

## **Optical Burst Switching: Current Status, Problems, New Solutions**

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### **Abstract**

Optical Burst Switching (OBS) is a new promising technology for the Optical Internet. In this talk, we will first describe the main features of OBS, and subsequently review various congestion control schemes that have been proposed, such as the use of converters, fiber delay lines, and deflection routing. Performance studies point to the fact that in an OBS network, the link utilization has to be kept very low in order for the burst loss probability to be within an acceptable level. It has also been shown that the above congestion control schemes do not alleviate this problem. It is our position that in order for OBS to become commercially viable, new schemes have to be devised that will either guarantee zero burst loss, or very low burst loss at high utilization. Within this context, we will describe briefly two zero-burst loss schemes for ring and star topologies.