

CUSTOMER PROFILE

Pipe Networks

www.pipenetworks.com.au

Pipe Networks owns and operates Australia's largest internet exchange. Pipe Networks provides government, enterprise and ISP customers direct access to their fiber optic network deployed throughout Australia. Its services include data center interconnection (enabling customers to have private Ethernet circuits between major locations), telehousing, collocation and peering.

KEY BENEFITS

- ❖ Achievement of specified performance quality
- ❖ Acceptable total cost of ownership

"The progressive deployment of Opengear console servers at all off-site locations is part of the company's strategy to ensure it continues to meet its committed service levels"

Bob Purdon, Operations Manager
Managed Infrastructure, PIPE Networks

The Challenge

Pipe Networks is a service provider in the growing *IT infrastructure outsourcing* market, providing its customers with a range of connection, interconnection and hosting services.

Pipe Networks offers its customers global service solutions that are monitored, managed end-to-end, and backed up with service level guarantees, and this assurance quality is a major competitive differentiator.

Offering extensive service coverage with guaranteed access is common for datacenter and NOC based services and Pipe Networks offers a comprehensive service level guarantee on every fiber service (24x7 support, service restoration with x hours, 99.95% service availability - backed by substantial rebates). However Pipe Networks extends this level of service to their edge network infrastructure appliances

Organizations world wide are looking to fully outsourcing the management and provision of their telecommunications, data communications and hosting function. They are motivated by the imperative of reducing their infrastructure operating costs and by the need to improve their quality of service, so Pipe Networks is committed to deliver quality service from the core out to the edge.

The Opengear Solution

Installing sophisticated remote management appliances and services at all their off-site locations is one important component in ensuring delivery of a quality service . Binding this management infrastructure with inbound and out-of-band access within a sophisticated management applications environment is another.

Pipe initially used the open source CM4008s for serial console management (out of band control of NOC comms hardware and sending alarms to remote sys admins via SMS over Nokia cell phones). Pipe contacted Opengear because they could no longer purchase the Cisco 2511 units which was their default console access method. The Cisco product had reached "end-of-life" some time ago and Pipe had buying up end run product ... but the supply line (even ebay) was running dry.

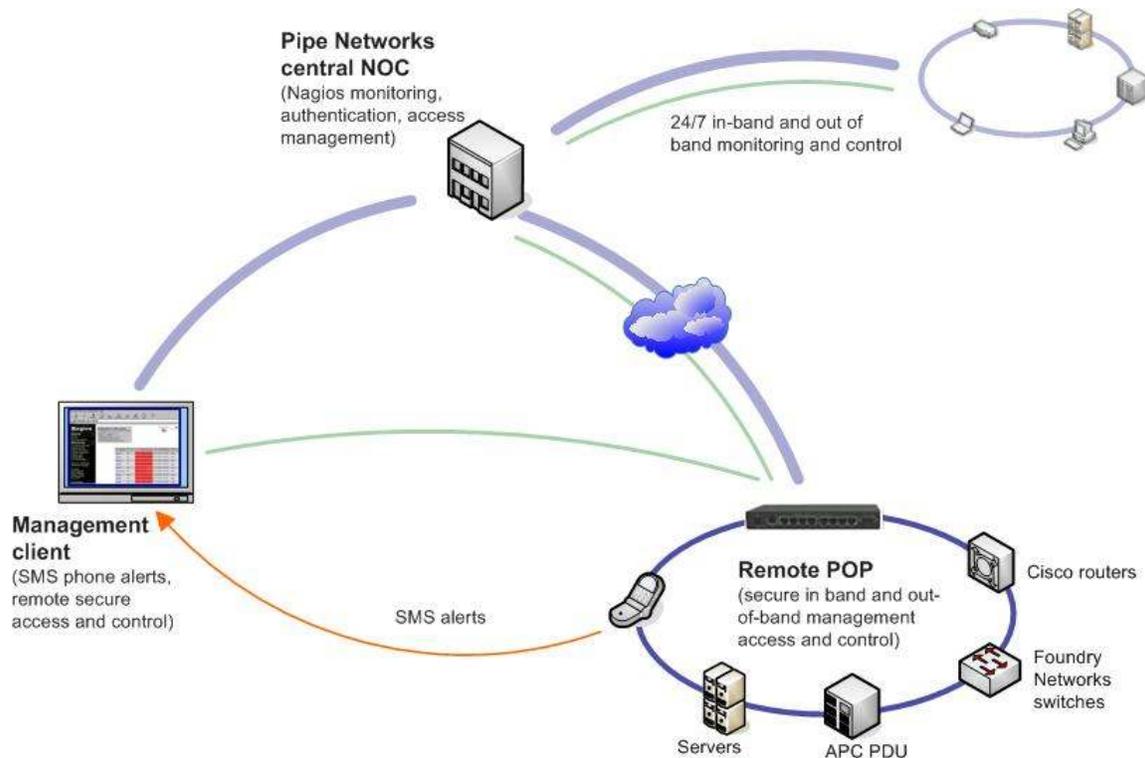
However Opengear console servers also integrate with the Nagios central management to provide an extensive distributed monitoring service. So Pipe now use CM4008s for managing their UPSs and their Cisco communications gear and for paging via Nagios in each of their NOCs.

