

Poznan Supercomputing & Networking Center

Poznań Supercomputing and Networking Center (PSNC) contribution to the 6NET project

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- ▶ **WP1** - connectivity, management access, tests of different network technologies
- ▶ **WP3** – interaction of basic services with management tools, multicasts
- ▶ **WP5** – multicast media streaming
- ▶ **WP6** - network management module for transition of IPv4 \leftrightarrow IPv6 management protocols

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WP1

Network operations and implementation

- determining the possibility to deploy the IPv6 protocol in various network technologies such as: ATM, Gigabit Ethernet, Fast Ethernet, Ethernet and testing their interoperability with the SNMP IPv6/IPv4 transition modules
- testing interoperability of SNMP IPv6/IPv4 transition modules with different devices and software tools within 6NET network: cooperation with 6NET NOC and other participants

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IPv6 Network in Poland

6NET

San Jose, CISCO

Paris, RENATER,

NORDUnet

CESNET

CA USA, ISI

Berlin, BERKOM

CH, CERN

Oslo, CHELLO

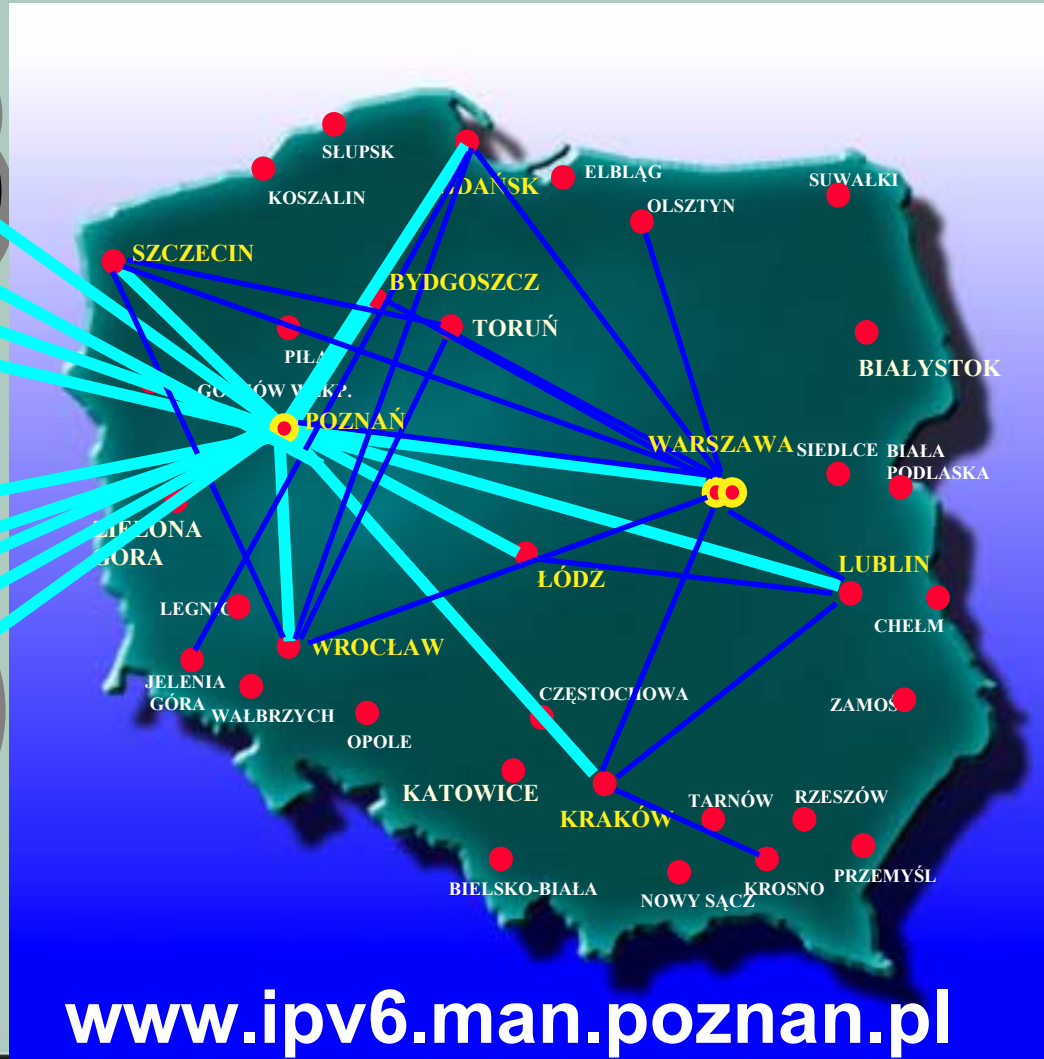
Paris, FASTNETXP

outside Poland

● pTLA sites

— PSNC connections

— other Polish 6bone connections



www.ipv6.man.poznan.pl

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WP3

Basic network services

- Multicasts: tests and deployment of multicasts protocols (PIM, SSM)
- deployment on-line transmission (cooperation with a local radio broadcast station)
- implementing BGP4+ routing protocol
- interoperability tests of network services and protocols: BGP4+, DNS, DHCP with IPv4 SNMP \leftrightarrow IPv6 SNMP transition tools

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WP5

MCast6 – IPv6 enabled application for multicast media streaming

- designing, implementation and wide deployment of multicast sending/receiving application for IPv6 enable media streaming
- main focus: multicast transmission, but also unicast enable
- transmission on demand
- implementation of protocols: SDP (Session Discovery Protocol) and SAP (Session Announcement Protocol)
- implementation using JMF API 0 Java Media Framework API – platform independence, IPv6 support of Java

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WP6

**designing, development and testing the network management tools
for transition IPv4 \leftrightarrow IPv6 management protocols**

- lack of management software for native IPv6 networks
- long-term-plans of deployment commercial management platforms IPv6 enable
- The IPv4 SNMP \leftrightarrow IPv6 SNMP transition mechanism will enable the existing IPv4 network management platforms to monitor, configure and manage the native IPv6 network
- built-in well defined API will enable to extend the application in the future
- tests (netw. management) interoperability with different network equipment, basic network services (DNS, DHCP etc.) and the existing IPv4 management platforms