

eduPERT

- we take care of network performance!

Bartek Gajda

7th TF-NOC meeting

12-13 December, 2012

Poznan, Poland

What is PERT ?



PERT –The Performance Enhancement and Response Team

- Virtual organization
- Made of networking experts (often in NOCs)
- Who help end-users diagnose and solve network performance issues
- Exchange knowledge between experts
- Train the experts.



Do I need PERT ?

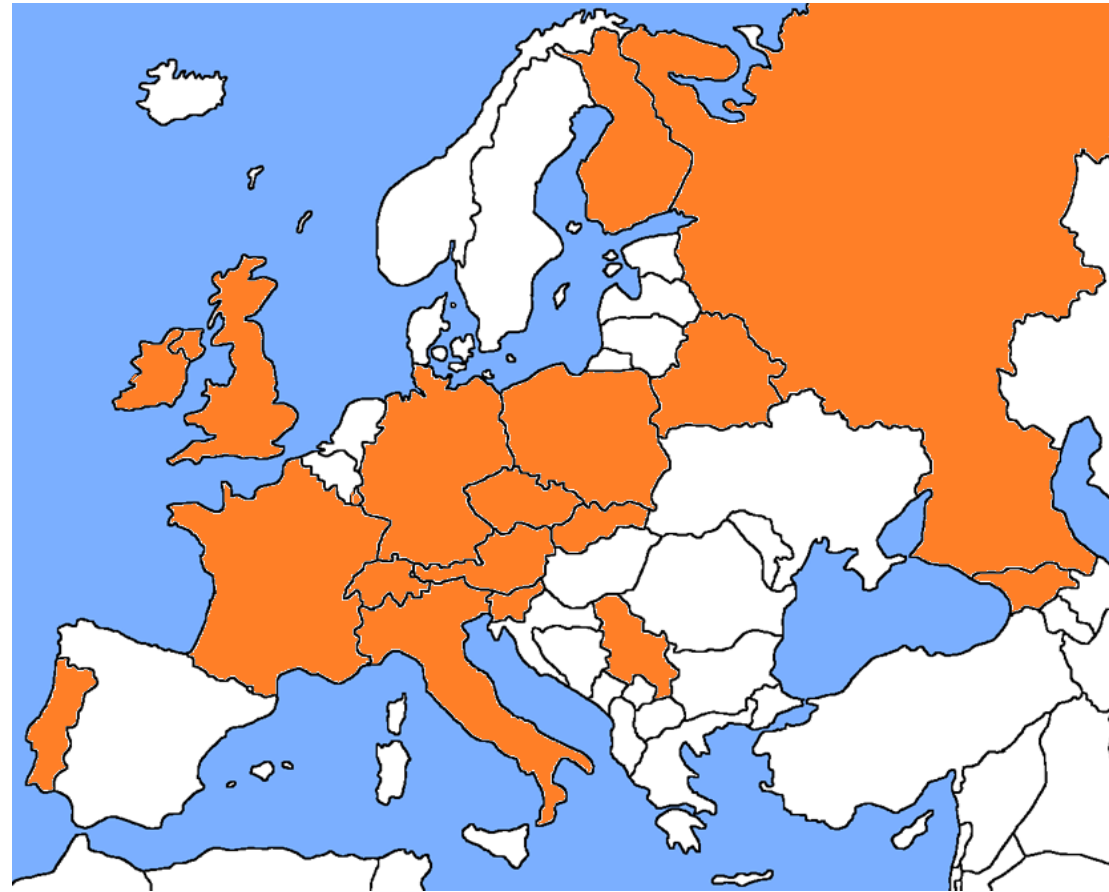


- You can get help from other PERT teams
 - Others might know the solution
- You can help **your** users
 - Even if the problem is outside your domain
 - Performing diagnosis
 - Suggesting improvements
- You can share the knowledge afterwards
 - But it involves more work
 - Previous solutions can be reused in the future

eduPERT – where we are



- ACONET
- AMRES
- ARNES
- BASNET
- DANTE
- DFN
- EARENA
- FCCN
- FUNET
- GARR
- GRENA
- HEANET
- PSNC
- RENATER
- RESTENA
- SANET
- SWITCH



Registered PERTs

- Exchanging knowledge between experts:
monthly calls
- Topics from the last call:
 - Reports from networking conferences
 - perfSONAR updates
 - WireShark moves into the cloud: CloudShark
 - PsPing - a new Microsoft Windows tool for measuring network performance
 - Bufferbloat: Big buffers can be a problem
- You are welcome to participate!



eduPERT – what can we do for you?



eduPERT Knowledge base <http://kb.pert.geant.net/>

- Wiki based, open to edit
- Comprehensive range of topics:



NETWORK: Network protocols, tuning and more...



END HOST: Application protocols, End-Host tuning and more...



TOOLS: Active and passive measurement tools, traceroute and more...



GENERAL KNOWLEDGE: Wizard gap, performance people, evil middlebox and more...



PERFORMANCE CASE STUDIES: History of the PERT cases (solved or still open).

- Monthly visits: 4000+

eduPERT

– what can we do for you?



eduPERT trainings

- Modules:
 - Network Performance and User Expectations
 - one way delay, round trip time, delay variation, packet reordering and packet loss, maximum transmission unit.
 - Bulk Transfers Under TCP
 - window-based transmission, tuning your host the congestion window, slow start, fast retransmit and fast recovery, TCP and long fat networks (LFNs), high-speed TCP variants, implicit and explicit congestion control protocols, network tuning for better congestion control.
 - Investigative Tools
 - Ping, Traceroute, Iperf, BWCTL, NDT, TCPDUMP, Wireshark and Netalyzr
 - Case Study
 - real PERT cases

eduPERT – what can we do for you?



eduPERT workshops

- Often combined with Terena conferences
- Topics from the last workshop:
 - perfSONAR updates
 - Performance issue in Firewalls
 - Performance and Virtual Machine
 - NLNOG RING demo
 - PerfSonar updates for eduPERT

eduPERT – what can we do for you?



eduPERT **website** and **discussion list**

- <http://edupert.geant.net/>
 - Lists of PERTs
 - How to become member (registration process)
 - Links to documents and latest news (new eduPERT portal just announced)
- pert-discuss@geant.net
 - 79 Members
 - Mostly from NRENs and past centralized PERT
 - Technical and organizational topics

eduPERT – plan for the future



- Next call in 25th of January 2013
- Winter School – Training at SWITCH: March 2013, Zurich
- Workshop – TNC 2013

You are welcome to participate!



Questions?

