



perfSONAR implementation in PIONIER

Szymon Trocha (Poznań Supercomputing and Networking Center)
Head of Network Management Center

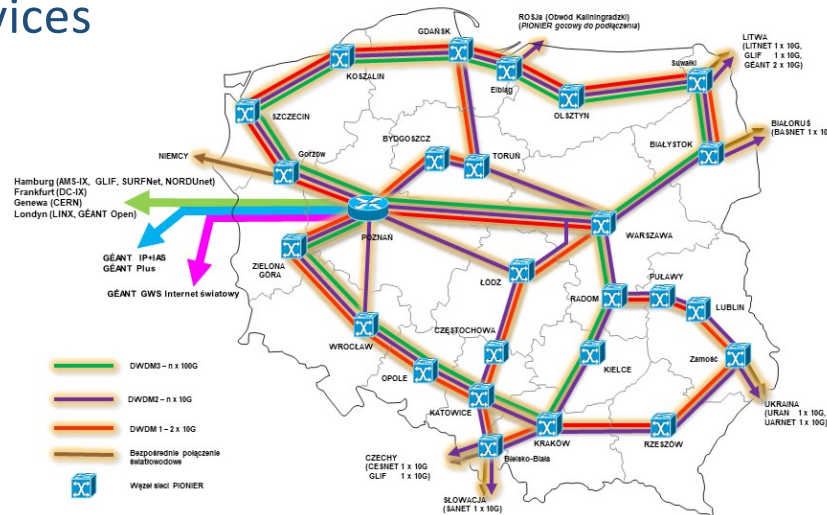
1st European perfSONAR User Workshop, London, May 5, 2019

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PIONIER network

- 21 MANs
- 5 HPCs
- Own fibers
- Optial core
- MPLS
- Multiple services



Why?

- First installation of perfSONAR in PIONIER
- Provide service monitoring infrastructure
- Provide service verification infrastructure
- Combined installation
 - Servers infrastructure
 - Test and utilize network time synchronization setup

How?

- Dell R620 (x2)
 - 64G RAM
 - CPU
 - 10 GEthernet
- `perfsonar-testpoint` bundle



- Central server
 - Storage (esmond)
 - Mesh configuration
 - Visualization (Maddash)

- GPS antennas in PoPs
 - Internal clock synch
 - Internal NTP servers
- Installation and usage experience



Private deployment

- Closed private deployment
 - Tests are running only within PIONIER
 - No external access allowed
 - Enabled access for updates
- LS registration enabled for public visibility

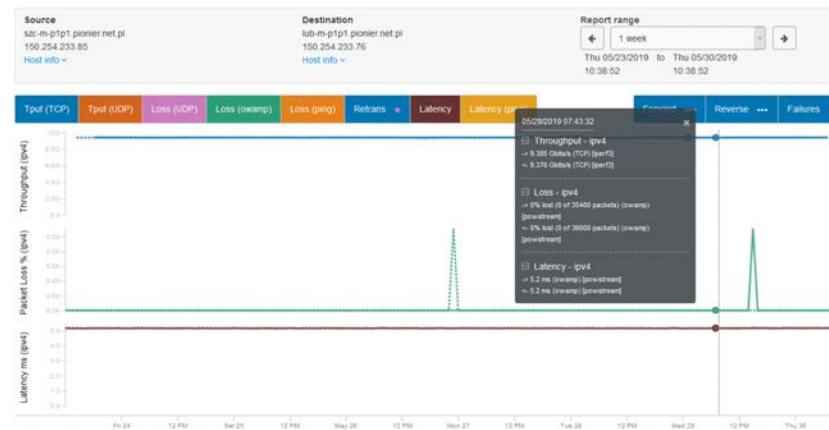


Mesh configuration

- Throughput
 - TCP
 - Every 6 hours
 - 20s duration
 - including 10s omit

- OWD

- All data goes to the central server for storage and visualization



Results

- First experience with large scale mesh
- Ad-hoc service verification in NOC
- GPS synchronization PoC

- Need to think about automation

- Advantages
 - Ongoing project with community support
 - World-wide adoption



Thank you

Any questions?

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