

Autonomous Distributed Resource-Adjustment Control for Optical Packet and Circuit Integrated Network

National Institute of Information and Communications Technology (NICT)

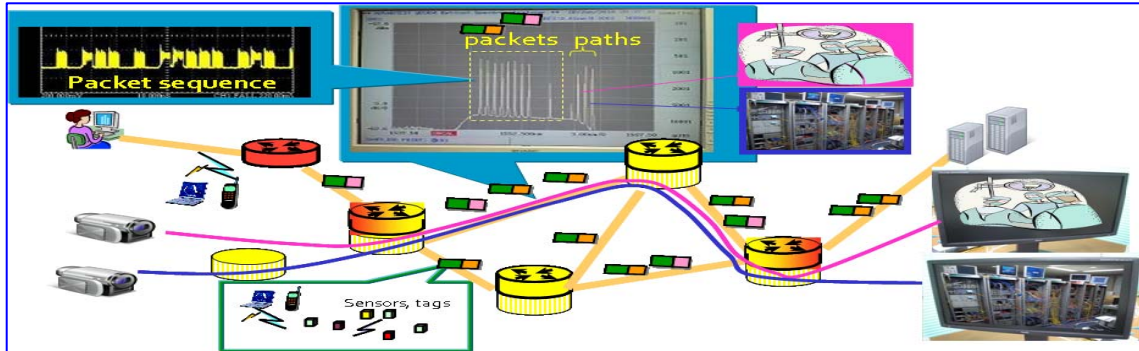


Fig. An image of optical packet and circuit integrated network

Characteristic of optical packet and circuit integrated network:

1. Packet-switching and circuit-switching on the same fiber infrastructure → Diversified services
2. Path control messages are transferred on optical packet links → Unified control interface
3. Autonomous distributed resource adjustment → Flexible change of packet- and path-resources
4. Contribution to power saving

Cf. H. Furukawa, et al., *ECOC2010*, We.8.A.4, Sep. 2010.
T. Miyazawa, et al., *FutureNet-III*, FutNet05.1, Dec. 2010.

