INet Builds Optical Wireless MAN

High-Speed Wireless Metro Area Network Established in Riyadh with Industry Leading Free Space Optics Solution

Integrated Networks Riyadh (INET) was founded in June 2000 to deliver reliable and secure high-speed communications services to enterprise customers in Saudi Arabia. Since its founding, INET has built the largest Metro Area Network (MAN) in Riyadh. The INET IP infrastructure provides high-speed network services, such as broadband Internet and virtual LAN access to corporate customers as well as connections for other service providers. INET was able to deploy their network rapidly and cost-effectively by utilizing Free Space Optical (FSO) technology.

Prior to the founding of the company, INET's founder studied the state of networking in Riyadh and came to the conclusion that there was an unmet demand for network services, especially for high capacity network services. This realization became the foundation of INET's business strategy – to deliver managed broadband data services to enterprise customers located in multi-tenant commercial buildings.

Implementing this strategy turned out to be both a challenge and an opportunity for INET. At first INET tried to utilize traditional methods like ATM from the local carrier. But this method was very expensive and the wait for services was often excessively long, plus fiber access is not available in all locations. These high costs and delayed deployment schedules led to extended timelines for both time to market and time to revenue for INET. This led to the search for alternatives wireless technologies, in particular laser technology, also known as Free Space Optics. FSO offered a combination of high-speed capability, rapid deployment and cost-effectiveness that was compelling. By utilizing FSO in their network instead of depending on leased lines for their connections, INET was able to get customers on-line within a matter of weeks (often within one business day) rather than months. Also, the optical links are up to ten times less expensive to deploy than fiber access.

With this new approach, INET began connecting customers with FSO systems from various vendors. In the beginning, INET sought out the lowest cost FSO equipment that met the system qualifications (at least two vendors failed to qualify) needed in order to accomplish their mission. However the harsh desert environment in Riyadh presented a special challenge for optical transmissions. INET soon discovered that these low cost FSO links went down during the intense sandstorms that frequent Riyadh. This was unacceptable both to INET and their customers as INET signs contract with each customer that includes a Service Level Agreement (SLA) with uptime guarantees for each connection. A better FSO solution that could deliver on INET's SLA was needed.

Co-founder and Chief Operating Officer of Integrated Networks, Azim Hooda, turned to Carl Cagliarini for help. Cagliarini had worked with Azim in the past as a sales representative for other optical wireless vendors, but was now representing fSONA Communications. Cagliarini suggested that INET try using fSONA's SONAbeam equipment instead of the lower cost units as the higher power and redundant spatial diversity of these units would provide a more reliable connection during the extreme weather events that were knocking out other vendor's systems.

The SONAbeam equipment was installed on the second tallest building in Saudi Arabia, the Al Faisilah Tower, which experience 50 degree centigrade heat, without any problems. Shortly afterwards came the major sandstorm of 2003 through which the SONAbeam systems performed flawlessly. Although the other optical wireless systems failed to transmit through the sandstorm not one moment of downtime was recorded for the SONAbeam equipment. After the sandstorm, INET made a corporate decision to use only fSONA equipment for their longer distance links and even went so far as to replace certain competitor's links with SONAbeam systems. In addition to the obvious benefits associated with the ability to transmit through Saudi Arabia's most severe weather, SONAbeam offered powerful network management capabilities that are essential for managing a Service Provider network. The SONAbeam network management system allows INET to monitor and manage their network using industry-standard HP-OPENVIEW technology.

INET couldn't be more pleased with the SONAbeam products, "I was consistently impressed with the product performance and excellent sales support that fSONA provided," commented Azim Hooda. "Since INET was founded almost 4 years ago, I have had the opportunity to work with numerous FSO vendors. During that time, I have thoroughly tested and evaluated various FSO systems and have come to the conclusion that fSONA's SONAbeam is the best of the breed. In addition to having a solid, reliable product the network management features, which were essential for the success of the INET network, were superb. In our harsh Saudi environment, where sandstorms are a regular occurrence, the SONAbeam really shines through where all other vendors have failed."

INET's innovative optical wireless metro area network is providing a new option for corporate customers in Riyadh and Jeddah to access local and global information networks with secure, reliable broadband connectivity. For today's businesses, staying connected to global networks is essential to staying competitive in the global economy. Through INET, Saudi Arabian companies have access to one of the most advanced networks in the world able to deliver broadband connections in as little as one business day when in other areas companies must wait weeks or even months for a high-speed connection. This capability helps Saudi Arabia's business to stay on top of the business world and to continue to benefit their communities with increased opportunities and revenues.

Services provided to enterprise clients include high-speed Internet access, virtual LANS (VLANS) and voice over IP (VoIP). All of these services are available with Service Level Agreements (SLA) and Quality of Service (QOS) guarantees. As well, the network itself is capable of providing numerous other IP-based services. In addition to serving corporate customers, INET realized that other Internet Service Providers could benefit from their network and so chose to establish their connections in multi-user buildings with co-located ISP's, ASP's and content providers. This co-location provides INET with another source of revenue by providing secure connections across their IP infrastructure to other ISP's using MPLS and also opens an opportunity to partner with other service providers to provide private network services.

INET is one of a growing number of service providers who are realizing the benefits of building their network with optical wireless. The optical wireless MAN established by INET was one of the first of its kind worldwide and has been referenced by operators in other parts of the world who have since then established their own metro area optical wireless networks. Sales have been excellent so far and INET plans to continue to expand their network to new areas and market network services to new customers in Riyadh and other metro areas.

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