

Technical group on PNI (starting from 1999)

“Photonic-Network based Next Generation Internet”

Organization

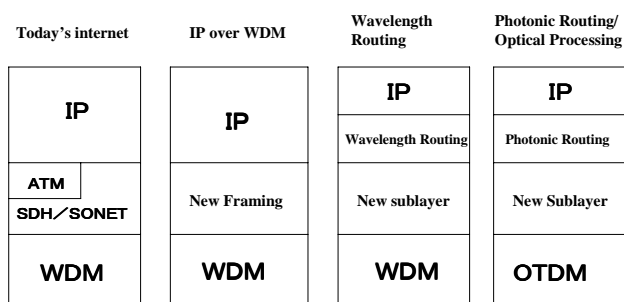
Leader; Prof. Tomonori Aoyama (the Univ. of Tokyo).

26 members from universities, carriers, vendors

covers the internet, photonic systems and devices.

Scope

- Photonic network architecture (backbone/access)
- Functionality assignments among layers
- Photonic NNI/UNI interface
- Novel protocol for photonic networks
- Photonic routing
- OAM in photonic networks
- Photonic nodes (OADM/OXC, Photonic Switch, Photonic Router)
- OTDM, OCDM based networks
- Functional optical devices for photonic networks
- Photonic network testbeds
- Applications in photonic networks



Internet over Photonic Network

Activities

- Technical meeting

Date	Venue	Number of presentations	Number of participants
1999.6.16	Sophia Univ. (Tokyo)	8 (all invited)	79
1999.11.25	Osaka Univ.	12 (4 invited)	55
2000.5.9	NTT Musashino R&D Center (Tokyo)	15 (5 invited)	124

Examples of presentation title

- IP transport system in photonic networks
- IP over a-thousand-wavelength division multiplexing;
 - Is it possible for resolving the network bottlenecks? -

- Publication

Planning to publish a special issue on “Advanced internetworking based on photonic network technologies” in the IEICE Transactions on Communications in October 2000.