

draft-wilson-class-e-01.txt

Redesignation of 240/4 from "Future Use" to
Limited Use for Large Private Internets"

What is 240/4

- Formerly known as “Class E”
 - 16 /8 blocks
 - As defined in RFC1060...

Designation		Block	Range	% of Total
A	Class A	0/1	0/8 - 127/8	50%
B	Class B	128/2	128/8 - 191/8	25%
C	Class C	192/3	192/8 - 223/8	12.5%
D	Multicast	224/4	224/8 - 239/8	6.25%
E	Reserved / Experimental	240/4	240/8 - 255/8	6.25%

- Status...
 - Reserved for (undefined) “Experimental” use
 - No public uses have been agreed
 - No current proposals known

What is RFC 1918

- Private address space
 - <http://www.ietf.org/rfc/rfc1918.txt>

Range	Size
10/8	1 x /8
172.16/12	16 x /16
192.168/16	1 x /16

- Total of 1.066 /8 blocks
- Too small for today's large private network deployments
- For larger private networks, public space must be used

Why this proposal

- RFC1918 address space is too small
 - Some applications require more than /8
- Avoid allocating public space to private network applications
- 240/4 is unused and may as well be used
 - Unlikely that other uses will emerge within lifetime of IPv4
- Note: this is an I-D, not an address policy proposal
 - Since 240/4 is not “RIR space”

Alternatives for 240/4

- Public unicast
 - Expensive global/universal transition process (similar cost/complexity to IPv6 transition)
- Subdivision for other purposes
 - No other purposes generally agreed
 - Long discussion/debate will prevent any useful outcome
- Leave it “Reserved”
 - Missed opportunity to make some productive use of the space

Caveats

- Most of installed base will not handle these addresses
 - Software/hardware upgrades required for anyone wanting to use 240/4
- Timeline for vendor support
 - By some estimates >2 years
 - Some vendors may never support it
- Perceptions
 - That it will “just work” like RFC1918 space
 - That it will delay IPv6 deployment

What needs to be done

- IETF consensus on proposal
- Publicise availability
- Pressure vendors to support it
- Thanks to:
 - Geoff Huston, George Michaelson, APNIC
 - David Conrad, Andy Davidson and Robert Seastrom

Questions?