



CUSTOMER SUCCESS STORY

DELIVERING UNINTERRUPTED NETWORK REPLACEMENT FOR MORE POWER AND GREATER RELIABILITY

SITUATION

A global energy company, with focus in Oil & Gas exploration and production, needed to replace the existing network, to enable them to take advantage of the latest smart oilfield applications at its California oilfield.

TASK

The new network solution must:

- Be reliable and offer uninterrupted operations
- Be a no-fail system enabling remote monitoring and control
- Deliver greater capacity and lower latency to meet increasing needs to capture Big Data and real-time remote operations

ACTION

Redline's team of certified engineers investigated the available spectrum, performed on-site testing and field pilot, and designed a network capable of supporting the need for capacity and reliability.

RESULTS

- Improved reliability
- Increased capacity for automation and advanced oilfield applications
- Complete remote management and configuration
- Increased worker collaboration and productivity
- Cost savings resulting from minimal switchover downtime

While most oilfields are broad sprawling tracts of land with assets few and far between, this California oilfield is crowded. Not only are there more wells per square mile than most fields, but the wireless airwaves are overcrowded as devices and people compete for its use.

A global energy company focused in Oil & Gas exploration and production was monitoring wells in its California field using a private wireless network, which could no longer meet its needs for capacity and performance for reliable data collection. They needed to replace the existing network to enable them to take advantage of the latest smart oilfield applications.

THE NEED FOR GREATER PERFORMANCE

The customer needed to ensure that a new network solution could provide them with:

- Reliable and uninterrupted high-speed communication to/from field operations
- A no-fail system enabling remote situational awareness monitoring
- Larger capacity and lower latency to meet increasing needs for Big Data and real-time control

While the customer needed to replace its network with a more powerful solution, it could not afford to be without its existing network while rolling out a replacement. So little spectrum was available that rolling out a replacement private network in parallel posed a serious technical challenge. Effectively the operator was stuck with an unreliable system and no upgrade solution.

The customer considered a public service provider who could address their spectrum problems, but could not tackle their performance issues. With time running out, it appeared the only alternative was to accept the weeks of downtime and replace their private network in order to fulfill their capacity requirements.

MAKING THE IMPOSSIBLE POSSIBLE

Unlike other wireless network providers, Redline had a solution that would allow the rollout of a new more powerful network without any down time. This was possible as Redline could use every small bit of available wireless spectrum that wasn't already in use, thanks to its patented Virtual Fiber™ wireless solution.

Selected as the vendor of choice, Redline sent its certified team of engineers on-site to investigate the available spectrum and designed a highly efficient network that can put large amounts of capacity into very small pieces of spectrum in different frequencies.

Following a detailed coverage plan, lab testing was performed at the company's site, as well as a field pilot. Once the parallel network was fully tested, the company began the process of switching remote sites from the older network to the new network. Because the two networks were operating in parallel, downtime at each remote site was seconds — a sharp contrast to the weeks it would have taken otherwise.

RESULTS WITH NO DOWN TIME

Redline managed the entire build process and the client-approved local contractors, until everyone was satisfied that the system was working exactly as promised with:

- **Improved reliability:** the Redline system operated reliably in harsh oilfield environments and had the ability to remotely manage and reconfigure each component to optimize operation.



- **Minimal downtime:** the network switchover had minimal disruption and virtually no downtime, translating to significant cost savings.
- **Increased capacity:** with significantly increased capacity, the customer's network could suddenly carry much more data, enabling the use of advanced oilfield applications, as well as execute their Big Data strategy for automation, real-time drilling and seismic analysis.
- **Complete remote management and configuration:** the customer now has total visibility and control over the entire network. This includes remote access, management and control, diagnostics and troubleshooting.
- **Increased worker productivity:** with so much capacity on its new network, the customer is now able to bring the office experience directly to the field and improved collaboration, productivity and worker safety.

ABOUT REDLINE COMMUNICATIONS

Redline Communications is the creator of powerful wide-area wireless networks for the world's most challenging applications and locations. Used by Oil & Gas companies, militaries, municipalities and telecom service providers, Redline's powerful and versatile networks securely and reliably deliver voice, data, M2M and video communications for mission-critical applications.