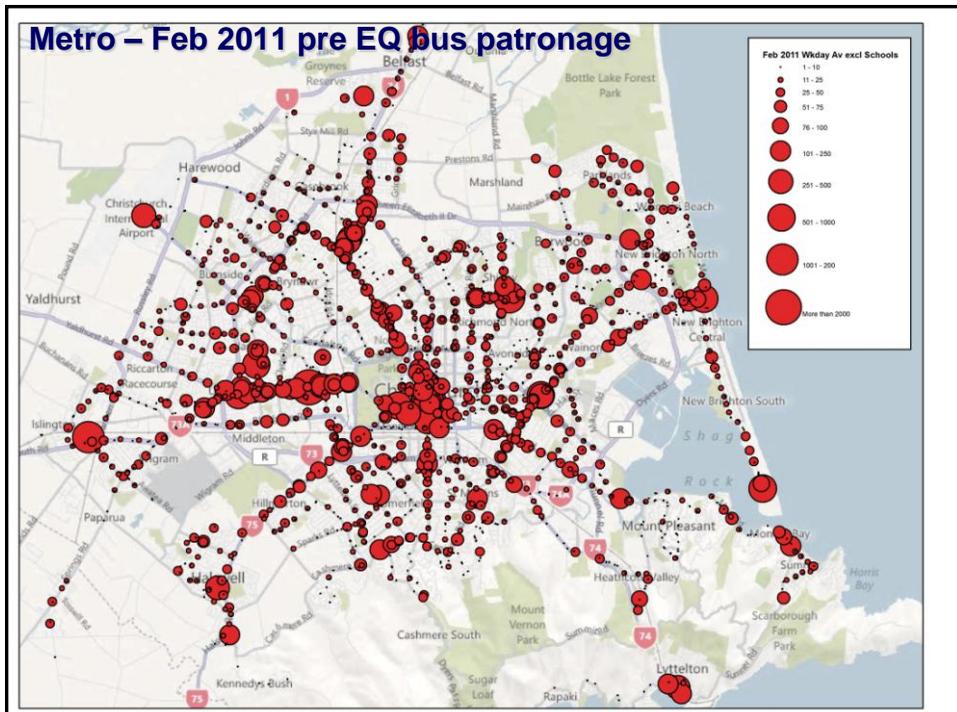


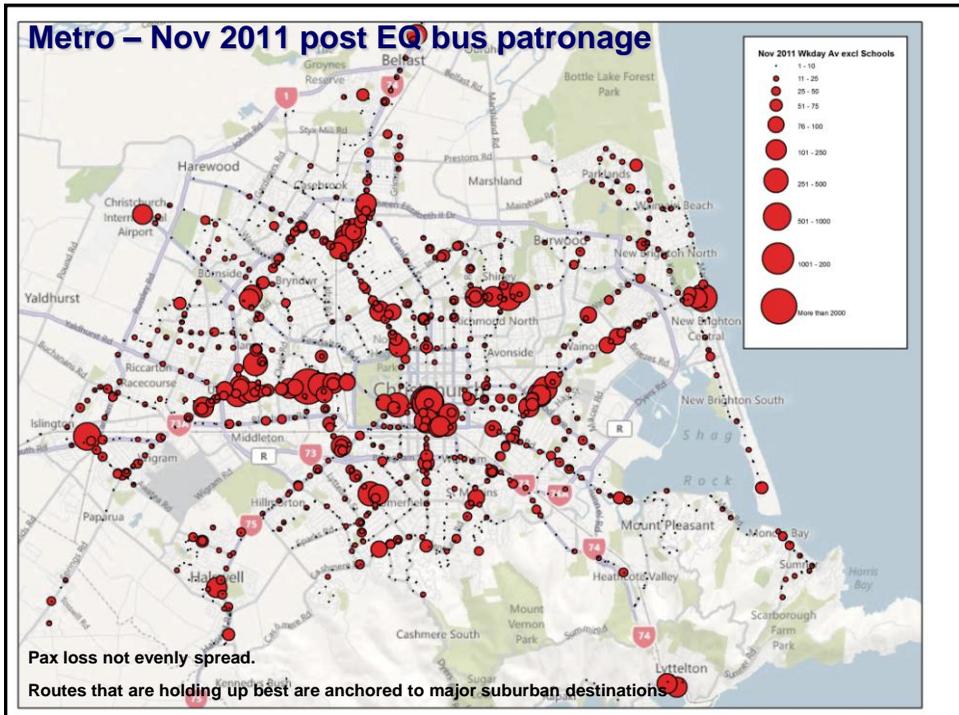
Metro Christchurch Current Position

- Patronage down by 35.7% (financial year to date)
- Deficit \$6.1million
- Low commerciality ratio - 35% Nov 2011
(vs. 50% expected by NZTA)
- NZTA expect us to “do more with less”
- LTP rate and grant increase

EQ Impact on the Network

- **Loss of population from Christchurch**
About 3% at this stage, but key bus user groups such as students down 10% or more.
- **Permanent attractor losses**
Newly dispersed employment hubs are much harder to service with public transport. This could see about half of previous journey to work trips by bus being unrecoverable in the next few years (i.e. about 15% of system-wide patronage)
- **Lower proportion of adults travelling**
From 57% to 53% (11/10 vs. 11/11) resulting in...
- **Lower Average Fare Revenue per Passenger**
From \$1.45 to \$1.40ex GST (11/10 vs. 11/11)
- **Reduced route productivity**
From 0.9 pass/km pre quake to less than 0.4 immediately post Feb, with bounce back to ~0.55-0.6 pass/km.





Strategic Direction

Network faces a critical choice:

- Retain existing network model and cut service levels to reduce costs.
 - Risk patronage will also drop leading to less revenue and possible need to cut services yet further.
- Or
- Change the network model to more efficiently service the market at a reduced overall cost.
