

Asia Pacific Network Information Centre

APNIC

APRICOT  
2005-2006

## APNIC Tutorial Dynamics of policy development process

APNIC 19  
In conjunction  
with APRICOT 2005

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APNIC

APRICOT  
2005-2006

### Introduction – who are we?

- We are APNIC Training Team
  - Champika Wijayatunga
    - [champika@apnic.net](mailto:champika@apnic.net)
    - Senior Training Specialist
  - Miwa Fujii
    - [miwa@apnic.net](mailto:miwa@apnic.net)
    - Training Officer
- Our responsibility is to deliver Internet resource management training sessions and other technical courses

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### Introduction – who are you?

ISP?  
Regulator?  
Government?

Technical?  
Administrative?

APNIC member?  
New to APNIC?

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### Introduction - your background

- Do you have any experience submitting a policy proposal within the APNIC community?
- Do you subscribe to any APNIC mailing lists?
- What are you hoping to get out of today's policy tutorial?

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### Overview

- Introduction to APNIC
- APNIC community
- Dynamics of participatory decision making process
- APNIC policy development process
- How to make your voice heard?
- Tracking policy development
- Recent policy updates

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### Introduction to APNIC

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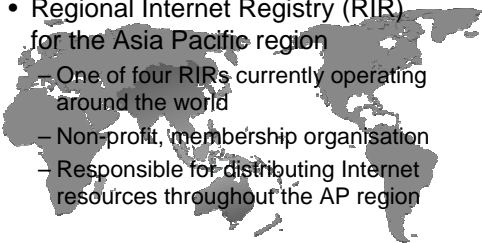
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## What is APNIC?

- Regional Internet Registry (RIR) for the Asia Pacific region
  - One of four RIRs currently operating around the world
  - Non-profit, membership organisation
  - Responsible for distributing Internet resources throughout the AP region




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## What is APNIC?

- Industry self-regulatory body
  - Established in 1993
  - Consensus-based, open, and transparent decision-making and policy development
  - Non-profit, neutral, and independent
- Open membership-based structure
  - Open participation
    - Democratic, bottom-up processes




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## Where is APNIC region?




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## Why do we have RIRs?

- Lessons from the past
  - Growing routing table
  - Wastage of addresses
  - No proper registration system
  - No scalable resource distribution system
- ‘Addressing’ the problems
  - Creation of RIRs
  - Classless addressing (CIDR)
  - Whois database
- RIR goals
  - Aggregation, Conservation, and Registration

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## APNIC’s role

- Core activities: primary responsibilities
  - Critical Internet administrative services
  - IP resource allocation
  - Resource registration and reverse DNS
  - Facilitation of policy development
- Additional activities
  - Training, outreach, and seminars
  - Publications, *Apster*, Annual Report, articles
  - Infrastructure development: IRR, root-servers
  - R&D, statistics, etc
  - Services to community through collaboration

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## Why should I care about APNIC?

- Core activities
  - You may need to request Internet resources from APNIC
  - You may be using the APNIC Whois Database
  - New policies are implemented or changed
    - Driven by community in response to changing technical environment
- Additional activities
  - Facilitating root server deployment
  - Research & white papers
    - Internet society articles, BGP stats
  - Collaboration & partnerships
    - Training
    - MoUs with ISP associations

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## APNIC is NOT

- A network operator
  - Does not provide networking services
    - Works closely with APRICOT forum
- A standards body
  - Does not develop technical standards
    - Works within IETF in relevant areas (IPv6 etc)
- A domain name registry or registrar
  - Will refer queries to relevant parties

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## APNIC structure

- Industry self-regulatory structure
  - Participation by those who use Internet resources
  - Consensus-based decision making
    - eg. Policy changes, db requirements, etc
  - Open and transparent
- Meetings and mailing lists
  - Open to anyone
    - <http://www.apnic.net/meetings/19>
    - <http://www.apnic.net/community/lists>

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## APNIC community

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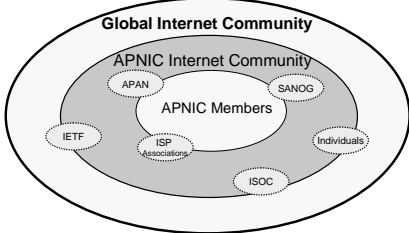
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## You are part of the APNIC community!

