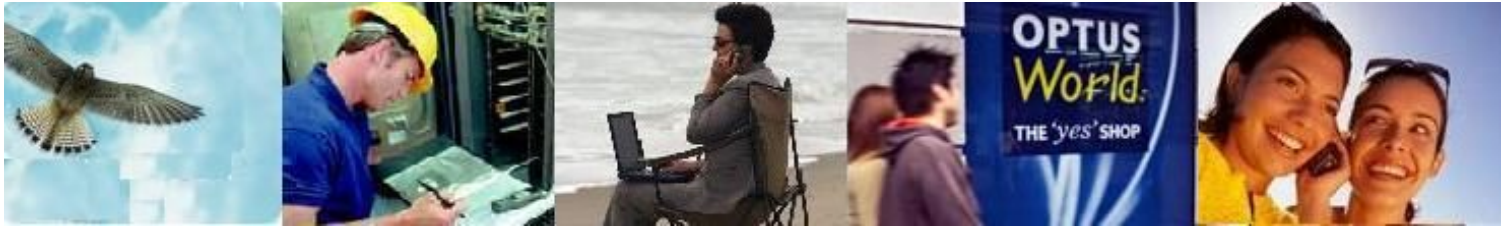


Optus Communications' Data Centre Connecting Well with CableSolve

A Case Study



Overview...

Optus is a Telecommunications company, founded in Australia in 1992 from a consortium of Australian and overseas companies. It is an Australian leader in integrated telecommunications, delivering cutting-edge communications, information technology and entertainment services.

Optus Communications' initial charter was to take ownership of the Australia's communications satellites and provide long distance calls between Australia's major cities. Optus has since expanded its Telecommunications capability to Internet, Transmission, Mobile and more recently, 3G.



The Optus Tower
Sydney, Australia

Optus at a glance:

- ▶ **Type of business:**
Telecommunications
- ▶ **Number of employees:** 11,000
- ▶ **Data Centre size:** 3,000 square metres
- ▶ **For more information about Optus Communications, visit:**
www.optus.com.au

Optus IT Overview

Scope of the IT Infrastructure and Equipment:

The Optus Corporate Network have five data centres which are currently being consolidated into two. They have:

- ▶ **3,000 servers**
- ▶ **15,000 PCs, MACs and laptops**
- ▶ **450 printers**
- ▶ **60,000 data/voice outlets**
- ▶ **40 administrative and exchange sites spread across every state of Australia**

Cable and Infrastructure Management Systems previously used:

Cabling infrastructure for the Optus Corporate Network was maintained at a local level and was managed with paper records, spreadsheets and in-house databases.

Cable Management Product previously used:

Spreadsheets, various systems on a project by project basis, Filemaker DB

Optus' IT Infrastructure Challenges...

Optus' main focus has always been on customer satisfaction and the efficient delivery of the numerous communications services it provides. A very large component of successful service delivery is the communications equipment required to support Optus' underlying infrastructure.

Optus operations runs on a countrywide scale - spread over many locations making information capture of space and panel allocation a real challenge. This used to be managed by Exchange or Field Engineers confirming or choosing space or patch allocations. This worked well but did not support long term planning. Troubleshooting was a based on a 'pull the cable and find where it goes' approach as there were few records to support troubleshooting when problems occurred. A spreadsheet that was maintained by a third party vendor became unreliable over time due to many internal undocumented changes.

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Records were locked away on desktop systems and were often not easy to access when they were needed for review or update.

All of these problems meant that it was hard for Optus to provide efficient planning and troubleshooting and to rapidly and cost effectively support the delivery of services required by Optus.



Problems Experienced by the Optus IT Department...

- ▶ Getting information on space and patch panel allocation from various locations was always a challenge.
- ▶ Labeling used was not up to standard. They had problems in using the labels and getting the label information correct.
- ▶ Their previous system did not allow the addition of new equipment into the templates.
- ▶ Records (spreadsheets) for system connections were not reliable, they easily got out of date due to undocumented changes.
- ▶ Troubleshooting was always through cable 'tug and trace' which took up so much of their time.
- ▶ Occurrence of downtime due to unreliable records.

What Optus Needed...

- ▶ **A system that could provide up to date and reliable end to end connection information in graphical format.**
- ▶ **A system that would provide a central repository for IT systems and network systems information**
- ▶ **A system that will assist with troubleshooting faults.**
- ▶ **A portable system that provided information when and where it is needed, where the changes are being made or troubleshooting is undertaken.**
- ▶ **A system that could capture layer 1 connections.**
- ▶ **A way of tracking the spare equipment, port and cable inventory.**
- ▶ **An efficient means of producing reports to show the connection diagram from system to network element.**
- ▶ **A new show-case site, along with a hierarchical cable solution, to showcase how the data centre cable infrastructure should be managed.**



Portable records of end to end connections on a handheld device

Barcodes scanning



What is CableSolve...

a portable, enterprise ready Connectivity and Infrastructure Management System that provides complete end to end management and documentation of the network connectivity and physical IT infrastructure. It manages, tracks, and audits IT assets and cabling while providing portable records through a Pocket PC Handheld Device.

CableSolve is unique in its ability to consolidate multiple types and sources of information, including asset, location, ownership, support, connectivity and configuration information and providing all that information, including reporting through a portable platform.

CableSolve : the Chosen Solution

The opportunity to use CableSolve presented itself to Optus with its new 1,500 sqm. data centre. This involved consolidating five data centres to two. This is a large-scale project that consumed 125 km of Cat 6 cable and 36 km of 24 core fibre cable building the tie infrastructure. CableSolve was used throughout with more than 21,000 CableSolve ports to date.

"CableSolve has significantly simplified the process of tracing connections and making changes in the data centre"

- Dennis Celi
OEN Design Manager

The ability to add new equipment templates was a major consideration in the selection of CableSolve. Its ability to allow entry of any type of equipment configuration which was another priority for the new data centre made its selection as the cable and infrastructure management solution to be used for the data centre easier.

Labeling of cables and equipment in CableSolve is based on industry standards, and is simple and is easy to implement.

For Optus, all records are only as good as the information kept in them, they know that it does not take long for records to become out of date after a few undocumented changes here and there. Having chased a few cables for faults by tugging and tracing, they can appreciate the value of CableSolve's efficient method of showing the connectivity of cables and equipment and how good it is in record-keeping. Auditing the infrastructure is also an efficient process that they can now do quickly on a regular basis. As a result records are kept up to date and accurate.

"CableSolve is a flexible and easily configurable application, allowing entry of any equipment configuration."

- Dennis Celi
OEN Design Manager

Key Benefits Realised After the Deployment of CableSolve...

- ▶ **Complete documentation of IT assets ensures efficient planning and troubleshooting.**
- ▶ **Portable, accurate and dependable up-to-date records of the IT infrastructure and connectivity ensuring much faster problem identification and resolution.**
- ▶ **Full visibility of end to end connectivity, including inter-building connections and the applications running over them.**
- ▶ **A flexible and easily configurable application allowing addition of new equipment and entry of equipment configuration increased the productivity of the IT group.**
- ▶ **Cost and time savings.**

CableSolve was implemented by one of CableSolve's trained and certified Partners as a turn key solution.