# Spectrum KORDIA™ NEWS FROM KORDIA™ PEOPLE: SUMMER 2007

#### ISSUE 07

Welcome to Spectrum from CEO, Geoff Hunt

Kordia™ walks the talk with solid year one results

Kordia™ and Huawei: building New Zealand's third mobile network

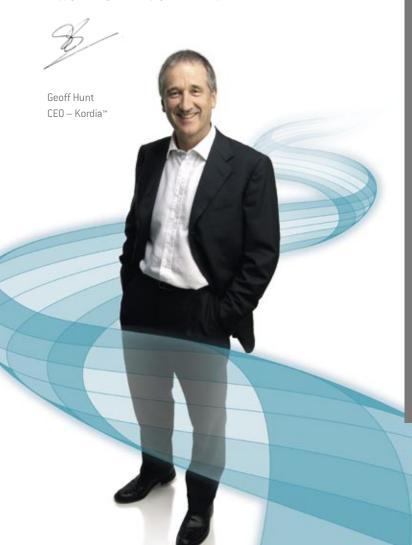
Kordia™ and Fujitsu bring a new network to Papua New Guinea

Engineering Services gets on track with New Zealand Railways

## WELCOME TO SPECTRUM

Welcome to the summer edition of Spectrum for 2007. It is one year since we rebranded as Kordia™ (November 2006), and already, so much has changed. Kordia™ is literally transformed: we're a company that is focused on delivering the broadcast, telecommunications and converged solutions we all talk so much about. That's good for our business – and yours.

Happy reading – and enjoy the warm-up to a well-deserved summer break.



### KORDIA™WALKS THE TALK WITH SOLID YEAR ONE RESULTS

Along with its fresh new look, Kordia™ announced a healthy revenue increase for the last financial year.

Group revenue is up by 31 per cent over FY06 and net surplus (net profit after interest and tax) up 21 per cent.

Kordia™ Chairman Wayne Brown says FY07 was a year of solid achievement in the company's move towards faster revenue and earnings growth.

"We have streamlined internal processes to support growth across our broadcast, telecommunications and converged solutions businesses, and are unifying different parts of the company across Australia and New Zealand," he says.

"Kordia™ has diversified its Australian customer base, and developed pleasing new initiatives in coverage solutions and other areas."

Kordia<sup>™</sup>'s existing infrastructure in New Zealand is being built on to deliver digital television (both satellite and terrestrial), while services like Metro Wi-Fi have been launched. Trials undertaken by the company include digital audio broadcasting (DAB) and mobile TV.

"We have expanded into Thailand with a joint venture, and have contracts in Saudi Arabia, Malaysia, the UK and elsewhere through our specialist consultancy services. The acquisition of Orcon has expanded Kordia" into the New Zealand retail space and provides greater certainty for ongoing core network investment," says Brown.

Kordia<sup>™</sup> CEO Geoff Hunt says harmonising the business and simplifying the offering has placed Kordia<sup>™</sup> in a better position for growth and transition into new markets.

"We have spent a year setting the stage for further change, speeding up the business and working more closely with customers to deliver the customised solutions they want in broadcast, telecommunications and convergence," says Hunt.

"Our year-end figures show we are on the right track. We are walking the talk—bringing people and technology together."

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## KORDIA™AND HUAWEI: BUILDING NEW ZEALAND'S THIRD MOBILE NETWORK

► Kordia<sup>™</sup> has secured a contract with leading Chinese telecommunications equipment supplier Huawei to roll out ten new cell sites in New Zealand for NZ Communications Ltd.

The deployment will effectively establish New Zealand's third national cellular network by the middle of 2008.

Huawei has awarded phase one of the install contract to Kordia™.

CUSTOMISED SOLUTIONS THAT WORK FOR OUR CLIENTS—TAILORING WHATEVER ELEMENTS ARE REQUIRED TO GET THE JOB DONE AT THE RIGHT PRICE FOR THE RIGHT OUTCOME, 77 SAYS KORDIA™ CEO GEOFF HUNT.

"In the past, we've been considered a little bit 'blue chip'—delivering a Rolls-Royce solution when a Toyota will do the job. Now, we are focused on listening better and giving customers what they actually want."

Work has already commenced on the first ten cellular sites following completion of the Auckland switch. The work was completed by a team of 20 engineers and subsequent deployments around New Zealand are due for completion in June 2008.

Sean Dexter, Chief Operations
Officer for NZ Communications
said that he was impressed by the
resources that Kordia™ deployed to
the site, the speed of installation in a
difficult environment and

the quality outcome achieved.