- **Open** forum in the Asia Pacific
  - Open to any interested parties



– A voice in regional Internet operations through participation in APNIC

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## Policy development

- Industry self-regulatory process
  - Policy is developed by the AP Internet community to suit needs of region
  - Facilitated by RIR staff
- Policy implementation
  - APNIC shares with its members and their customers a collective responsibility
    - RIR process
    - ISPs and other affected parties

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## Participation in policy development

- Why should I bother?
  - Responsibility as an APNIC member
    - To be aware of current policies for managing address space allocated to you
  - Business reasons
    - Policies affect your business operating environment and are constantly changing
    - Ensure your 'needs' are met
  - Educational
    - Learn and share experiences
    - Stay abreast with 'best practices' in the Internet

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## Questions ?

Material available at: [www.apnic.net/training/recent/](http://www.apnic.net/training/recent/)

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### Checkpoint



*Who can be involved in policy development in the AP region?*

Anyone can be involved!  
APNIC members, members of the Internet community, or anyone interested in Internet policy!




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### Checkpoint



*Why are you encouraged to be involved with the policy development process?*

- Responsibility as an APNIC member
- Business reasons
- Educational reasons




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# Dynamics of participatory decision-making \*

\* Many of the ideas in this module have been inspired by Sam Kaner's book, "Facilitator's Guide to Participatory Decision-Making" 1998, New Society Publishers/Canada.

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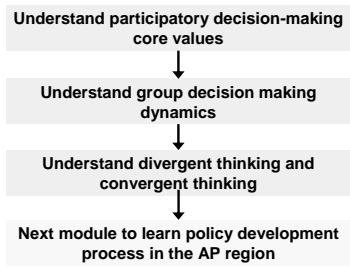
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## Overview



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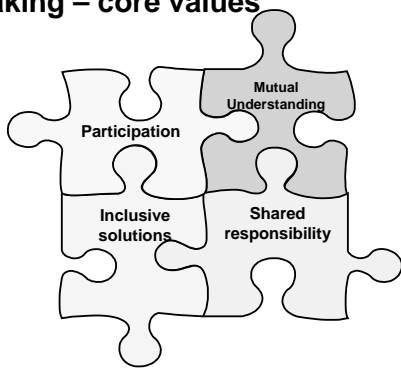
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## Participatory decision making – core values



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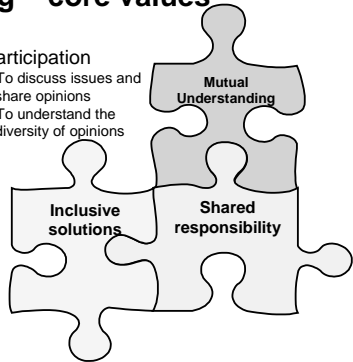


## Participatory decision making – core values



### Participation

- To discuss issues and share opinions
- To understand the diversity of opinions



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## Participatory decision making – core values

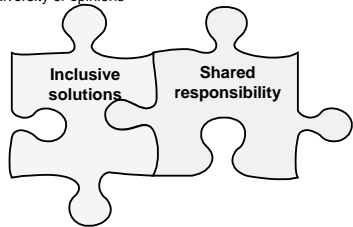


### Participation

- To discuss issues and share opinions
- To understand the diversity of opinions

### Mutual understanding

- To reach a durable decision



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## Participatory decision making – core values



### Participation

- To discuss issues and share opinions
- To understand the diversity of opinions

### Mutual understanding

- To reach a durable decision

- ### Inclusive solution
- To integrate a wider range of interests and needs into the solution



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### Participatory decision making – core values

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- Participation**
  - To discuss issues and share opinions
  - To understand the diversity of opinions
- Mutual understanding**
  - To reach a durable decision
- Inclusive solution**
  - To integrate a wider range of interests and needs into the solution
- Shared responsibility**
  - To implement a newly developed decision through the community

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### Typical group decision making dynamics

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Diversity of idea

Time

New proposal

Divergent thinking

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### Typical group decision making dynamics

