



Is FTTx a “pipe” dream ?

Quantifying the Externalities

- Productivity could go up
- Business could become more profitable
- New industries / innovation
- May attract more people to the community
- Property prices may go up
- Social gains – Health / Communication

Who should pay for this ?

- Local Government wins
 - Central Government wins
 - End user wins
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- Why should Investors fund this unless it makes business sense ?

Have we made the problem so big that we will never start ?

- Why are we fixated with Fibre to the home
 - Cabinetisation may / should help here for now
 - Why don't we just get on and get MUSH done
- Digital Strategy last year, BIF now, but no money until next year.....
- Isn't it time we stopped having meetings and actually did something

Public Private Partnerships

- Private investors will not build networks based on economic or community benefits, its not sane
- Councils need to provide infrastructure for their community
- A mix of these means
 - Council / Government anchor tenants fibre networks to connect schools, council resources etc
 - Private investor commits money to connect business



Tararua District Council



Find a Champion

- It is critical to have a local champion
- These people have to be leveraged to their extreme without breaking them
- Tararua DC had one of these on their own staff !

Had the vision

- Street upgrade in Dannevirke
 - Cobbling main street in major upgrade
 - Open duct network past every building
- Radio Extension planned to Eketahuna
 - Budget available but struggling for a high site
- Existing Radio link reaching end of life
 - reinvestment required / budgeted for over time

Digital Nation and Tararua DC

- Tararua District Council became an anchor tenant for 1 pair of their own fibre which lowered the risk for us to build a fibre backbone
- Horizons Regional Council signed onboard for a 1Gbit connection between Woodville and PNth
- Inspired Networks contracted to build network between Woodville, Pahiatua, Eketahuna, and across to Palmerston North
- Inspired Networks co-built a duct on this path with FX Networks (another network innovator)



What the end product looks like

- Tararua DC is lighting its own fibre at 1Gbit on day one between their offices, has life of cable IRU
- Digital Nation manages fibre between the towns and will make it available on open access to all players
- Inspire Net is on board as an Internet Service Provider
- Gbit connected PNIX peering switches in each town, provides core foundation for school loop if funding secured
- Wifi hotspot access in each town

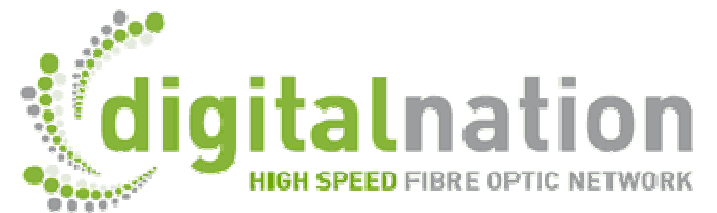


What the end product looks like

- Inspired Networks to build a fibre and metro ethernet network available every building in Dannevirke main st.
- Digital Nation will manage this fibre network in an open access manner (terms agreed with Tararua DC)
- Inspire Net is on board as an Internet Service Provider (network is also open to other players)
- Inspire Net planned initial offering in Dannevirke, 100Mbit connection, 40Gbytes of traffic, 5 pop mailboxes and website hosting \$100/month

