MASSEY UNIVERSITY

New Zealand IPv6 Hui 2009
Deployment Case Study

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The Business Case – Why ?

Access (bi-directional) to IPv6 resources, principally NRENs e.g. Websites, Email

Access to our own resources for external clients, ASIA is seen as part of our Student Catchment.

Discover how ready we were for an IPv6 Internet

Deployment of IPv6 has not been a project that has required any specific funding.

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Deployment Goals

Enable Native IPv6 internally - 3 major sites, >5000 end-user computers

Enable Native IPv6 externally - to NRENs and commodity Internet

Setup Dual stack for the quick wins – DNS, NTP, Email, Telnet and SSH

Enable a Web Presence (HTTP), using the URL http://ipv6.massey.ac.nz

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How did we get on

Enabled Native IPv6 on all Cisco routers that supported it

Enabled Native IPv6 on Check Point Firewalls (work around known limitations)

Enabled Native IPv6 on selected servers – RHEL Linux and Windows 2003 and 2008

Enabled Native IPv6 on End-User subnet in ITS and setup ISATAP for everyone else

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What were some of the issues

Initial difficulty in getting our own IPv6 allocation from APNIC, allocation policies may have been revised but when we first applied they seemed to discourage rather than encourage folk that were interested in deploying IPv6

Only minimal support for IPv6 on much of our active infrastructure. Recent releases of Cisco IOS have addressed this and we are in the process of updating all our routers.

DHCPv6 – we want dynamic DNS updates

The 'soft' issues. Applications might *work* fine over IPv6 but you may find IPv6 addresses popping up in places you didn't expect. e.g. configuration scripts, log files, database table columns which were only expecting an IPv4 address and hence breaking downstream processes.

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Our advice

Don't wait for IPv6 to happen to you. Get in there now before you don't have a choice

Start talking with your ISP Account team. Convince them that you are serious about IPv6 and want them to get onboard as well.

You might find that turning on IPv6 is not be as big an issue as you thought.
You may find as we did that a lot of things just work!! And for those that don't you probably have time to find solutions or update applications etc.

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