APRICOT

Diversity of idea

Time

New proposal

Decision point

Divergent thinking

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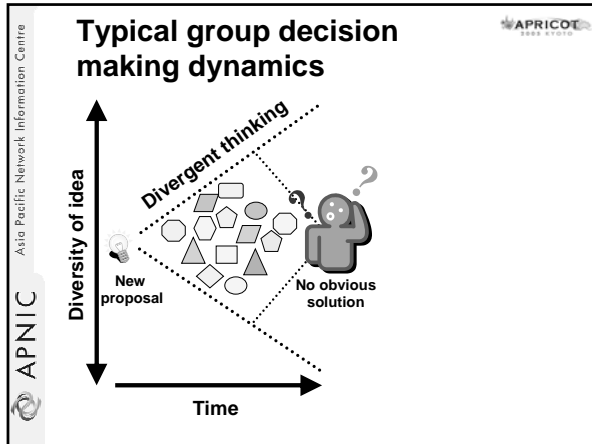
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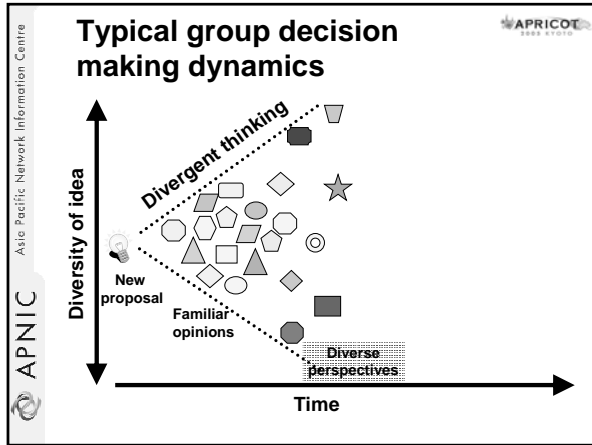
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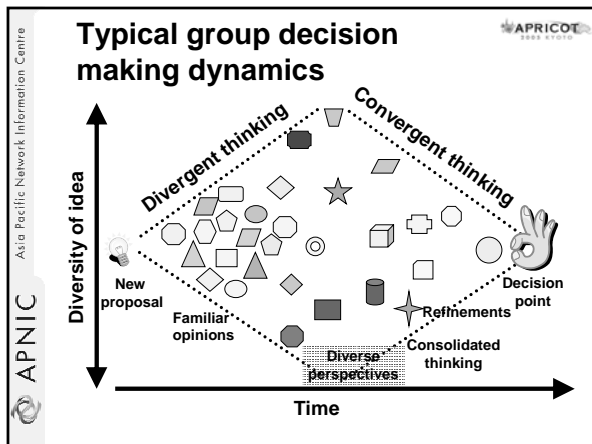
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### Divergent thinking and convergent thinking

- Some examples of the differences between two thinking process

Divergent thinking	Convergent thinking
Generating alternatives	Evaluating alternatives
Free-for-all open discussion	Summarising key points
Gathering diverse points of view	Sorting ideas into categories
Unpacking the logic of a problem	Arriving at a general conclusion

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### Checkpoint



*What are the four core values of participatory decision making?*

- Participation
- Mutual understanding
- Inclusive solutions
- Shared responsibility



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### Discussion



*Have you ever been involved with any participatory decision making process?*

*If so, can you share your experience with us?*



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## Policy development process in the AP region

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## Policy development process

- Policies in the AP region
  - Consensus based policies
  - Developed by the membership and the broader Internet community
- Forums
  - APNIC Open Policy Meetings (OPM)
    - Twice a year
      - February in conjunction with APRICOT
      - August/September
  - Mailing list discussions to continue work between meetings
  - Ongoing feedback to trainers and hostmasters