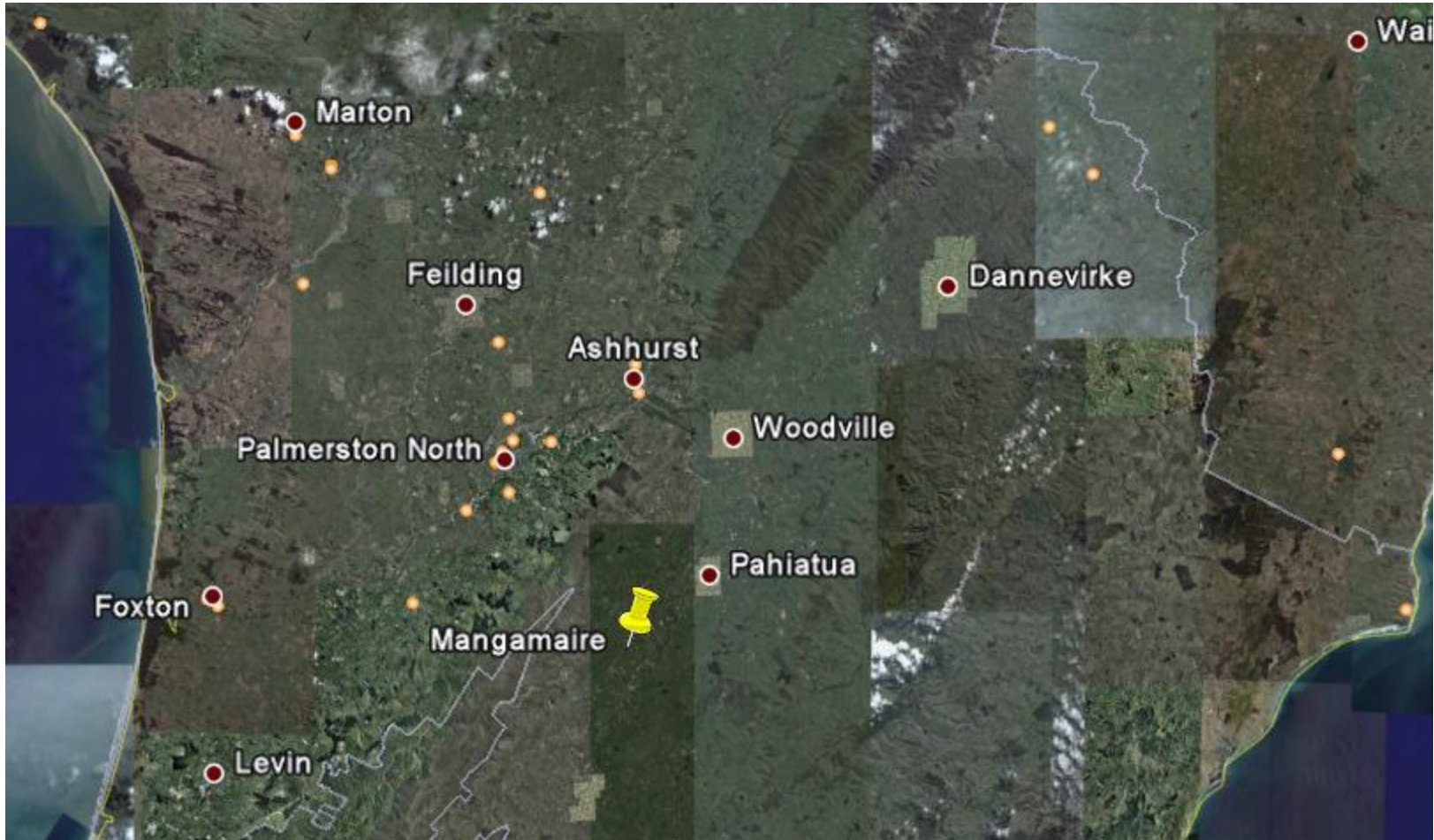


Mangamaire



Manga... where ?







Remote (ish) Community

- School has <45 students (room for 80)
- 41 houses in a 3km radius of the school
- 40 minutes from Palmerston North
- 20 minutes from Pahiatua
- 20 minutes from Eketahuna
- Mix of farmers and “lifestylers”

Thinking outside the Square

- Find a Champion
- Talk to the community
- Why use a roadside cabinet, use a school
- Find a local with a digger / Mole Plough
- Get creative with a council

What you might get

- School gets 100Mbit, 100Gbytes, \$100
- Local contractor does trenching – community good
- Inspired Networks supplies fibre for free based on savings on roadside cabinet
- Each house that wants to connect ends up with 100Mbit connection to the core
- A bunch of interested people turn up and cable out houses



Interesting Outcomes

- Life stylers children end up at local school
- People have a better quality of life
- More productive (extra 2 hours each day)
- School connecting to KAREN
- If everyone has it, the community bands together to learn

Taihape



The fastest Gumboots in New Zealand

A small town in Rural NZ that's Gigabit enabled

Find a champion

- TAS will be a total digital environment. We will be operating in excess of 200 pc's at a time and most of these will be mobile laptops.
- All will be wanting to access the internet at the same time. We will have multiple video conferencing going on including off site students getting access to onsite learning.
- We will have interactive white boards in every teaching and meeting place that will double as communication boards for live video communications.
- We will be running a T.V. station and multiple recording studios. Our newsletters will be digital.
- Every student and staff member will have electronic portfolios that can be accessed online.
- Students will have the ability to work from anywhere.
- The school will be extending its learning hours into afternoon /evening to fully utilize facilities.

What they had

- SchoolZone 2 * 512kbit connections
- Approx \$2400/month
- \$70/hour for video conferencing

What they are getting – Week 1

- 1Gbit circuit to the school
- 100Mbit KAREN access
- 100Mbit Connectivity to PNIX
- 1000/month
- 10Mbit CIR International International

What they are getting - Month 1

- Wifi access to houses around the school
- Wifi access to houses around school houses
- Wifi access to houses around school flats
- All backhauled from the school being the anchor tenant

What they expect

- Broadband Wifi access from \$25/month
 - 1Mbit CIR per user to the core, burst to 20+Mbit
- No phoneline required
- Free data to the School / Massey / UCOL
- Entire township covered within 6 months of launch



FXnetworks

