

World IPv6 Day on JANET

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GEANT Access Port Managers Meeting
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What was World IPv6 Day?

- A day where content providers made their content available over IPv6.
- NOT a day for widespread deployment of IPv6 on access networks.
 - Change one thing at a time
- Measure the “brokenness” that content providers were afraid would stop people reaching their content when they added an AAAA record to the DNS
 - Predominantly 6to4 and Teredo related

What did we do in the run-up?

- Some users might have significant problems on the day.
- Education and awareness
 - Blog articles, presentations.
 - Look out for systems with Internet Connection Sharing enabled.
 - Look out for Macs that treat 2002:: $/16$ addresses with equal preference to “native” connectivity.

22,000 Users

- ...then we have an email from <a major content provider>.
 - “*We've been doing some research on which networks we think have the highest amount of IPv6 brokenness [...]*”
 - “*...and unfortunately JANET seems to have one of the highest levels of brokenness (in the top 10 worldwide in terms of number of users affected).*”
 - “*We have an estimate of **approximately 22,000 users** in JANET (approx 1.5% of users) **with broken IPv6 connectivity** (that is, a >15 second delay in getting to [our] services).*”

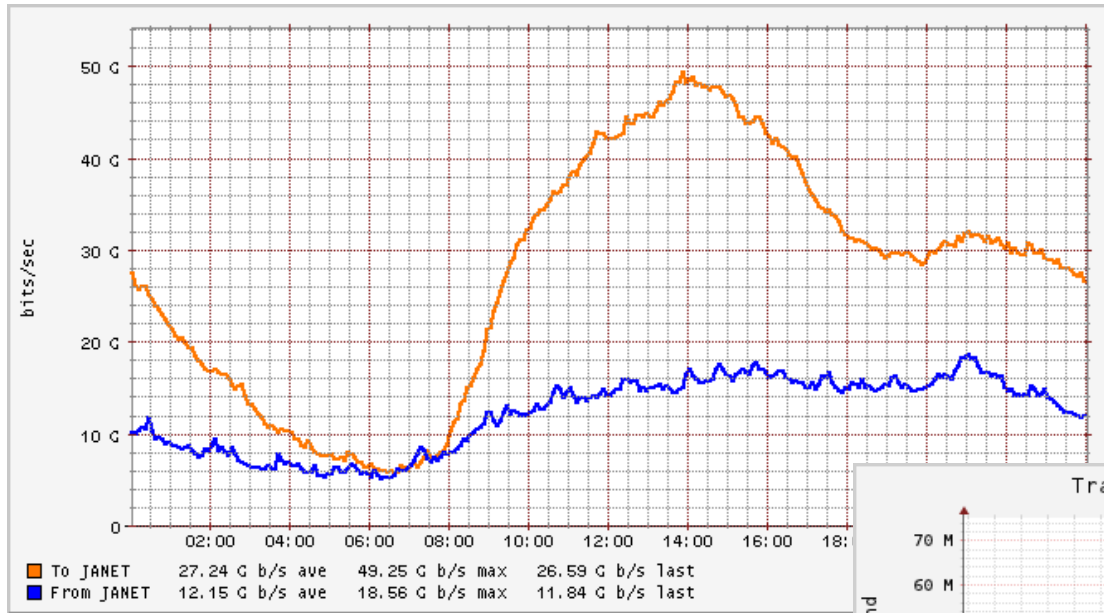
22,000 Users

- Obtained a list of the worst-affected sites
- Got in touch with each of them to warn their helpdesk
- ...another blog entry

What didn't we do in the run-up?

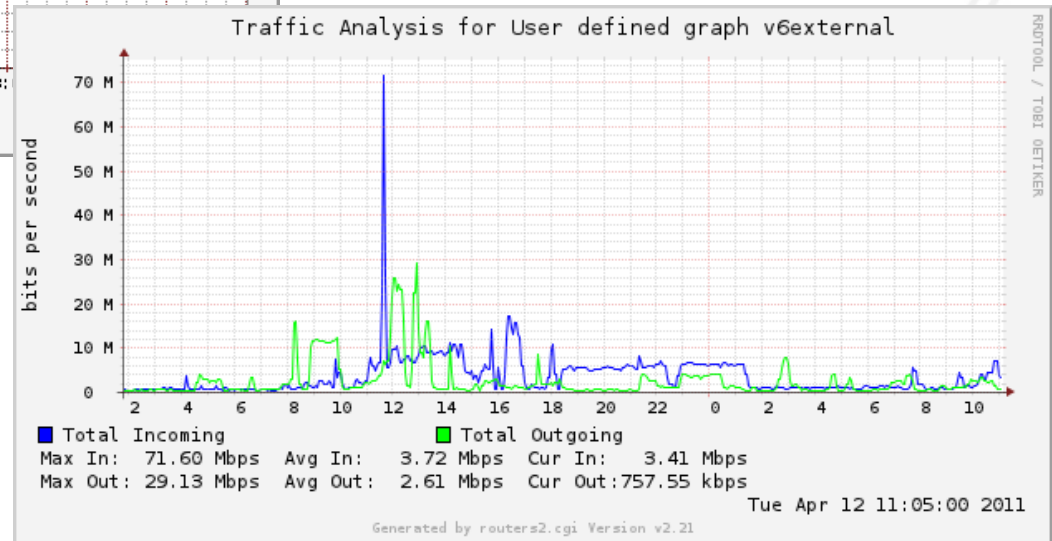
- Had to fend off some wacky ideas from colleagues...
 - Make www.ja.net IPv6 **ONLY**
 - How would people with problems find our contact details?
 - This is not about forcing people to deploy IPv6 on access networks
 - A little game accessible over IPv6 only, “win an iPad”
 - Did I not mention this isn't about forcing people to deploy IPv6 on access networks?