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## Policy development cycle

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    graph TD
      Need[Need OPEN] -- Anyone can participate --> Discuss[Discuss]
      Discuss --> Consensus[Consensus]
      Consensus --> Implement[Implement]
      Implement --> Evaluate[Evaluate]
      Evaluate --> Need
      subgraph BottomUp [BOTTOM UP]
        Evaluate
        Implement
      end
      subgraph Transparent [TRANSPARENT]
        Discuss
        Consensus
      end
  
```

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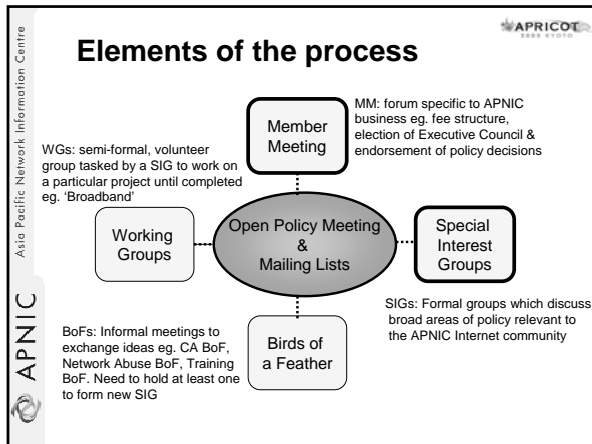
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**Checkpoint**

*What are three major characteristics of policy development in the AP region?*

- Open
- Transparent
- Bottom up

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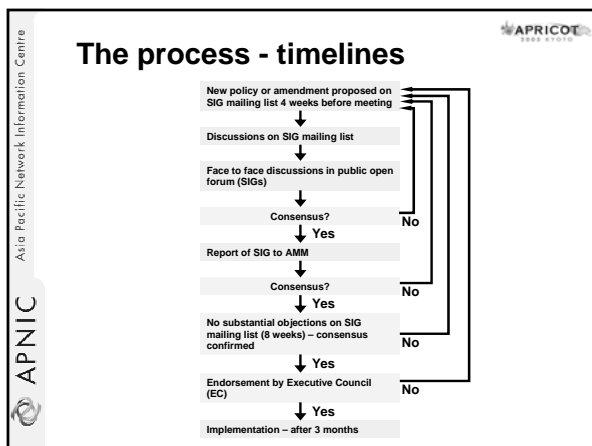
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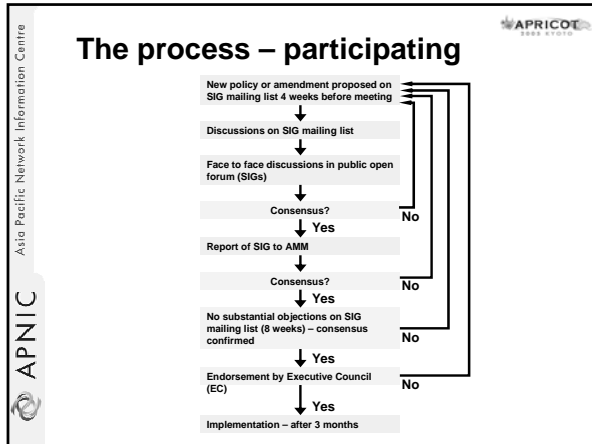
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## Questions?

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## Checkpoint

*How can you participate in the initial discussion after a new policy proposal is proposed?*

Discuss on SIG mailing lists – you can subscribe to relevant mailing lists to participate in the discussions

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**Checkpoint**



*Once a new policy proposal reaches a consensus at an AMM, what is the next step to be taken?*

Comment period on SIG mailing lists – you can subscribe to relevant mailing lists to participate in the discussions




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**Checkpoint**



*Once a new policy reaches a consensus via SIG mailing lists and is endorsed by EC, what is the next step?*

The new policy is implemented: APNIC community shares responsibility for implementation




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**How to make your voice heard**

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## How to make your voice heard



- Contribute on the public mailing lists
  - <http://www.apnic.net/community/lists/>
- Attend meetings
  - Or send a representative
  - Fellowships are available for meetings
- Other options
  - Watch webcast (video streaming) from the meeting web site
  - Read live transcripts from the meeting web site
  - Listen to the simultaneous interpretation
  - And express your opinion via Jabber chat
- Give feedback
  - Training or seminar events or to hostmasters

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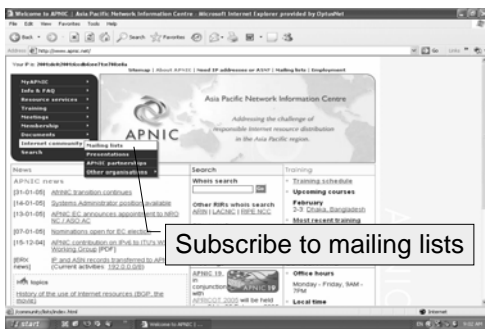
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## APNIC mailing lists



Subscribe to mailing lists

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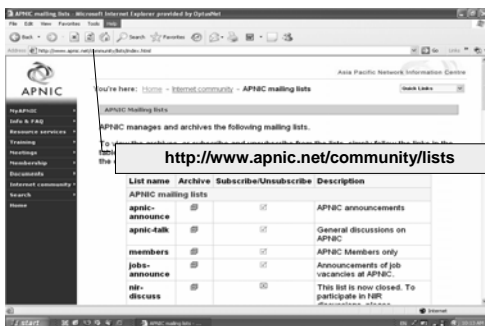
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## APNIC mailing lists



<http://www.apnic.net/community/lists/>

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## Jabber chat

- Provides opportunity for people to participate remotely
  1. Watch meeting proceedings live via video streaming or live transcript
  2. Send your comments or questions to Jabber chat rooms
  3. Your comments and questions will be read out at the OPM session
- If you are 'microphone shy' you can send your comments and opinions via Jabber Chat ☺

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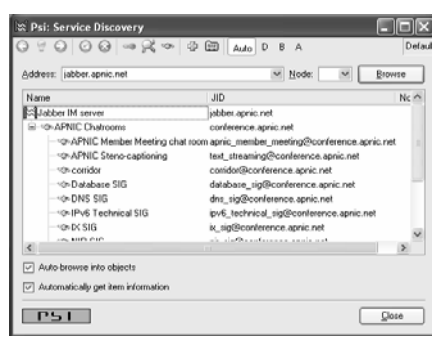
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## Jabber chat – sample



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## Checkpoint



*What kind of tools are available for stakeholders to participate in the policy development process remotely during an OPM?*

- Watch webcast (video streaming) from the meeting web site
- Read live transcripts from the meeting web site
- Express your opinion via Jabber chat



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## Tracking policy development

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### Policy tracking – case 1

- IPv4 allocation policy – minimum allocation size
