

New Zealand Peering Exchanges APE and WIX

Andy Linton <asjl@citylink.co.nz>
February 2004



New Zealand Peering Exchanges

- Currently in Auckland and Wellington
 - Auckland Peering Exchange – APE
 - Wellington Internet Exchange – WIX
- Proposed for Hamilton, Christchurch
- Possible for Palmerston North, Dunedin, Hawkes Bay

Auckland Peering Exchange

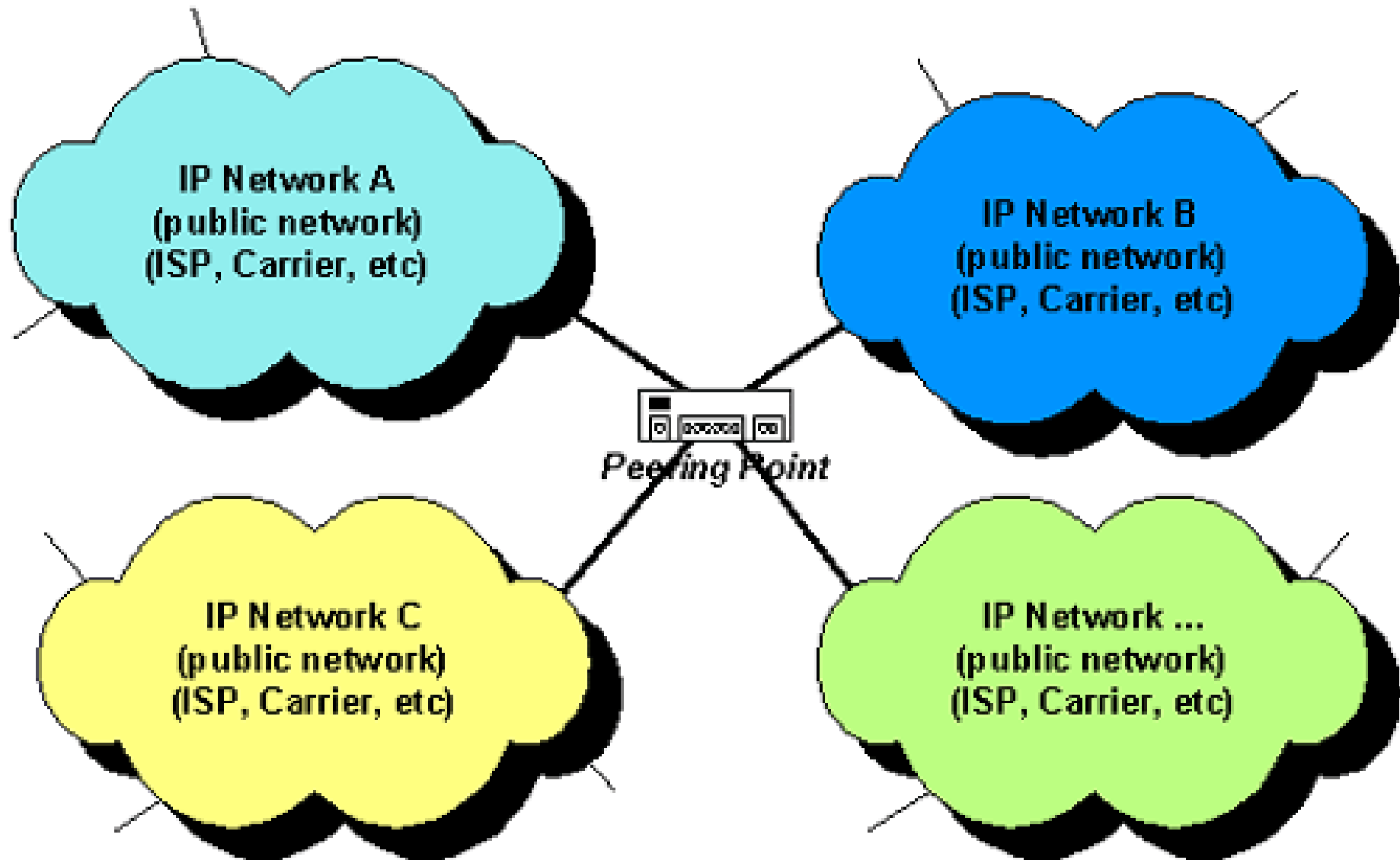
APE
Location



Auckland Peering Exchange



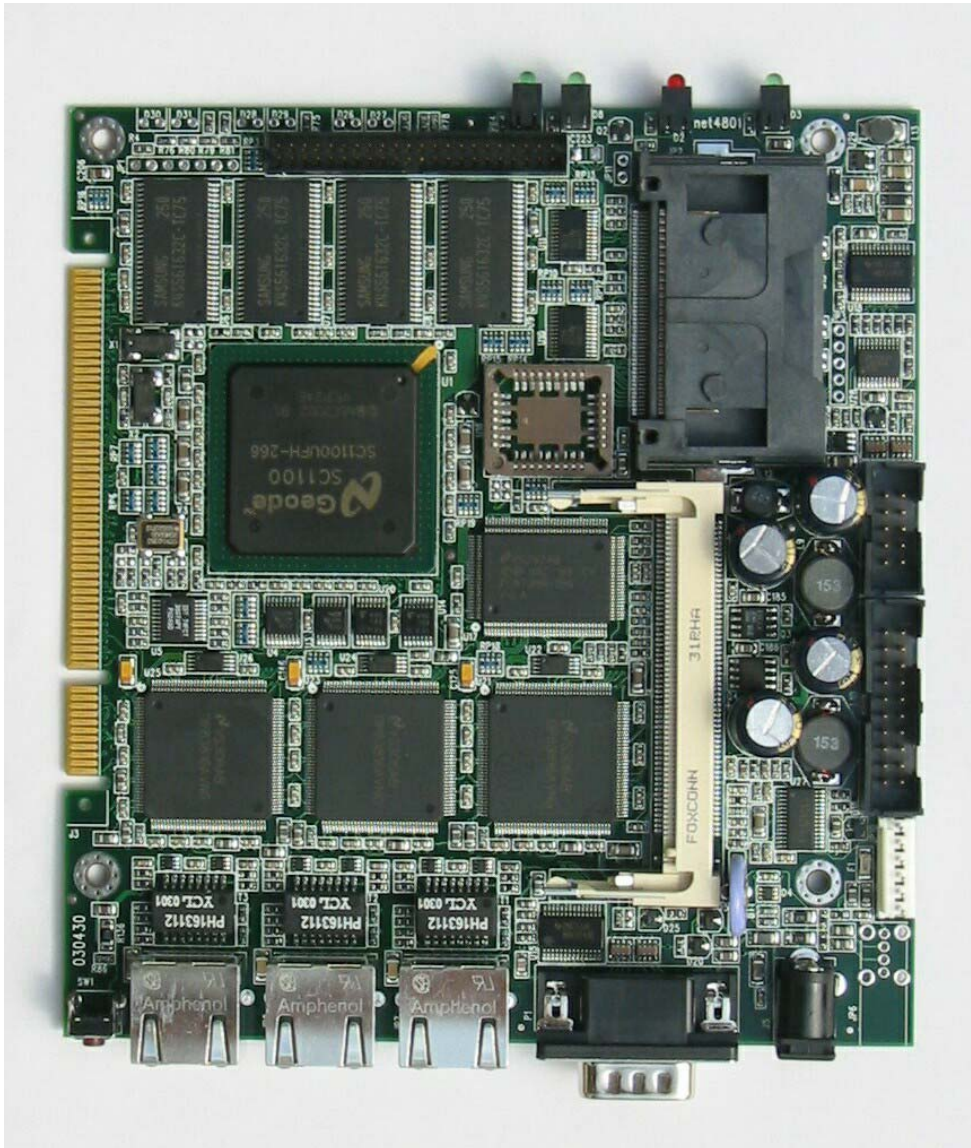
APE Peering Environment



APE Peering Points

- We don't use big carrier class switches
 - We can't afford them
- We use enterprise grade Cisco switches in two locations – third coming soon
 - 3548
 - 3508
 - 3524
- F-Root server instance is housed here since July 2003
 - <http://www.isc.org>

Route Servers



- 266 Mhz 586 class processor from www.soekris.com
- Uses LEAF code - leaf.sourceforge.org
- Quagga Routing Suite - www.quagga.net

