

VIC6

Victorian Industry Collaborative IPv6 TestNet

Ai Group & IPv6Now

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VIC6 Seed Funding



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VIC6 Sponsors



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Minister's Announcement

Acting Information and Communication Minister
Gavin Jennings:

“In addition, we have also committed \$350,000 towards a program to encourage industry to shift to Internet Protocol Version 6 (IPv6), the next generation internet, which will provide industry with an unlimited number of IP addresses to cater for business expansion.”



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What is IPv6 about?

- IPv6 – Internet Protocol version 6
 - Currently using IPv4
- IPv4
 - limits growth, limits creativity, limits performance
 - IPv4 pool addresses exhaust 2010-11
- IPv6 fixes these things
 - Increased address space, autoconfiguration
 - Links to other technical improvements



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What is IPv6 about?

- IPv6 – Internet Protocol version 6

NEWS FLASH:

FOR IMMEDIATE RELEASE

3 December 2008

"IPv6 Growth Increases 300 Percent in Two Years "

Internet Governance Forum, Hyderabad, India, 2nd December 2008 – The Number Resource Organization (NRO), which is made up of the five Regional Internet Registries (RIRs), announces today that the rate of new entrants into the IPv6 routing system has increased by approximately 300 percent over the past two years.



Market Growth

- Asia - in IPv6 transition:
 - Japan – major economy 7 trading partner
 - China – population 1B plus
 - South Korea – major trading partner
- Europe – 25% of users on IPv6 by 2010
- North America – in IPv6 transition:
 - US Defense & Govt backbones by 2008
 - Major providers



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IPv6 Business Case -Reducing Costs

- **IPv6 reduces cost** in today's Global Financial Crisis economy
 - simplifies existing networks
 - simplifies mergers and acquisitions
 - simplifies supplier and customer relationships
 - links to world growth markets in Asia
- **Reduces cost of growth for expanding networks**
 - flat marginal cost of implementation (MCI) vs accelerating IPv4 MCI



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What is IPv6?

- Domain name: `www.ipv6now.com.au`
- IPv4: `125.255.112.139`
- IPv6: `2406:a000::20`

“The Internet is like a 15 storey building, and the domain name system is the columns holding it up...” and the Internet Protocol is the foundation on which the whole building stands.

Apologies to Paul Twomey, CEO, ICANN



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IPv6 Testbed Objective

The purpose of the Testbed at launch will be:

To provide an industry facility, in the form of an IPv6 testbed network, that will enable and empower Victorian industry and commercial organisations to learn and test IPv6 implementation and integration processes and innovations with a view to deploying the same within their corporate structures or deploying the same in products, services and innovations.



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Industry benefits

- Maximum outreach to Victorian industry
- Enable Victorian industry to
 - access cost savings and maximise efficiency improvements through use of IPv6
 - quickly adopt IPv6
 - gain maximum market share in the emerging international markets implementing IPv6
 - develop opportunities for innovation based on IPv6



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Project activities

- IPv6 capable testbed network
 - accessible from anywhere on the IPv4 Internet
- Industry related activities
 - Skills development
 - Transition planning
 - Staging solutions
 - Innovation: product and process trial and development



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Who can be involved?

- Reference group, coordinated by Ai Group
- Membership for detailed participation
 - User registration, network design, contributions
- Full range organisations, from target sectors
 - health
 - financial services
 - automotive manufacturing
- Others: open to proposals



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Project phases

- Mar 09 Planning and implementation phase
- Jun 09 Health sector demo
- Sep 09 Financial services sector demo
- Nov 09 Auto manufacturing sector demo



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Industry Briefing Workshops

- **Initial industry briefings**
 - December 2008: Ballarat, Bundoora
 - Concept, initial industry feedback on needs
- **Industry Progress Workshops**
 - February 2009: Melbourne, Ballarat
 - Concept, membership, feedback on network functions & design, register interest



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VIC6 Activities

- Awareness: www.vic6.net
- Sector liaison
- Membership and user levels
- Network design & operation
- Demonstrations
- Fundraising
- Joint ventures



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Personnel

- Ai Group
 - Louise McGrath
- IPv6Now
 - Tony Hill
 - George Fong
 - Karl Auer
 - Kate Lance
 - Mike Biber
 - Kevin Karp



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Membership:

- Associates
- Partners
- Sponsors
- Joint ventures



Industry Outreach

- Ai Group
 - Industry advisory committee
 - Priority sector working groups
- Priority Sectors
 - Jun 09 Health sector demo
 - Sep 09 Financial services sector demo
 - Nov 09 Auto manufacturing sector demo



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Sponsorship

- Cisco: network equipment
- Neighbourhood Cable: connectivity
- PPS Internet: network operations centre
- Lateral Plains: Ballarat node
- IPv6Now: IPv6 tunnels



