

RPR Requirements

Support packets with:

length \geq MinSizeEthernet;

length $>$ MaxSizeEthernet (TBD)

Destination Stripping of Uni-cast Packets

Source Stripping of Multi/Broad-cast Packets

Media Independence – refer to

SONET/SDH OC-192/STM-64

SONET/SDH OC-48/STM-16

SONET/SDH OC-12/STM-4

SONET/SDH OC-3/STM-1

1 Gigabit Ethernet

10 Gigabit Ethernet LAN PHY

10 Gigabit Ethernet WAN PHY

Scalability

Nodes [2 .. 128/256]

Span Distance;

Ring Circumference;

Dual Counter Rotating Rings with No Packet Loss

Distributed Congestion Management

*Fair and Dynamic Distribution of Available BW

Ring selection

Layer 2

hooks to allow Layer 3

Plug and Play

No provisioning

Topology Discovery

Fast Recovery and Restoration

Facility and Node

layer 1 notifications

sub 50 ms

minimize packet loss

notification to layer 3

Class of Service Support

- *provide support for guaranteed and committed data rates and delays
- priority on the ring
- priority in the station

Instrumentation and Performance Monitoring

- *Loss-less Low Transit Delay

Encapsulation and Packet Types

Ring Header extensions

Extensions to 802.1Q

Ethernet V2 vs 802.3 LLC/SNAP