





Annual Report 2010/11

TELECOMMUNICATIONS CARRIERS' FORUM Annual Report 2010/11

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Richard Westlake

Foreword from the Independent Chairperson

You know the saying, "What a difference a day makes" – well at the TCF, we're saying "What a difference a year makes!"

Since our last annual report, we have achieved some major milestones:

- we developed and published a comprehensive UFB code in just over one year
- we negotiated and agreed a new funding model for the Telecommunications Dispute Resolution Scheme
- we were involved in much of the debate around the changes to Section 92 of the Copyright Act
- less visibly, the TCF has been engaged in a significant number of new and revised codes, designed to meet the needs of the industry and public over the coming years.

And while it is appropriate to celebrate our successes, the Canterbury earthquakes have left a massive wound in our national psyche and economy, aspects of which will remain with us for the rest of our lives. One clear reality for everyone involved was how absolutely critical telecommunications are in times of emergency and disaster. For those of us not in Canterbury at the time, we received or heard about the calls and text messages from those trapped inside collapsed and damaged buildings. For all of us, we recognised how essential telecommunications services were for rescuers, support teams, government agencies and desperate families.

Through the disaster and tragedy, it was comforting to see our industry perform so magnificently, providing much needed lifelines – sometimes literally; read more about this in our special feature story "Telecommunications Together: the Canterbury Earthquakes". The earthquakes remind us not to take New Zealand's usually seamless delivery of telecommunications for granted. They also remind us of the need for cooperation as well as competition in the telecommunications industry. I'm pleased to be a part of the TCF as it fosters that cooperation.

I'm proud of our industry's achievements and look forward to another successful – but I hope calmer – year ahead.

Richard Westlake

Independent Chairperson Telecommunications Carriers' Forum



David Stone

Chief Executive's Summary

On the basis of how 2011 is shaping up it will go down in history as the year in which tectonic scale changes started within the New Zealand telecommunications industry. Having said that, the ground work for much of this change got underway during 2010. The 2010/2011 year has been anything but dull and the TCF has undertaken and completed some major pieces of work.

Perhaps the most memorable was the completion, in just over twelve months, of the UFB Standards (described in more detail elsewhere in this Annual Report). While not necessarily something you would want to take anywhere with you as some light bedtime reading, it nevertheless represents a very significant piece of work delivered by a group of professionals employed by companies that are vigorous competitors in the market. To deliver the standards, a strong consensus had to be formed and narrow sectional interests suspended while issues that will impact all in the industry were tackled.

But that is not all we have done.

Other activities undertaken during the year in review included:

- completed the Mobile Messaging Services Code
- completed the principles for telecommunications infrastructure for new subdivisions
- commenced work on an Enforcement Framework for TCF Codes
- agreement on new funding model for the Telecommunications Dispute Resolution Scheme
- commenced work on the development of technical standards for IP Interconnection for Voice
- submissions on section 92A of the Copyright Act
- commenced reviews of existing TCF codes, including the Emergency Services Calling Code and the Premises Wiring Code
- continuing review of the Customer Transfer Codes.

The changes that we have laid some of the groundwork for in the past year will continue to rapidly evolve in the coming year. There are already signs that the workload of the TCF is increasing as the breadth of the industry increases and more and more diverse parties join the industry.

Completion of the structural reforms that we have begun will be a priority as the TCF needs to evolve to become more flexible to accommodate this growing diversity. The changes to the industry and the challenges that follow will mean that there is an evergrowing need for the self-regulatory benefits that the TCF delivers. There will also be a growing need for the TCF to expand its role as interface between the industry and Government on issues requiring consultation. The TCF is a trusted advisor on industry issues and its representational role on behalf of the industry can only increase.

There is little opportunity to get bored (thank goodness).

David Stone

Chief Executive Officer Telecommunications Carriers' Forum

Profiling the TCF

A vital role

The Telecommunications Carriers' Forum (TCF) plays a vital role in the New Zealand telecommunications industry, collaboratively developing key industry standards and codes of practice that underpin the country's digital economy.

Established in 2002, the TCF is a registered incorporated society. Our objective is to actively foster cooperation among the telecommunications industry's participants, to enable the efficient provision of regulated and non-regulated telecommunications services.

We work with both industry participants and government agencies to achieve our objectives. We work within the telecommunications industry to efficiently resolve regulatory, technical and policy issues, and provide a bridge to government with the results. We offer an expert, informed, and commercially-focused forum to debate problems, and to devise and implement practical, efficient, consensual solutions that enable competition to flourish.

The TCF's governing Board is headed by an Independent Chair; our operations are led and supported by our Chief Executive and Forum Administrator respectively. Our membership, comprising three tiers and numbering 17 members, features the country's telecommunications carriers and service providers.

Unless agreed by our Board, the TCF does not take a representational role in any public or policy debate. We do, however, facilitate dialogue on industry issues of common interest.

TCF online

The TCF website **www.tcf.org.nz** provides continuous access to media releases, member representation, and progress reports on core activities including working party milestones, consultations, and code-specific submissions.

Our monthly newsletter *The Broadsheet* can be accessed from our homepage, which also features a calendar of TCF activities and quick links to specific topic pages. Plenty of information about the TCF including profiles of current TCF Board members and organisational information is also available on our website. Our Project Status Report webpage charts TCF's progress on a range of key activities. Also featured on the site are ongoing updates on number portability.

Website visitors can register for email delivery of media releases and each monthly release of *The Broadsheet*.

Key Players in the TCF

TCF Board

» Richard Westlake (Independent Chair)

Richard is Director of Westlake Consulting Limited, a leading advisor on organisational governance, strategy, and structure. In recent years, he has completed significant consulting assignments in the ICT sector, both locally and internationally. An independent director of Kiwibank since its establishment, Richard chairs software company Intergen Limited, and the Careerforce Industry Training Organisation. In October 2010, he stepped down after seven years as chair of the Standards Council of New Zealand, and among his other board roles has previously been establishment chair for two state-owned enterprises: MetService and Quotable Value.

» Mathew Bolland, 2degrees Mobile (Group Member Representative for Tier 2 Members)

Mathew joined 2degrees as Director of Corporate Affairs in June 2010 and is responsible for the company's government, industry and external relations. Mathew has extensive experience in network infrastructure businesses, managing public affairs, communications and marketing activity at TelstraClear, Mercury Energy, Vector and Watercare. He replaced Graham Walmsley of CallPlus as the Tier 2 Group Member Representative in October 2010.

» Susie Stone, Kordia

(Group Member Representative for Tier 2 and 3 Members)

Susie is Kordia Group's General Manager: Strategic Development, and is responsible for strategic business development, commercial affairs, government relations, and regulatory policy. She previously held the position of General Manager of Network Solutions, CLEAR Communications, with responsibility for local access, data, messaging, and call centre solutions. Susie's background features entrepreneurial, business development, regulatory policy, and technology experience across a variety of sectors, including government, IT, telecommunications, and broadcasting.

