

Kordia's versatile fiber network

To meet rapidly changing customer demands

The Issue

In the past, the geography of New Zealand had meant that last mile access for bandwidth intensive customer media requirements was a tricky proposition and presented a number of problems in terms of delivering the kind of service expected by customers.

However, with the deregulation of the national telco in the country and the roll out of the national ultra-fast broadband, wholesale access to lit fiber and dark fiber is now possible, making last mile fiber access an increasingly feasible option.

The Solution

Kordia wanted to extend its existing fiber network and chose Net Insight's high-quality Nimbra solution to drive this change after evaluating a number of alternative solutions. The Nimbra platform provided a number of options that delivered on what Kordia was looking to achieve, including:

- Greater capability and flexibility than codec-based hardware
- A single platform for uncompressed and compressed video as well as Ethernet/IP
- A high quality of service (QoS) with guaranteed capacity
- A combination of the best features of SDH and IP

The network extension, based on the Nimbra platform, would feed into all of New Zealand's major broadcasters to give them the ability to exchange uncompressed standard definition (SD) and high definition (HD) content. Today, each broadcaster has been provided with SDI interface ports providing point-to-point linking circuits to other broadcasters on the network. Additionally, the media network includes a media WAN enabling file-based media content or other IP applications to be used between the broadcasters, and via Ethernet ports, so broadcasters can now have dedicated capacity to use up to 1Gbps if necessary.

The Company

Kordia is a state-owned enterprise (SOE) infrastructure company that owns and operates New Zealand's third largest telecommunications network by geographical reach. It is also the major provider of television and radio broadcast facilities in the country. The company has more than 400 transmission sites and PoPs in New Zealand alone. As well as being a leader in New Zealand, Kordia is also one of Australia's largest telecommunications systems integration service delivery organizations.



The network can also be extended further into other sites, and the video and WAN network offering now reaches into Wellington and Auckland.

An example of how Kordia's new network capabilities were realized was when the company provided live sports video content through the network for the Rugby World Cup held in New Zealand – not only the third largest sporting event in the world but also the largest ever held in New Zealand. At the event, Kordia provided exclusive linking to host broadcaster SKY TV New Zealand, which allowed rights holder broadcasters to set up their "unilateral" operations. These companies included ITV UK, Fox Sports Australia, Super-Sports SA, Canal + France and many more. SKY TV built a two studio facility within the new Viaduct Events Centre



“Net Insight’s Nimbra platform meets all of Kordia’s requirements to transport SD and HD video at the highest possible quality, lowest delay and with high availability.”

and Kordia provided uncompressed HD video linking over the new Nimbra based Auckland media fiber network.

All this was possible thanks to the inclusion of every compressed and uncompressed video interface found in the industry, combined with service-aware provisioning. Kordia could with confidence co-host a plethora of broadcasters in their media network without worrying about the actions of one affecting another or ever running out of bandwidth. Alternative solutions built on media adaptors combined with regular routers creates a division between video and network, forcing network operators to add additional protection overhead, under-utilize the capacity of their links and add probes to monitor operations.

Another key factor in Kordia's decision was the reduced resources needed for network operations, compared to alternative solutions. The fusion between video and network in a Nimbra architecture cuts out the need for dual management. The network is transparently configured as the operator sets up the video or data services he needs, irrespective of the transport technology of the underlying links; Dark fiber, IP, SDH, PDH or any possible combination of these. To Kordia's Content Services team who provide critical linking services for major sporting and cultural events throughout New Zealand these were invaluable qualities not found in alternative solutions.

In addition, the Nimbra offers network management features with user-friendly web interfaces and extensive SNMP management which is easily integrated into an umbrella management system and a scheduling system.

The Results

As a result of partnering with Net Insight, Kordia now has faster, more transparent program exchanges without the latency and picture quality reductions that accompany content compression. In addition, more expansion capacity is available for both video services and WAN capacity, which ensures that more key broadcast customers can continue to innovate without worrying about limited capacity or network capabilities.

Now, Kordia's media network:

- Is a decentralised, purpose-built mediatransport network
- Offers the highest possible quality of service
- Supports uncompressed HD and SD video
- Enables transport of Ethernet services and other formats
- Has multi-cast capability
- Performs circuit protection using automatic circuit rerouting
- Offers integrated performance and alarm management
- Provides customer status views and control of circuit switching
- Provides rapid provisioning – Nimbra Vision enables Kordia to rapidly provision circuits for customers like The Shopping Channel.

Net Insight AB (publ)

Phone +46 (0)8 685 04 00, info@netinsight.net, www.netinsight.net

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