



Disaster Planning and Recovery

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Topics of Discussion

- How FLR developed
- What learned from past experiences
- What learned from long term outages

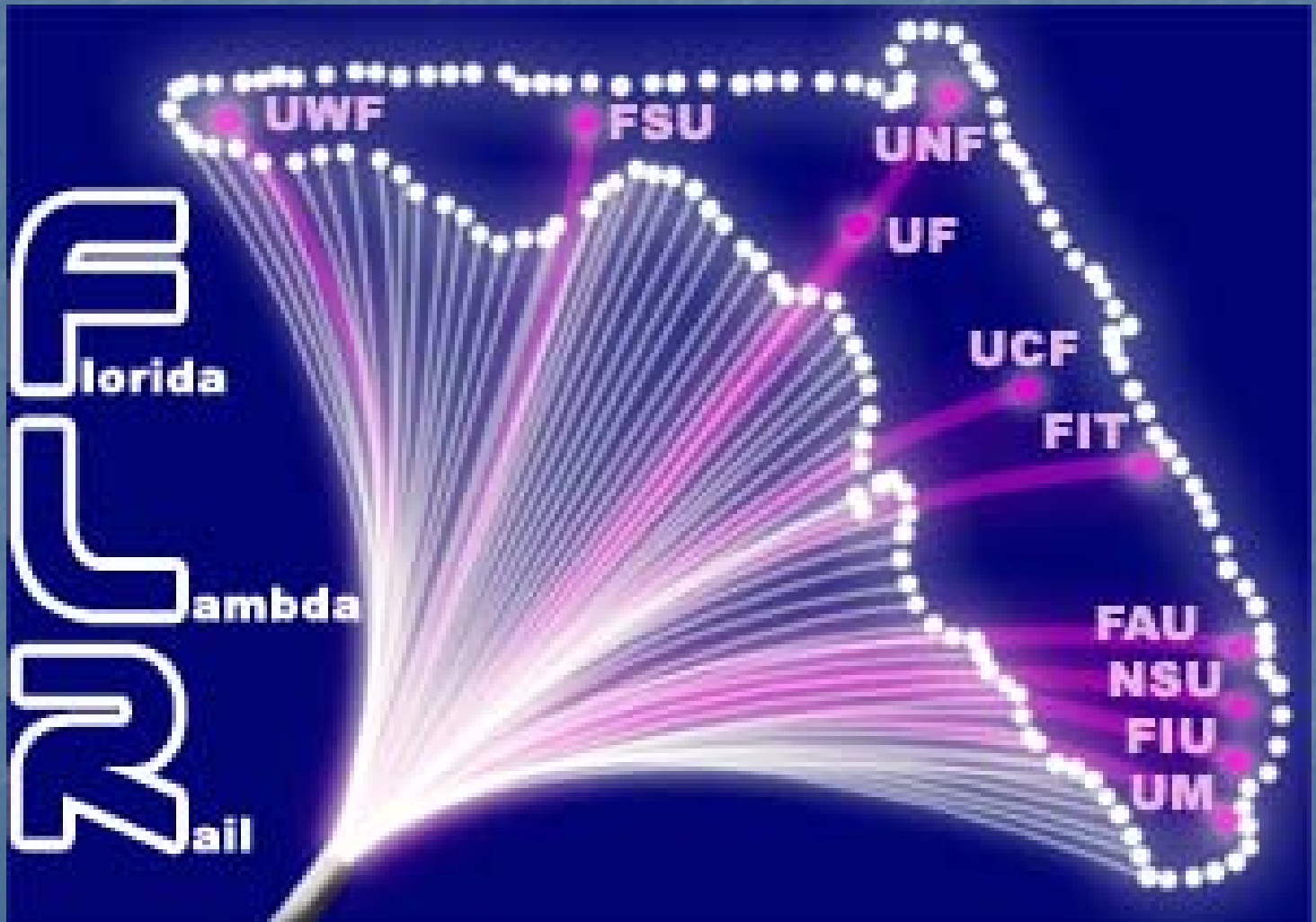


How FLR Developed

- Collaborative Effort
 - Public and private universities
 - Large and small
 - Geographically disperse
- Each institution brought different experiences



