

# A Proposal to Modify the Criteria for Subsequent Allocations to Cable or DSL Services



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# Current Policy

- The subsequent allocation issue is addressed by APNIC guidelines for IPv4 allocation and assignment requests, Sec. 10.2
- The following information is requested from ISP for subsequent allocation:
  - Headend information specifying the number of CMTS devices planned per headend;
  - The projected number of subscribers within 3 months;
  - Growth rate based on average growth per month over past three months
  - Projected number of subscribers within 12 months (if the projection is significantly higher than that predicted by the growth rate, then an additional explanation will be required); and
  - Purchase receipts for equipment (if requested by APNIC or the NIR).

# Problem

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- The criteria described in the APNIC Guideline takes into account only the number of subscribers, which may not fully reflect the actual need

# ADSL Access Market in Taiwan

- ADSL access has managed to acquire the major share of broadband access market in Taiwan by penetrating small/medium business, SOHOs and residential consumers
- More subscribers are ready to turn on their 2nd computer due to ISP's vigorous marketing campaign of assigning multiple IPs
- The result, HIGHER IP/subscriber ratio than current 1:1 convention
- Cable market meets the same situation especially for SOHOs and residential consumers



# IP Assignment Policy of Major ISPs in Taiwan

ISP	ADSL Bandwidth	number of IP addresses assigned to a subscriber
Hinet	512K/64K	4 dynamic IP addresses
	1.5M/64K	same as above
	1.5M/384K	same as above
	3M/512K	8 dynamic IP addresses
Seednet	512K/64K	1 static AND 4 dynamic IP addresses
	1.5M/64K	same as above
	1.5M/384K	1 static AND 9 dynamic IP addresses
	3M/512K	same as above
So-net	512K/64K	1 static OR 8 dynamic IP addresses
	1.5M/64K	same as above
	1.5M/384K	same as above
	3M/512K	same as above



# Case Study

- The IP utilization of ADSL service had exceeded 80% before Seednet announced the “1 static and 4 dynamic IPs (1S4D)” policy
- Up to now, 80% of subscribers opt for the 1S4D policy, and the number keeps growing
- System log shows 20% to 30% of subscribers turn on their 2nd PC and the number is still growing
- Seednet must reserve 1 static IP for each 1S4D subscriber. Current 1:1 convention leaves no room for dynamic IP maneuver
- Ratio of IP/subscriber was 1.2:1 by the end of 2003, exceeding the 1:1 convention already
- Estimated ratio in 2004 is 1.5:1, in accordance with expected growth



# Suggestion

- Sufficient amount of address space should be allocated to ISP which provides supporting information
- Criteria for subsequent allocations should be more flexible to accommodate the changing need of ISPs based on the projected number of address space consumed by subscribers within 6 months

# Proposal for Criteria modification

- In addition to number of subscribers, the following may be considered as supporting information as an option:
  - Track record of IP utilization over past three months (e.g., RADIUS/DHCP server log)
  - Number of DSL/Cable circuits subscribed over past three months (supplied by the fixed network provider)
  - Projected number of subscribers within six months
  - Projected number of IP addresses consumed by subscribers at peak time



# Thanks !

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