2009-2: Depleted IPv4 reserves

2009-2: The Problem Statement

- As we near IPv4 address exhaustion, there is a risk that many organizations will be denied resources by a large, last minute request.
- Lack of predictability and uncertainty don't benefit the community.
- In addition to normal large requests, we may see a number of organizations accelerating legitimate requests to get in before exhaustion.

2009-2: Statistics

- 1,993 organizations were issued IP space in 2006 and 2007. Of these allocations 41% of the applicants received less than a /20.

- On the opposite end, 82 organizations received large blocks.

- The last /9 of IPv4 space cannot possibly meet the needs of these 82 organizations, but could provide predictability for 2000+ smaller requests.

2009-2: The Proposal

Add the following section to the NRPM:

4.1.8 Depleted IPv4 reserves

A limit will be applied to all IPv4 address requests when ARIN's reserve of unallocated IPv4 address space drops below an equivalent /9. When this happens, an ISP or End User may receive up to a single /20 within a six month period. This restriction will be lifted in the event the reserve of unallocated IPv4 address space increases to an equivalent /7.

2009-2: Rationale

- The goal of the /9 entry threshold is to find a balance between the needs of organizations requiring space, and avoiding premature restrictions on Internet growth.
- By putting a six month window on the maximum allocation, the remaining IP space could provide at least one year of predictability in still being able to obtain an IPv4 address allocation.
- The goal of the /7 exit threshold is to ensure that we stop rationing once IPv4 addresses become abundant once again, while avoiding a situation where we cycle in and out of rationing.

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Questions/Comments?