



Why You Should Budget for Communications During Drilling

Twin Eagle Consulting has been Providing reliable communications for oil and gas companies for 20+ years. I wish I could say that engineering and installing comms was always a seamless process, but more often than not, it turns into a long drawn out process with multiple hurdles along the way.

The idea is simple. You complete the lease, level the pad, drill the well for approximately \$3,000,000, and once the well is complete, the operator tells IT or another group that they want telecom, so they can monitor the production. That's when IT takes their couple hundred-dollar budget and installs the cheapest communications system with the minimum amount of network connectivity required so that the operator can assure everyday operations run smooth and efficiently. Therein lies the problem. Imagine buying a \$3,000,000 computer with all the bells and whistles, and then installing a 1 MBPS WIFI network to run everything on that computer. You would never truly be able to tap into the full potential for that computer, and the same goes for a well pad sight.

Unfortunately, the common budget for IT to install a communications system is hundreds or maybe thousands of dollars. This causes the company to get sub-par communications that are either restricted by public carriers or from satellites that are 24,000 miles in the air and are expensive to operate and have very high latency.

So why don't O&G companies allocate communications within the drilling budget? The answer is simple. For as long as anyone can remember, the only tech that was available to monitor well pad sights was a simple SCADA system. Operators did not need a strong and reliable telecom network to support the SCADA system in place. However, with today's technology, well pad sights can increase production, cut cost, remotely monitor, and so much more. In other words, the advancement of tech in the O&G industry is making production more profitable than it's ever been. *"There was an additional 12 million barrels gained from improvements to production efficiency in 2017."* (Mark Venables, 2018) The issue that so many O&G companies face is that they did not install a good enough telecom network to support the new technology, and IT cannot get the budget to install a better network.

Communications are no longer exclusively for IT. It's a production tool, an operations tool, and a security tool. To give you some examples, it increases production through monitoring to prevent spills and more effectively utilize tank capacity by sending someone to empty the tank before it gets full. It can decrease operating costs because you will need less people to maintain more sights. And it increases security because your comms network will support highly analytical cameras.

What if O&G companies decided to budget for communications in the drilling budget? Take the responsibility away from budgets that are scrutinized for every cent spent. A multimillion-dollar pad would be able to absorb the cost of the telecom system and allow the O&G company to build a high-speed low latency redundant network that can provide all communications in the field for all the years it exists. The entire cost would be capitalized along with the drilling program, and current and future requirements like, SCADA, Security, Video, Audio, Wi-Fi, ETC. would be easily implemented.

The idea is not as far-fetched as you may think. There are companies in the O&G Industry that are already do this. They have built high-speed Towers/Microwave Networks that surround their field. They also utilized a last mile extension off that high-speed Microwave backbone to drop 10 megabits plus of the private network to the pad. This was all done at the very beginning of the process. Once the pad site had been leveled, they installed a pole with the telecom network. This network was then utilized for the drilling and completion rigs for all wells as they were on pad. Once the well was put into production, the network was used for SCADA, Security, Wi-Fi, Video and audio monitoring, etc. The best part of this mesh network was that it also builds in redundancy as all pads linked and meshed together to provide a robust network back to the Gateway tower and all the way back to the field and corporate offices.

The entire cost of the network was absorbed by the drilling budget, but the advantages will last as long as the life of the field. Production was increased, operation costs were decreased, and every pad sight was and is meticulously monitored. The ROI for a communications system like this on a 200 well field would be less than a year, assuming it increased profitability by only 1%.

This makes a good communications system a no brainer as a viable investment. Since the Oil and Gas Industry is always up and down, operating companies need an investment option that will give them an ROI before the next downturn in the market. Communication systems like the system I talked about above provide an almost guaranteed increase in profits from existing well sights, and the ROI is incredibly fast because of its immediate effect once installed.

We hear it said all the time that communication is key, but in this case, it is literal. Communications is the key to unlocking your company's full potential in the Oil and Gas Industry.

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