

# 4-Byte AS number registry Policy Proposal

**[ARIN Proposal 2005-9 Rev-1]**

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# 32-bit AS number registry

- A policy proposal for ARIN to assist in the general transition to the use of 32 bit AS numbers
- Essential attributes of this policy:
  - Ease of transitional arrangements
  - Predictability of registry actions
  - Clear dates in terms of registry actions

# Why Now?

- Triggered by the completion of the IETF 4-Byte AS Number proposal\* to Proposed Standard publication and predictions of effective exhaustion of the 16-bit AS number pool\*\*
- Proposes to provide a 3 year period of transition to support piecemeal testing and deployment of revised BGP versions that support 32-bit AS numbers

\* draft-ietf-idr-as4bytes-12.txt

\*\* variously estimated to occur between 2010 and 2013

# Assumptions

- The IANA actions as specified in the IETF 4-Byte AS Number document will be completed by 1 January 2007
- ARIN will have ensured that its data systems are 32-bit 'clean' for the AS Number registry by 1 January 2007

# The ASN Registry Proposal

Proposed AS assignment transition in 3 phases:

1. Commencing on **1 January 2007** the registry will process applications for *32-bit only AS numbers*<sup>1</sup> upon specific request. *16-bit only AS numbers*<sup>2</sup> will be assigned by default
2. Commencing on **1 January 2009** the registry will assign *32-bit only AS numbers*<sup>1</sup> by default. *16-bit only AS numbers* will be assigned upon specific request<sup>2</sup>
3. Commencing on **1 January 2010** the registry will assign from the *extended AS number space*<sup>3</sup>

1 – AS numbers in the range 65,536 – 4,294,967,295

2 – AS numbers in the range 0 – 65,535

3 – AS numbers in the range 0 - 4,294,967,295

# This proposal does NOT:

1. Introduce any extensions to the private AS number space
2. Define any documentation-use AS numbers
3. Advocate the continuation of any 2-byte AS number 'legacy pool' beyond 1 January 2010
4. Create policies that extend beyond 1 January 2010
5. Require ARIN to undertake any RIR-coordinated actions
6. Define a different AS number allocation practice for registry operations