

# IPAM to the rescue in Air Rarotonga's remote site challenges

Working at one of the world's most remote sites, Air Rarotonga's IT Manager Marcus Gleinig experiences problems of distance, latency, cyclones, power cuts and scarce resources that most IT professionals could scarcely even imagine. But Marcus enjoys the challenge – when a computer was washed by sea water, he immersed it in WD40, covered it with lacquer and fired it up again! Also he's a dab hand with a soldering iron.

When it came to needing network tools, the resourceful Marcus knew where to go – straight to SolarWinds, for IP Address Manager. This solution alerts him as soon as the company's far flung network develops problems, so he can address these before the phone starts ringing with user complaints.

## The Customer

**Air Rarotonga** operates scheduled passenger, cargo and charter services from Rarotonga island to eight other Cook Islands destinations, and weekly code-sharing flights with Air Tahiti to Papeete on Tahiti in French Polynesia. The Cook Islands is a parliamentary democracy in the South Pacific Ocean, in free association with New Zealand. It comprises 15 small islands whose total land area is 240 sq km. The Cook Islands' Exclusive Economic Zone covers 1,800,000 sq km of ocean.

## Network Challenge

Air Rarotonga in the Cook Islands self-hosts its IT systems due to slow bandwidth, nominally 4MBs but slowed by latency of at least 500 milliseconds. Several dozen servers, almost 100 client devices, dozens of printers and firewalls are scattered over an area the size of western Europe, with most of the sites unattended six out of seven days. All eight outer island locations are linked by satellite and local DSL circuits. Poor communications and occasional cyclones and power outages exacerbate problems. The huge distance from anywhere also affects Air Rarotonga's IT service – the island is 1,200km west of Tahiti, 3,500km from New Zealand, 5,500 from Australia, and 8,000km from California.

Air Rarotonga's IT team comprises – Marcus Gleinig! With no professional help and a high workload, he finds it essential to be pro-active when a fault occurs, and to automate the alert process. When outer island users or even in-house staff discover a fault, the lead time until resolution can make all the difference between normal operations and manual failover that leads to a chain reaction of delays, both IT and logistically. Previously Gleinig monitored a small range of critical devices using home-cooked batch files which became increasingly complex and eventually unmanageable.

## CLIENT STATISTICS

- Remote: 5,500km to Australia, 3,500km New Zealand, 8,000km California
- 1,800,000 sq km of ocean to cover
- 500 milliseconds latency
- Cyclones, power cuts, slow communications
- Dozens of servers, 100 client devices, dozens of printers and firewalls spread over a huge area
- Most of the sites unattended six out of seven days.

“IPAM tells me what's wrong before the phones start ringing when someone reports a problem. Before, often I knew something was wrong but needed time to narrow down the issue. Now if there is a power cut, I can see immediately where the problem lies.”

He used an inexpensive external monitor for transaction integrity, but received few alerts as the text message service on Rarotonga is often unavailable. His emails arrived by mobile phone. Occasionally he took a bus to a relatively close site, although the furthest island is a four-hour flight distant. Sometimes airline staff members help by switching devices on or off at remote island sites.

"It's an interesting environment with all those constraints, and needs resources that people take for granted in the outside world," said Gleinig. "We have issues with latency, bandwidth, cyclones, power cuts and scarce resources, so I need to improvise and to be resourceful."

## Solution

Gleinig scoured the Internet for a solution to monitor Air Rarotonga's infrastructure and selected SolarWinds IP Address Manager (IPAM) with a little telephone help from SolarWinds' people. He also considered the GFI product.

"I knew SolarWinds as a vendor of streamlined and stable solutions, and my positive experience and the responsiveness of their sales staff, as well as the availability of various free useful products, tipped the scales," said Gleinig. He liked IPAM's easy installation, small footprint and self-contained package. He bought the solution so he could react quickly to any outage or fault that might occur anywhere in the airline's extensive network.

## Results

"IPAM has made a big difference to my working life," said Gleinig. "By receiving emails whenever there is even the slightest hiccup, I am able to do my job more effectively, and can use IPAM's Web interface to investigate further or monitor the result of any corrective measures taken."

He is able to monitor Web Services using expected result sets from IPAM rather than the scripts that he had developed.

"IPAM tells me what's wrong before the phones start ringing when someone reports a problem," said Gleinig. "Before, often I knew something was wrong but needed time to narrow down the issue. Now if there is a power cut, I can see immediately where the problem lies."

He says IPAM is simple to use and delivers the benefits of immediate visibility of reliability and performance monitoring. The deployment has freed his time to be more pro-active elsewhere.



IP Address Manager automates DHCP, DNS, and IP space management. It centrally manages, monitors, alerts and reports on the entire IP infrastructure; maintains Microsoft DHCP/DNS & Cisco DHCP services from a single web interface; optimises IP space utilisation and avoids IP conflicts; delivers role-based access control; and offers critical insight into IP address space through real-time views and historical tracking.

# IT Management Inspired by You.

SolarWinds (NYSE: SWI) provides powerful and affordable IT management software to customers worldwide from Fortune 500 enterprises to small businesses. In all of our market areas, our approach is consistent. We focus exclusively on IT Pros and strive to eliminate the complexity that they have been forced to accept from traditional enterprise software vendors. SolarWinds delivers on this commitment with *unexpected simplicity* through products that are easy to find, buy, use and maintain while providing the power to address any IT management problem on any scale. Our solutions are rooted in our deep connection to our user base, which interacts in our online community, thwack, to solve problems, share technology and best practices, and directly participate in our product development process. Learn more today at <http://www.solarwinds.com>.



3711 S. MoPac Expressway, Building Two, Austin, Texas 78746  
T: 866.530.8100 | F: 512.682.9301

©2013 SolarWinds, Inc. All rights reserved. SolarWinds®, the SolarWinds logo, ipMonitor®, LANsurveyor®, and Orion® are among the trademarks or registered trademarks of the company in the United States and/or other countries. All other trademarks are property of their respective owners. CS-1212