A Survey: Sparse Traffic Grooming and RWA Assignment Schemes in Optical Networks

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Abstract

Traffic Grooming has become a very important issue on optical Networks, as optical networks provide a very high-speed data transmission for huge amounts of data. A Sparse grooming Network with only a fractional of nodes having grooming functionalities may achieve the same performance as the one in which all the nodes are grooming, but with much lower cost. In literature, different algorithms, models, and techniques have been proposed to design the sparse grooming networks. With Proper assignment of routing and wavelengths in the network reduces the blocking probability ultimately increases the bandwidth of the network. In this paper, we studied and analyzed the different sparse traffic grooming and RWA assignment strategies with its performance metrics for optical mesh networks.
- Bishwanath Mukherjee, "Optical WDM Networks"; Springer Publication 2006.

Index Terms
Computer Science
Networks
Keywords
OXC - Optical Cross Connect  OC-Optical carrier  RWA-Routing & wavelength assignment  WDM - wavelength division multiplexing

G-Fabric - Grooming Fabric
G-Node – Grooming Node
G-OXC – Grooming Optical Cross Connect