

Overspill Routing In Optical Networks: A True Hybrid Optical Network Design



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Overview



- Hybrid Optical Network (Based on degree of interaction and integration)
 - Client-Server
 - Parallel
 - Integrated
- ORION -> "integrated" Class
- ORION Concept
- Evaluation
- Comparison (with p2p WDM & wavelength Switching)

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Introduction (1)



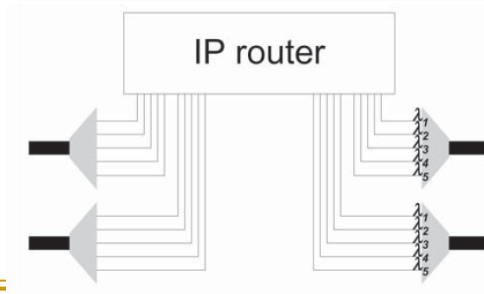
- Why hybrid? Why ORION?
 - OxC -> wavelength path can not be reused
 - ASONs (Automatically Switched Optical Network)
 - Bandwidth & time scale granularity are still coarse
 - IP/WDM
 - Statistical Multiplexing can be achieved
 - O-E-O conversion may be a bottleneck at very high speed
 - ORION succeeds in using full benefit of ASONs without sacrificing high SM gains from IP/WDM

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ORION Conceptual design(1)



- Point-to-Point WDM
 - Bandwidth efficient
 - Bottleneck in electronic layer
 - IP/WDM, OPS, OBS



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