 - Opportunity to refocus the network onto suburban destinations and provide a platform for future patronage growth.

Current Network Issues

- **Low commerciality ratio** (35% Nov 2011)
- **Significant duplication of bus routes and overprovision of capacity.**
 - Papanui Rd 15 per bus pre EQ vs. Now 7 (Mar 2010 vs. 17 Nov 2011)
 - Riccarton Rd 15 per bus pre EQ vs. Now 8 (Mar 2010 vs. 17 Nov 2011)
- **Bus routes that bypass local retail and employment areas.**
- **Complex route structure**
 - many low frequency 'stand-alone' bus routes perceived as 'fragmented' and do not support 'anywhere to anywhere' travel.
- **Timetables generally not co-ordinated.**
 - Capacity limitations of CBD bus stops preclude timed connections being made between ~28 city bus routes.
- **Most routes travel to/through CBD Central Station**
 - Places significant pressure on city street network.
 - Higher than necessary passenger accumulation driven by passengers waiting for a specific low frequency bus route.

Route Duplication

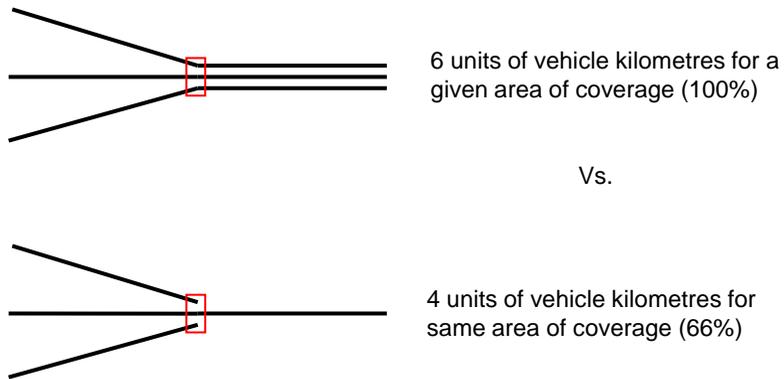
Significant network redundancy

- Route 8
 - All but two streets between Belfast and the city are covered by other routes.
 - Indirect route for travel to/from Belfast
 - Much of unique catchment within 500m (5 mins walk) of other bus routes.
 - Unique catchment within 10-15 mins walk of other bus routes

-  Route 8 Belfast – City
-  Unique section of Route 8
-  Area greater than 500m from other bus routes