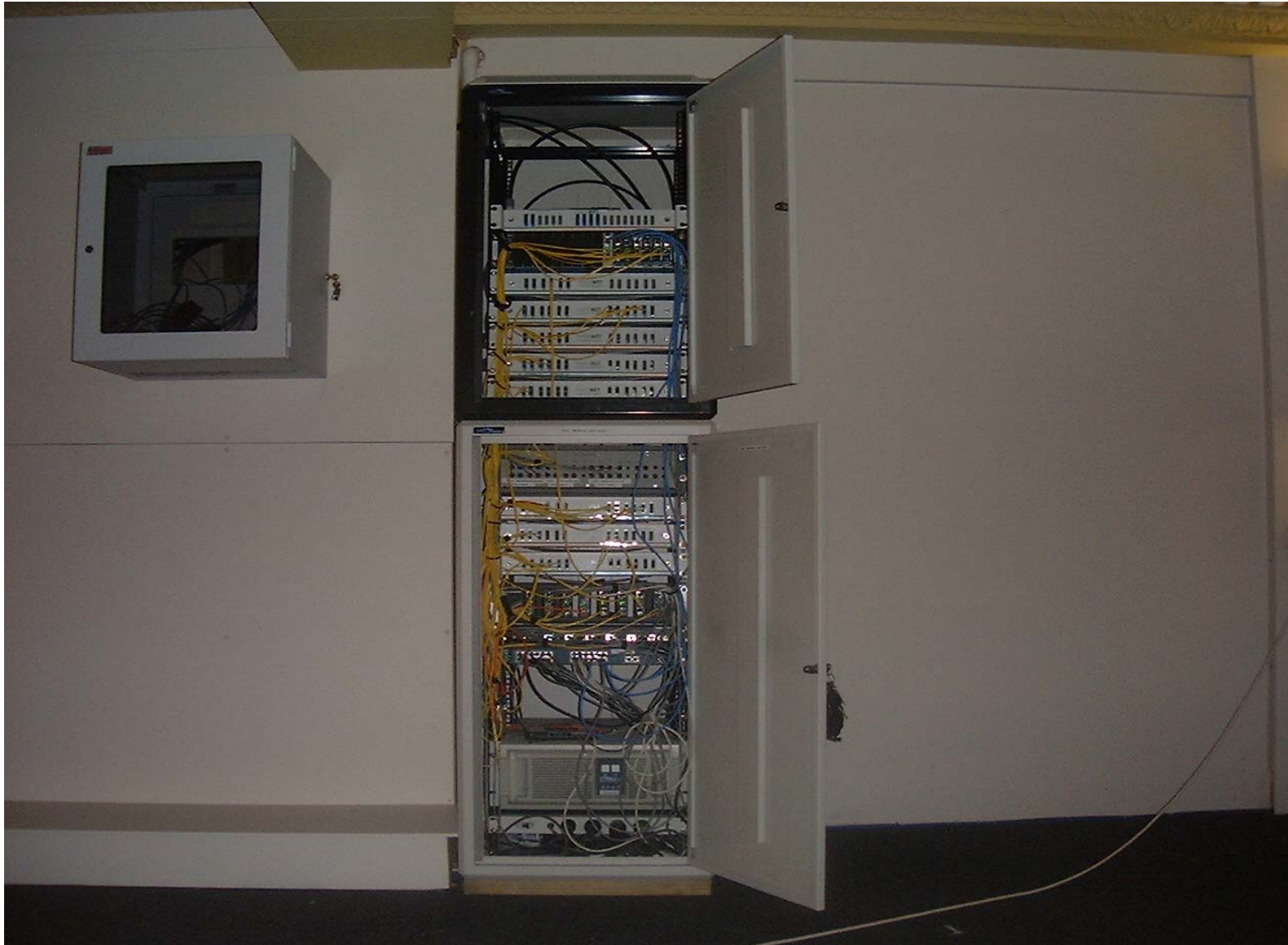
Route Servers



APE Peers

- Currently 32 peering sessions with the APE route servers
- There is no requirement to peer with the route servers
- There are other bilateral arrangements – large providers e.g. telcos favour this arrangement!
- Smaller providers are keen to peer – no surprises here!
- Looking glass available
 - <http://www.wix.net.nz/cgi-bin/mrlg-ape.cgi>

