

Monitoring and Prediction of Intra-Crosstalk in All-Optical Network

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Abstract : Optical performance monitoring and optical network management are essential in building a reliable, high-capacity, and service-differentiation enabled all-optical network. One of the serious problems in this network is the fact that optical crosstalk is additive, and thus the aggregate effect of crosstalk over a whole AON may be more nefarious than a single point of crosstalk. As results, we note a huge degradation of the Quality of Service (QoS) in our network. For that, it is necessary to identify and monitor the impairments in whole network. In this way, this paper presents new system to identify and monitor crosstalk in AONs in real-time fashion. particular, it proposes a new technique to manage intra-crosstalk in objective to relax QoS of the network.

Keywords : all-optical networks, optical crosstalk, optical cross-connect, crosstalk, monitoring crosstalk

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