>> John Wesley-Smith, Telecom

John is Telecom's General Manager, Industry & Regulatory Affairs. He is responsible for managing the company's relationships with, and submissions to, the Commerce Commission, as well as Telecom's input into industry and government-led public policy processes. He has previously held a number of roles within Telecom's Government and Industry Relations team. Prior to joining the company in 2004, John was with law partnership Russell McVeagh for three years, during which he specialised in commercial and financial law.



















From Top L-R: Richard Westlake, Mathew Bolland, Susie Stone, John Wesley-Smith, Liesbeth Koomen, Hayden Glass, Paul Brislen, David Stone, Susan Wells.



» Liesbeth Koomen, TelstraClear

Liesbeth took over the TCF Board Member position from Chris Abbott at TelstraClear in August 2010. Liesbeth was appointed Head of Government Affairs, Regulatory and Ultra-Fast Broadband at TelstraClear in August 2010. Her role includes devising strategies and negotiating agreements in relation to the Government's UFB initiative. She joined TelstraClear from the Commerce Commission where she was responsible for legal enforcement in the areas of competition, consumer credit and fair trading since 2005. During the ten years prior to that, she gained extensive experience in telecommunications through private practice in Amsterdam and London and at British Telecommunications plc (BT), where she was Vice President, Regional Counsel. In that role, she led a cross-border team responsible for regulatory and legal actions to improve access conditions to incumbent networks in most EU countries.

» Hayden Glass, Vodafone

Hayden is Vodafone's Head of Public Policy, having re-joined the team after two years as Head of Marketing Strategy. His recent years have been spent in telecommunications, and he was formerly devoted to issues in regulatory economics. Hayden has also held roles in government policy-making and law.

» TUANZ (non-voting representative)

The Telecommunications Users Association of New Zealand (TUANZ) had three representatives in the non-voting representative role during 2010/11:

Ernie Newman (to September 2010)

After twelve years of service, Ernie left his position as Chief Executive of the Telecommunications Users Association of New Zealand (TUANZ) in September 2010. He had represented TUANZ with several organisations, including the TCF and the Number Administration Deed. A Board member of the International Telecommunications Users Group (INTUG), Ernie was its Chairman from 2002 to 2005. He was a regular participant in APECTel (the telecommunications and IT working group of Asia-Pacific Economic Cooperation (APEC)).

Katherine Hall (September 2010–March 2011)

Katherine is the Business Development Manager of TUANZ and is responsible for all aspects of membership services. Katherine has held management and business development roles across a number of industries including IT, Tourism, Finance and Human Resources. Her career and current position provides Katherine with a unique insight into the telecommunications industry from the user perspective.

Paul Brislen (from March 2011)

Paul is now CEO of TUANZ. He spent seven years as an IT reporter covering the telecommunications sector for Computerworld, the NZ Herald, Unlimited magazine, Idealog, TVNZ, Radio New Zealand and many others. He was editor of Computerworld, New Zealand's leading IT weekly newspaper, before entering corporate life as Vodafone's communications manager.

TCF Operations

» David Stone, Chief Executive Officer

David became CEO of the TCF in 2009. His career has spanned both new-entrantchallenger and established businesses, giving him a uniquely balanced understanding of the New Zealand telecommunications industry. David began his working life as an exploration geologist, before practising law in New Zealand, England, and Australia. His most recent position was that of Vodafone New Zealand's Head of Industry Affairs, during which he represented the company on several industry bodies. His Vodafone achievements included development of the company's wholesale capability, and the sign-up and marketentry of its first wholesale mobile customers.

>> ONZL Ltd (Forum Administrators)

Since 2006 ONZL has operated secretariat, professional, and office administration services for the TCF. Susan Wells, Jonathan Hope, Jackie Clark, Clare Dobson and Elna Meller are the Forum Administrators. ONZL provides professional and secretariat support to the TCF Board and working parties, programme management, and assistance with the drafting of codes and preparation of submissions.

» Peter Harris

(Chair of the Ultra Fast Broadband (UFB) and IP Interconnection Working Parties)

Peter is Managing Director of BLUESKiES Group Limited, and currently holds directorships with PRPA Limited and IGNITE Building Consultancy. His career spans over 20 years in the property, construction, and management consulting fields. Peter has provided project leadership capabilities for a range of organisations and businesses, including Air New Zealand, Goodman International, and Standards New Zealand. He has provided business governance and facilitation support to institutions and bodies such as the Christchurch Polytechnic Institute of Technology and the Canterbury Employers' Chamber of Commerce.

TCF Members

The TCF has a three-tier membership structure comprised of New Zealand telecommunications carriers. Tier 1 members each hold a seat on the Board, with Tier 2 and Tier 3 members jointly holding two Board seats.

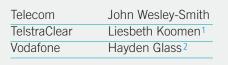
We continue to enjoy an expanding membership, as communications technologies become increasingly critical to New Zealand, and as the government recognises the critical role of ultra-fast broadband (UFB).



Tier 1 Members:









¹ Liesbeth replaced Chris Abbott in August 2010.

² Hayden was replaced by Tom Chignell from April 2011.

Tier 2 Members:

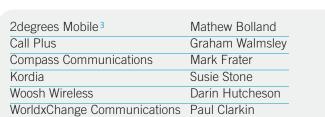






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Trust





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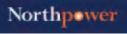
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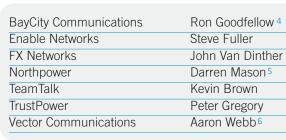
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³2degrees Mobile rejoined the TCF in July 2010.

Tier 3 Members:











⁴Ron replaced Tony Baird in June 2010.

⁵Northpower joined the TCF as a Tier 3 Member in September 2010.

⁶Aaron was replaced by Kevin Oswin in April 2011.

TCF's Year at a Glance

Projects completed during 2010/11

- Ultra-Fast Broadband (UFB) Standards:
 - Draft Access Fibre Service Description provided to CFH
 - TCF UFB Co-location Service Description
 - TCF UFB Co-location Operations Manual
 - TCF UFB Co-location Service Level Terms
 - TCF UFB Ethernet Access Service Description
 - TCF UFB BSS OSS Business Interaction Framework
- Mobile Messaging Services Code
- Telecommunications infrastructure principles for subdivisions.

New projects commenced and continuing

TCF projects

- TCF structural review
- Compliance Framework for TCF codes.

Near completion

- TCF UFB Intra-LFC Area Access Backhaul Service Description
- TCF UFB Intra-LFC Area Access Backhaul Operations Manual
- Amended Customer Complaints Code and new funding model for Telecommunications Dispute Resolution Scheme
- International Mobile Roaming Code
- Revised Premises Wiring Code of Practice.

