RPRWG
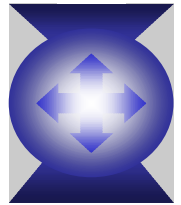# Objectives and Scope

IEEE 802 Resilient Packet Ring Study Group
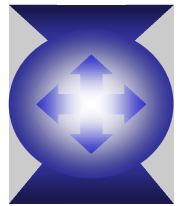
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Objectives

- ◆ Develop a MAC standard to address deterministic service, high availability and cost optimization in packet based, high speed optical fiber rings for LAN, MAN and WAN applications

- ◆ Address carrier and service provider requirements for packet optimized and resilient public data networks

- ◆ Support multimedia distribution as well as real time voice and video over packet applications

Scope

- ◆ **Distances and Nodes**
  - – MAN: Up to a minimum of 100 Km Circumference and 128 nodes
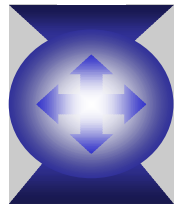 - – WAN: Up to a minimum of 1000 Km Circumference and 256 nodes
- ◆ **Speeds**
  - – Up to a minimum of 10 Gbps
- ◆ **Physical Layers**
  - – Utilize full duplex Gigabit Ethernet as well as 10 Gigabit Ethernet physical layer
  - – Utilize SONET Physical layers (OC-3/12/48/192?)

Scope – continued

- ◆ Define a MAC to support dual counter rotating ring architecture with destination stripping

- ◆ Define a mechanism to support sub 50 ms restoration in case of link failure

- ◆ Meet 802.1d, q and f requirements

- ◆ Support packet sizes based on adopted physical layers

- ◆ Define fair and dynamic bandwidth distribution and congestion control mechanisms

- ◆ Define mechanisms for ease of configuration management