Geoff Hunt sees this as an exciting opportunity for Kordia™; not just in terms of the New Zealand roll-out, but also because of Huawei's global scope and reach.

"Kordia™ is pursuing work beyond New Zealand and Australia into the Asia-Pacific region, and we would like to think that our continued partnership with Huawei will help accelerate that growth."

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Kordia™ will be upgrading equipment such as this poorly installed cable gantry.

### HUAWEI AWARDS MYANMAR PROJECT TO KORDIA™

► Kordia™ has successfully completed an extensive survey and audit of 26 sites for Huawei, prior to installing CDMA mobile base station equipment for Myanmar Post and Telecommunications

Working in Myanmar proved challenging as the country is in a state of instability.

Site access is difficult at the best of times; and during the wet season, impossible even by motorbike. On some occasions, Kordia<sup>™</sup>'s engineers had to trek up to the sites, which were located on top of mountains.

Huawei has awarded Kordia™ additional hardware installation and site commissioning work, which will kick off in December.

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## TRIANGLE STRATOS BRINGS DIVERSITY WITH SUBSCRIPTION-FREE PROGRAMMING

Mordia™ has partnered with Triangle Television to launch its latest brainchild, Triangle Stratos. A new regionally-focused channel, Triangle Stratos is now delivering nationwide, subscription-free programming for the first time.

A mix of local and global programming is being brought in from a number of sources including other regional stations around New Zealand, locally-based ethnic and minority groups, and international broadcasters including Germany's DW-TV, Voice of America, and Allazeera

Kordia™ CEO Geoff Hunt says the company is delighted to have signed the first regional television station

onto the satellite Freeview platform. He believes helping regional television go national is a huge step forward for local programming and for Freeview.

"We are using our nationwide assets to help get the smaller channels onto the air via Freeview. The Freeview platform, which is powered by Kordia", will allow Triangle Stratos to aggregate regional content and then redistribute nationwide. This



Media commentator Russell Brown MCs the launch of Triangle Stratos.
Also pictured are Kordia™ CEO Geoff Hunt and Jo Tyndall from the Ministry
of Culture and Heritage.

means a richer viewing experience for everyone." says Hunt.

All Freeview (subscription-free digital television) viewers with a satellite set top box now have access to Triangle Stratos on top of current programming.

At the moment, Freeview comprises free-to-air broadcasters

Television New Zealand (TV One, TV2 and TVNZ Sport Extra), MediaWorks (TV3 and C4), Maori TV, and Radio New Zealand.

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## KORDIA™AND FUJITSU BRING A NEW NETWORK TO PAPUA NEW GUINEA

In a multi-million dollar deal with Fujitsu, Kordia™ will deliver a new digital microwave radio (DMR) backbone network for Papua New Guinea's Telikom PNG.



The contract has already commenced, with major works expected to begin late February 2008. The contract will deliver a 13 hop network that will run between Lae on the mainland to Tomavatur (north of the island of New Britain pictured above) - a distance of around 700 kilometres. The network will

effectively link several outlying islands to carry all of Papua New Guinea's voice and data traffic.

This initiative heralds
the debut of a long-term
contract that Fujitsu
has agreed with Telikom PNG to
modernise its telecommunications

infrastructure. The contract confirms that Kordia™ will act as Fujitsu's installation and commissioning contractor for the entire project over a number of years.

Fujitsu's Telecommunications
Manager Stan Baker says that
Fujitsu selected Kordia™ because it
was confident of Kordia™'s ability
to perform in this challenging

OF FUJITSU WORKED VERY CLOSELY WITH KORDIA\*\* AND ITS
OTHER BUILDING AND SUPPLY CONTRACTORS OVER A PERIOD
OF SEVERAL YEARS BEFORE WINNING THIS PIECE OF BUSINESS.
WE LOOK FORWARD TO CONTINUING TO WORK WITH KORDIA\*\* AS
A TEAM ON THIS PROJECT AND OTHER SERVICES BUSINESS, 77

A dozen Kordia™ staff will be sent to install and commission the new network as well as provide Fujitsu product training for staff at Telikom PNG

"This will be an exciting contract for the install teams, as most of the work will be carried out on high-sites accessible only by helicopter," says Chris Giles, General Manager of Kordia"'s Field Services and Operations.

Ince the project is completed, the

Kordia™ team will also remove all obsolete analogue microwave equipment.

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## **ENGINEERING SERVICES GETS ON TRACK** WITH NEW ZEALAND RAILWAYS

#### **►** Kordia™ is helping drive the New Zealand Railways Corporation - ONTRACK - towards a communications-based train control system.