In progress and ongoing

- Development of technical standards for IP Interconnection for Voice
- Trusted Mobile Payment Framework development
- Continuing review of Customer Transfer Codes
- Further work in response to Copyright Act s92A and Copyright (Infringing File Sharing) Amendment Act 2011
- Updates to Emergency Services Calling Code
- Information Reporting & Broadband Monitoring
- Standard Terms Determination
- Numbering governance and administration
- Number portability.

Our work in 2010/11 reporting year focused on work that affected the public-commercial interface of the telecommunications industry.

We continued our commitment to our core role in preparing codes and we engaged with industry, the government, and others critical to establishing cohesive, pragmatic, and future-focused codes of practice.

We also continued our work with local government to assist their work in the public-private interface with community engagement and new subdivisions.

At the close of the 2010/11 reporting year, the TCF looks forward to another year of success, achievement, and confidence in our member's capabilities and cooperation.

Extending relationships

During the past year we have sought to extend the TCF's engagement with similar organisations overseas as the issues we face in New Zealand frequently mirror issues faced in other jurisdictions. In particular, we have grown our relationship with the Communications Alliance in Australia; regular meetings now occur between our TCF CEO and his Australian counterpart.

In addition, the TCF has signed a Liaison Agreement with NICC in the UK. NICC is a technical forum for the UK communications sector that develops interoperability standards for public communications networks and services in the UK.

We are also discussing a Memorandum of Understanding with the European Telecommunications Network Operators (ETNO), based in Brussels.

These arrangements are intended to promote information sharing and foster cooperation on issues of mutual interest.

Ultra-Fast Broadband (UFB) gets ready to roll

In February 2011, a critical step in rolling out ultra-fast broadband to New Zealanders was achieved with the completion of three Ultra-Fast Broadband (UFB) standards: Co-location Service, Ethernet Access Service, and OSS/BSS Interaction Framework.

"Positive participation and a cooperative spirit among industry were at the core of our UFB Standards success," said TCF's CEO David Stone. "Our UFB Working Party produced these Standards in just over one year, which is a remarkable achievement in such a competitive environment. The Standards represent the kind of behind-the-scenes work that consumers and businesses may never know about – but they will see the result in seamless delivery of UFB."



The Purpose of the UFB Standards

The TCF established the UFB Working Party in January 2010 to develop a set of standards which would support the Government's UFB initiative whose objective is to increase New Zealand's global competitiveness by accelerating the roll out of UFB to 75% of New Zealanders over 10 years.

The UFB Working Party Members were: Chorus, Commerce Commission, Enable Networks, FX Networks, Internet NZ, Kordia, Ministry of Economic Development, NZRFG, Northpower, Telecom, TelstraClear, Vector, Vodafone and Crown Fibre Holdings (CFH), which manages the Government's investment in UFB and who will implement the rollout of a nationwide fibre network.

The Standards are intended to form a robust framework and a clear direction by the industry to CFH on how UFB is to be delivered in New Zealand, and dovetail into CFH's UFB build plans. The industry's UFB Standards detail the minimum requirements that a Local Fibre Company (LFC) should meet when delivering UFB services.

The UFB Working Party initially completed a draft Access Fibre Service Description which was handed over to CFH; they then worked on Layer 2 services and the OSS/BSS Business Interaction Framework.

The UFB Standards

The UFB Co-location Service Standards outline the requirements for this service that provides co-location facilities for an Access Seeker's equipment, and access to the handover point, at the LFC Central Office for the purposes of providing access to, and interconnection with, the LFC's local fibre network.

The UFB Ethernet Access Service Description provides the framework for Ethernet Access Services, which are the Layer 2 services to be provided to Access Seekers by the LFC, and includes point-to-point Ethernet Line Access (ELA) services and point-to-multipoint Ethernet Multicast Access (EMA) services.

The UFB Operational Support Systems (OSS) and Business Support Systems (BSS) Business Interaction Framework (which covers all services) are based on principles of international best-practice. This document specifies the business interaction framework and the specific interactions of an Access Seeker with an Access Provider, where the Access Provider is part of the Local Fibre Network established by Crown Fibre Holdings (CFH).

The TCF Board endorsed the Intra-LFC Area Access Backhaul Service Description and Operations Manual on 6 May 2011.

All documents are available on the TCF website.

Mobile premium and non-premium messaging services

The Mobile Messaging Services Code was endorsed by the TCF in December 2010. The Code sets out the rights and obligations of content providers, aggregators, and telecommunications service providers for the advertising, promotion, and operation of all chargeable and non-chargeable Mobile Messaging Services in New Zealand.

The self-regulated Code came into effect on 14 March 2011 and replaced the previous Mobile Premium Messaging Services Code of February 2008. While the prior management of Mobile non-Premium Rate Services worked effectively, TCF members considered that both customers and industry would benefit from a self-regulated industry code of conduct that would provide stronger and clearer guidelines on the running of these services.

Although it is a voluntary Code, all TCF members who provide mobile messaging services have already become signatories, along with numerous New Zealand aggregators.

Principles for telecommunications infrastructure for new subdivisions

The Local Government Working Party established a series of principles for telecommunications infrastructure in new subdivisions. The catalyst for this particular activity was a number of enquiries from local government as to whether the TCF had an agreed position on minimum standards.

The Principles were endorsed by the TCF Board in December 2010. They:

- provide guidelines for territorial authorities on minimum standards for telecommunications infrastructure for new subdivisions
- are intended to be considered by territorial authorities when formulating policies and codes of practice for land use and development
- provide background information and a level of support for some of the recurring issues and themes that arise with subdivision infrastructure so that enduring solutions can be found
- provide expert advice from the telecommunications industry.

Submissions

One of the TCF's roles is to represent the telecommunications industry as a whole. Part of this representational role involves making submissions to the government on behalf of industry.

The TCF made submissions in 2010/11 on the following pieces of legislation and other issues:

- Telecommunications (TSO, Broadband and Other Matters) Amendment Bill (see page 13, *Telecommunications Service Obligations: supporting the vision*)
- Section 216 of the Criminal Procedure (Reform and Modernisation) Bill
- Copyright (Infringing File Sharing) Amendment Bill
- Joint submission with Australian Mobile Telecommunications Association (AMTA) and Communications Alliance (CA) on Transparency in relation to Trans-Tasman Mobile Roaming Services.

Telecommunications Service Obligations: supporting the vision

The telecommunications service obligation (TSO) is traditionally a mechanism for ensuring the widespread availability of a standard residential telephone service. Funded through an industry levy, the TSO was initiated nearly a decade ago. In 2010 the Government introduced the Telecommunications (TSO, Broadband and Other Matters) Amendment Bill (2010) which reforms the way the TSO works and where the funds collected under the regime can be applied. A key aspect of the Bill is the Telecommunications Development Levy (TDL), a source for subsidising existing TSO services such as the Deaf Relay Service, and for funding fast broadband access to rural communities.

