

Salira Optical Network Systems, Inc.

IEEE EFM Study Group

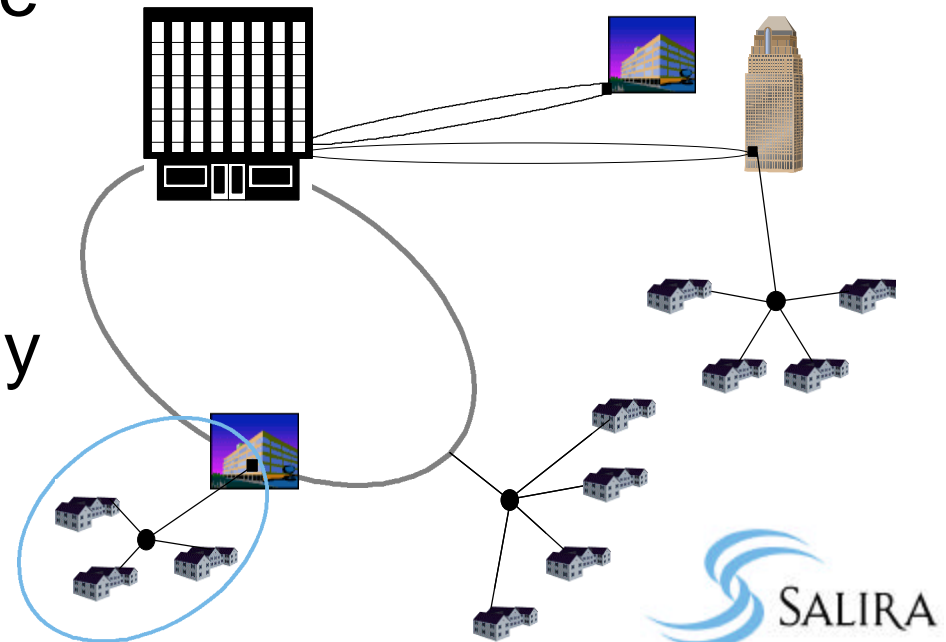
May 21-23, 2001

St Louis, MO



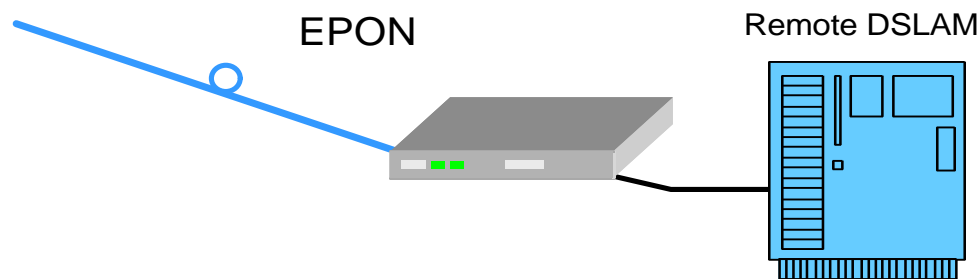
Ethernet + PON

- PON offers the best price/performance ratio for optical access
- Ethernet is the most popular end user traffic type
- Managed IP services are built on Ethernet
- IP based voice, video, data are growing rapidly



Ethernet + PON + DSL

- Extend range of broadband access technology while increasing capital utilization
- Use copper infrastructure as transition to fiber
- Improved data aggregation
- Extend managed IP services



Managed IP Services

A laundry list of services available

- IP/VPN
- MPLS/VPN
- Security Services, e.g., Firewalls, Encryption
- IP Video, VoIP, Data
- WEB Hosting
- Data Storage
- Email
- ASP
- Distance Learning
- Call Centers
- Virtual LAN

TDM Transport

- A primary revenue generator for Carriers not to be forgotten
 - FT1
 - T1 for PSTN, FR, ATM
 - NxT1 with Inverse Multiplexing
 - DS3
 - OC3

QoS/SLA

- ATM type QoS Bandwidth Support
 - For example, CBR, rt-VBR, nrt-VBR, ABR
- Remote SLA provisioning
- Real time SLA monitoring and historical reports

Management

We cannot forget our customer's management needs

- **Element Management (OAM&P)**
 - Customer configuration and service management
 - Remote/Self provisioning
 - Dynamic Bandwidth Allocation
 - Remote loop back test and diagnostics
 - Alarm report
 - Performance and billing statistics
- **EMS/NMS (TMN FCAPS)**
 - Fault, Configuration, Accounting, Performance, & Security)
- **OSS Northbound I/F (e.g., CORBA, TL1)**

Charter Clarification

- Call for clarification on the charter of this study group
 - Management OAM&P/FCAPS Group
 - Extensive discussion was done in reflector of this study group
 - EPON as a focus as in the cosigned presentation
 - Broadband service extension with PON - BPON