Subject: IPv4 - IPv6
Posted by Zion on Tue, 08 Feb 2011 09:44:49 GMT
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So it turns out we're running terribly low on IPv4 combonations, and the port to IPv6 is on the way. What's going to happen to the Renegade servers?

I presume that the FDS wasn't programmed to compensate for IPv6 connections, and once ISP's port over (mid-late 2012) that's what everyone will be using to connect.

I assume common bots, like Brenbot and NightRegulator (maybe) will probably be ported over to use them, but they just just run alongside the FDS don't they? Are we planning to release Scripts 4.0 with a new server version to compensate for that? What about the older, less popular servers that don't keep up to date?

What do you think about the whole idea?

Subject: Re: IPv4 - IPv6
Posted by Gen_Blacky on Tue, 08 Feb 2011 10:50:46 GMT
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there is no more ip4 address left http://www.ghananewsagency.org/s_science/r_25155/. Get ready for ipv6 4 million address for every person in the world without subnetting. ipv6 hasn't started to really roll out yet there are some people using ipv6 addresses but not very many.

Subject: Re: IPv4 - IPv6
Posted by Caveman on Tue, 08 Feb 2011 11:05:14 GMT
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Yeah I read about this a few days ago

Toggle Spoiler
The central pool of net addresses is down to its last 5 'blocks' of IPv4 addresses, with stocks estimated to run out this Autumn.

According to the BBC, the organisation that takes care of net addresses in the Asia Pacific region, APNic, has put in a request for another batch of addresses as it has almost run out of its current stock of IPv4 addresses. When these have been dished out, there will apparently only be 5 blocks left, composed of 16 million addresses each.

It is widely predicted that the remaining stock of IPv4 addresses will run out in Autumn, although 'godfather of the net' Vint Cerf has warned it could be as soon as late Spring.

The Internet Corporation for Assigned Names and Numbers (ICANN) reportedly confirmed the number of remaining blocks and said they will be shared out pronto between regional agencies.

According to the Beeb, a ceremony celebrating the handing over of the final blocks of addresses, known as /8s, will happen later next month.

IPv4 has not had a bad innings as its 4.3bn addresses were apparently drawn up in the 1970s, but due to the rapid growth of the net, they will almost certainly all be used up this year.

The replacement IPv6 scheme will make trillions of new addresses available but there are fears that a move towards wide spread adoption is progressing very slowly.

Axel, Pawlink, MD of Ripe, which takes care of net addressees in Europe told the Beeb: "The future growth and innovation of the internet is now reliant on deployment of IPv6. It is now more vital than ever that ISPs, organisations, governments and all other internet stakeholders begin to deploy IPv6

Subject: Re: IPv4 - IPv6
Posted by danpaul88 on Tue, 08 Feb 2011 13:54:07 GMT
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We have known this was coming since the 90's, IPv6 was finalised in 1998, yet more than 12 years later there are very few ISPs supporting it and even less software.

I suspect anything relying on IPv4 connectivity is going to require IPv4 thru IPv6 tunneling in the future, which is the opposite of the IPv6 thru IPv4 we are seeing at the moment.

I wish my damned ISP would hurry up and support IPv6 natively rather than forcing everyone to use tunnelling...

EDIT: Oh, and Caveman, your quote is out of date. The last 5 blocks have already been given out to the RIRs

http://arstechnica.com/tech-policy/news/2011/02/river-of-ipv4-addresses-official ly-runs-dry.ars

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Subject: Re: IPv4 - IPv6
Posted by Zion on Tue, 08 Feb 2011 13:54:08 GMT
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Google, Yahoo, Facebook etc will be doing a 24hr test of IPv6 on the 8th of June to route out any major flaws with it. After that, it's up to the ISP's to make the change.

Subject: Re: IPv4 - IPv6
Posted by EvilWhiteDragon on Tue, 08 Feb 2011 14:36:46 GMT
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I suppose Renegade will indeed need IPv6 to IPv4 tunneling, but I guess this problem won't arise for another year to perhaps two years. It's very uncertain how Renegade will survive those years, so I am not YET worried about that.

Anyway, it is possible to make it work without hacking all of Renegade.

Subject: Re: IPv4 - IPv6
Posted by CarrierII on Tue, 08 Feb 2011 18:12:37 GMT
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I was going to say, I thought you could just tunnel older Ipv4 applications through Ipv6 without the applications needing to know...

Subject: Re: IPv4 - IPv6
Posted by Caveman on Tue, 08 Feb 2011 18:15:50 GMT
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@ DP88 I read that a few days ago on hexus news..

But yeah it would now seem out of date

Subject: Re: IPv4 - IPv6
Posted by _SSnipe_ on Wed, 09 Feb 2011 07:33:01 GMT
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So, were running out of ip addresses....