At these sites they have a CM4008 connected to multiple Cisco routers, APC APC7900 - Rack PDU, Foundry Networks routing and switching platforms and Nokia phone. Previously they had been able to do all of these out of band communications functions using their "closed source" Cisco console server solution... all that is except the Nokia phone SMS messaging. By having an open source management console at the NOC Pipe is now able to offer a substantial improvement in the quality of service it can provide (a differentiator that will win customers). However the open source advantage goes much further.

Nagios central management

In selecting the central management software to manage their distributed network Pipe had already (pre Opengear selection) chosen to use Nagios www.nagios.org the popular open source host and network monitoring program. In selecting Nagios, Pipe also considered a suite of proprietary offering and chose the open path in part because of cost (as Nagios is “free”:) and in part for flexibility.

Pipe use Nagios in conjunction with their provisioning database system. They create Nagios configurations for each of their customers to track all their customer’s services (e.g. what ports are open) so they can track customer status and service levels. Nagios is also used to track Border Gateway Protocol BGP sessions (internet routing stuff) and they use NRPE (a Nagios plugin utility) to find free hard drive space on hosting servers. In total they use Nagios to track some 3500 different services from UPS to air-conditioning to routers.



Open extensible management solution

Pipe are a very technically skilled customer and they are an aggressive technology solution provider (i.e. they use newer leading edge technology tools to offer their customers added benefits). One example of taking a leading edge position is Pipe have equipped all their remote sites equipped to issue SMS alerts in event of problems. So when evaluating the Opengear solution we had to work to integrate with this facility. It turned out that they needed only a small amount of help with Linux serial client software (that ran on their Debian (Linux) test box) as they were using gnokii – an open source SMS tool. Pipe quickly had gnokii working with mobile phone for SMS transfer through the CM4008 serial ports). Pipe use gnokii – which is a relatively new open source tool – as a differentiator to add value/attract customers ... but it is not used in a mission critical function in their company

Pipe also came up with a list of new features which they wanted included in the management appliance that would improve its ease of use (e.g. extensions to the power switch control to sequence multiple output control). These were implemented by Opengear. The open source nature of Opengear’s solution meant that Pipe understood all of the technology elements of the solution they were procuring, and could have substantive discussions with Opengear as the real benefits & costs & issues associated with changes/new features they requested

Affordability

The *IT infrastructure services* market is growing at an exciting pace however it is also highly price sensitive with cost-reduction pressures from customers and increasing competition from new market entrants. This coupled with generally tightening economic conditions makes a challenging environment for risk-averse infrastructure providers like Pipe Networks.

Pipe Networks sought high-quality solutions to manage their mission-critical infrastructure. They were motivated by price and risk but also both flexibility. And in selecting Opengear as their provider they were able to develop flexible extensible solutions that could be levered off to deliver quality and value to their customers.