This upgrade project will see ONTRACK's aging VHF voice network converted into a modern voice- and data-capable network.

After 18 months of initial collaborative planning, ONTRACK accepted Kordia™'s concept and preliminary design reports. Now, Kordia™'s Engineering Services has signed the contract to act as design consultant for delivery of the project's radio and IP network design components.

The contract encompasses specifying VHF/UHF repeater radio and power systems for ONTRACK's tunnels and hilltop repeater sites, along with a substantial national

network of analogue and digital radio

A special design feature is the transportation of two-way voice traffic as IP data between each hilltop repeater site and ONTRACK's central train control in Wellington.

As well as the agreed contract, Kordia™ will also undertake structural design work on the antenna mounting structures—such as poles and towers—as required.

Design specifications, installation work instructions and site drawings will be completed for each of the 80-plus sites in ONTRACK's radio communications network in the initial phase of work.

A completely redeveloped radio frequency channelling plan will also be completed in this phase by the target date of July 2008.

The IP backbone will be provided by Kordia™'s network services and a number of Kordia™ sites will provide ONTRACK with a more robust network with improved coverage.

The network upgrade will give ONTRACK a more reliable communications system, more efficient control of nationwide train movements, and smarter system operation and monitoring.

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## KORDIA™: **DELIVERING A DIGITAL FUTURE**



#### New Zealand viewers of the Beijing Olympics are in for a visual treat: the games are to be broadcast in high definition (HD) across the new digital terrestrial television network currently being installed by Kordia™.

Running from Dunedin through to Auckland, the system will reach 75% of the population and is expected to be completed early 2008.

TVNZ, which will be broadcasting the Olympics, hopes that a significant portion of its primetime programmes will also be shown in high definition (HD) from mid-2008.

TVWorks, which operates the TV3 and C4 channels, will also be using the digital terrestrial television (DTT) platforms, and also has plans for HD

Interest in the network from other TV and radio broadcasters continues to grow and discussions with both national and regional broadcasters are expected to conclude soon with further announcements possible later in the year.

Meanwhile, Kordia™ is busy installing the new equipment and associated infrastructure before the testing and commissioning phases

One of the big challenges has been the implementation of the new antenna systems. Despite being faced with difficult weather conditions, Kordia™'s rigging teams are making good progress with the tower strengthening and antenna installation work.

Spectrum clearance work has begun to enable the new services to be launched with minimal interference to existing analogue services. The first sites in Christchurch, Wellington, and Tauranga have been changed over without a hitch and the Auckland changes will be completed soon.

DTT services are expected to be added to Kordia™'s next generation network shortly; this linking will use the additional digital microwave radio (DMR) capacity built as part

of Kordia™'s upgrade to its national linking backbone.

Kordia™ is working with the industry to ensure the systems are in place for a successful launch early in 2008. Currently the project team is focusing on getting a test signal operational in Wellington so manufacturers can begin field trials for their set top boxes. The project is on track bring Freeview digital services to New Zealand next year.

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### AUCKLAND HARBOUR BRIDGE GETS A SUPER CELLULAR UPGRADE

► Kordia<sup>™</sup> has just completed a mobile coverage upgrade for Vodafone on the Auckland Harbour Bridge, including Project Management and implementation. The solution took place over ten years, from concept to completion.

In the past, huge amounts of steel and high GSM radio frequencies have played havoc with mobile coverage for motorists on the bridge. With consent issues equally as complex, Kordia™ has only recently been able to undertake the work.

The project involved building a new GSM master station and six remote units, which have been strategically

placed and integrated into the steel
structure to ensure coverage and
handovers are managed properly.
Motorists – for now – can drive and
talk with ease.

Job well done.

#### **DELIVERING ON BROADBAND PROMISE**

Kordia™ is undertaking a mammoth transmission upgrade of Vodafone/Optus 3G sites from 5E1 to 7E1, which will increase each site's capacity by up to 14MB, providing the required bandwidth for reliable wireless broadband in Australia.

The project calls for Kordia™ to complete all 995 sites within nine months over an operational transmission platform, without any disruption to the network.

"With our wealth of telecommunications engineering expertise and proven track record in managing the Vodafone network, we are well positioned to deliver these demanding projects on time and budget," said Peter Robson, Kordia"'s Managing Director.

With its multi-skilled teams,
Kordia™ has already completed 600
designs and 222 sites and will soon
undertake Vodafone's largest STM-1
link installation schedule, installing
170 high capacity links in the next
five months, averaging two swaps
per night across Australia.