  - Reviewed in response to membership requests
    - To maintain a good balance between ‘conservation’ and ‘aggregation’
    - To meet regional needs
    - To adjust to changes in the technological and administrative environment

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### Policy tracking – case 1

Year	Policy / Meeting	Minimum Allocation Size
Before 1997	Initial	/22
1997	APNIC AMM 1997	/19
1998	Consistent with the RIPE-NCC allocation policy?	/19
2000	APNIC 9	/20
2001	Better balance between aggregation and conservation?	/20
2003	APNIC 17	/21
2004	Too difficult for smaller ISPs to obtain portable allocation?	/21

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## Policy tracking – case 2

- Small multihoming assignment policy (IPv4)
  - 2001– IPv4 minimum allocation size was /20
    - As a practical trade off between the conflicting goals of conservation and aggregation
    - Smaller assignments were difficult to obtain
  - Then 'current industry practices'
    - Increasing number of organisations wanted to multihome their networks
      - To improve the reachability of 'end-site' networks through redundancy of upstream connections
      - A multihomed network requires advertising of a specific route
  - Is the use of /20 for this purpose appropriate?
    - Wasting space when needs are much smaller

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## Policy tracking – case 2

- Small multihoming assignment policy (IPv4)
  - Proposal made August 2001 at APNIC 12
    - To provide fairness to the Internet community as a whole
    - Not to hamper the development of the industry
    - Proposal reached consensus [when?]
  - Criteria for a portable small multihoming assignment
    - Show a demonstrated need – 25% of the required address space immediately
    - 50% within one year

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## Summary

- Policy is not static
  - The Internet changes and evolves
  - Policy responds to these changes!
- It is those who need and use the Internet resources who determine the policies
  - That's you! ☺
  - (Not the APNIC Secretariat)

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## Let's play a game ☺



Have fun!

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## Recent policy updates

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## Customer privacy



- Policy proposal to protect privacy of customer assignment records
  - Presented at APNIC16, Aug 2003
  - Consensus reached
- Motivation of the proposal
  - Privacy issues
    - Concerns about publication of customer information
    - Increasing government concern
  - APNIC legal risk
    - Legal responsibility for accuracy and advice
    - Damages incurred by maintaining inaccurate personal data
  - Customer data is hard to maintain
    - APNIC has no direct control over accuracy of data
- Customer assignment registration is still mandatory

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### Customer privacy

- Policy implemented Sept 2004
  - Public data
    - Includes portable addresses (inetnum objects), and other objects eg. route objects
    - Public data is visible in whois queries
  - Private data
    - Can include non-portable addresses (inetnum objects)
    - Members have the option to make private data visible
- Customer assignments
  - Usually private data, but can be changed to public data

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### Supporting historical resource transfer



- Policy proposal to align historical resources with the current policy framework
  - Presented at APNIC16, Aug 2003
  - Consensus reached
- Historical resources not governed by any formal agreement
  - Little or no incentive for resource holders to maintain registrations or return to APNIC unused resources
  - Risk of hacking or spamming using historical resources
  - Possible illegal use of incorrectly registered resources
  - APNIC members incur financial & technical costs for maintaining historical resource registrations

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### Supporting historical resource transfer

- Motivation of the proposal
