

Success Stories



Remote access no longer an Upstream battle



Staying connected with workers on remote ships and oil rigs is one thing, but keeping their network running smoothly is another challenge altogether. Upstream Petroleum has opened a new view to its extremely remote networks, and cut software licensing costs by nearly 20 percent in the process. **David Braue** explains how.

Any network administrator knows it's hard to keep track of exactly what equipment is running on the network, particularly when that network also extends to offices in other states.

Managing six office LANs is just the tip of the iceberg for Ivan Prescott. However, he also faces the challenge of keeping users connected at nearly a dozen extremely remote locations ranging from exploration sites deep in the bush, to floating oil rigs and a number of large ships.

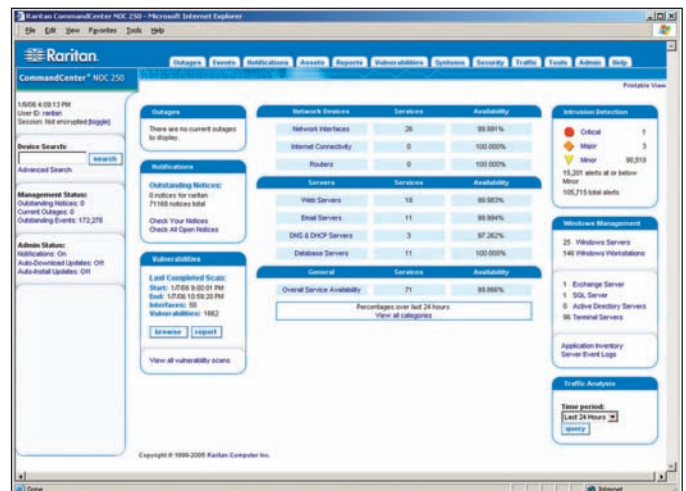
As if their remoteness didn't present enough of a challenge, the fact that many of these assets are continuously moving from one place to another – and only accessible via satellite communications links – makes Prescott's job even more difficult. In the past, the only effective way for his team to administer the LAN was through regular, expensive site visits. Apart from waiting for staff at other sites to phone in problem reports, however, there was no real way to know what was going on elsewhere in the network.

That presented a problem for Upstream Petroleum, a contract operations provider to the oil and gas industry whose business involves the design, mounting, drilling, and management of oil rigs and other infrastructure throughout the Asia-Pacific region.

"From a management perspective, it's quite difficult to receive events to a central location from numerous servers, workstations, routers and other network devices," says Prescott. "That has made it difficult to access warnings, alerts, and notifications about all sorts of issues."

Distant discoveries

After a chance enquiry on an unrelated matter over a month ago, Prescott learned about CommandCenter® NOC 250 (CC-NOC) from Raritan®, a specialised provider of network and systems management devices. Designed to provide a single network-wide view of a company's IT assets, CC-NOC was set up on Upstream's network and proceeded to inventory the company's desktops, servers, network switches, printers, routers and other equipment.



The Raritan CommandCenter NOC 250 gives Upstream a single view of its IT network's health.

More than 250 devices in total were found, and Prescott's team suddenly found itself with the instant, centralised view of the company's operations that they had been lacking for so long. Importantly, the CC-NOC sniffers were more than capable of dealing with the high latency of the 512Kbps satellite connection that serve as lifelines for the company's offshore sites; devices onboard ships and oil rigs appeared within the CC-NOC view just as readily as those in the office down the hall.

For Prescott, the increased visibility into the network was a lifesaver since it eliminated the need for such regular site visits – and promised to increase availability through early detection of potential problem spots. Use of WMI (Windows Management Interface) on remote devices let Upstream staff continually monitor system status and collate all events and warnings into a single view so issues could be quickly identified and addressed.

Just how useful the central view was to be, however, only became clear as the team drilled further into system functions, including the network bandwidth monitor, traffic analyser, VNC-based remote control capabilities, and other features. All provided highly detailed visibility of the goings-on on the company network, which – for example – allowed the team to free up bandwidth by blocking specific types of applications.

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This was particularly important over the satellite links, which literally can have life-and-death importance given their role in keeping remote sites connected to the mainland. "When we're dealing with a very distributed network like the one we have," Prescott explains, "you're very careful with satellite connections, particularly, in terms of traffic."

"The ability to cut down on ubiquitous network traffic, and block that at a firewall level, means we can open bandwidth for people to collaborate, and to use e-mail for what it was meant rather than cluttering our network. You want to keep the bandwidth as clean and open as you possibly can."

Paying for itself

Reclaiming bandwidth is one thing, but the most useful part of the system proved to be its software inventory capability. As well as managing devices at the network level, the sniffer was able to report back on which applications, and which versions of those applications, were installed on each remote system.

This had two benefits. Firstly, the ability to associate installed applications and machines meant that the network management team could allocate machines to any of the myriad projects Upstream is working on at a given time. In this way, application licensing costs can be attributed to specific projects and managed within administrative systems like any other expense.

The second benefit of the application inventory capabilities came after Prescott's team began a full review of its software licensing. It quickly became clear the company had overpaid for applications like Microsoft Office and Visio that weren't being used anywhere near as heavily as it was assumed. Moving these licenses to machines where they were needed, rather than buying licenses in bulk and leaving many of them unused, instantly cut licensing expenses by 15 to 20 percent, providing savings that Prescott says will see the platform pay for itself within six months.

"Being able to allocate machines to a specific project means that we now have a fairly good fit of the costings associated with each of those projects in terms of IT infrastructure and licensing," he explains. "Once we get a real-world handle on our licensing and we can negotiate with Microsoft, we'll be able to dispense with a lot of the licenses that we don't require."

While the total cost of the project could not be revealed, Prescott says not having to pay \$8,000 for a helicopter ride to the Bass Strait each time a LAN needs examination has been "a real saving."

Continued use of the CC-NOC solution has helped Prescott identify other functionality that has proved invaluable for his team's daily network administration. For example, a range of built-in reports has all but automated the creation of the monthly reports necessary to judge performance against availability targets. Specific types of server alerts can be automatically routed to the correct support team member so roles can be allocated most effectively.

Given the technology's strong success over the past months, Prescott is now considering further additions to the infrastructure. IP-controlled power strips, for example, would allow for remote power cycling of servers and other devices anywhere on the network.

Possible deployment of an additional CC-NOC unit at each remote site would allow them to keep collecting performance data, then update it on the central command console, even while satellite links are congested or altogether unavailable. The system may even be extended to manage serial-attached equipment such as flow analysis meters and temperature gauges for key equipment on boats and other equipment. "Putting monitoring into a passive machine that sits on the network, collects the data and allows you to output it in any format – and particularly the formats that management like – is really an enormous advantage," Prescott says. "Using an IP network in a passive manner, and then being able to touch those devices over that network is cost-effective and has just been a huge leap forward."

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