percent of the global market for very small aperture terminal (VSAT) systems, with approximately 500,000 interactive and one-way terminals installed worldwide. HNS provides more than 500 organizations in 85 countries with broadcast video communications; two-way data, voice and multimedia; and telephony systems. Employing approximately 4,400 people, HNS has operations in 30 countries.

Long established as the premier supplier of satellite-based hardware and associated software, HNS works closely with telecommunications service providers throughout the Middle East and North Africa enabling them to offer their customers the first-rate services they need:

- Interactive data communications for a variety of industries
- Internet-based communications for business, government, education, telecommuters and consumers
- Telephony in remote areas



HNS Solutions in Middle East/North Africa

HNS is active in 80% of the countries in the Middle East/North Africa region, helping local telecommunications providers to provide cutting-edge solutions in a variety of industry applications:

- Remote communications for oil and gas exploration companies
- Interactive distance learning
- Electronic business solutions for retailers, banking and financial institutions, government ministries, and energy producers
- Internet connectivity for enterprise applications
- Telephony solutions for rural areas
- GSM (global system for mobile communications) integration with backbone connections.

DIRECWAY® Solutions Designed with One Goal in Mind: Flexible, High-Speed Communications for the Enterprise.

As Internet protocol (IP) is rapidly becoming the standard protocol for data, video, and audio delivery, companies and government agencies are challenged to integrate the complex interactive and multimedia applications into their existing communications systems. HNS offers global enterprise services that support fully

integrated wide area networking and the high-speed delivery of content-rich information to support applications such as:

- High-speed Internet access/broadband Intranet
- Training and distance learning
- Corporate video broadcasting and communications
- Video advertising/point-of-sale TV
- Audio broadcasting
- IP multicast
- Data distribution

The TES *Quantum*™ Product Family

Satellite transmission is insensitive to distance, terrain, and numbers of geographically dispersed locations, making it a valuable communications technology for use in the Middle East/North Africa region. HNS designed its TES *Quantum* family of meshed telephony products to offer cost-effective, satellite communications for voice and enhanced data services, including:

- High-speed digital telephony services for both public and private networks
- Single-user access to satellite-based telephone service
- Universal Service Obligations/rural telephony
- Intelsat/Eutelsat-compatible gateway connections for international circuits



Mobile e-Communications: Bringing the Internet to Wherever You Are.

Mobile Satellite Data Terminals combine the vast capabilities of the Internet with the global reach of satellites to bring you "Internet Everywhere." Our mobile data terminals will provide intercontinental, multinational wireless broadband telecommunications for Inmarsat Ltd.'s regional service planned for 2002 covering Europe, most of Africa, India, and the Middle East. Whether in cities or in rural or remote areas without reliable terrestrial communications, you will be able to access the Internet and your Intranet by satellite to send e-mail and transfer files. This will be one of the most advanced high-speed packet data systems for critical business applications on an intercontinental scale.





Broadband Wireless Access Solutions.

HNS' AIReach® broadband networks give telecommunications carriers a powerful platform for offering their customers fiber-quality, "last kilometer" wireless solutions. These highly efficient networks extend voice, video, data, multimedia, and Internet services via point-to-multipoint radio airlinks from the fiber drop point of switching center to small and medium-sized businesses needing cost-effective, high-bandwidth applications. For the carrier, benefits include increased speed of system implementation, reduced capital and operating expenditures, increased revenue opportunities, and protection of spectrum investment.

Hughes Professional Services: Helping HNS Clients Leverage Their Technology Investment.

Hughes Professional Services (HPS) helps HNS clients – enterprises and service providers – leverage their technology investment to deliver next-generation applications over their satellite networks.

HPS provides clients with a comprehensive understanding of the satellite network with the objective of enabling quick-service creation and instant time-to-revenue. This includes defining the service, architecture, engineering, operations, and cost models.

HPS also helps clients create new revenue opportunities and develop sustainable growth strategies. HPS identifies and implements new value-added services for the client and defines a viable business model – including pricing strategy and structure – as well as the technology and investment required.

Turnkey Networks with Comprehensive Service and Support.

HNS backs its networks with a range of customer service and support.

- Network design and planning
- Installation and commissioning
- System testing and optimization
- Network Operations
- Applications support
- User training and documentation

Looking to the Future.

SPACEWAY™, a next-generation, satellite broadband communications system, presents exciting new opportunities for customers in the MENA region. The SPACEWAY Ka-band platform will support both consumer and business users with a variety of applications from high-speed Internet access to corporate Intranets and virtual private networks to multimedia broadcasting and high-speed data delivery via "mesh" or point-to-point connectivity. The first regional system will begin offering service in 2003.

HNS' Commitment to the Middle East/North Africa Region.

In order to provide customers with convenient access to HNS' many resources, HNS maintains a local office in Dubai, United Arab Emirates. Mr. Soheil Mehrabanzad, a seasoned telecommunications professional with more than 18 years of experience, serves as regional director for HNS in Middle East/Africa, overseeing the Dubai office and coordinating with HNS staff and local partners throughout the Middle East and North Africa.



Middle East/North Africa Highlights

HNS networks enable local telecommunications companies to provide cutting-edge, value-added services to all customers, regardless of distance, terrain, or climate. These services are utilized by large and small commercial enterprises as well as government entities challenged with providing education and Internet access to geographically dispersed populations. Some of our customers include:

- **Egypt – Alkan.** VSATs are providing advanced communications services, including voice communications and videoconferencing, to oil and gas exploration customers in remote areas.
- **Arabsat.** VSATs are used to provide important exchanges of information among member states' satellite earth stations in the Middle East/North Africa region.
- **Kuwait – Gulsat.** VSATs are providing voice and data connectivity from Kuwait to countries in Africa.
- **Morocco – Ittilsalat al Maghreb.** A broadband VSAT network is providing comprehensive data, telephony, and video services to private and public corporations in Morocco.
- **Oman – Omantel.** VSATs are supporting oil company communications, telephony applications in remote locations, and GSM backhaul connections.
- **Pakistan – VSATs** are used to support applications in the banking, retail, and oil industries, as well as telephony applications in remote locations.
- **Qatar – Qatar Telecommunications Company Q.S.C. (Q-TEL).** A broadband VSAT network with a hub in Doha is being deployed to provide advanced communications services, including voice and videoconferencing, to oil and gas exploration customers in remote areas. In addition, the network is providing secure private networks and high-speed Internet access for customers in banking and other commercial industries.
- **Tunisia – Tunisie Telecom.** A DIRECWAY satellite broadband network with 400 remote terminals is being deployed to provide high-speed data transmission in select banks, corporate centers, libraries, universities, and schools. User benefits are expected to be interactive distance learning and custom Web multicasting.
- **United Arab Emirates – Etisalat.** VSATs are providing data communications for oil companies, as well as backhaul connection for GSM connections.



**For more information about Hughes Network Systems' solutions,
contact HUGHES today:**

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