In March 2011 the TCF made a submission on various aspects of the Bill, including the additional amendments made by a Supplementary Order Paper, released in late February 2011. Our main comments were:

- the TCF supports the objective of extending fast broadband to rural customers, but suggested that given the broad social benefit, it would be better funded through general taxation not a specific industry levy
- the retrospective taxing from July 2010, before the legislation is enacted and before any money is spent, should be amended so levies are raised in line with TDL expenditure
- the discretion to apply funds to a broad range of activities without limit is too broad
- the levels of liability for TSO parties is uncertain and the base for collecting revenue should be broadened to include those who provide content and information services
- the existing outstanding local service TSO issues are unresolved.

Furthermore, the TCF CEO appeared before the Select Committee to speak to the TCF's submission in March. The TCF will continue to monitor the ongoing development and implementation of this piece of legislation which has the potential to fundamentally change significant aspects of our industry.

The TCF is recognised by the government and the Commerce Commission as being the "Telecommunications Industry Forum" referred to in the Telecommunications Act 2001.

We take the lead role in the development of industry codes of practice: both regulated and non-regulated. There is an important distinction between the two types.

Our statutory role revolves around the production of codes of practice relating to regulated services, which, once approved by the Commission, become binding on all parties to whom they relate. Within the TCF, these codes are referred to as regulated codes. An example of one such code is the Customer Transfer Code.

In recent years, the TCF has also produced a number of codes that do not fall under the scheme of the Telecommunications Act. Variously referred to as voluntary or self-regulated codes, these codes, strictly speaking, are non-regulated codes. A non-regulated code is binding on its signatories, who are subject to code-specific compliance and enforcement procedures. The Emergency Calling Code and Customer Complaints Code are examples of non-regulated codes.

Telecommunications Together: the Canterbury Earthquakes

The response by New Zealand telecommunications companies to the Canterbury earthquakes, and their endurance throughout them, is a cause for great pride in the industry. Out of the multitude of stories of cooperation and mutual assistance during the February quake, we have selected just a few to present as examples. Most of these stories would not have made the evening news but we are pleased to capture them below.

Our members and the telecommunications industry as a whole have made substantial donations to the earthquake relief funds, including matching fundraising efforts – truly going above and beyond their regular customer service.

TCF's congratulations and thanks go to our members for their extraordinary efforts.

Cooperation among competitors: TEPF

The Telecommunications Emergency Planning Forum (TEPF) was convened directly after the 22 February quake. This forum is used in major events with representation from major telecommunications providers (Enable, Kordia, Team Talk, Telecom, TelstraClear, 2 Degrees, Vodafone) and Civil Defence. Participants worked behind the scenes in a collaborative environment, sharing their business situations and updates, and requesting assistance when needed.

That meant that whoever needed a generator or six, more circuit capacity, fibre rerouting, or shared operational procedures, got it from their industry colleagues. For customers, that meant services were less severely impacted by damage or red-stickered sites. For critical rescue services and government agencies, that meant rapid response to their requests.

"Shortly after the disaster we opened lines of communication with Vodafone and Telecom and it was clear that each mobile operator had similar issues to resolve" reported Michael Bouliane, 2degrees Mobile Communications Manager. "Emergency call failover had been re-tested since the September 2010 quake and we were confident that emergency calls would be carried by Vodafone in the event that our network went down. Similarly, we were able to route emergency calls from Telecom XT and Vodafone users where their networks were down but ours remained active."

Emergency calling critical

Fortunately, rural satellite provider Farmside wasn't affected by the quake. They supplied a vital link to internet services for the hundreds of personnel deployed in the Canterbury earthquake search and rescue effort located inside Latimer Square. International search and rescue teams were able to swiftly relay and coordinate information from search sites using Farmside's mobile satellite platform to produce a wireless network - which the company and its satellite partner IPStar provided free of charge to support the emergency response.

At LandSAR New Zealand's headquarters on the Halswell Domain a portable IPStar satellite system supplied by Farmside provided access to online mapping and other vital web-based information services, as well as email and VoIP telephone services. "Our ability to access the internet independent of any land-based services such as the cellular network or land lines was crucial," said Alan Thompson, LandSAR IPStar Project Manager.

People focus

LLike most telecommunications companies, Telecom serviced more than their customers after the quake; they also provided support to their Christchurch-based staff, including housing assistance, counselling and support, paid leave and home security. Text, email, website, Twitter and Facebook were all used to get information to staff.

Staff from Chorus, New Zealand's largest telecommunications utility company, walked more than 160km to deliver network updates to 12,000 residents in the New Brighton area. Together with the Student Army they delivered 30,000 information letters in the Linwood, Dallington and Shirley areas.

Following the earthquake TelstraClear established a dedicated team to look after their Christchurch staff, ensuring their ongoing safety, and keeping them informed about changes to their workplace.

Vector released staff trained in emergency response on full pay in order to help the NZ Red Cross. They also doubled the bandwidth capacity to Datacom through its fibre network to allow large data transfers of server information to support key corporate and government organisations.





Getting back to business

Christchurch's fibre network Enable Networks went into action immediately after the quake. They worked with a Net24, a key data centre in the city, to provide critical backup for many businesses. They worked to relocate customers into other buildings with existing Enable fibre within days and new fibre was installed into other buildings within weeks. Many Christchurch businesses took the opportunity to fibre connect to these data centres and locate or virtualise their servers in a safer location.

To help local businesses get back on their feet post-quake, most telecommunications providers relaxed their requirements or offered new incentivised plans for Christchurch residents. Many also offered free services, waived regular fees, provided free equipment, and worked with other industry providers to get their customers connected quickly.

An ounce of prevention

Overall, the earthquakes have shown that the telecommunications industry is prepared to deal with significant disasters but we can still learn from the two major Canterbury earthquakes. In addition to business continuity plans, here are some things the telecommunications industry – and businesses generally – are thinking about:

- a satellite contingency plan for businesses that are reliant on broadband
- investing in additional core network infrastructure
- staff working long hours in stressful conditions need to be constantly monitored by human resources. Establish a roster of breaks away to give people a chance to recover
- appointing a dedicated staff member to lead business recovery efforts, to understand the local recovery needs and align these with a company's business recovery plans
- power supply backup batteries and generators
- the need for preparedness across the country investigate re-routing business through another centre
- the need for close relationships, both personal and business most support comes from outside the affected area.

Facts and Figures

\$0 – the amount charged for the text-to-donate service delivered by Telecom, Vodafone, 2degrees and Run the Red to provide the official Red Cross service.

48 hours – the time it took for the Vodafone truck 'Optimus Prime' to arrive at Hornby Mall, providing free Wifi, 10 free calling phones and free car chargers to people without power.

