



Excite@Home

Scaling the Worlds Largest Ethernet

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Worlds Largest Ethernet

- **Currently 3+ million users**
- **2nd Largest ISP in traffic**
- **5+ million users EOY '01**
- **7+ million users EOY '02**
- **Traffic far outstripping SDH/SONET –increments“**
- **Residential & Broadband are different!**

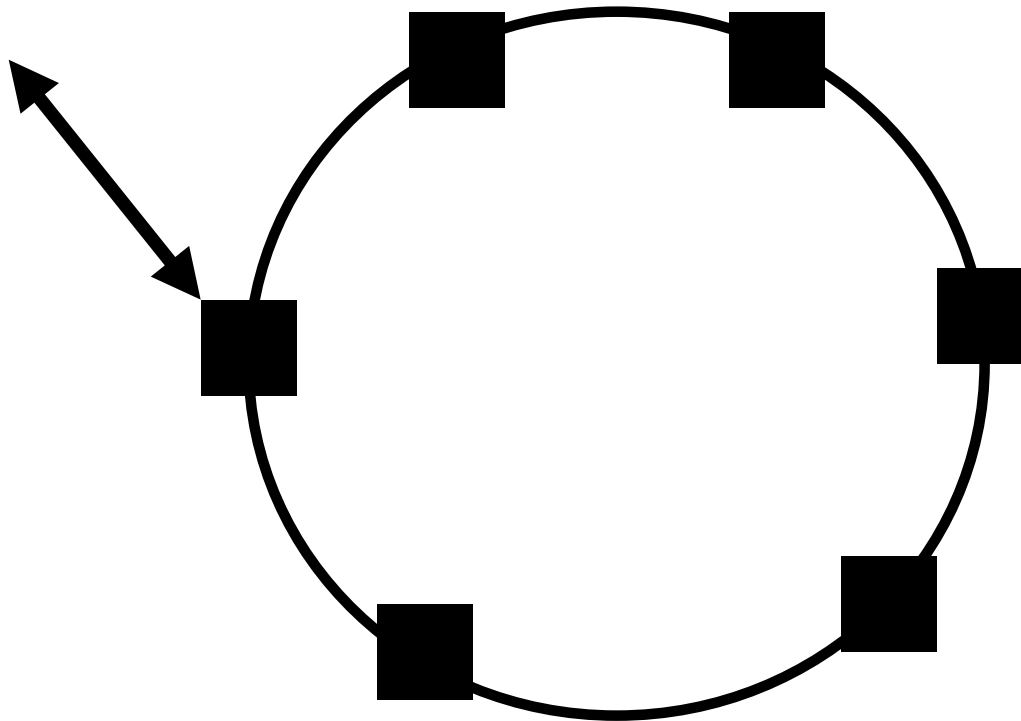


Future Scaling Requirements

- **Peer to Peer traffic growing rapidly**
- **Streaming –Media“ set to explode**
- **Rapid growth of home networked –appliances“**
- **Metro/Regional traffic will experience a –tsunami“ of bandwidth need**
- **Single rings supporting >250k subscribers**

