

# Overview of Policy Proposals

Policy SIG

Wednesday 31 August 2011



# Proposals under Discussion

- **prop-096:** Maintaining demonstrated needs requirement in transfer policy after the final /8 phase
- **prop-098:** Optimizing IPv6 allocation strategies (simplified)
- **prop-099:** IPv6 Reservation for Large Networks
- **prop-100:** National IP Address Plan - Allocation of country-wide IP address blocks

# prop-096 Maintaining demonstrated needs requirement in transfer policy after the final /8 phase

Problems this proposal aims to address:

- APNIC is the only RIR that does not require a demonstrated need for transfers.
- Other RIRs are reluctant to recognize any inter-RIR transfer policy with APNIC.

# prop-096 Maintaining demonstrated needs requirement in transfer policy after the final /8 phase

Proposed solution:

- It is proposed that recipients of transfers be required to justify their need for IPv4 address space.

# prop-098 Optimizing IPv6 allocation strategies (simplified)

Problems this proposal aims to address:

- LIRs feel they must fit their entire subscriber base in a single /32.
- Network outages caused by bit math errors. This will lead to disaggregation.
- The HD ratio leaves much to be desired as an address administration tool.

# prop-098 Optimizing IPv6 allocation strategies (simplified)

Proposed solution:

- Utilization be measured in 'Provider Allocation Units' - smallest reassignment unit
  - 75% or more utilization, or
  - One or more facilities has reached a 90% utilization and no blocks available to expand

# prop-098 Optimizing IPv6 allocation strategies (simplified)

Proposed solution:

- Allow LIRs to request nibble-aligned blocks of any size greater than or equal to /36
  - Default minimum is /32
  - Maximum to accommodate 5 years
  - Subordinate LIR block count as fully utilized



# prop-098 Optimizing IPv6 allocation strategies (simplified)

Proposed solution:

- Subsequent allocations expand to the next nibble – existing allocation can be re-sized
- Allocation shall not exceed a /16, but, a provider may receive multiple /16s to meet justified needs
  - LIR is ‘encouraged’ to vacate their old allocations



# prop-099 IPv6 Reservation for Large Network

Problems this proposal aims to address:

- Slow start policy allocates /32 then reduces the bit mask one bit at a time
- This causes fragmentation and complexity in large networks with POPs growing at different rates.
- IPv6 Policy does not take into account long-term (up to 10 years) future growth.

# prop-099 IPv6 Reservation for Large Network

Proposed solution:

- Multiple prefix request
  - Separately justified (Prop-083)
- Subsequent allocations made within a reserved space as:
  - Extensions to existing prefixes and/or
  - New prefixes

# prop-099 IPv6 Reservation for Large Network

Proposed solution:

- Reservation request for projected network growth up to 10 years
  - Long-term network plans
  - Environmental factors

# prop-099 IPv6 Reservation for Large Network

Proposed solution:

- Reservation expires after 2 years unless re-justified
  - Allocated prefixes registered in whois
  - Reservation documented separately

# prop-100 National IP Address Plan - Allocation of country-wide IP address blocks

Problems this proposal aims to address:

- APNIC policy does not currently allow address blocks to be allocated at the economy level
- This proposal calls for adequate IPv6 address space per economy be reserved for future allocations to organizations and stakeholders within that economy.

# prop-100 National IP Address Plan - Allocation of country-wide IP address blocks

Proposed solution:

- Analysis and Projection of Requirements
- Reservation of the IPv6 address space for different economies by APNIC

Thank you