What had we been seeing before W6D?

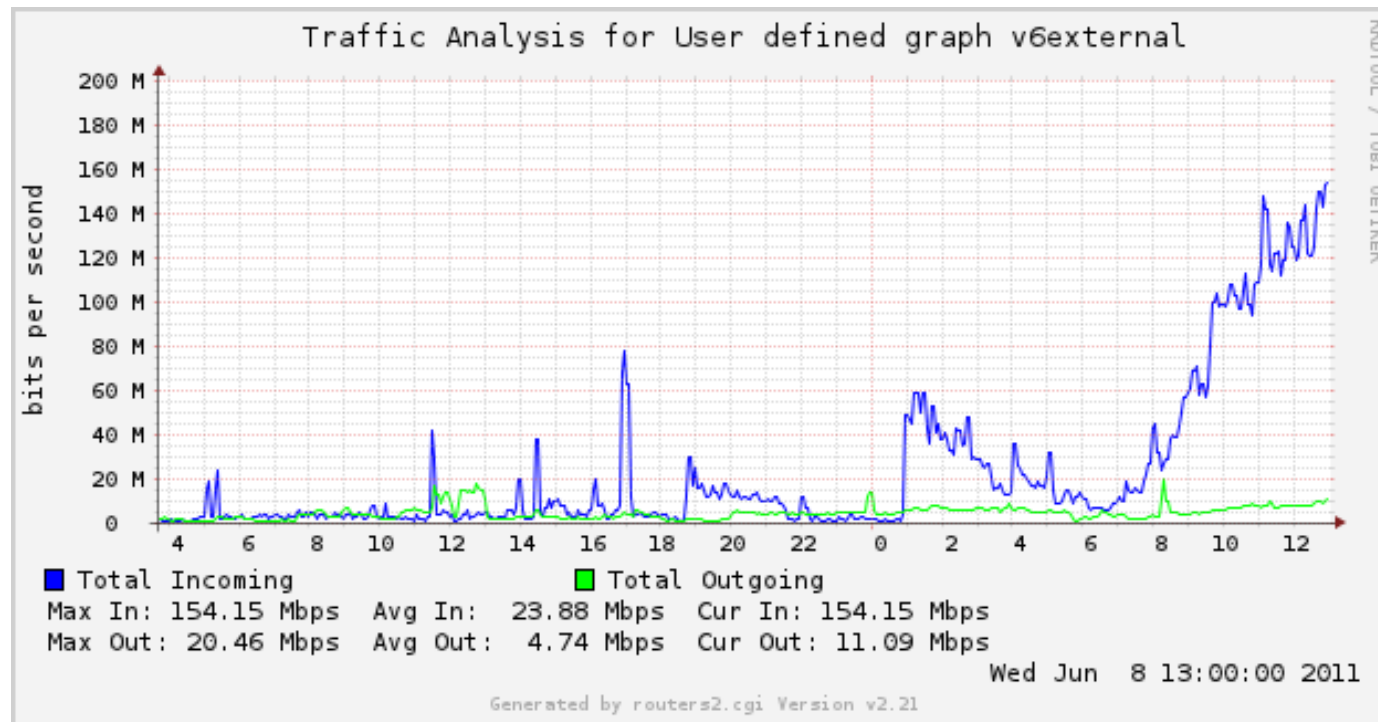


A quiet day in April

- Peak of 0.15%
- Realistically 0.02%



What did we see on the day?