5 days – the time within which Enable Networks had relocated affected customers to new buildings with existing Enable fibre.

100% – the number of Red Cross donations matched by 2degrees during a Māori TV fundraising telethon.

160km – the distance Chorus staff walked to deliver network updates to 12,000 New Brighton area residents.

176 – the number of TelstraClear roadside cabinets which continued to provide telephony services using battery backup.

260 – the number of payphones across Christchurch provided free by Telecom for local, national and mobile calls.

850 – the number of hours (as at end of March) Chorus technicians had spent working in manholes around Christchurch reconnecting more than 55,000 individual wires.

5,000 calls – the approximate number of phone calls made each day from those free payphones.

\$100,000 – the value of phones and credit provided by Telecom to charities and volunteers in Christchurch.

\$190,000 – the amount donated to the New Zealand Red Cross 2011 Earthquake Appeal by Telecom staff through individual donations, bake sales, collections and other fundraising initiatives. Donations were matched dollar for dollar by Telecom.

\$51 million – the total money donated, according to the Red Cross 2011 Earthquake Commission.







Creating Certainty: Codifying Industry Practice

In consultation with our working parties, the TCF prepares telecommunications access codes for approval by the Commerce Commission, in accordance with the Telecommunications Act 2001. We also prepare other telecommunications codes, and facilitate dialogue on industry issues of common interest.

Codes of practice help both the telecommunications industry and users by standardising practices, particularly in the area of rights and responsibilities, and encouraging marketplace competition.

As at March 2011, nine codes are in effect. Developing new codes of practice, and reviewing the content and operation of existing codes, has continued to form the core of TCF's 2010/11 activities, and to guide much of our efforts. All existing codes are featured on the TCF website, along with the signatories to each.

Codes in effect at end of March 2011 include:

- 1. Co-siting Code
- 2. Customer Complaints Code
- 3. Customer Transfer Code (regulated and non-regulated versions)
- 4. Disconnection Code
- 5. Emergency Services Calling Code
- 6. Mobile Content Code
- 7. Mobile Messaging Services Code
- 8. Premises Wiring Code
- 9. Unauthorised Use of Mobile Phones in Prisons.

The TCF has also developed and endorsed the following Guidelines:

- 1. Community Engagement
- 2. Interception Capability
- 3. Principles for Telecommunications Infrastructure in New Subdivisions.

Code Compliance Framework

A new project and working party were established in October 2010 to develop a framework for compliance with TCF Codes.

The aim of the Code Compliance Framework (CCF) is to enhance the ability of the telecommunications industry to self-regulate and to increase consumer confidence in the provision of Telecommunications Services.

The CCF will promote compliance through the establishment of rules, processes and operating practices under which compliance with TCF Codes will be enforced; mandate adherence to a subset of TCF Codes; and apply Sanctions to non compliant Code Signatories.

The working party completed work on the draft CCF in May 2011 and will be engaging with TCF members to gather feedback on the draft from late June.



Customer Complaints Review and Dispute Resolution

In November 2007, the TCF established a self-regulatory regime for customer complaints and dispute resolution relating to telecommunication services. Called the Telecommunication Dispute Resolution (TDR) service, it is operated by the independent TDR Scheme Agent Dispute Resolution Services Limited.

Under the Scheme's terms of reference, the Council were required to instigate a review of the Scheme every two years. This was undertaken in 2009 and completed in 2010. The TCF subsequently formed the Customer Complaints Code Working Party to implement the recommendations from that review.

The changes to the Code focus on improvements to make the TDR more efficient and user-friendly. Apart from numerous small changes to clarify areas of ambiguity or make fine adjustments to the Scheme, particularly in its Scope, the substantial changes are:

- the creation of Position Statements to ensure greater consistency between the way complaints are dealt with
- an entirely revised process for the handling of complaints by the Codes' Scheme Agent.

The result is intended to create a flexible and responsive system that can adjust to the needs of an individual complaint without getting lost in formality. The TDR no longer forces complaints into the four preset levels and the process is split into two halves, registration and investigation/resolution. The Scheme Agent will be able to use the dispute resolution tools that it deems suitable for the given complaint.

The new Code and associated processes are expected to be fully operational in 2011.

The Council members as at November 2010 are:

- David Russell, Consumer Representative (Chairperson)
- Bill Bevan, Consumer Representative
- Ernie Newman, Consumer Representative
- Shelley Dew-Hopkins, Consumer Representative
- Susie Stone, Kordia (and Scheme Member representative)
- Tania Shackleton, Telecom Retail
- Toni Rasmussen, TelstraClear
- Celine Gilbert, Vodafone (and Scheme Member representative)
- Jonathan Hope, Forum Administrator.

International Mobile Roaming

Consumers need information standards to inform them of roaming costs and options. New Zealand operators already provide detailed pricing information to roaming customers, and some have moved to reduce the complexity of roaming plans by initiatives such as zone-based pricing. Despite these efforts, there are continuing concerns about customer bill shock which is related primarily to international data roaming.

The TCF prepared the self-regulated International Mobile Roaming Code to define minimum consumer information standards for outbound International Mobile Roaming (IMR), and to detail initiatives to improve transparency of IMR prices and how to use IMR services.

The Code and guidelines for service providers give consumers information that is clear, consistent, timely, and useful in relation to IMR prices, charging and services. This should improve consumer confidence in using IMR, help prevent bill shock, and make consumers aware of alternate services that allow them to better manage their overall costs.

The draft Code was submitted to the TCF Board for endorsement in May 2011.

IP interconnection

As operators deploy IP networks, they need to interconnect them to enable services to be carried end-to-end across multiple operator networks. Interconnection is a reciprocal relationship and in most cases both parties to an interconnection need it to enable them to offer complete services to their end users.

The IP Interconnection Working Party was tasked with developing a self-regulated code for the IP Interconnection commercial model, plus minimum technical standards for IP interconnect for voice over internet protocol (VoIP).

This Working Party recommenced its work under a revised project scope in June 2010. The revised project scope covers three key areas of work:

- commercial principles
- technical standards
- technical trial and/or pilot.

Draft technical standards are expected to be ready for public consultation in late 2011, with the technical trial planned for August 2011. Work on the commercial principles is currently on hold.

Payments by mobile phone: trusted mobile payments framework consultation

The Trusted Mobile Framework Working Party is now into its second year of activity. Its key objective is a review of the UK's Trusted Mobile Payment Framework (TMPF) initiative, with a view to adapting the framework to meet New Zealand industry and regulatory requirements. The TMPF was developed by the UK's Licensed Mobile Network Operators with the objective to create a safe and trustworthy environment for their customers to purchase content and services through direct billing. The UK TMPF has successfully launched the Payforit

trademark and scheme rules to support this objective and have indicated a steady increase in revenue from their Payforit direct billing services. They have also enjoyed a significant decrease in customer complaints.

