

IPv6 Testing

Within Native IPv6 GEANT



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First Thing First

- *I work as an IP Engineer in the Wide Area Network Team of FCCN, in Lisbon.*
- *I do mostly IPv6, BGP, IXP, LIR and Testing/Infrastructure work*
- *Common Question: FCCN is the NREN, RCCN is the former name of the network, RCTS is the current name! 😊*

Topics

- *Status*
- *Going for tests over GEANT?*
- *Details on some Ideas*

Status

- *DANTE has done a wonderful job!!!*
- *Only these NRENs are not connected*:*
 - *Carnet (HR)*
 - *Latnet (LV)*
 - *Sanet (SK)*
 - *Cynet (CY)*
 - *University of Malta (MT)*

* *as of 15/09/2003*

Status – Tricky Questions

- *Traffic Levels ;-)*
-- mine are very, very low!
- *NRENs Official WebSites IPv6-enabled*
-- FCCN's isn't!
- *Can we *now* exchange e-mails
between us using (only) IPv6 packets?
(finding the MTA, data transfer, ...)*
-- Do you have a 2001:... MX ? fcn.pt, doesn't!

Going for tests over GEANT?

- *Does it make any sense trying to setup something test-driven over GEANT?*
- *Some NRENs already participating in 6NET, but some aren't!*

The logo for 6net, featuring the word "6net" in a blue, cursive font. The number "6" is stylized with a yellow and blue circular pattern around its top curve, resembling the European Union flag.

Going for tests over GEANT?

- *Testing was discussed on GEANT's IPv6-TF*, but was decided to handover the ideas to TF-NGN*
- *The main idea was to establish some means (a webpage?) for a NREN connecting to GEANT IPv6 to test its newly acquired service*

* <http://www.join.uni-muenster.de/geantv6>

Going for tests over GEANT?

- *The webpage would work as a *small* indexer for IPv6 resources inside the NRENs*

- *Dante would be a good maintainer of this indexer ;-)*

[I would volunteer to help on this, if needed]

Going for tests over GEANT?

– Questions:

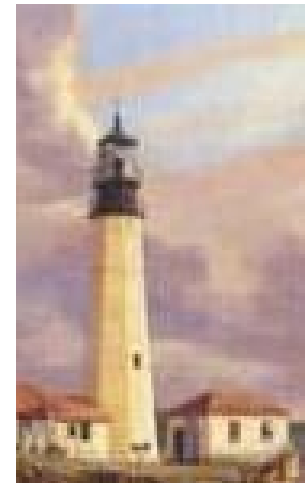
- *Should we try this with only some NRENs missing (see slide 4)?*
- *The already-connected NRENs have tested its IPv6 service properly?*

Well, now for the *DETAILS*...

- *RTTs*
- *Services*
- *Traffic Generation*

RTTs

- *Setup of one Loopback Address to work as a test «beacon» for other NRENs (ASes)*
 - *FCCN: 2001:690::1*
 - *Short/Easy to memorize*
 - *DNS integrated*
- *Objective:*
 - *To measure Roundtrip Times between all native members*
 - *easily*
 - *anytime*



Services

- *Normal day-to-day use services*
- *Provided by NRENs and/or its members*
- *Don't need an extensive list on each NREN*

Services to List – Which?

- *DNS (should be easy)*
- *FTP (probably easy, some security issues though)*
- *WEB (should be very easy)*
- *NTP (see REDIRIS presentation, last tf-ngn meeting)*
- *EMAIL (should be easy, some attention on open relays)*
- *NEWS (is it important? anybody supplying newsfeeds?)*
- *VIDEOCONFERENCING (possibly advanced, see presentation last tf-ngn meeting on gnomemeeting by JOIN)*
- *(more suggestions please)*

Services - Security

- *Should we have https with authentication for accessing the indexer?*
- *There are some known issues about some services*

Traffic Generation

- ***MGEN/MGEN6***
 - *<http://manimac.itd.nrl.navy.mil/MGEN>*
 - *<http://matrix.it.uc3m.es/~long/software/mgen6>*
 - *Easy and Quick Way to Generate Traffic*
 - *«Boost your traffic graphs» ☺*

- ***Generator/Analyzer Hardware***
 - *Spirent*
 - *... ???*

More: RIPE's Test-Traffic Measurements

- *<http://www.ripe.net/ttm>*
- *Do you have a box?*
- *If Yes, Have you enabled IPv6?*
 - *<http://www.ripe.net/ttm/upgrading.html>*



The End...

- E-Mail

- ip6adm@fccn.pt

- helpdesk@fccn.pt



- Links

- <http://www.ip6.fccn.pt> (dual-stack)

- <http://www.dante.net/nep/ipv6>