Wellington Internet Exchange



Wellington Internet Exchange



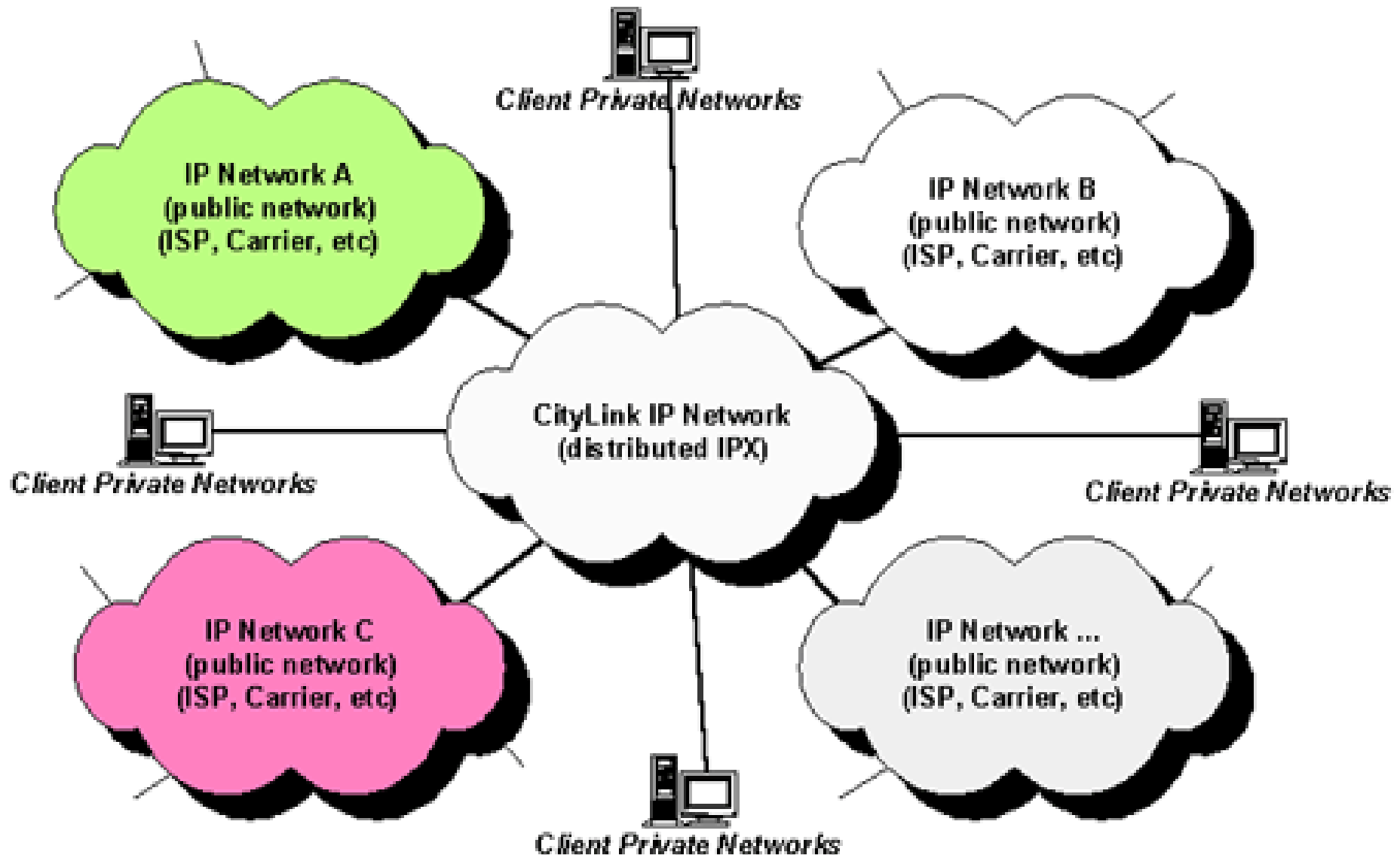
Wellington Internet Exchange



Wellington Internet Exchange



WIX Distributed Peering Environment



WIX Switches

- Highly distributed switch fabric
- 60+ Cisco switches with connections to 300+ buildings in Wellington CBD
 - 35xx, 29xx
- Connections at 10, 100, 1000 Mbps

WIX Peers

- Currently over 120 peering sessions with the WIX route servers
 - Smallest prefixes announced - /29
 - 41 peers have public AS numbers
 - 85 peers have private AS numbers
- We operate our own route registry
 - <http://www.wix.net.nz/cgi-bin/whois.pl>
- We use RPSL to manage all IPv4 route servers
- Looking glass available
 - <http://www.wix.net.nz/cgi-bin/mrlg-wix.cgi>

What's next?

- IPv6 peering also available in both locations
 - Small number of peers so far
 - Experimental link joining APE6 and WIX6 will be commissioned very soon
 - IPv4 to IPv6 tunnelbrokers available
- More exchanges planned – part of design for NZ Internet 2 linking the universities and research community

Questions?