The Working Party has completed its review of the UK TMPF Scheme Rules and issued the NZ TMPF Scheme Rules for public consultation in April 2011.

Customer Transfer Codes Review

An amended draft Customer Transfer Code was released for public consultation in August 2009. This version of the draft Code proposed that Retail Service Providers store and display supply chain information on the end customer's bill.

Following feedback received from that consultation process and further rigorous discussion of this idea and its alternatives, the TCF has decided to remove this requirement from the draft Code.

As a result, the amended Code issued for public consultation in August 2010 contained only minor amendments based on feedback received through the TCF Customer Transfer Code Working party and via earlier consultations on this Code. Two submissions were received on the amended Code.

The Working Party reviewed the submissions and based on member comments, determined that the Code needed further review. Amendments to the Code are expected to be completed in August 2011.

Emergency Services Calling Code

The Emergency Services Calling Code was endorsed by the TCF Board in November 2009. All TCF members recognise the importance of managing 111 calls, and their shared responsibility in ensuring that 111 emergency calls are connected as required.

In November 2010, minor amendments to the Code, suggested by the Ministry of Economic Development and Emergency Services Providers, were released for public consultation. The updated Code is expected to be submitted to the Board for endorsement in August 2011.

As the main work on the Code has now been completed, the Emergency Services Working Party has shifted its focus to act as a forum for Emergency Services-related issues, as per the project scope. This work is assisted by the Emergency Services Calling Advisory Board (ESCAB) consisting of representatives from the Department of Internal Affairs, the Ministry of Economic Development, the New Zealand Police, the Fire Service, TCF Board Members and our CEO. The ESCAB provides a direct line to Emergency Services Providers and Government for addressing any issues those bodies may have.

We anticipate that there will be further amendments to the Code as industry and Government work to provide the best 111 emergency calling services possible. The need for an excellent working Code was highlighted by the Canterbury earthquakes.

New Zealand's consumers are increasingly using mobile service offerings as a regular form of entertainment. The availability of higher-end smart devices, and the rise of mobile internet usage, has resulted in customers increasingly using WAP services to access mobile content and information services.



In his media release on the revised Premises Wiring Code, TCF Independent Chair Richard Westlake said that setting a standardised framework for installation means a win-win for everyone:

"Home-owners and small businesses benefit through protecting their investment and minimising the direct and indirect costs of poorly performing networks. The industry gains by maximising service-provider investment, minimising lost revenues due to poorly performing networks, and encouraging uptake and use of next-generation (multi-play) services."

Premises Wiring Code

The Premises Wiring Working Party successfully completed the TCF Premises Wiring Code of Practice in February 2010.

As part of the work undertaken by the UFB Working Party there were some issues relating specifically to premises wiring that required further investigation. The Premises Wiring Working Party was reformed to address these issues in June 2010. This resulted in a review of the Code to include more information on fibre optic cable installation, and access to residential, small office/home office (SOHO), and multi-dwelling units (MDUs) premises.

The TCF Board also requested that the Working Party consider further communication of the Code to relevant industry groups and homeowners.

Revised Premises Wiring Code

The revised Code for Residential, SOHO and Multi-dwelling Premises Wiring ("Premises Wiring Code of Practice") was issued in April 2011 for public consultation. It sets out principles and practices for planning, installing and maintaining premises wiring with the aim to provide an open and flexible platform for the communication and entertainment needs of the modern 'smart home'.

The Code provides recommendations on the design, provisioning, and maintenance of residential, SOHO and MDU premises cabling. The objective is to define a set of best practices which will provide good long-term performance and reliability for the New Zealand consumer and homeowner.

The revised version has included further recommendations for fibre optic cable access to the residential, SOHO and in particular MDU premises and installation to support the Government's ultra-fast broadband initiative.

TCF Premises Wiring Code Communication

As part of its communications scheme, in 2010 the Working Party engaged the assistance of two communication managers from Vector and Telecom to promote the Code. The results included two pamphlets aimed at the cable installer and the homeowner; each outlines key recommendations when wiring a 'smart home'. The pamphlets are available as downloadable PDF documents and in print for handout.

Future Focused: Works In Progress 2011/12

Several projects that commenced in the 2010/11 year will continue onwards into the next reporting year.

Copyright and Infringing Files

The TCF made a submission in June 2010 on the Copyright (Infringing File Sharing) Amendment Bill, in particular to argue that a notice and notice system would achieve much of the benefit in the proposed regime but at considerably less cost.

The Copyright (Infringing File Sharing) Act was passed by Parliament in April 2011; it repeals Section 92A of the Copyright Act, and replaces it with a new three-notice regime designed to deal with online copyright infringements and deter illegal file sharing. It also extends the jurisdiction of the Copyright Tribunal to hear illegal file-sharing claims.

The new Act comes into effect 1 September 2011 but will not apply to cellular mobile networks until October 2013. Sections 122A-122R of this Act include the new enforcement measures against the unauthorised sharing of copyright material. The revised Act requires Internet Protocol Address Providers (IPAPs) to pass on copyright infringement detection notices from rights owners to IPAP account holders.

Under s92A it was intended that ISPs have a policy or code of practice leading to automatic termination of an internet account after three infringement notices. But internet users, ISPs and some journalists waged a very public campaign in New Zealand against s92A. While these termination provisions have been removed from the new Act, they may be reinstituted in the future by Government.

The Copyright Policy Working Party will continue to engage with the Ministry of Economic Development on drafting of regulations to support the Act.

Improving information reporting and benchmarking

The Information Reporting Working Party was first established to investigate the coordination of responses to multi-carrier information requests from organisations such as Statistics New Zealand and the Organisation for Economic Co-operation and Development (OECD).

The Working Party is currently working with Statistics New Zealand and the Commerce Commission to better define what information may be commonly available from networks and can be used to establish a benchmark on New Zealand telecommunications, without compromising the commercial confidentiality of the carriers involved. In the future, these benchmarks will be used for reporting purposes – such as those reports published by the Commerce Commission – to better reflect the true nature of the New Zealand telecommunications market. Organisations such as the International Telecommunications Union (ITU) and the OECD often use these types of reports for their own international comparisons. Greater and more well-defined information provided by New Zealand carriers will therefore have a flow-on effect at an international level.

Broadband performance monitoring and validity of comparisons

Another recent area of focus for the Information Reporting Working Party has been to address concerns that members had raised in relation to the methodology being used for broadband performance monitoring, and to the resulting robustness of the data being collected and reported. This has involved engaging with the Commerce Commission on improving broadband performance monitoring, as well as on identifying issues causing concern with existing monitoring processes.

The previous method of measuring and displaying broadband performance was terminated by the Commerce Commission in December 2010. The Commission will soon start producing new reports with a different back-to-basics focus. As this new reporting line develops, the TCF plans to remain engaged and provide assistance to the Commission to help it achieve its objectives.