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VIC6 Progress Update

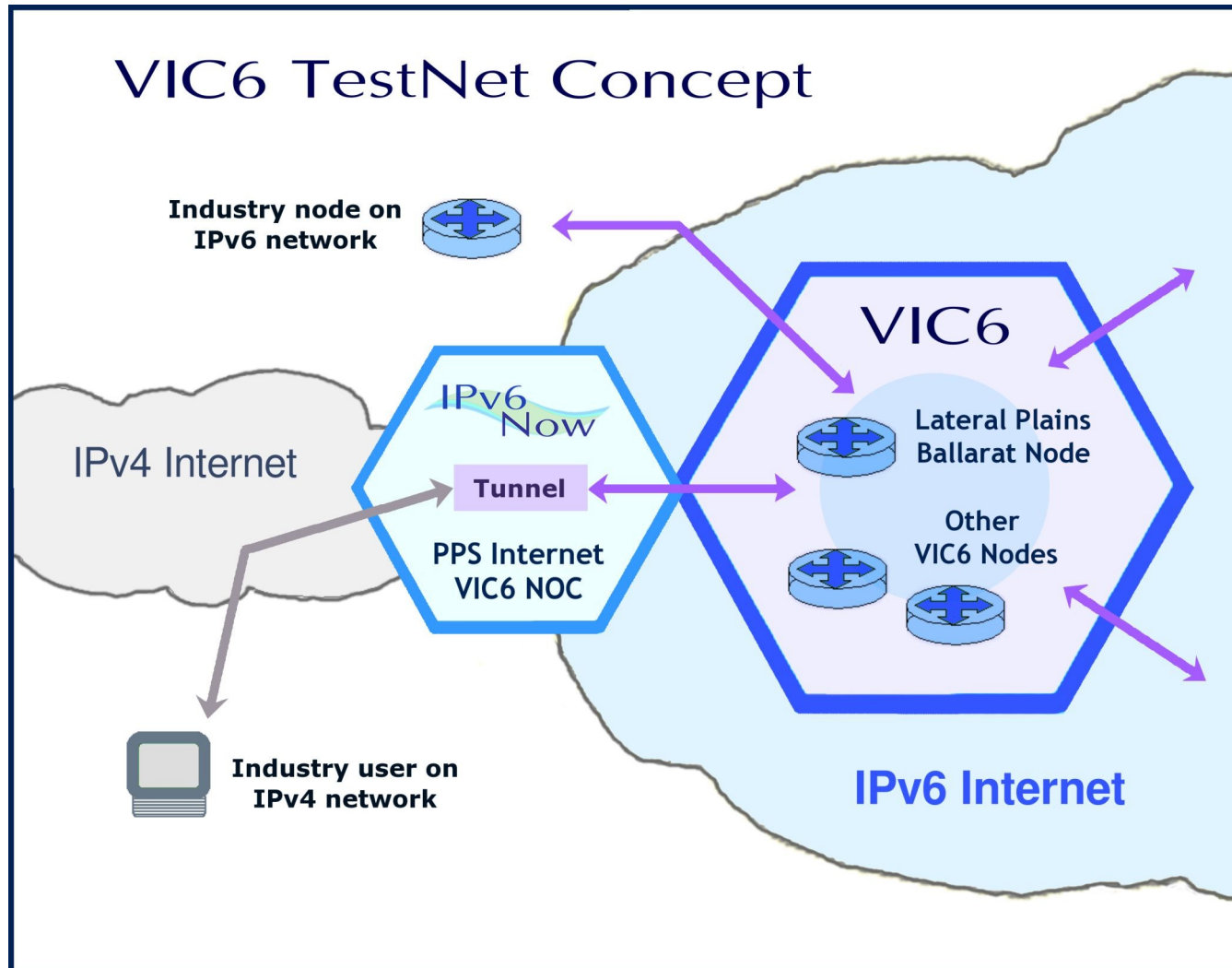
- Nodes
 - Confirmed: Ballarat
 - Discussions: Bundoora, Monash, Hawthorne
- Operations & equipment
 - Connectivity: Neighbourhood Cable, IPv6Now
 - Routing: Cisco
 - NOC: PPS Internet



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VIC6 TestNet Concept



VIC6 Progress - Functions

- Basic functions:
 - IPv6 connectivity
 - dual stack, operations & transit
 - Internet connection
 - server capacity



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VIC6 Progress - Access

- Free access available to VIC6 Partners:
 - IPv4 Internet: via IPv6Now
 - VIC6 nodes: physical access
 - Industry nodes: over the IPv6 Internet



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VIC6 Progress - Communications

- Web: vic6.net
- Wiki: wiki.vic6.net
 - two way communications
 - only VIC6 members can edit pages
- Mailing list: two way comms between members
- Newsletter: see ***The Standard***
 - available from ipv6now.com.au/news.php



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Simple Usage Examples

- see whether your OS is IPv6 aware
- see how your favourite application handles IPv6
- build a small network and see how your procedures stand up to IPv6
- drop a router into the racks and learn how to configure it for real
- load your software and test on IPv6 Internet



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Questions?

- www.vic6.net
www.aigroup.asn.au
- www.ipv6now.com.au

Thank you.



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Member Registration

- Use forms here, or online registration
- Associates:
 - “keep me informed”
- Partners:
 - “I want to use VIC6”
- Sponsors:
 - “I want to contribute, and use VIC6”
 - recognition on Web & VIC6 events



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Consultation - VIC6 Design

- Nodes: core, industry, IPv4 Internet access
- Internet access: IPv6, IPv4
- Nodes: router, switch
- Secure equipment rack space
 - Network; User
- Services:
 - DNS, firewall, address configuration, network management



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Consultation - VIC6 Functionality

- Login & access:
 - Partners receive login details automatically
- Network facilities:
 - Bookings for server usage
 - Bookings for VIC6 node physical access
- Others?



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Consultation – VIC6 Communication

- Website
- Wiki
- Mailing list
- Newsletter
- Workshops
- Industry outreach



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Thank you.



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