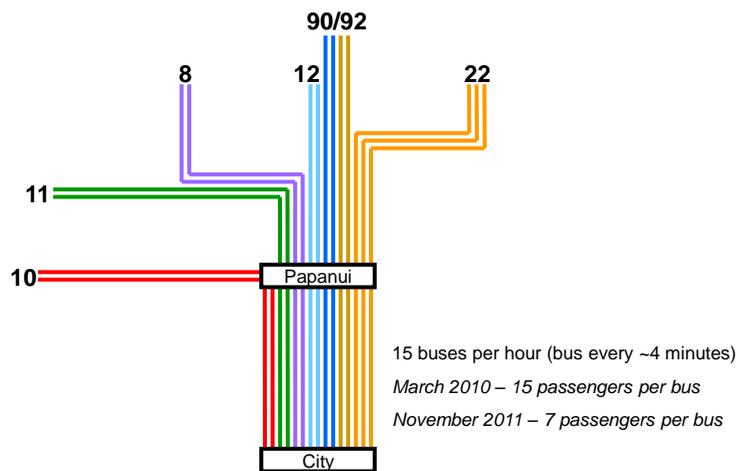


Route Duplication is Costly



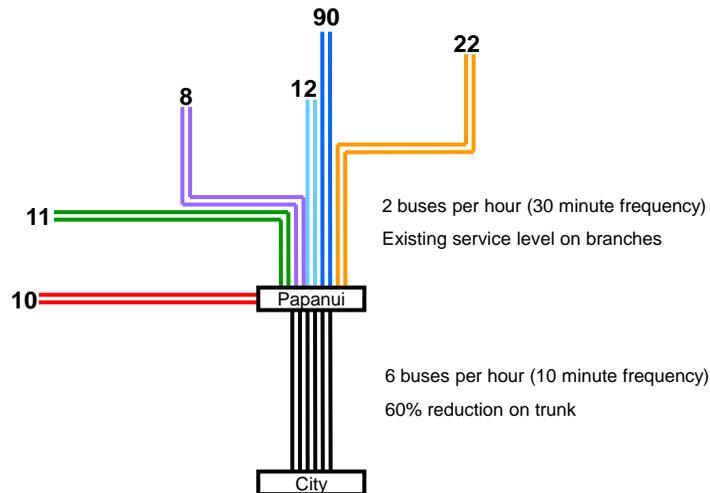
Route duplication on key corridors

Papanui Road route group – Peak buses per hour



Benefit of reducing route duplication

Papanui Road route group – peak buses per hour



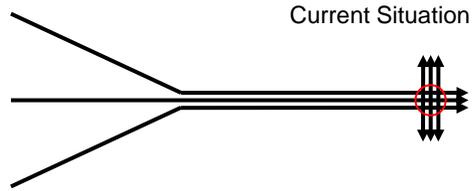
Network Design Principals for Improved Commerciality

- **Efficiency**
 - Reduce unnecessary route duplication (every route has a decent bit of catchment).
 - Aggregate demand on key corridors (more efficient use of vehicles and drivers).
- **Simplicity**
 - Aim for no more than 6 frequent core bus routes through the CBD.
 - Facilitates timed connections for 'anywhere to anywhere' travel.
 - Improve network legibility.
 - Opportunity to grow patronage on the core of the network where majority of boardings currently occur
- **Destinations**
 - Refocus local network to serve major suburban attractions (minimise need to transfer)
- **Directness**
 - Core routes follow the most direct path to facilitate cross-town travel.
- **Timed connections**
 - Facilitate 'anywhere to anywhere' travel (beyond nearest centre)
- **Service levels and span matched to role of routes in the network**
 - All day 'Frequent Network' connecting key destinations.
 - Frequent peak services to employment hubs
 - Local community connections
 - Peak only commuter services

Network Concepts

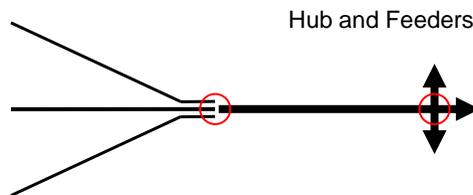
Current Situation – Radial Routes

- High level of duplication on trunks.
- Many low frequency routes connecting in CBD.
- Provides direct service to CBD but poor connections across suburbs.
- Requires significant CBD interchange facilities.



