

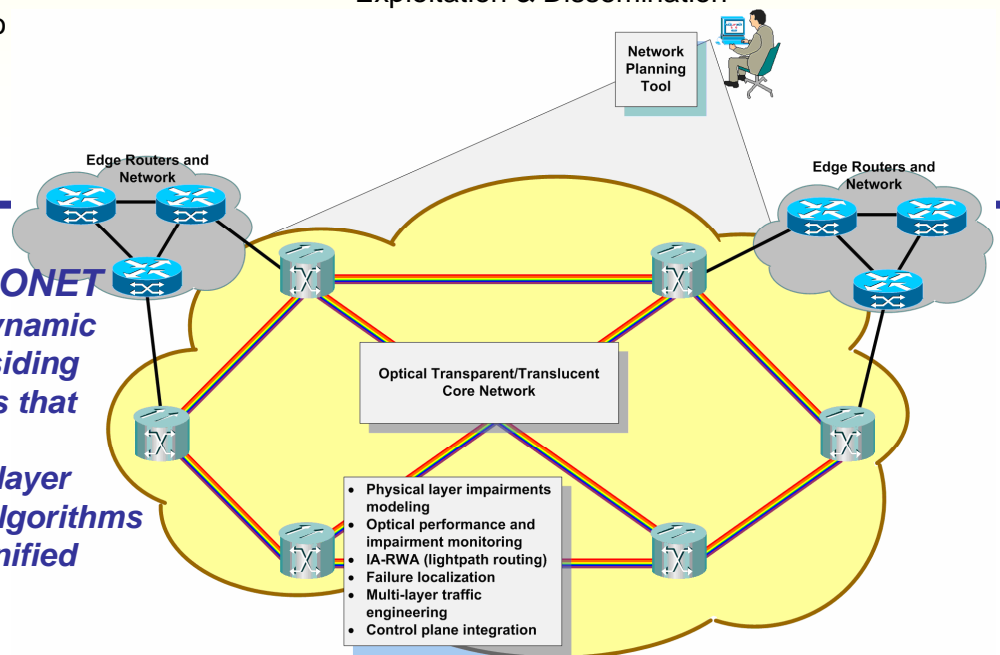
•DICONET Objectives

- Development of Impairment Aware RWA Algorithms
- Optimum equipment (regenerators & monitors) placement
- Study of failure localization algorithms to enable resiliency
- Study of OPM/OIM techniques
- Development of fast and accurate modeling tools
- Experimental verification of the models
- Realization of dynamic network planning tool
- Protocol extensions to enable an IA-control plane
- Verification of the DICONET tools, algorithms and protocols
- Techno-economic Studies to support exploitation of results
- Dissemination of project results

Technical Approach

- Network architecture and support studies
- Development of a network planning tool for dynamic traffic/impairments
- Impairment aware lightpath routing
- Network management and control protocol
- Integration and testing of the developed protocol extensions in a test-bed for validation and performance evaluation
- Exploitation & Dissemination

Key innovation of DICONET
“The development of a dynamic network planning tool residing in the core network nodes that incorporates real-time Measurements of optical layer performance in IA-RWA algorithms and is integrated into a unified control plane”.



DICONET Expected Impacts

providing new results in several areas supporting a new generation of high capacity networks:

- new optical networking concept,
- development of a dynamic network planning tool residing in the core network nodes,
- advanced network resiliency features not available in current network implementations,
- contributing in the definition of standards in the domain of high speed networking. Extensions to current standards (e.g. GMPLS),
- realizing an ultra high capacity network capable of rapid reconfiguration



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