



# Modern Telecommunications In NZ Explained

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## COURSE DESCRIPTION:

Telecommunications is a fast changing Industry full of jargon; its no wonder that we get confused! If you'd like a solid explanation of todays technologies presented by an expert in simple English over a day that is easy to follow and understand, then this is the course for you.

This non-technical, day-long programme explains current telecommunications systems like fibre, wireless, 4G, Ethernet, UFB and RBI, The Internet and WorldWide Web. It will provide you with a greater understanding of the language and acronyms and help you to understand just what it is these technologies do.

Delivered in a fun, interactive way with hands-on exercises and a quiz or two!

## WHO SHOULD ATTEND:

Management, Administrators, Accounts personnel, Human Resources, Marketing, Salespeople and others wanting a **non-technical** overview of current telco technologies and applications.

Anyone wanting to understand todays fixed and mobile broadband offerings and the new applications and ways of working/playing they enable.

## SOME COURSE BENEFITS:

- Understand modern broadband enabled by Fibre, V-DSL and 4G Mobile
- Understand the language and acronyms surrounding the UFB & RBI
- Understand how new applications and new ways of working will lead to efficiencies and productivity gains

## COURSE OBJECTIVES:

- To clarify the language & technologies surrounding Fibre Optics Networks
- To understand the drivers for the Ultra Fast & Rural Broadband Networks.
- Understand V-DSL, G-PON, Ethernet and 4G, the technologies used and benefits and limitations
- To understand new IP services and what they mean to us

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## CONTENT:

### Non Technical Overview of Current Telco Networks & New Applications

#### Morning

- Terminology Exercise
- Data and Voice explained
- Why Digital?
- Circuits v Packets (physical v virtual)
- Transmission Mediums - Copper, Fibre, Wireless (new v old/aging)
- The aging Local Loop, PSTN, ISDN, x-DSL
- LAN's & WAN's
- A Simple Reference Model
- National Broadband Projects Explained
- The Fibre UFB & Wireless RBI - advantages
- Fibre Optic Technology
- Fibre Optic Networks and Applications for NZ
- Mobile Networks : 1G to 4G, AMPS to LTE & Wi-MAX Overview

#### Afternoon

- Local Area Network (LAN) Basics
- Ethernet History & Current Implementations
- Class of Service and Quality of Service (CoS & QoS)
- UFB Services, providers and plans.
- The Internet & The WWW
- Internet v4 Protocol Addressing
- IP Version6 – It's purpose & Benefits
- Quality of Service (QoS) in IP Networks
- Guaranteeing Quality in IP Networks
- Voice over IP & SIP – an simple example of IP Networking
- New Fast Broadband Applications
  - HD Video (Streaming & Conferencing)
  - Cloud Based Apps
- Cost Saving Ideas
  - Remote Working
  - Mobility
- Case Studies & Discussions
- Putting it all together – The Converged Network