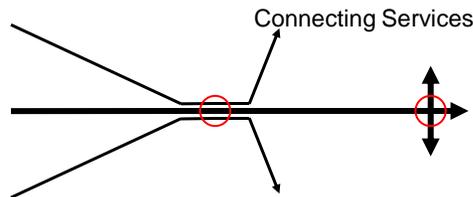
Hub and Feeders

- Maximum efficiency.
- Simple frequent core network.
- Few very high frequency routes connecting in CBD.
- Passengers travelling beyond local hub must transfer.
- Doesn't improve cross suburban connections.
- Requires significant suburban interchange facilities.

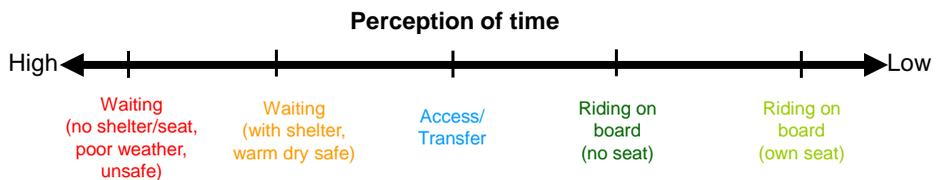


Connecting Services

- Reduced duplication on trunks
- Simple frequent core network
- Few high frequency routes connecting in CBD.
- Passengers from secondary routes may need to transfer however new connection opportunities can be provided to provide access to more destinations.



Travel Time Perception



- Out-of-vehicle time is perceived to be 2 to 3 times of that of in-vehicle time
- Wait time perception is influenced by the quality of the waiting environment
- To minimise the impact of transferring aim to:
 - minimise out-of-vehicle time and,
 - focus on the quality of the transfer environment

Operational Considerations

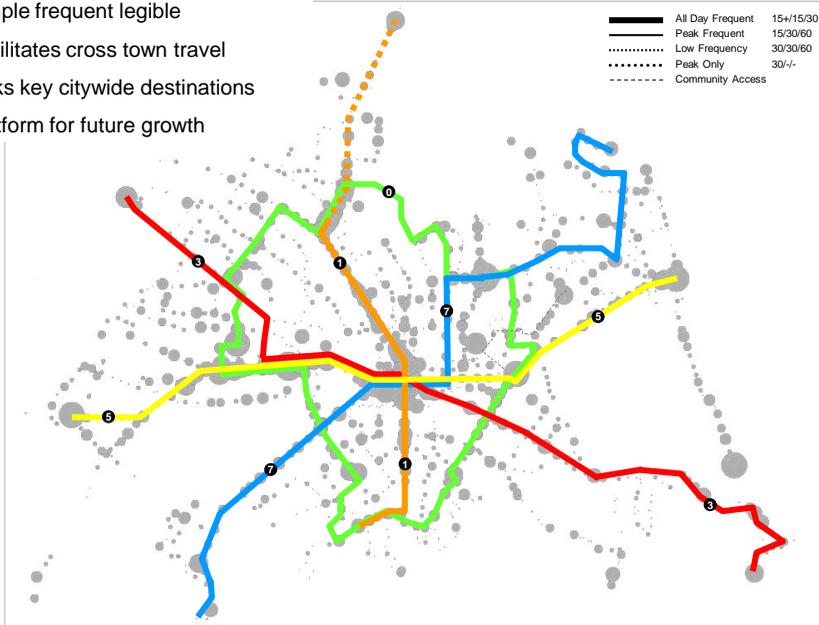
- Need to maintain operator market share.
- Limited ability to turn buses at suburban hubs.
- Limited space for bus layovers at suburban hubs.
- Peak traffic congestion and lack of bus priority.
- Ticketing system and outer zone services.
- Branded buses.