Interception Guidelines

The Interception Working Party was put on hold in February 2010 because interceptionrelated activity was being progressed by surveillance agencies and other industry forums. With the creation of additional government guidelines for carrying out interception work and a review by the Ministry of Economic Development underway on the future of interception in a UFB world, the Working Party was revived in February 2011.

The Working Party held a workshop with government officials in March and May 2011 to discuss the future of interception. As a result of those workshops, and the Ministry's report, the Working Party expects to be active throughout 2011.

Standard Terms Determination

The Standard Terms Determination Working Party has not been active since its work last year on clarifying proposed changes to UCLL, UCLL co-location, backhaul, sub-loop and UBA operation manuals and service level terms.

The STD Working Party has no work currently scheduled in its program.

Numbering governance and administration

The TCF formed a joint working party with the Number Administration Deed (NAD): the TCF/NAD Numbering Working Party. Having been on hold through 2010, the Working Party was revived by the TCF Board at the February 2011 Board meeting.

Since producing a draft Numbering Code the NAD has itself undertaken a substantial degree of reform to modernise and improve its systems and practices, bringing them closer in line with international best practice. These changes have been reflected in the draft Numbering Code, and form the basis for the Working Party to work from in the future.

Numbering Management Group

The Working Party's proposal was captured in three documents: the Report of the TCF/NAD Numbering Working Party, the draft Project Scope for the Numbering Management Group, and the draft Code for Number Management.

The Report summarised the proposed numbering governance arrangements. The draft Code for Number Management, defines policy for, and facilitates, the administrative framework for telecommunications numbering in New Zealand. The draft Project Scope proposed a permanent Numbering Management Group Working Party be established to provide an ongoing forum to oversee number management in an efficient and timely manner, and to address ideas, concerns and process improvements relating to numbering management.

In response to the Report, the Commerce Commission indicated it wished to see the numbering rules changed ahead of any work on governance. Subsequently, the NAD has undertaken considerable work to align its processes with international best practice with updated rules and procedures to govern numbering. Now that work is nearing completion, the Working Party can continue to complete the governance arrangements and consider the future of merging the NAD with the TCF.

Number portability: throwing out the record books

Porting of both local and mobile numbers continues to grow. The majority of ported numbers were local until December 2009, when ported mobile numbers overtook local numbers. Mobile numbers have continued to make up the majority of ported numbers since then.

By the end of September 2010, there were more than 475,000 ported. The half-million mark was reached in mid-November 2010, well before expected.

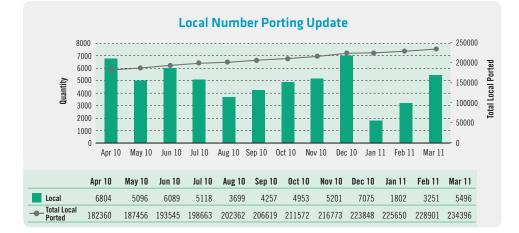
Industry Portability Management System (IPMS), the central system that acts as the clearing house for local and mobile number portability (LMNP), processes more than 500,000 transaction requests a day, and ensures that 15 networks and numerous third parties have up-to-date routing information for all ported numbers.

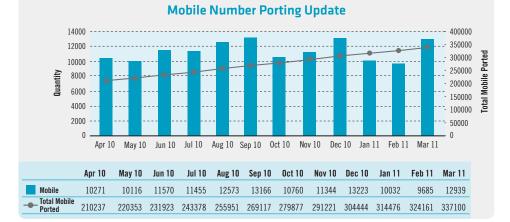
The ported number data on the TCF website has now been separated into two graphs – one for local numbers and one for mobile numbers. The cumulative total since the launch of number portability is also included on each graph.

November 2010 was a milestone: New Zealand's 500,000 number was ported. "Reaching this figure is a significant landmark for the industry – and for its customers,"' said TCF CEO David Stone on confirming the 17 November milestone.

"While its popularity has never been in doubt, the pace at which it's taken up on a day-to-day basis clearly signals number portability's value to customers wanting change without disruption."

Porting activity as at March 2011





Strategy and constitution review

The TCF has continued to review its structure and form since amending its constitution in 2010 to streamline our work processes. Since then the TCF has undertaken a reform programme to further evolve the organisation. We will become an expanded and improved industry body, broadening our activities and merging the activities of the Telecommunications Industry Group (TIG) into the TCF to provide a single forum for the industry. With these changes we will see revised funding, voting and Code enforcement rules, and a wider membership that better reflects the diversity of the telecommunications industry.

These organisational improvements are intended to better align industry participants to help move the industry forward, increase the credibility of the TCF, improve our effectiveness, and reduce costs.

Statement of Financial Performance

For the Year Ended 31 March 2011

	March 2011 \$	March 2010 \$
Operating Revenue Tier 1 member fees Group member fees NAD review funding Other income Number portability operating funding Interest	751,283 65,000 39,560 105,888 407,951 18,405	581,426 29,501 51,283 0 358,032 22,456
Total operating revenue	1,388,087	1,042,698
Workstream expenditure TDR service LLU/UBA project UFB Information reporting IP interconnection NAD project Existing code reviews Constitutional review Copyright Premises wiring Other working parties Number portability	68,755 2,264 114,870 3,039 59,170 5,056 37,697 17,281 19,631 10,709 64,600 399,364	31,548 5,394 16,468 3,278 51,283 52,056 2,441 23,684 16,229 44,945 356,554
1 7	802,436	603,880
Operating expenditure Forum chair Forum management Forum administrator Communications Website Audit fees Travel Miscellaneous	56,381 226,069 109,458 32,334 17,796 3,116 73,044 56,399 574,597	75,694 111,583 112,245 33,960 23,086 3,507 20,254 50,375 430,704
Total expenditure	1,377,033	1,034,584
	11.054	8,114
Net surplus from operations	11,054	0,114
Net surplus from operations Less depreciation	34,484	426,699
Less depreciation	34,484	426,699



Statement of Financial Position

As at 31 March 2011

	March 2011 \$	March 2010 \$
FUNDS EMPLOYED General funds Number portability funding Retained earnings	1,341,710 (1,260,180)	1,341,710 (1,228,344)
	81,530	113,366
Current Liabilities Trade creditors Payables accruals PAYE Income in advance Mastercard	115,323 3,000 4,470 418,300 3,999 545,092	88,711 32,317 4,507 421,106 3,186 549,827
TOTAL FUNDS EMPLOYED	626,622	663,193
ASSETS Current asset Bank balances Term deposits GST and WHT receivables Trade debtors	259,149 300,000 37,282 2,444	319,801 256,530 22,914 1,091
	598,875	600,336
Non-current assets Computer equipment	598,875 27,747 27,747	600,336 62,857 62,857

