



Australia-Korea-New Zealand Broadband Summit

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Agenda



1. The NZ Wireless & Broadband Forum
2. A review of wireless innovation in NZ
3. A review of the Value Chain
4. Wireless Broadband in New Zealand
 - CDMA / EVDO rev A
 - 3GSM / HSDPA
 - WiFi
 - Wireless Internet
 - WiMAX

Our Forum...



- The objectives of the Wireless & Broadband Forum are...



to facilitate innovation and economic growth across the Wireless & Broadband community



to foster collaboration across the NZ Wireless and Broadband community



to promote and educate companies on the use of Wireless and Broadband technologies



in cooperation with ICT New Zealand, to provide an industry voice to government, government agencies and EDAs



Key Sponsors:



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New Zealand ... the numbers

- 270,000km²
- 4,004,374 population
- 1,700,000 households
- 1,680,000 landlines
- 3,600,000 mobile users
- 90% cellular penetration
- 8,000,000 SMS per day
- Data is 10% of ARPU



Our Uniqueness...



- We are early adopters of emerging wireless technologies
- NZ has been an international “test bed” for wireless technologies and solutions
 - Vodafone, Ericsson and Lucent have all used NZ as a global test bed for new products and innovations
 - Many of NZ wireless innovators are winning international awards
- A renowned “innovation” flair
 - Lord of the Rings showcased New Zealand’s capacity for innovation to the world

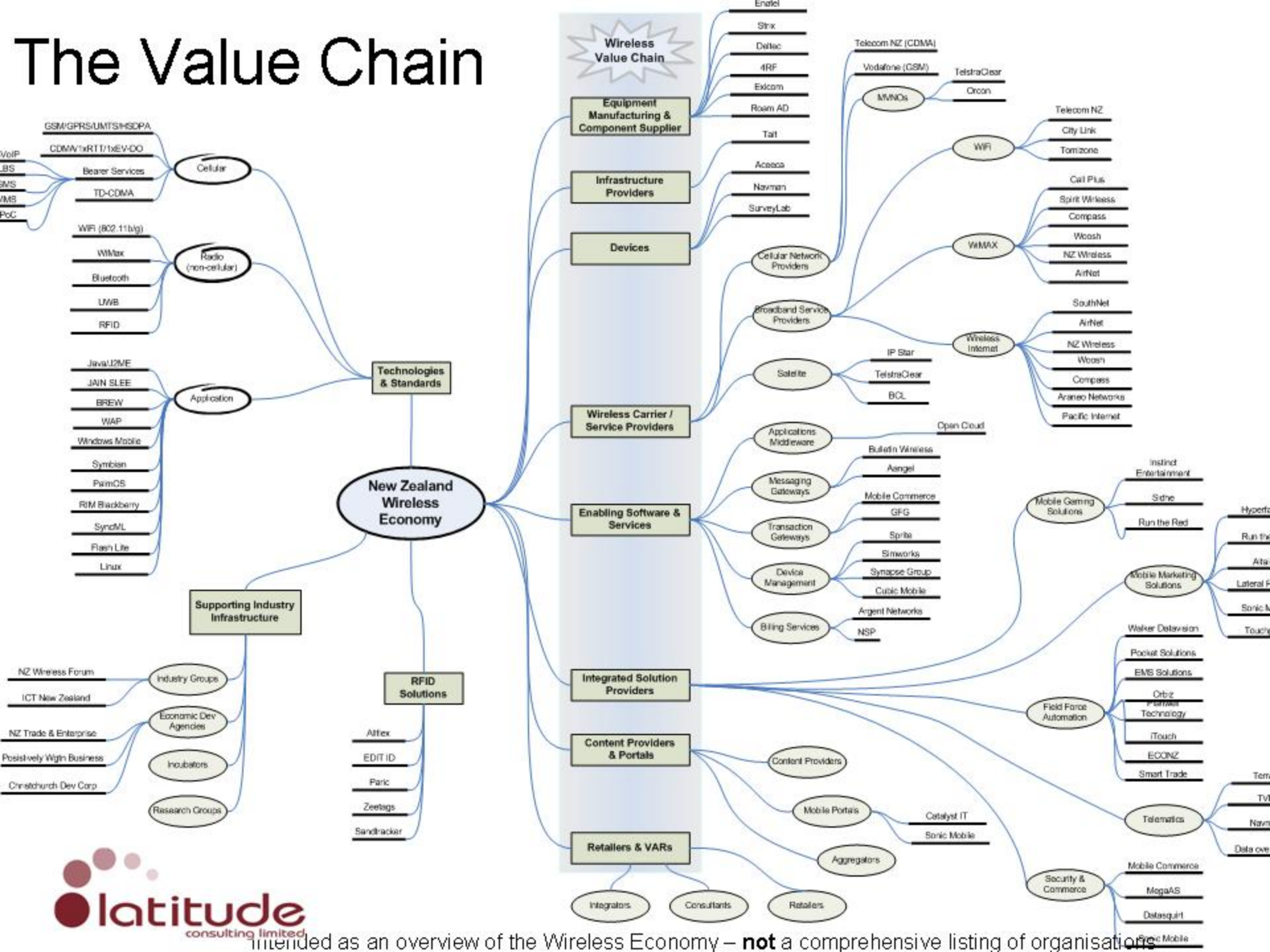


The Value Chain



- **New Zealand excels at...**
 - Proving the capabilities of hi-tech infrastructure
 - Developing commercial value-added services
 - Innovative and creative content
- **New Zealand does not have the scale for...**
 - Infrastructure R&D (Tait & 4RF are exceptions)
 - Hardware devices (Navman is an exception)

The Value Chain



intended as an overview of the Wireless Economy – **not** a comprehensive listing of organisations

CDMA / EVDO



- Telecom New Zealand
 - CDMA2000 EVDO Rev A in 850MHz
 - Telecom has alliance with Sprint
 - network alignment and handset procurement
 - Lucent uses NZ as an international reference site for wireless data technologies
 - T3G extends Telecom's fixed broadband offerings
 - Telecom's partners have a heritage in developing Wireless IP enterprise applications for mobile field forces



3GSM / HSDPA



- Vodafone New Zealand
 - UMTS and HSDPA in 2.1MHz
 - GSM/GPRS in 900 MHz
 - Broadband for the mass market through USB-based "Vodem"
 - Acquired NZ's third largest ISP - ihug
 - New Zealand is a testbed for wireless applications for the region



Vodafone 3G
broadband
is here

WiFi



- Telecom NZ
 - 400 hotspots nationwide
 - ‘best connected’ model
 - dual mode WiFi/CDMA handsets
- CafeNet
- Tomizone
- Muni-WiFi
 - Wellington
 - Auckland ?
- Business models

Wireless Internet



- P2P backhaul services
- Competitor to incumbent fixed operator
- Communication to geographically remote locations
- Many operators
 - Woosh Wireless (metros); Compass Communications (Ak, Wn,Ch); Airnet (HB); Pacific Internet (Nelson); NZ Wireless (Ak, Wn,Ch); Araneo Networks (Wn); Southnet
- GURL in 2.4 GHz and 5.8 GHz

WiMAX



- The new copper wire?
- WiMAX backhaul, connect to WiFi access point
- Commercial Trials
 - Call Plus (Whangarei, Auckland); NZ Wireless; Spirit Wireless (Tauranga)
- Investigations
 - Woosh Wireless; Airnet; Telecom Compass Communications
- 2.3 GHz Auctioned; 3.5 GHz Auction 2007