Operational Strategy

- Operators to have a fair mix of services
 - Core frequent services
 - Other city services
 - Local suburban services
- Maximise interlining at hubs to avoid need to turn buses
- Same operator where possible on core and local
 - Opportunity for radio contact between connecting buses
- Focus on frequency to facilitate peak connections
- Timetabled connections off-peak
- Branded buses considered as part of route allocations

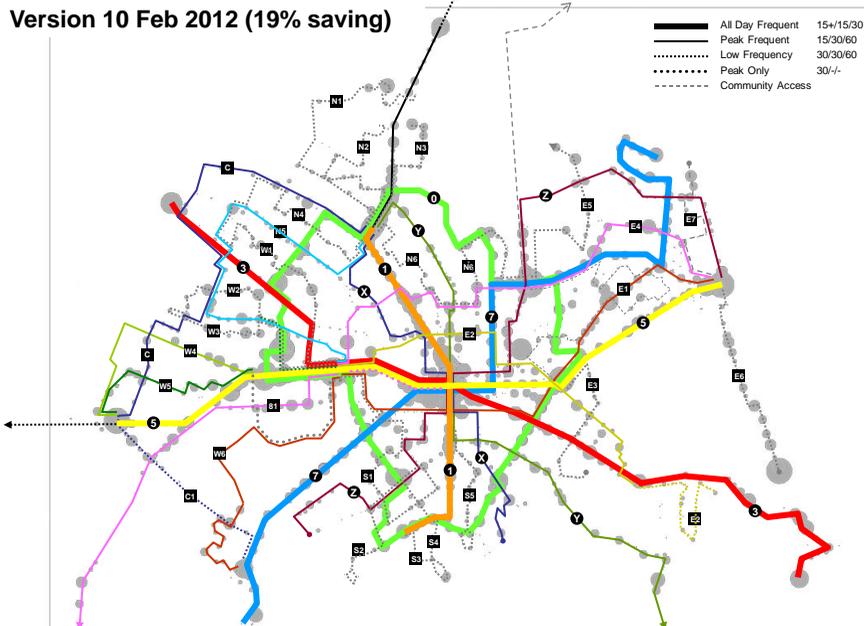
The Frequent Network

- Simple frequent legible
- Facilitates cross town travel
- Links key citywide destinations
- Platform for future growth



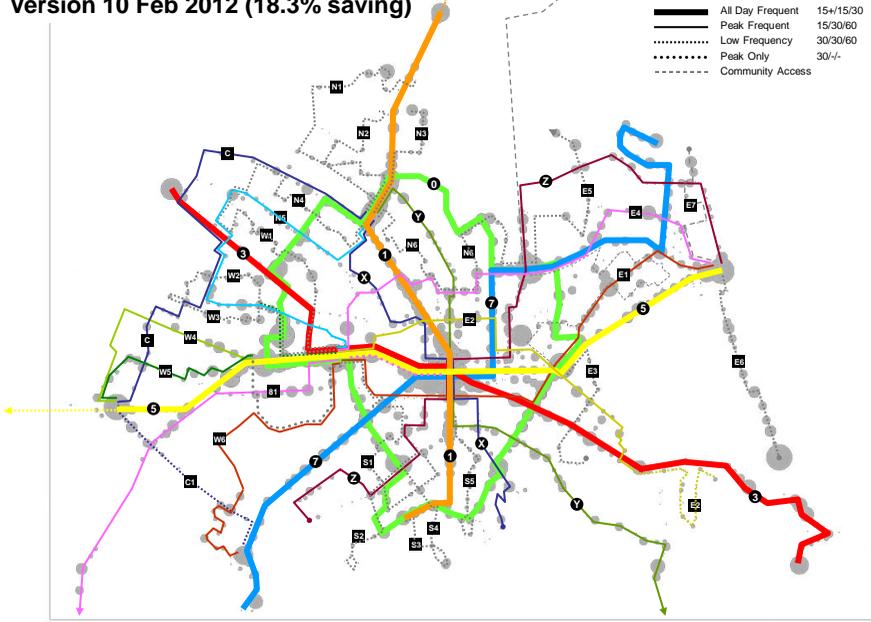
Local Network - with Rangiora and Rolleston Feeders

Version 10 Feb 2012 (19% saving)



