GN5-1 WP6: TechLab

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GN5-1

Agenda

1.   TechLab - What is TechLab now, would it could become?
2.   Your opinion about it - menti

TechLab now

A set of tools and testing facilities offered by the GN5-1 WP6 Network Technologies team as shared resources and services, in order to provide access to test infrastructures, increase the visibility of innovative solutions, collect information and promote collaboration:

- Global P4 Lab (GP4Lab)
- Network Management as a Service (NMaaS)
- perfSONAR in NMaaS
- SPA/E-Line in NMaaS
- SPA Inventory2 in NMaaS
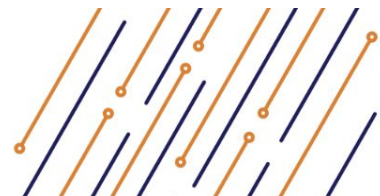
What else we could do with TechLab?

A platform for resource/infrastructure sharing

Previous experience with 100G tests over long distance Bella link (NL, UK, BR) - Raul Lopez (JISC):

- SURF allowed the use of two of their bare metal servers
- GEANT gave the access to their measurement servers
- Cooperation and coordination with RNP in tests

Long time needed to arrange and agree everything (~3 months).

Many actors, different policies, different OS, many meetings, a lot of emails exchanged…

White paper link:
https://resources.geant.org/wp-content/uploads/2023/02/GN4-3_White-Paper_Network-Performance-Tests-Over-100G-BELLA-Link.pdf

Some Examples: NLNOG RING

Friendly 'shell access' - "A point of view outside your network is absolutely essential"

Organizations make their resources - (virtual) machines available to the RING, and gain access on all servers which are part of the RING

Management:

- "you give me access I give you access" principle
- Centralized ansible system for management
- Ring-Admins in charge of software and security updates, installation and user management
- 'zero tolerance' abuse policy
- Toolbox which make use of the ring setup

Participation:

- Organisations: **495**
- RING nodes: **630**
- ASNs: **509**
- Countries: **58**

Participation requirements:

- You are a network operator
- The organisation you work for has BGP routers connected to the "Default Free Zone" and maybe even IXP's
- Your organisation has its own ASN and IP prefix(es)
- You have enable or configure rights on those routers
- You are involved in the networkers community
- You have permission from your organisation to become involved in the NLNOG RING

NLNOG RING

Can we extend TechLab towards resource sharing?

A pool of resources (servers, VMs, network elements,...) shared by the NRENs that would allow doing some experiments/debugging.

I order to have something like this we should:

- Understand the service offered - desired level of integration and commitment (totally best effort, some sort of SLA,...) (WP6)
- Define policies and recommend secure environment and procedures for shared resources (WP6 and NRENs)
- Define reservation mechanisms (WP6)
- Offer some infrastructure resources (NREN)
- Dedicate (a little bit of) staff effort to support this service from the NREN side (NREN)

But **before** all this - does our community see a benefit of such a service at all?

(Let's do a little menti!)

www.menti.com

Use code: 1905 9063

Thank you!

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