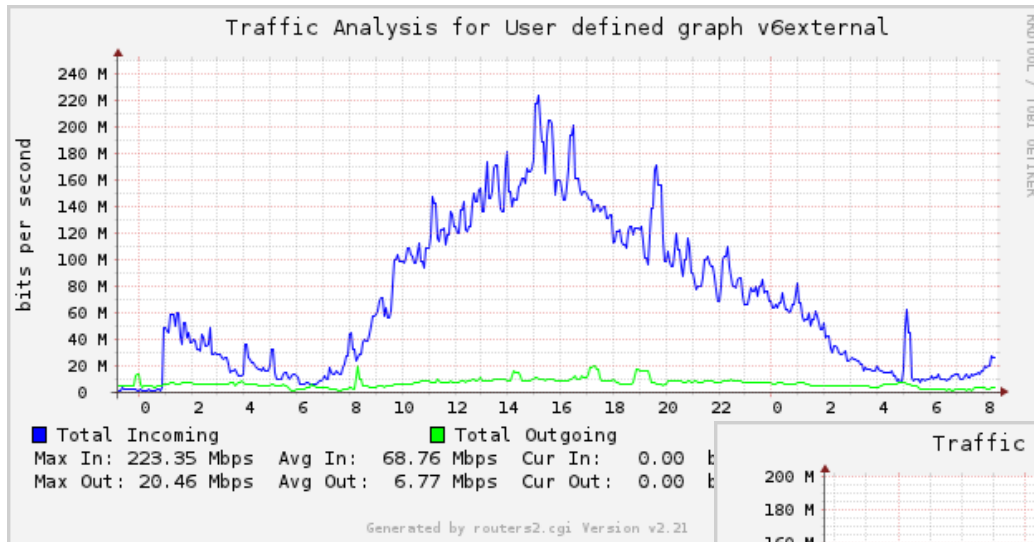


This is starting to look interesting...

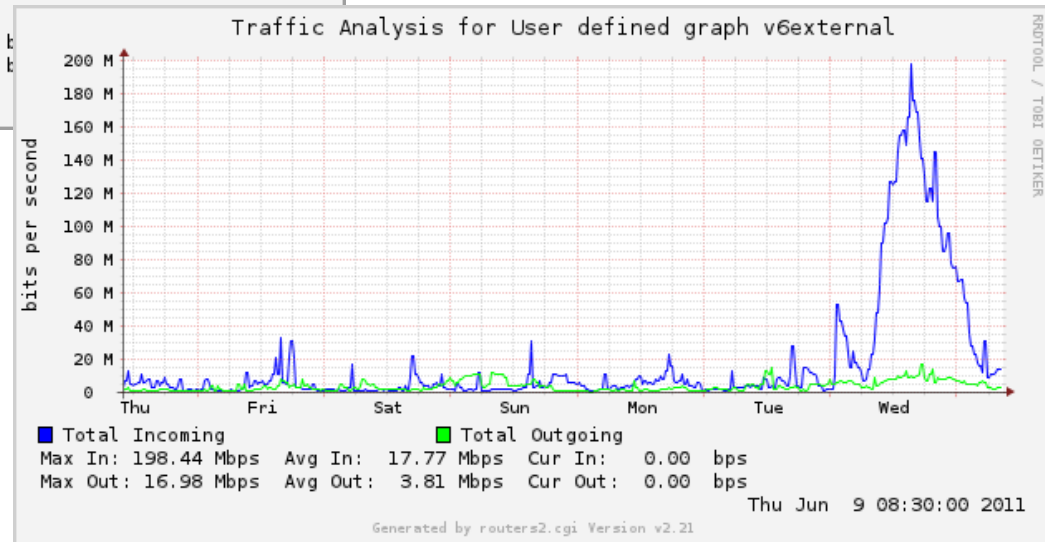
What did we hear on the day?

- No helpdesk calls
 - Well, one, about not being able to reach www.juniper.net
 - ...but they made a mistake with their DNS
- No evidence of 22,000 users with significant problems
 - Could have been misleading testing methodology?

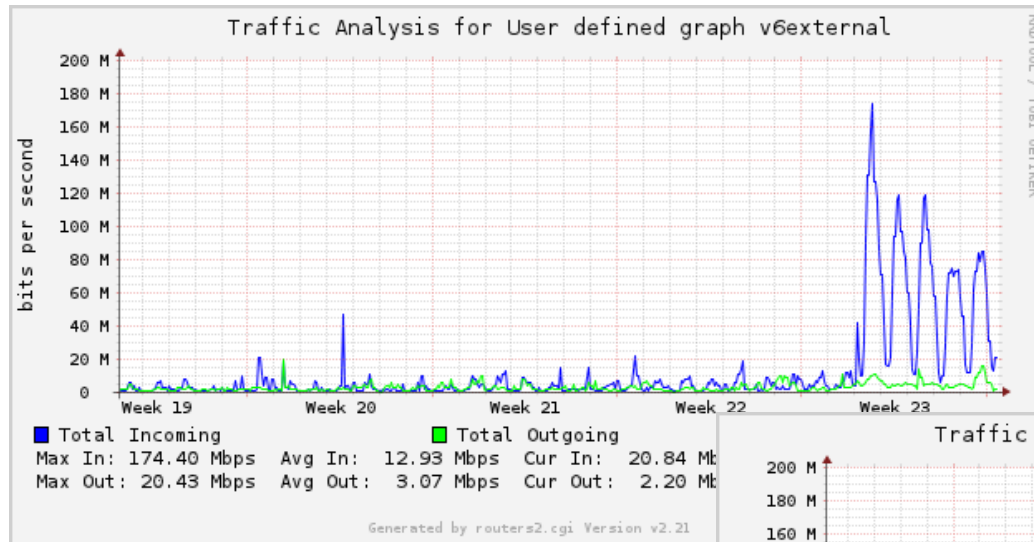
The morning after the World IPv6 Day before...



- 220Mbps!
- 0.3% of 70Gbit/s total
 - >>0.02%!



That was that ... or was it?



- YouTube user content still being served over IPv6
- Some other participants left their AAAAs in

