

LXE Earns an Upgrade from National Oilwell Varco

CASE STUDY

NATIONAL OILWELL VARCO. Throughout its 165,000-square-foot Rig Solutions plant in Orange, California, National Oilwell Varco (NOV) manufactures a wide array of technically advanced, field-proven industrial products such as rig equipment and integrated systems that enable the oil and gas industries to do their work. The plant's 630 employees may be working on as many as 1,500 jobs at one time, building everything from massive drawworks to top drives to iron roughnecks for the Houston-based, \$7 billion manufacturer.



Properly tracking and costing these jobs is a critical part of the operation. For the last decade, the plant has relied on rugged LXE 1280 terminals for the job, which have hummed along in an environment permeated with dirt, metal, dust and grime.

So when it came time to upgrade to the next generation of industrial-strength computers, the Orange plant's IT staff searched the marketplace and decided that LXE was once again the right choice for the job.

Time-Tested Results

Ten years back, NOV had hired a third party to write the software that enabled its ERP system to communicate with the LXE terminals, but it had since become obsolete. "The software we had was written by a company that no longer existed, and we didn't have the source code," explains Louanne Clark, systems analyst for NOV. "And the 1280s would no longer be supported."

Because it was locked into the software as is, the company had been prevented from adding new functionality, and had to maintain a separate server to support the system, apart from its Symix ERP, now part of Infor. "The server would go down at times, and I would wonder, will it come back?" Clark says.

So Clark and her colleagues searched for a replacement solution, one that would stand up to the rigors of the rugged manufacturing environment as well as the LXE 1280 computers had. Workers use the units to log in each completed job, scanning bar coded shop order packets to enter the job and operation numbers as well as their bar coded badges and using the keyboard to enter quantity, hours and indirect work code, if applicable.

The new units needed to be the same basic size

and shape as the prior computers, in order to fit into the two dozen or so workstations that NOV had set up throughout the plant for worker use. A similar interface would ease training issues, and it was important that keys be logically arranged and easy to use, even by workers wearing gloves.

By the end of the search, LXE rose to the top. "The LXEs had done the job for ten years," says Clark. "They were still working, with no issues. We saw no reason to change." The company chose LXE's VX6 rugged vehicle mount computers, mounting some on forklifts and others in the workstations.



NOV's internal IT staff developed new software for the VX6s in the same language as its ERP, using its database engine platform, Progress, and the application is now hosted on the same server running the ERP. Clark and her colleagues created a character-based user interface to mimic the older application, and the VX6's QUERTY-style keyboard makes it easier for workers to locate the proper keys for entering data.

"It's nice that the keys are backlit, with big keys, so they're easier for the guys to use," says Clark.

Seamless Upgrade

Because of the similarities in size and interface, implementation was seamless - a big benefit since the company's volume has surged. During the process, LXE staff performed a site survey and upgraded NOV's 900 MHz wireless network to 802.11 b/g using Cisco access points.



"For me there is the security of not having to worry about losing the bar code server with software I can't replace," says Clark, "We're much more in control and can make sure we have good backup."

Now NOV can add functionality to the system, easily maximizing the computers' impact on their operations. Next up is the addition of bar code receiving. NOV will purchase an additional 12 terminals for the purpose, including the MX7, LXE's flagship rugged handheld computer, so receiving personnel can skip the lengthy step of entering packing lists and instead scan the bar codes on incoming shipments.

With the success of bar coding and LXE terminals in its Orange plant, NOV is considering the same solution for its Mobile Rig facility in Pampa, Texas. "They run the same ERP, so we'll be able to take the software and with some modification use it for their plant," Clark says. "LXE has been very good, very supportive. Since we've had such good luck with LXE they're likely to go with LXE as well."



About LXE Inc. LXE Inc. improves supply chain performance by applying over 36 years' experience developing wireless products and solutions. From wireless computers, advanced auto-ID technologies, and wireless network infrastructure, to our award-winning customer support - LXE's easy-to-use products are as reliable as the people who install and support them.

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