



# Grant Prideco's IntelliServ poised to take the drilling industry from dial-up into world of broadband

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It began with a small Department of Energy project on hydraulic mud hammers. More than 8 years and \$50 million later, it's culminating in a revolutionary telemetry network that's being likened to the development of the Internet.

Recently **Grant Prideco** announced the commercial launch of the IntelliServ Network, a high-speed, real-time drillstring telemetry system that allows instantaneous bi-directional communication between downhole and surface. Compared with a maximum of about 15 bits per second with traditional mud pulse telemetry, the IntelliServ has speeds of up to 57,000 bits per second.

"It's like broadband's to dial-up," Grant Prideco Business Development Manager **Maximo Hernandez** remarked at a press conference held in Houston on Feb. 7 to unveil the technology. The company is already planning a major network upgrade that could take the speed up to 1 million bits per second by the end of 2006.

### 'A LIFE OF ITS OWN'

In 1997, the DOE teamed up with Utah-based **Novatech** on the development of hammers for drilling in mud conditions, in combination with methodology to use high-impact energy as a seismic signal. During the process, Novatech teamed up with Grant Prideco, and Grant Prideco seized a unique opportunity to develop a high-speed network.

"It became obvious that this portion of the project was much more important than the hammer," said DOE Oil & E&P Technology Officer **Roy Long**. "It eclipsed the original project and took on a life of its own."

As an open-architecture system, the IntelliServ allows connections with any

network-enabled downhole device, regardless of vendor.

A key characteristic of the IntelliServ that may offer a lot of short-term potential is its ability to support data acquisition from multiple locations along the drillstring. With measurement nodes distributed along the full length of the telemetry drillstring, drillers can "see" the wellbore at all times, allowing for reduced drilling risks and improved well placement.

Grant Prideco is predicting that early in the IntelliServ's commercial life, applications will focus on long extended-reach multilateral wells and underbalanced operations. The company already has contracts in place with 2 major North Sea operators.

They system also has the potential to optimize rotary steerable tools, which currently requires manual effort at surface to stay on track. With the IntelliServ Network, rotary steerables can truly be put on auto-pilot, Grant Prideco said.

The company is confident that the system, which has been extensively field tested in the US and Canada, has the capabilities to become a game-changing technology that will revolutionize the drilling industry.

Mr Long agreed and praised Grant Prideco on taking what began as a small idea and turning it into a revolutionary development.

"This was truly a government-industry collaboration. All the DOE does is try to bring in a good idea, and sometimes magic happens, like it did here," he said. "Now, Grant Prideco is geared up to make a significant impact on the industry." ■