Each STM-1 carries between 50 - 100 sites' worth of traffic, creating

potential for extreme risks, and allowing outages for a maximum of only three hours during the low usage period of 10.00pm to 6.00am.

The compressed timeline also presents its challenges - from the risks and rigours of the transmission upgrade, to demanding equipment delivery timelines. When the team experienced delays in ordering and receiving the appropriate equipment and materials for 700 sites, Kordia\* reprioritised its finance and administration teams to expedite the process and minimise any potential 'lead time' constraints.

Once again, Kordia<sup>™</sup>'s blend of solid expertise and flexible approach has kept the team on track for a project completion date of May 2008.

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Four months into the project, Kordia™ has already completed 600 designs and 222 sites.

## KORDIA™ RISES ABOVE ROUGH CONDITIONS



#### Wild weather and far flung locations didn't deter Kordia™ from completing the complex upgrade of 39 repeater sites to a macro site for Telstra Australia.

With its solid telecommunications engineering expertise, Kordia™ performed line of sight surveys and audits, civil design and structural analysis, transmission design and licensing as well as installation of tower strengthening, upgrading of existing AC and DC power systems, transmission installations (hot standby and space diversity links), Node B RBS and RF installation and modifications.

To deliver the diverse scope of work within a tight timeframe, Kordia™ mobilised its Major Projects and Managed Services teams to have all project streams running simultaneously.

With most of the sites based in remote locations across Australia, Kordia™'s teams had to withstand terrible weather, flooding and wildlife [a nesting eagle meant the team had to install and run links off a single dish at a lower height] to ensure onschedule project completion.

Kordia™ successfully delivered the bulk of work within a seven week programme from September to mid October – despite the odds!

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#### **ROARING INTO TASMANIA**

Barely four months after the establishment of its new rigging division, Kordia™ has won a contract to provide an 80m guyed mast and civil works for a new wind farm in Tasmania, Australia.

"This showcases Kordia™'s truly diverse capabilities beyond our well-known broadcast and telecommunications expertise," said lan Gair, Kordia™'s Engineering Manager. "With our multi-skilled teams and years of experience, Kordia™'s engineering and rigging services extends to a wide range of industries including the oil, gas, energy and mining sectors."

Having successfully completed a similar project in New Zealand for renewable energy developer Roaring Forties, Kordia™ was approached to undertake the same project in Australia.

The wind farm's remote coastal location in north western Tasmania meant that the mast and wind monitoring equipment had to be designed for its specific loading requirements and site conditions.

"North Western Tasmania can be a very inhospitable environment as it is one of the windiest parts of the world. We were very focused on this with our design and site planning," said Kordia<sup>M</sup>'s Rigging Manager Tony Wilkins. On the back of this project, Kordia™ is currently working with Roaring Forties on the proposal for a five-year maintenance contract.



Kordia™ will supply a guyed mast in Tasmania similar to this version designed in New Zealand for Roaring Forties. FOR MORE INFORMATION, PLEASE CONTACT

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## IN BRIEF:

#### **ORCON: KING OF ISPs**

Kordia<sup>™</sup> and Orcon had a big night out at this year's TUANZ Innovation Awards held at Auckland's Hyatt Regency.

The awards recognise the achievements of innovators in the telecommunications industry.

Orcon was named Internet
Service Provider (ISP) of the Year
for the second year running, which
delighted chief executive Scott
Bartlett:

"To have taken out this award two years in a row—and have our commitment to our customers recognised in this way by our peers—is simply outstanding."

Judges were impressed by the overall standard of the entries for the award and said that New Zealand's rural communities are being better served than ever before.

Kordia "'s General Manager of Strategic Development, Susie Stone, was also at the awards to receive the TUANZ Chairman's Award as part of the Telecommunications Carriers' Forum.

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Orcon wins ISP of the Year second year running



The Kordia™ Rural Award was presented to Canning & Associates Limited (WIZwireless) by Kordia™'s General Manager Engineering Services, Greg Davey.



From failed mast to functional mast in 24 hours
– all in a day's work.

### KORDIA™ RESPONDS IN PRIME TIME

When Prime Television's site at Lithgow,
New South Wales, went off air due to a major mast
failure, Kordia™ sprang into action and restored its
television broadcast services within 24 hours.

Kordia™'s broadcast engineering team headed straight to the site when they got the call, and discovered that the mast had fallen due to a guy wire failure.

Kordia™'s engineering team stabilised the mast by re-guying it using an 11mm kern mantle rope tied onto trees and has subsequently proposed other long-term replacement solutions to the client.

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