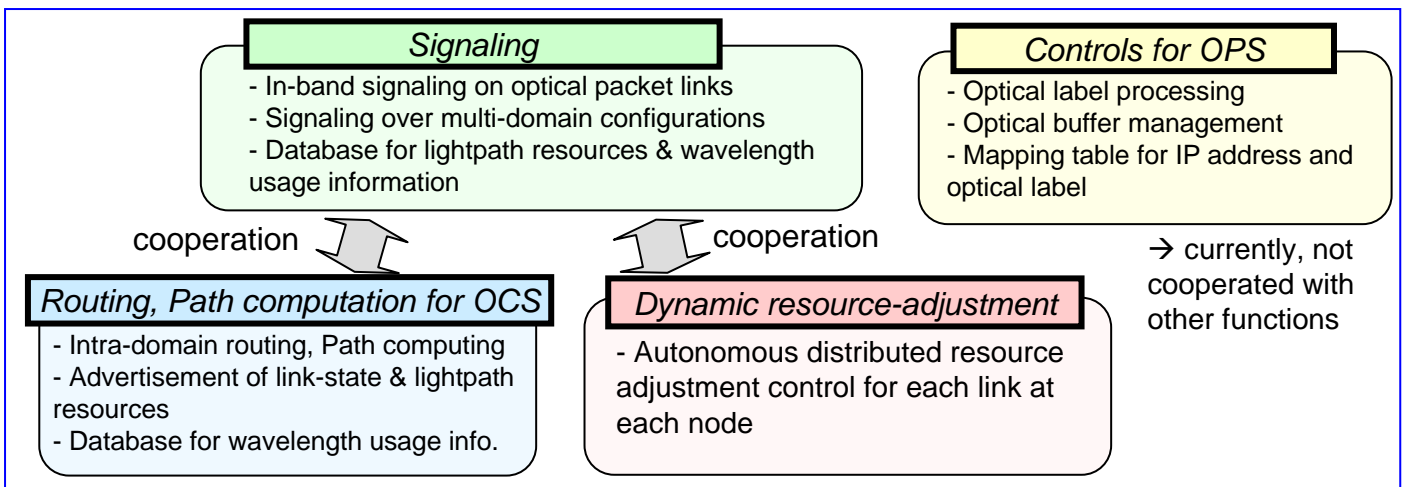


Fig. Control mechanism for optical packet and circuit integrated network

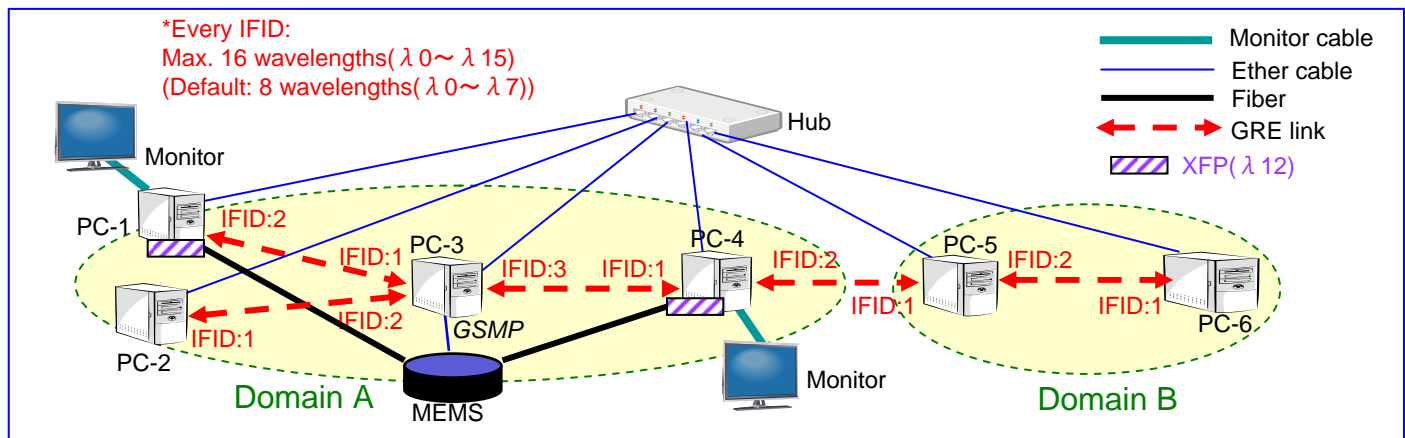


Fig. Configuration of the demonstration setup for iPOP2011 (Mainly, Control network for OCS)