  - Allows transfers from 'historical' to 'current' status
  - Allow transfers of historical resources to APNIC members
    - Accuracy of registration
    - Fairness of distribution
    - Efficiency of management
  - Address space subject to current policy framework
    - Subject to all applicable APNIC policies

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## Supporting historical resource transfer

- Policy implementation
  - March 2004
    - 'Policies for the transfer of historical Internet resources' published
  - Jan 2005
    - It is now combined into 'Policies for historical Internet resources in the APNIC Whois Database'

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## APNIC 17 policy update

- IPv6 allocation to 'unconnected' networks (prop-015-v004)
  - Implemented in May 2004
- IPv6 allocation to IPv4 networks (prop-016-v004)
  - Implemented in August 2004
- Recovery of unused address space (prop-017-v004)
  - To be implemented Q1 2005
- Protecting historical resource records in the APNIC Whois Database (prop-018-v004)
  - Implemented in December 2004

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## APNIC 18 policy update

- IANA policy for allocation of IPv6 blocks to RIRs (prop-005-v004)
  - Endorsed by EC in November 2004
  - Subject to coordination with other regions
- IANA IPv4 resource request procedures (prop-008-v001)
  - Implementation pending coordination with other RIR regions
- Expansion of the initial allocation space for existing IPv6 address space holders (prop-021-v001)
  - Formal implementation in February 2005

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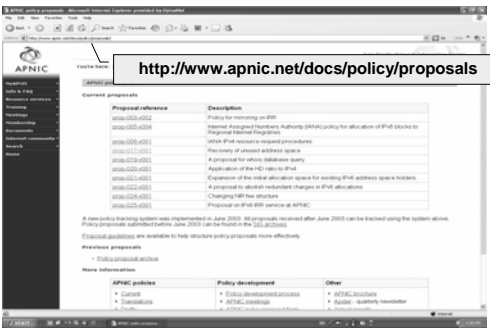
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## Where to find APNIC policy proposals



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## Review today's tutorial



- We reviewed:
  - Dynamic of participatory decision making process
  - APNIC policy development process
  - Tools to participate OPMs
  - Case studies – how policy evolves
  - Recent policy updates

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## Discussion



- *What will encourage people to be more actively involved with the policy making process in the AP region?*



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**Thank you!**

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**Supplementary Reading**

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**Training material**

- Today's training material will be made available at:

<http://www.apnic.net/training/recent/>

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## Introduction

### Regional Internet Registry web sites

- APNIC:  
<http://www.apnic.net>
- ARIN:  
<http://www.arin.net>
- LACNIC:  
<http://www.lacnic.net>
- RIPE NCC:  
<http://www.ripe.net>

### APNIC past meetings

<http://www.apnic.net/meetings>

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## Introduction

### APNIC members

<http://www.apnic.net/members.html>

### Membership

- Membership procedure  
<http://www.apnic.net/membersteps.html>
- Membership application form  
<http://www.apnic.net/apnic-bin/membership-application.pl>
- Membership fees  
<http://www.apnic.net/docs/corpdocs/FeeSchedule.htm>

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## APNIC Mailing Lists

- **apnic-talk**
    - Open discussions relevant to APNIC community & members
  - **apnic-announce**
    - Announcements of interest to the AP community
  - **sig-policy**
    - IPv4 and IPv6 allocation and assignment policies
  - **global-v6**
    - Global IPv6 policy mailing list
- subscribe via <majordomo@apnic.net>
- archives:  
<http://ftp.apnic.net/apnic/mailling-lists>  
[http://www.apnic.net/net\\_comm/lists/](http://www.apnic.net/net_comm/lists/)

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## APNIC policies

- APNIC major policy documents  
<http://www.apnic.net/docs/>
- APNIC policy development process  
<http://www.apnic.net/docs/policy/dev/>
- APNIC policy proposals  
<http://www.apnic.net/docs/policy/proposals/>

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