EION WIRELESS

Wireless Solutions for

Oil & Gas

Introduction

In today's competitive and highly volatile energy markets, it is imperative that oil and gas companies optimize their exploration and production activities. Fast decisions, facilitated by instant data and voice communications, are keys to sustained revenue generation and cost reduction.

Much of today's oil and natural gas production occurs in largely remote areas of the world beyond the economic range of traditional wired communications. Oil and gas companies must regularly collect critical data from remote well sites, offshore drilling platforms, and outlying production locations, and from SCADA systems set up to monitor facilities, such as storage tanks, pumping stations, or pipelines. Company personnel require high-speed voice and fax services, email and internet access. Establishing the required broadband network links between multiple locations can be extremely difficult and cost-prohibitive, given that these activities generally occur where wireline links are not practical.

The answer to these business problems is EION's wireless broadband access infrastructure. Providing flexible and reliable wireless connectivity not only ensures reliable data, voice, and video, but delivers a return on investment in short order – measurable by reduced costs and increased revenue, as well as peace of mind.

E-Field Solutions: EION at Work

Oil and gas companies have the opportunity to effectively break down obstacles presented by traditional wire-line networking technologies. EION's provides wireless solutions for monitoring and controlling processes in the production, gathering, processing and delivery of energy products. By utilizing EION's best-of-breed wireless broadband access systems, companies can now establish reliable site-to-site links, regardless of well or rig location, topography, and weather-related considerations.

Security

Today organizations are striving to improve their security to protect critical infrastructure at the wellsite. Especially for companies with foreign production operations, it has become the norm for the oil and gas industry to heavily protect its assets and personnel from the risk of sabotage or even terrorism by keeping a constant eye on production facilities, especially if these facilities are remote. Broadband wireless technology products from EION provide oil and gas companies with solutions for remote surveillance and security. EION's solution allows an unlimited number of video surveillance cameras to be deployed quickly, easily and cost-effectively in a new or expanded security system. This system can now deliver high-resolution, real-time video from remotely controlled security cameras to your central security office.

Bundle with

IP video surveillance system and perimeter control devices.

Scalable Installation

With broadband wireless connectivity, networks can be quickly, easily and inexpensively modified to meet an enterprise's changing needs. A broadband wireless network offers the flexibility to painlessly add or eliminate sites or to secure additional bandwidth by rearranging existing equipment or inserting additional nodes.
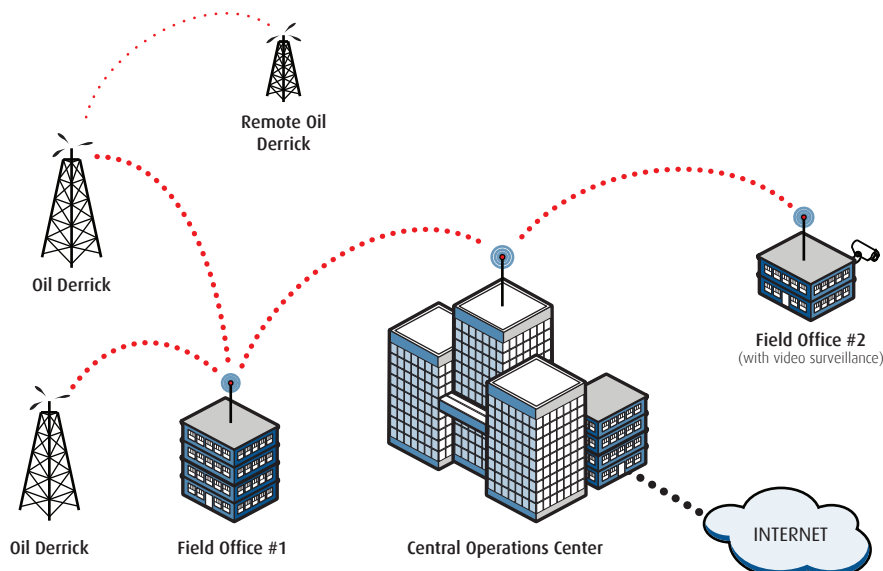
Well Site Monitoring & SCADA

Now more than ever the ability to monitor activity in a remote site is critical. Data from the well location such as wellhead measurements, gas pressures, flows, temperatures, and leakage monitoring are sent via the wireless network. Remote monitoring and control also allows users to control remote facilities in response to changing system demands. Quite often there are lower-production wells that must be monitored closely to obtain maximum production. Some well sites are many miles away from the closest monitoring facilities, making on-site data collection a costly and time-consuming operation. By utilizing remote site monitoring, the company is able to proactively address potential problem situations, reduce downtime and minimize costly repairs. Because they are no longer required to spend so much time on the road, field personnel are able to plan their schedules more efficiently.

Communication

Increasingly, data and voice communication is required between the remote locations and head offices to report on work status, dispatch supplies and repairs, report on-site emergencies, and transfer of geophysical data. The wireless solution that is used for SCADA can also be used for data and voice communication. Utilizing the network for Internet access, email, voice-over IP and database access can improve the decision-making abilities of the company and personnel in the field. This can save hundreds of hours, increase productivity and safety of workers in the field and provides the company with a competitive edge.

NETWORK DIAGRAM

Communications Secured With
TrustLink-256

Communications Secured With
TrustLink

Remote Oil Derrick

Oil Derrick

Oil Derrick

Field Office #1

Central Operations Center

Field Office #2
(with video surveillance)

INTERNET

Benefits

- Wireless eliminates the massive costs and deployment delays of traditional wireless solutions
- Quickly deployed and reconfigured – operational within hours
- Deploy virtually anywhere — rugged terrain, bodies of water, remote areas
- Rugged enclosures for demanding applications
- Portable – Existing wireless equipment can be redeployed to new locations as communication needs change
- Carrier class 99.999% reliability ensures non-stop connectivity
- High throughput wireless network enables multiple applications including SCADA, internet access, email, voice- over IP, video conferencing and video surveillance
- No wire clutter for unparalleled safety and security

Safety

Safety is major consideration for oil and gas companies operating production facilities, as evidenced by considerable growth in budgets for oil rig safety. Real-time video surveillance transmission ensures that you can quickly deliver aid to an injured worker. Alarm systems and emergency well shutdown systems can now be deployed and managed remotely without crippling reliance on hard-wired communications infrastructure.

Exceeding your needs

EION's broadband wireless systems deliver unprecedented reliability and performance to address your unique needs. EION's scalability, ease-of-installation and high throughput enables SCADA, email, internet access, voice-over IP and video surveillance to be deployed quickly, easily and cost-effectively in remote locations. Today, EION equipment is deployed within oil & gas companies worldwide and has led to increased revenues and productivity while reducing costs.