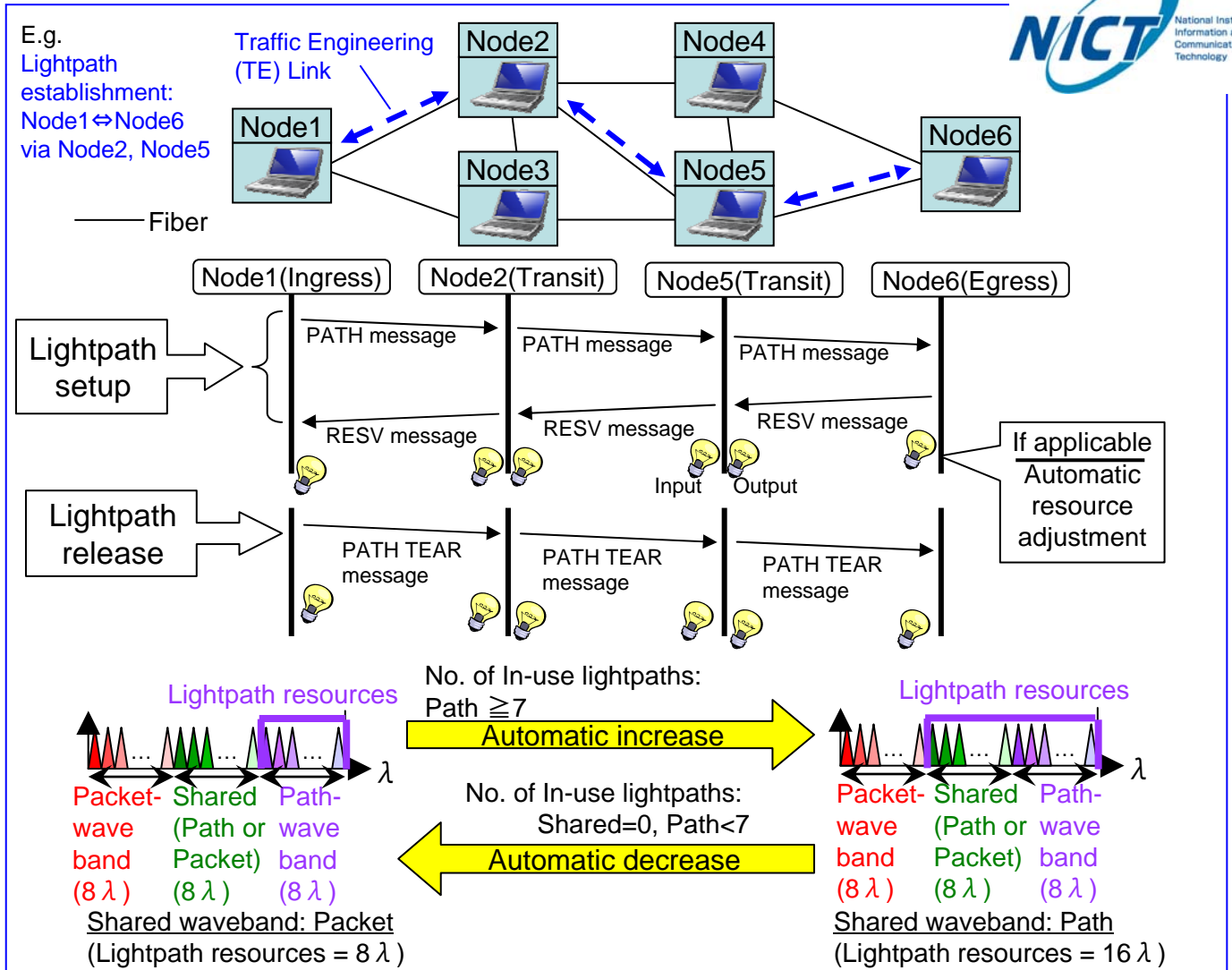


Fig. An image of autonomous distributed resource adjustment control function

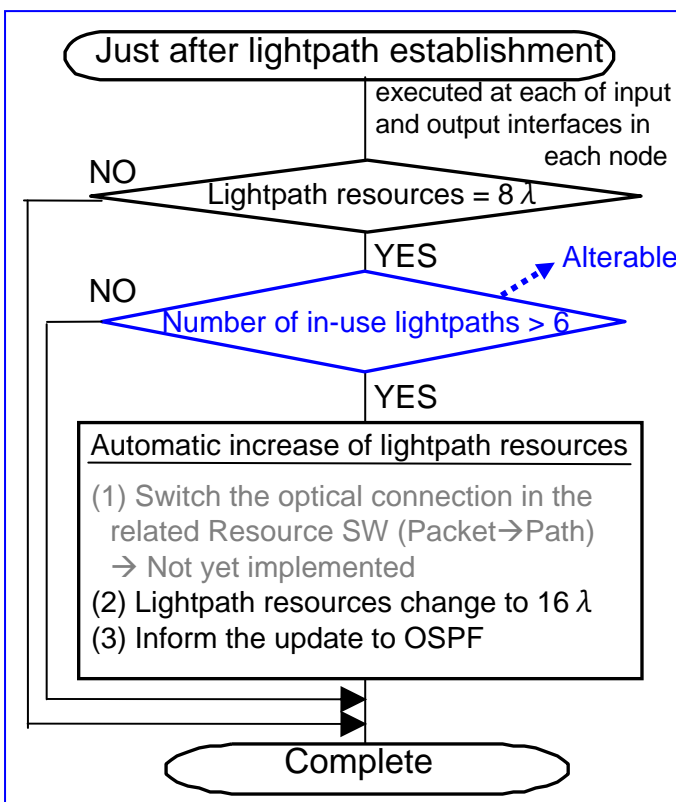


Fig. Flowchart: Automatic increase of path resources

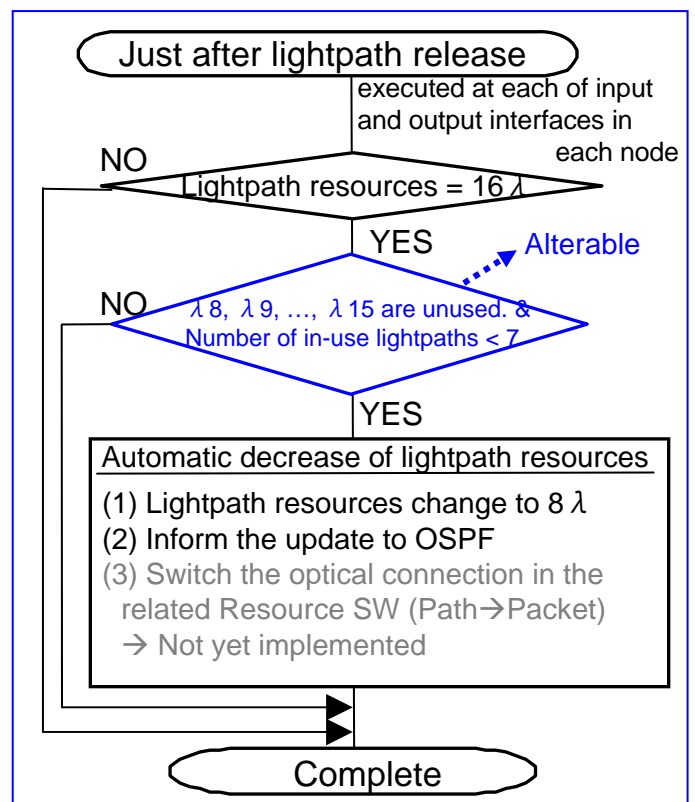


Fig. Flowchart: Automatic decrease of path resources