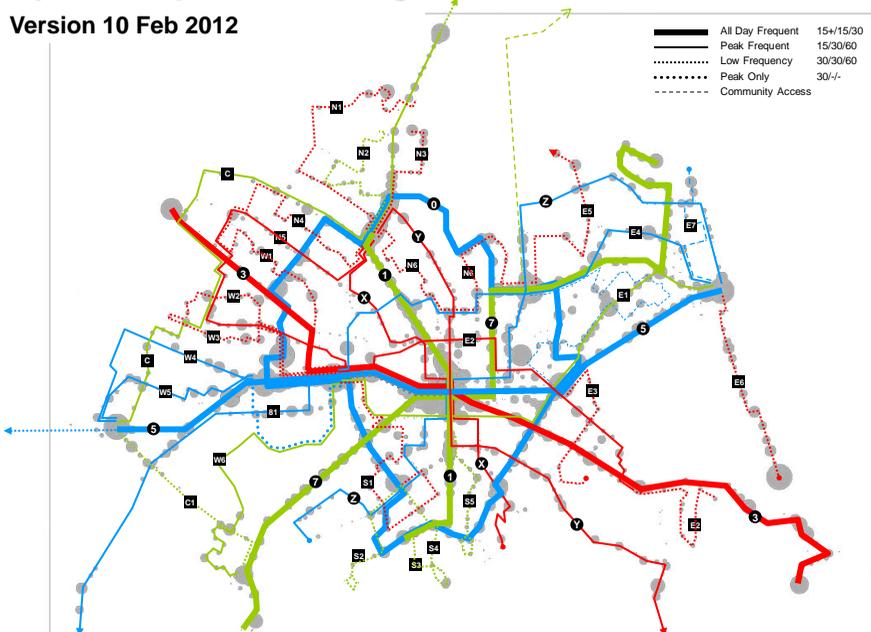
Local Network – with Rangiora and Rolleston Direct Service

Version 10 Feb 2012 (18.3% saving)



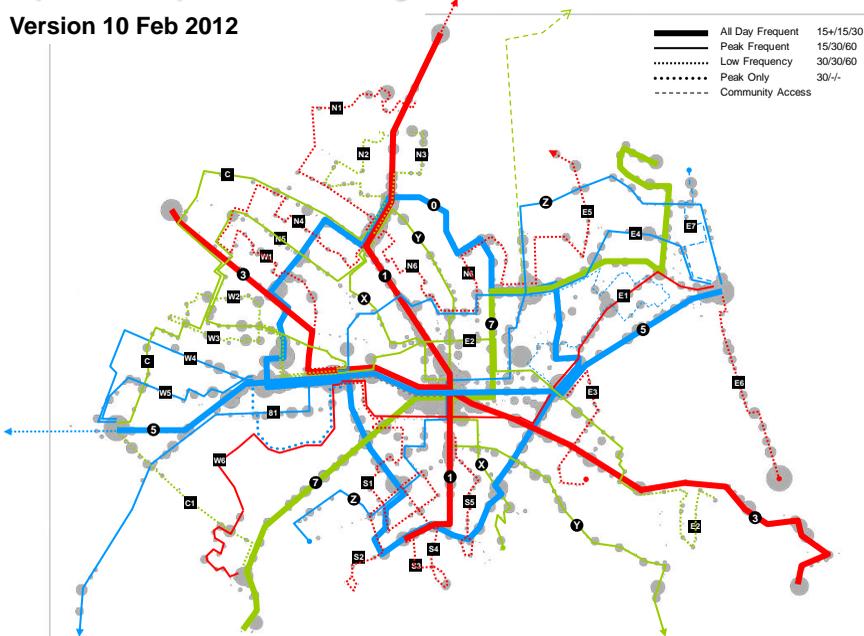
Operator Split – with Rangiora and Rolleston Feeders

Version 10 Feb 2012



Operator Split – with Rangiora and Rolleston Direct Service

Version 10 Feb 2012



Issues to Consider:

- New network model vs. Cutting existing services?
 - More efficient network vs. need for some passengers to change buses
- How best to deal with Rangiora and Rolleston services?
- Staged introduction vs. “big bang”?

Short term growth opportunities

- Better connections to local suburban malls and employment areas
- Simpler core network to market to new users

Medium term growth opportunities

- Develop and enhance new cross suburban services (i.e. Bealey Ave, Moorhouse Ave).
- Service new urban growth areas (i.e. Wigram)
- Direct commuter services to city centre as CBD rebuilds.