

perfSONAR activities in GÉANT Project Work Package 6 Task 3

Ivana Golub, PSNC

1st European perfSONAR Workshop
5-6 June 2019



Overview

- GÉANT Project Overview
- Network Technologies and Services Development Work Package
- GÉANT and perfSONAR
- perfSONAR
- perfSONAR Consultancy and Expertise
- Performance Measurement Platform

GÉANT Project



GÉANT's vision is to ensure equal network access for all scientists across Europe to the research infrastructures and the e-infrastructure resources available to them.



A part of the European Union's Horizon 2020 research and innovation programme

- GÉANT 2020 Framework Partnership Agreement (FPA)
- Grant Agreement No. 731122 - GN4-2



40 partners, 500 contributors

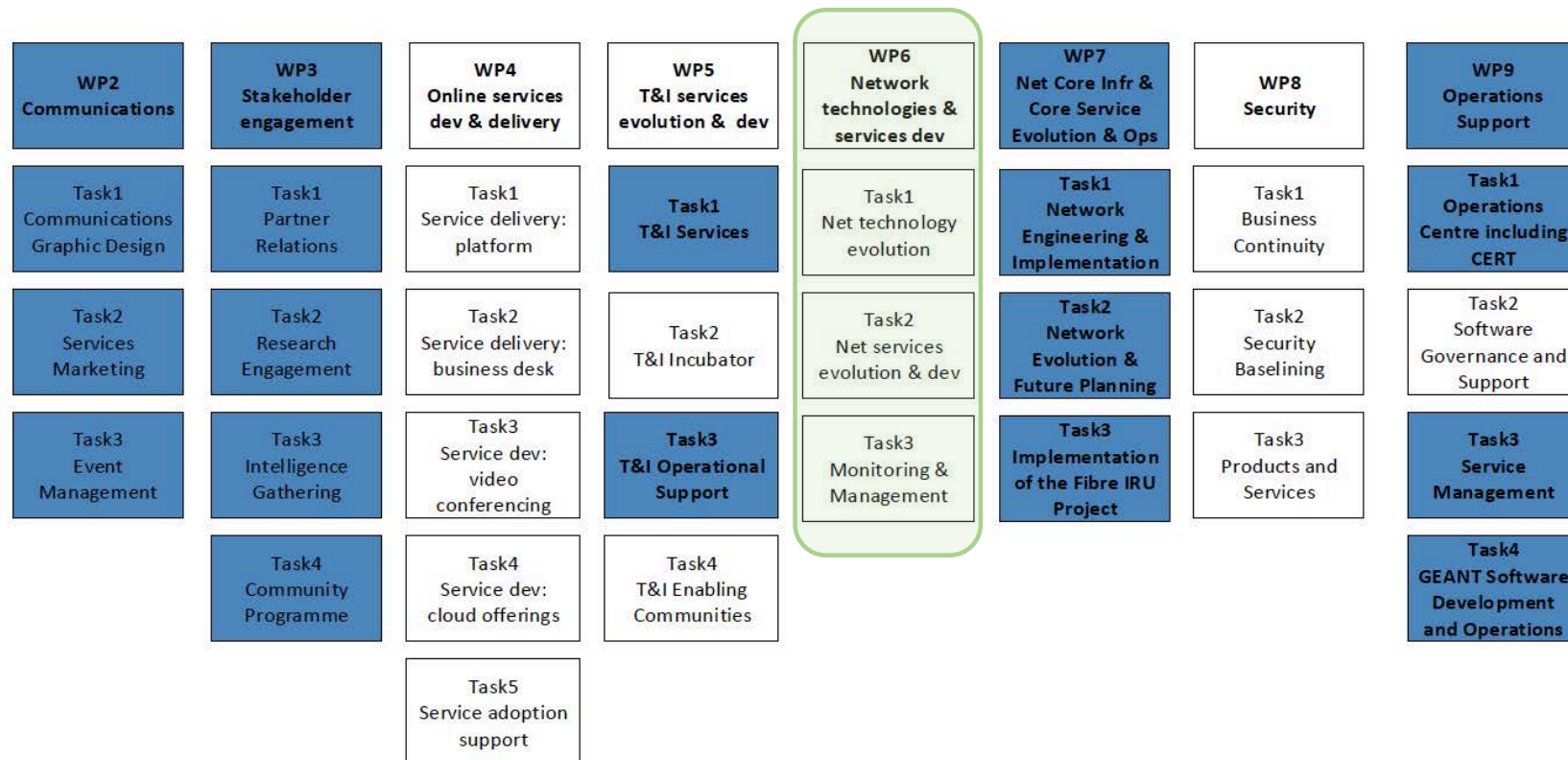


50 M users



GN4-3 starts 1 Jan 2019 as 4 year project

GÉANT Project Structure



Network Technologies and Services Development Work Package

- Project code - Work Package 6 (WP6)
- WP Leaders:
 - **Tim Chown – Jisc**
 - **Ivana Golub – PSNC**
- WP6 budget: > 6,2 mil EUR
- **78** team members from **32** organisations from **23** countries
- 3 Tasks + Management task (Task 0)
 - Task 1: Network Technology Evolution – TL: Xavier Jeannin (Renater)
 - Task 2: Network Services Evolution and Development – TL: Roman Lapasz (PSNC)
 - **Task 3: Monitoring and Management** – TL: Task Leader: Pavle Vuletić (UoB/AMRES)

GÉANT and perfSONAR



- GÉANT contributing to the perfSONAR project
 - Since 2004
 - Working on current perfSONAR products from 2014 onwards
- 1 out of 5 perfSONAR project contributor, along with
 - ESnet
 - Indiana University
 - Internet2
 - University of Michigan
- Current effort: 2 FTE, 6 persons, 4 NREN

Recent and current GÉANT contributions to perfSONAR

- Debian/Ubuntu port
- TWAMP support (and thanks to external contributor)
- Ansible automation (with University of Michigan)
- Security review and improvements
- Using perfSONAR in new network topologies (MD-VPN)
- perfSONAR integration with vendor platforms
- Lookup Service content analysis
- Traceroute visualisation
- Documentation, training and support globally
- Dissemination in the GÉANT area



perfSONAR footprint in Europe



April 2019

perfSONAR Consultancy and Expertise

- Provides support and disseminate knowledge about perfSONAR usage for the GÉANT community
 - Helping to **fit** measurement architectures and infrastructures based on **perfSONAR with the needs of the requesting party**.
 - Providing specific **training** and running workshops on perfSONAR deployment, usage and best practices.
 - Providing **extra support** to assist GÉANT and NRENs deploy and operate perfSONAR, as requested.

PMP: Performance Measurement Platform

- AKA perfSONAR Small Nodes in GÉANT
 - Launched in 2016
 - Initially 20 nodes in NREN and Universities - Europe and Africa
 - ~ 200 EUR per device
- GÉANT project run the perfSONAR infrastructure
- 1 central archive and MaDDash
- Latency, Loss, Trace and Throughput measurements from the pS nodes towards the GÉANT core network

PMP future



- Currently being extended to 50 nodes
- To cover all GÉANT participating NREN (~40)
- Ready to also expand the scope:
 - More diversity in the measurements
 - Different tool set
 - New projects
 - While keeping it a production level service
- <http://perfsonar-smallnodes.geant.org/maddash-webui/>



Thank you

Any questions?

www.geant.org



© GÉANT Association on behalf of the GN4 Phase 3 project (GN4-3).
The research leading to these results has received funding from
the European Union's Horizon 2020 research and innovation
programme under Grant Agreement No. 856726 (GN4-3).

igolub@man.poznan.pl