



# APNIC Open Address Policy Meeting

*Special Interest Group Session*

March 2nd, Korea, Seoul



# Problem Definition

## *Implementation of Internet Resource Leasing Policy*



# Motivation and Background

## Leasing policy

- Contained within new APNIC policy document
  - APNIC-076, section 7.2
  - <http://www.apnic.net/docs/add-manage-policy.html>
  - Specific details later
- Provides mechanism for
  - Management of resource allocations
  - Development of resource management policies
- Not yet implemented



# Motivation and Background

## Historically

- Allocations made on unclear basis
  - SRI-NIC, InterNIC
  - RIRs to date
- Specific 'title' to resources unclear
  - Default assumption is 'freehold title'
    - i.e. 'ownership' of resources
  - New policy clarifies 'leasehold title'
    - i.e. occupation or 'custodianship'



# Motivation and Background

‘Freehold title’ implies...

- Ability to sell and transfer
  - Contrary to current management policies
- Applying new policy to old allocations is difficult or impossible
  - Detrimental to correct resource management
- Legal interpretation
  - Court rulings likely to assume property law
  - Few precedents (if any)



# Current Status

## APNIC Members

- Allocations are a membership service
  - 'Title' status previously ambiguous
- Expiry of membership
  - Withdrawal of resources will follow
    - May be challenged in future under 'freehold title' claim

## Non-Members and historical allocations

- *No agreement of any kind*



# Current Status

## ARIN

- Allocations withdrawn on lapse of membership agreement
  - Registration Service Agreement separate from Membership Agreement
- Principles of leasing agreed but not formalised in policy

## RIPE NCC

- Similar to ARIN
- No agreements for non-members



# Current Status

## APNIC Policy document

- <http://www.apnic.net/docs/add-manage-policy.html>
- Resources allocated on 'lease' basis
- Duration limited (normally 1 year)
- Lease conditions set out in documents
- Leases renewed automatically
  - According to current policies/conditions
- Lease policies/conditions may change
  - By consensus of APNIC members, of course!





# Discussion

## Subjects of lease

- Specific resources
  - IPv4/v6 address blocks, AS numbers/ranges
- Specific organisation
  - Can be APNIC member or non-member
- Specific duration, and other conditions

## Lease renewal

- No need to reapply to address space lease
- Automatic renewal, by default.



# Discussion

## Lease duration

- Short enough to effect policy changes within a reasonable timeframe
- Long enough for easy administration

## Lease conditions

- Compliance with current policies
- New conditions (policy changes) become active on renewal of lease



# Discussion

## Future: Resource certification

- Use of industry-standard certification system to represent resource leases
  - eg X.509 Attribute certificates
  - Provide authorisation for use of resources, within generalised certification framework
  - Consistent with APNIC CA project
- Discussed during security SIG



# Conclusions

## New leasing system...

- An important formal step in development of resource management framework
  - Mechanism for achieving common goals, as expressed in agreed registry policies
- Not a fundamental change in policies or resource management practice
  - No technical change involved
  - Requires administrative support only
  - Possible future extension to support authorisation



Questions?