Subject: Re: IPv4 - IPv6
Posted by danpaul88 on Wed, 09 Feb 2011 08:44:40 GMT
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(SSnipe) -BLU3Y3Z- wrote on Wed, 09 February 2011 07:33So, were running out of ip addresses....

We have *run out* of IPv4 addresses. All that's left now is the RIRs working inventory which will not last long. Estimates predict that;

APNIC (Asic Pacific) will run out in 3 - 4 months

RIPE (Europe, Middle East, Former Soviet Union) will run out by the end of the year
ARIN (North America) will run out early next year
AfriNIC (Africa) and LACNIC (Latin America & Caribbean) have a few years left based on their current low rate of usage

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Subject: Re: IPv4 - IPv6
Posted by _SSnipe_ on Wed, 09 Feb 2011 09:08:30 GMT
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danpaul88 wrote on Wed, 09 February 2011 00:44(SSnipe) -BLU3Y3Z- wrote on Wed, 09 February 2011 07:33So, were running out of ip addresses....

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crazy, so IPv6 can hold more?

Subject: Re: IPv4 - IPv6
Posted by EvilWhiteDragon on Wed, 09 Feb 2011 12:18:10 GMT
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danpaul88 wrote on Wed, 09 February 2011 09:44(SSnipe) -BLU3Y3Z- wrote on Wed, 09 February 2011 07:33So, were running out of ip addresses....

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Well, there are no large IP blocks available anymore, but that doesn't mean you can't get a new IP anymore. it means that Now RIPE and such have a supply and once that's done, ISP's will probably have more IP's left unused which they easily can use.

For home users there isn't much of an immediate issue, as a lot of ISP's are not even running full IPv6 stack yet. Even if they would, they would probably use IPv4 on their own nets (so to the end-user) for quite a while as a lot of modems don't support IPv6 yet.

Subject: Re: IPv4 - IPv6
Posted by Zion on Wed, 09 Feb 2011 15:09:47 GMT
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(SSnipe) -BLU3Y3Z- wrote on Wed, 09 February 2011 09:08danpaul88 wrote on Wed, 09 February 2011 00:44(SSnipe) -BLU3Y3Z- wrote on Wed, 09 February 2011 07:33So, were running out of ip addresses....

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crazy, so IPv6 can hold more?

Address limits:

IPv4 = 4,294,967,296 (4.29 billion) unique combonations
IPv6 = 340,000,000,000,000,000,000,000,000,000,000,000,000 (340 undecillion) unique combonations

Subject: Re: IPv4 - IPv6
Posted by danpaul88 on Wed, 09 Feb 2011 15:27:26 GMT
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EvilWhiteDragon wrote on Wed, 09 February 2011 12:18danpaul88 wrote on Wed, 09 February 2011 09:44(SSnipe) -BLU3Y3Z- wrote on Wed, 09 February 2011 07:33So, were running out of ip addresses....

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Thats basically what I said, the /8s are all allocated to the RIRs, so all thats left is their working inventory (/16s etc)

Subject: Re: IPv4 - IPv6
Posted by a000clown on Sat, 12 Feb 2011 00:23:59 GMT
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With NAT, dynamic IP pooling and companies hording millions of unused addresses... IPv4 isn't going away anytime soon.

Not to mention, when IPv6 becomes standard for "new" customers and old customers update their hardware (thus transitioning from IPv4 to IPv6) this will actually free up old IPv4 addresses for reuse.

I don't think we'll ever truly "run out" of IPv4 addresses, we'll just slowly (very very slowly) decide to switch on our own terms as we replace legacy hardware with new stuff.
It will mostly be corporations that take the longest, as always.

Subject: Re: IPv4 - IPv6
Posted by Zion on Sat, 12 Feb 2011 08:03:04 GMT
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Yeah, it's also a case of software related issues that make socket connections. Currently (unless the programmer designed IPv6 intergration too) most programs out there will only listen for IPv4 connections (without running tunneling software). This will break things quite drastically if they're not updated.

Subject: Re: IPv4 - IPv6
Posted by EvilWhiteDragon on Sat, 12 Feb 2011 11:46:57 GMT
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a000clown wrote on Sat, 12 February 2011 01:23With NAT, dynamic IP pooling and companies hording millions of unused addresses... IPv4 isn't going away anytime soon.

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It will mostly be corporations that take the longest, as always.
You're not thinking about BGP tables. You can't divide the IP's too much, as this would create

terribly large "maps" for routers to route the packets through. Because of this it's not exactly easy to move or sell IPv4 addresses.
Besides the amount of IP addresses there are other advantages, like more efficient (large) packets (less overhead) and it doesn't need DHCP, because the protocol creates an IP based on base IP (the public part) and the MAC address of the device.