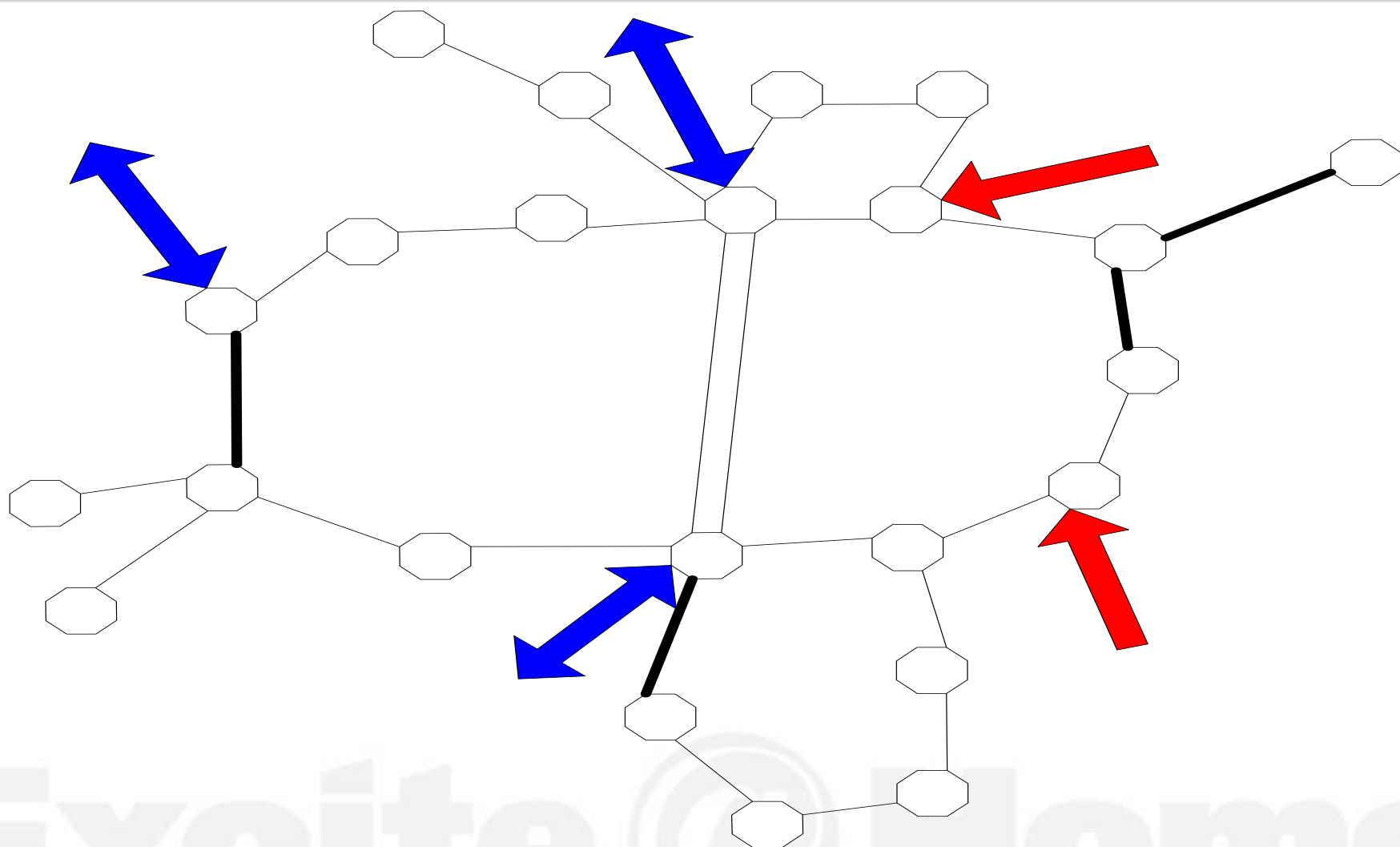


Simple Assumptions





Real-World RPR Design





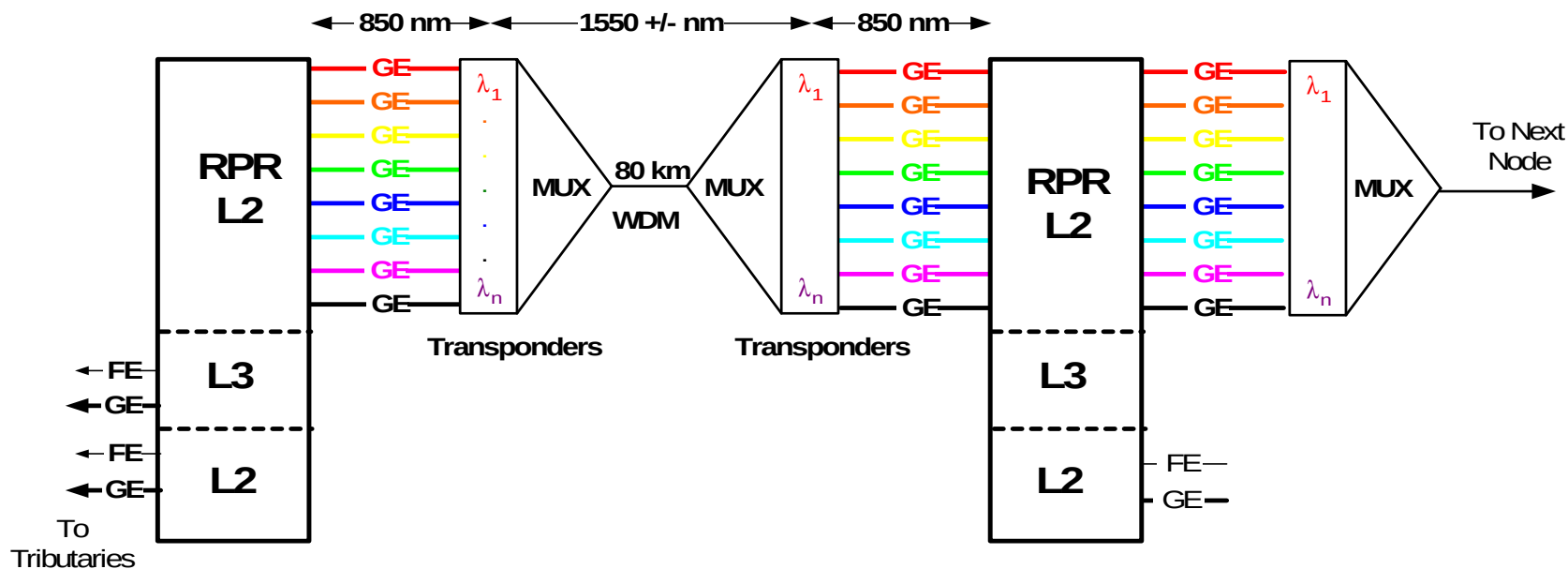
Optical Considerations

- **Most ISPs are not optically astute**
- **No mid span points (80km)**
- **Raman & Solitons**
- **Geography and spares**
- **Sand is CHEAP**



RPR with Parallel Links

RPR Over Multiple Gigabit Ethernet





Final Thoughts

QoS = Quantity of Service

Scaling is Paramount!