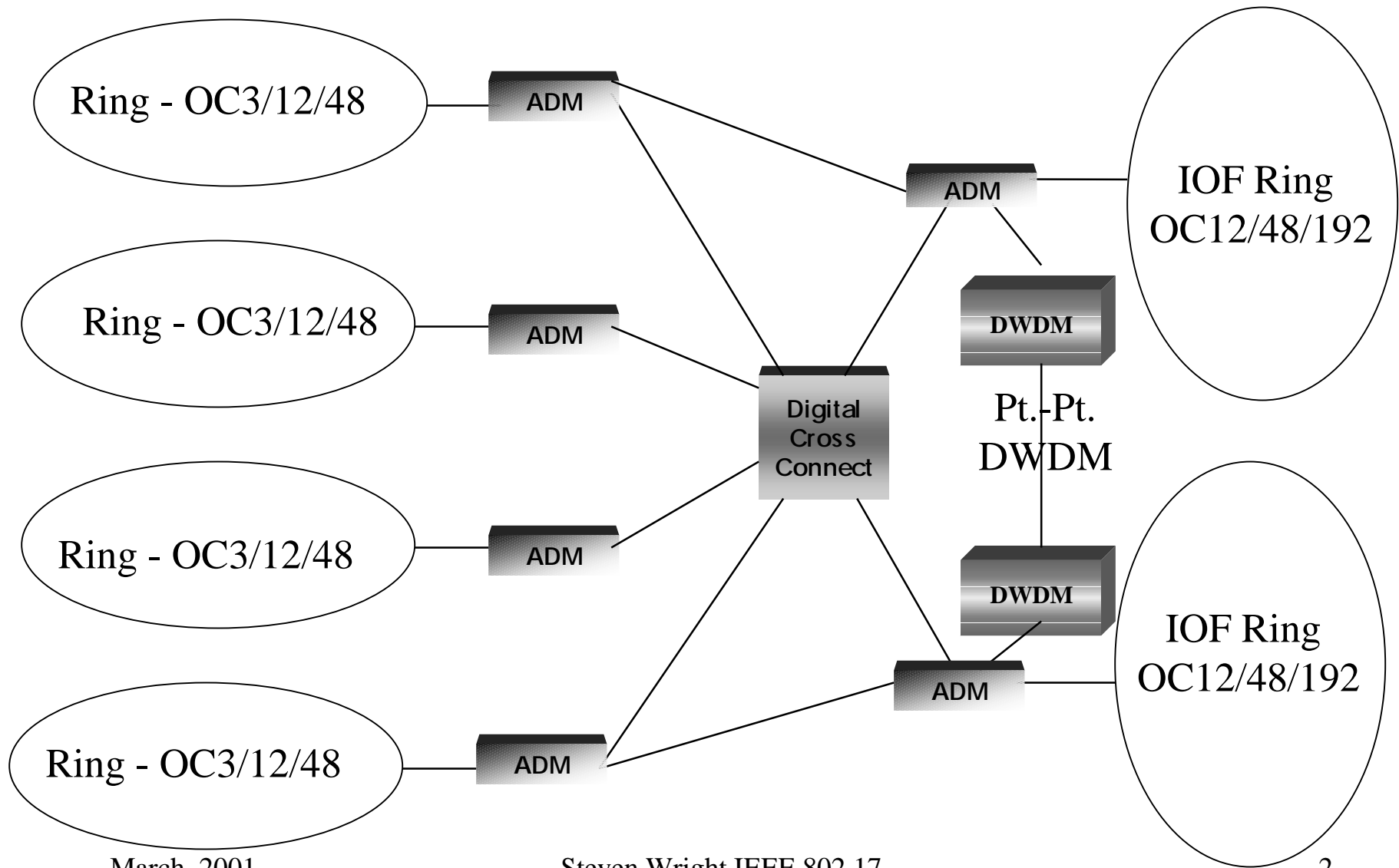


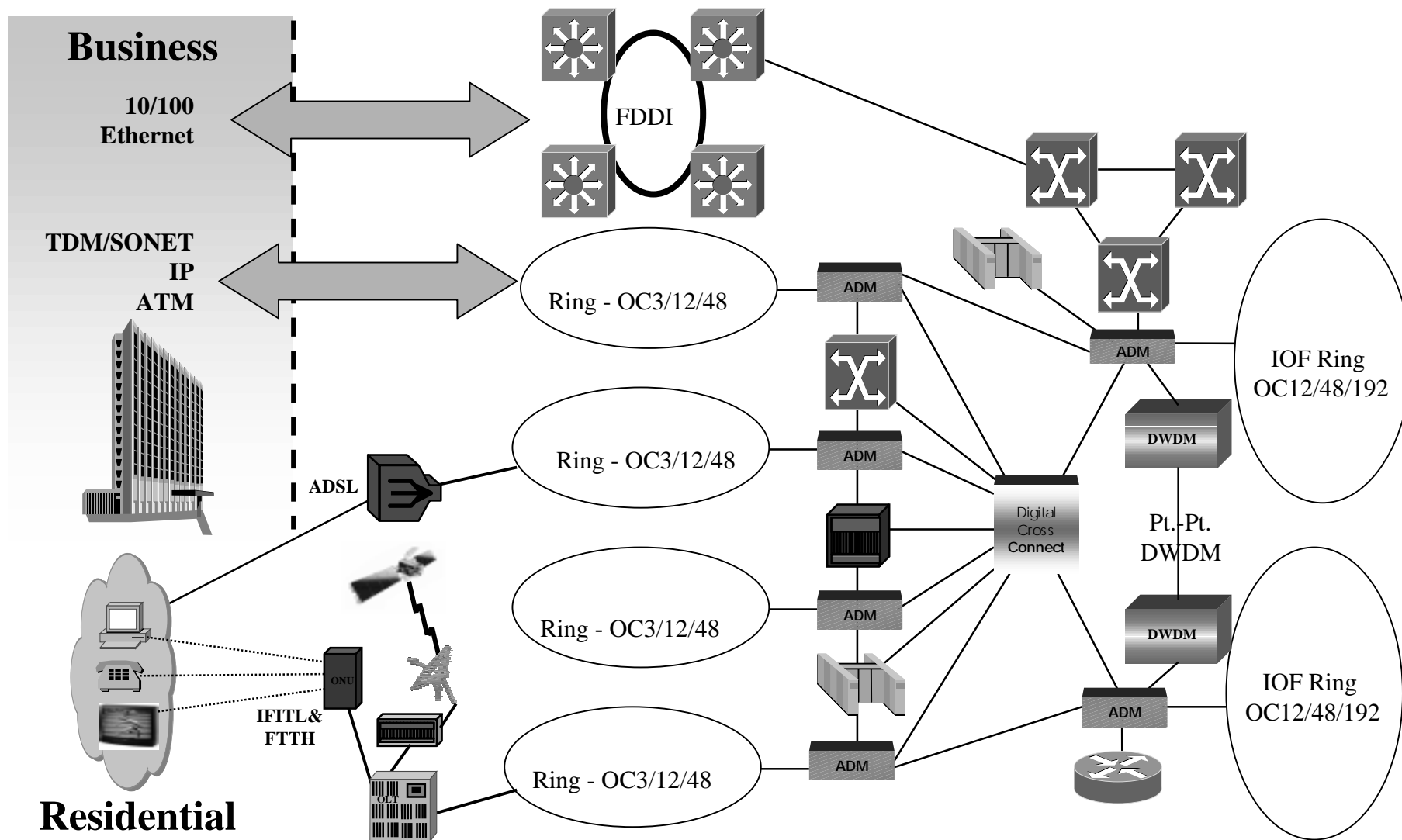
A LEC Perspective on Resilient Packet Ring Requirements

Steven Wright
IEEE 802.17

Today's LEC Transport Network



Access to Transport Network



Residential

March, 2001

Steven Wright IEEE 802.17

Access vs IOF(Metro) Rings

- Access Rings
 - Avg ~3 Nodes
 - Max 4 Nodes
 - Avg ~7 Miles
 - Max Ring circumference ~30 Miles
 - typically UPSR
- Inter Office Rings
 - Avg ~6 Nodes
 - max 12 Nodes
 - Avg ~6 Miles between Nodes
 - Max Ring Circumference ~30 Miles
 - Typically BLSR, some UPSR

RPR Expectations

- To displace embedded SONET technology, RPR must provide:
 - Equivalent functionality (e.g. OAMP) and performance (e.g. Switching speed) at lower cost
 - Additional Functionality (e.g. Statistical multiplexing on the Ring)
- To ease deployment RPR should support:
 - IP/MPLS traffic
 - multiple QoS types (e.g. Best Effort, Guaranteed Bandwidth/Latency etc.) - RPR may be scheduling QoS “agnostic”
 - Packet level protection options - (e.g. protected, partially protected, unprotected etc.)