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Working Party Members

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Andy LaddTUANZTrusted Mobile Payments FrameworkAnne YauMinistry of Consumer AffairsInternational Mobile RoamingAnthea HerronOrconInterceptionAnthony MorrisCommerce CommissionInformation ReportingAnton NannestadTelecomInformation ReportingBianca MillerTelecom RetailCopyright, Customer TransferBill DeverallCrown Fibre HoldingsPremises Wiring, UFBBrendan DempseyTelecom WholesaleIP Interconnection, STD, TCF NADBrett JacksonChorusPremises WiringBrett ThomsonWorldxChangeEmergency Services, Interception, IP Interconnection, Number Portability, TCF NADBrian JohnsMinistry of Economic DevelopmentIP Interconnection, UFBBridget GallenVodafoneMobile Messaging (Project Leader), Trusted Mobile Payments Framework (Project Leader)Chris Malcolm2degrees MobileTrusted Mobile Payments Framework (Project Leader)Chris PikeStatistics New ZealandInformation ReportingClare DobsonTCFPremises Wiring, STD, Trusted Mobile Framework, UFBClarissa PerryTelstraClearNumber Portability	Andrew Cushen	Vodafone	Customer Transfer (Project Leader), Emergency Services, Information Reporting, International Mobile Roaming (Project Leader),
Anne YauMinistry of Consumer AffairsInternational Mobile RoamingAnthea HerronOrconInterceptionAnthony MorrisCommerce CommissionInformation ReportingAnton NannestadTelecomInformation ReportingBianca MillerTelecom RetailCopyright, Customer TransferBill DeverallCrown Fibre HoldingsPremises Wiring, UFBBrendan DempseyTelecom WholesaleIP Interconnection, STD, TCF NADBrett JacksonChorusPremises WiringBrett ThomsonWorldxChangeEmergency Services, Interception, IP Interconnection, Number Portability, TCF NADBrian JohnsMinistry of Economic DevelopmentIP Interconnection, UFBBridget GallenVodafoneMobile Messaging (Project Leader), Trusted Mobile Payments Framework (Project Leader)Chris Malcolm2degrees MobileTrusted Mobile Payments Framework STD, TCF NADChris PikeStatistics New ZealandInformation ReportingClare DobsonTCFPremises Wiring, STD, Trusted Mobile Framework, UFBClarissa PerryTelstraClearNumber Portability	Andrew Davis	2degrees Mobile	International Mobile Roaming
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Anthony MorrisCommerce CommissionInformation ReportingAnton NannestadTelecomInformation ReportingBianca MillerTelecom RetailCopyright, Customer TransferBil DeverallCrown Fibre HoldingsPremises Wiring, UFBBrendan DempseyTelecom WholesaleIP Interconnection, STD, TCF NADBrett JacksonChorusPremises WiringBrett ThomsonWorldxChangeEmergency Services, Interception, IP Interconnection, Number Portability, TCF NADBrian JohnsMinistry of Economic DevelopmentIP Interconnection, UFBBridget GallenVodafoneCode Enforcement Framework, (Project Leader), Trusted Mobile Payments Framework (Project Leader)Celine GilbertVodafoneCode Enforcement Framework, STD, TCF NADChris Malcolm2degrees MobileInformation ReportingClare DobsonTCFTCFClarissa PerryTelstraClearNumber Portability	Anne Yau	Ministry of Consumer Affairs	International Mobile Roaming
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STD, TCF NADChris Malcolm2degrees MobileTrusted Mobile Payments FrameworkChris PikeStatistics New ZealandInformation ReportingClare DobsonTCFPremises Wiring, STD, Trusted Mobile Framework, UFBClarissa PerryTelstraClearNumber Portability	Bridget Gallen	Vodafone	Trusted Mobile Payments Framework
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Craig Grey Vodafone IP Interconnection	Clarissa Perry	TelstraClear	Number Portability
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Darren Stott	Vector Communications	Local Government
Daryl May	Chorus	Local Government
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Dave Simpson	Telecom	Code Enforcement Framework
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David Russell	TDR Council Chair	Customer Complaints
Derek Cope	Vector Communications	UFB
Derek Pullen	Dispute Resolution Services Limited	Customer Complaints
Destiny Lynch	TelstraClear	Number Portability
Don Stokes	New Zealand Regional Fibre Group (NZRFG)	UFB
Dorothy Craib	Telecom	Number Portability
Doug Van Boheemen	Telecom	Number Portability
Dylan Packman	Vodafone	Customer Complaints
Elliott Bonnett	Chorus	UFB
Ernie Newman	TUANZ	International Mobile Roaming
Filipp Prager	Enable Networks	Premises Wiring
Gabrielle Domett	Vector Communications	Premises Wiring
Gareth Banks	TrustPower	Customer Transfer
Gary Bailey	Commerce Commission	International Mobile
Gary Fehr	Telecom Wholesale	IP Interconnection
Gary Jamieson	Chorus	UFB
Geoff Swainson	Local Government	Local Government
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Graham Walmsley	CallPlus	Copyright, TSO
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Helen Sprenger- Locatelli	Vodafone	Trusted Mobile Payments Framework
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John Greenhough	Crown Fibre Holdings	UFB
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Jude Flood	2talk	Number Portability
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Katherine Rodriguez	Telecom	Mobile Messaging
Kathryn McCarrison	Commerce Commission	Code Enforcement Framework
Kathy Wiltshire	Chorus	Local Government
Kelvin Binning	Vodafone	Information Reporting
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Kevin Mason	Telecom	IP Interconnection
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Matt Law	Woosh	Copyright
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Michael Newbery	TelstraClear	IP Interconnection, UFB
Mike Burns	TelstraClear	Interception
Murray McLean	Telecom Retail	Premises Wiring
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Paul Leslie	Telecom	Local Government
Paul Mathewson	2degrees Mobile	Information Reporting
Paul Partridge	Vodafone	IP Interconnection
Pauline Scott	Modica	Mobile Messaging
Peter Coleman	Telecom	UFB
Peter Ensor	Counties Power	Premises Wiring, UFB
Peter Gudsell	Telecom Retail	IP Interconnection



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Pshem Kowalczwk	Vodafone	Information Reporting
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Rachel MacFarlane	TelstraClear	Customer Transfer
Ray Norton	Telecom	Interception
Rebekah Henderson	Commerce Commission	Customer Transfer, STD
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Steve Norman	CallPlus	IP Interconnection
Steven Kho	Snap Internet	Number Portability
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Tim Pegler	Telecom Wholesale	UFB
Toni Rasmussen	TelstraClear	Customer Complaints
Vijyant Suri	Vodafone	IP Interconnection
Wayne Carpentier	Orcon	IP Interconnection
William Clarke	Mobile Messenger	Mobile Messaging
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