FLR
Florida LambdaRail



What learned from past

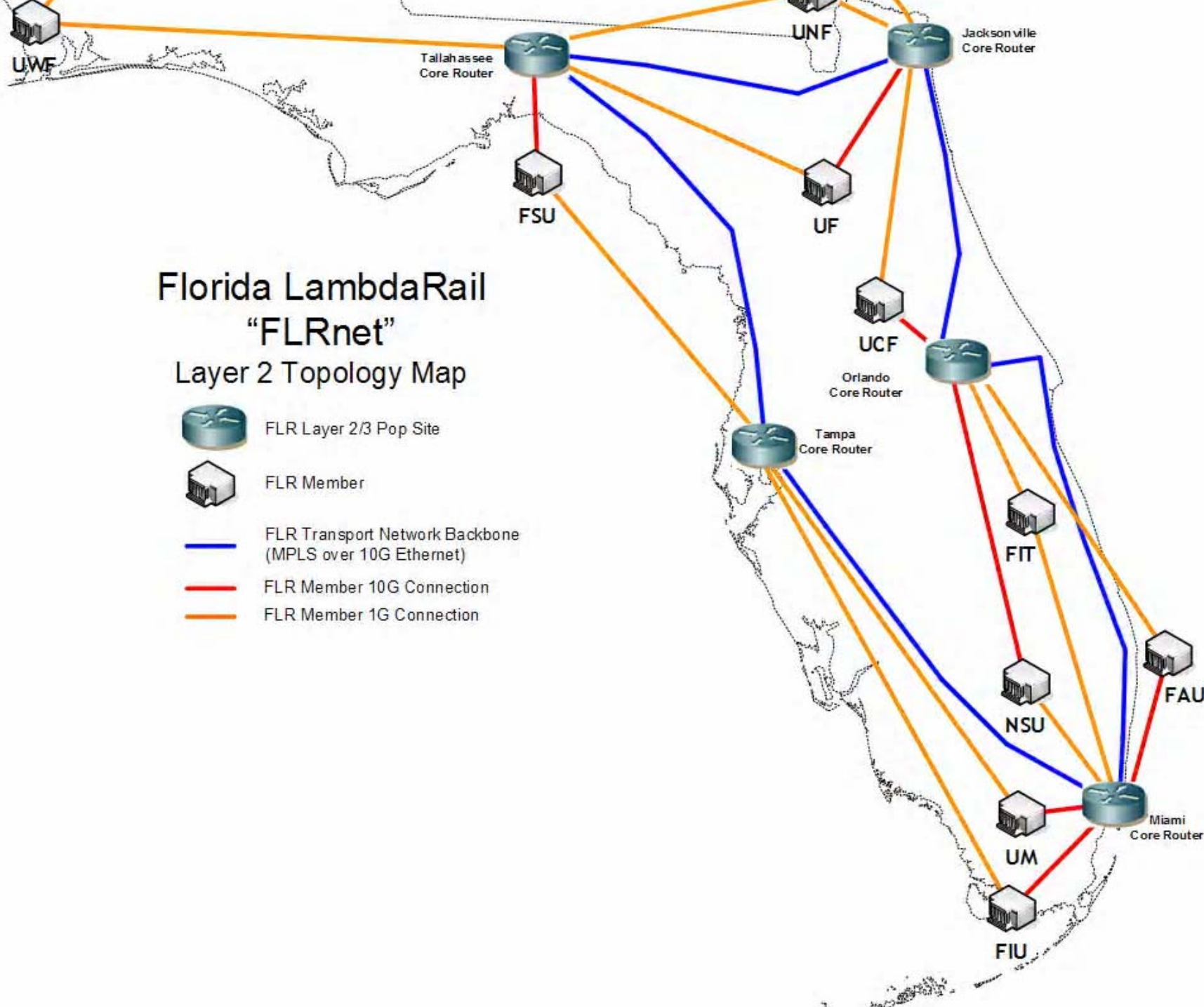
- Importance of planning and preparation
- Importance of redundancy at all levels
- Importance of communications

Planning and Preparation

- Threats or vulnerabilities defined
- Service Level Objectives defined
- Vendor plans and preparations known
- Specific responsibilities of network and institutions defined
- Plans tested and refined

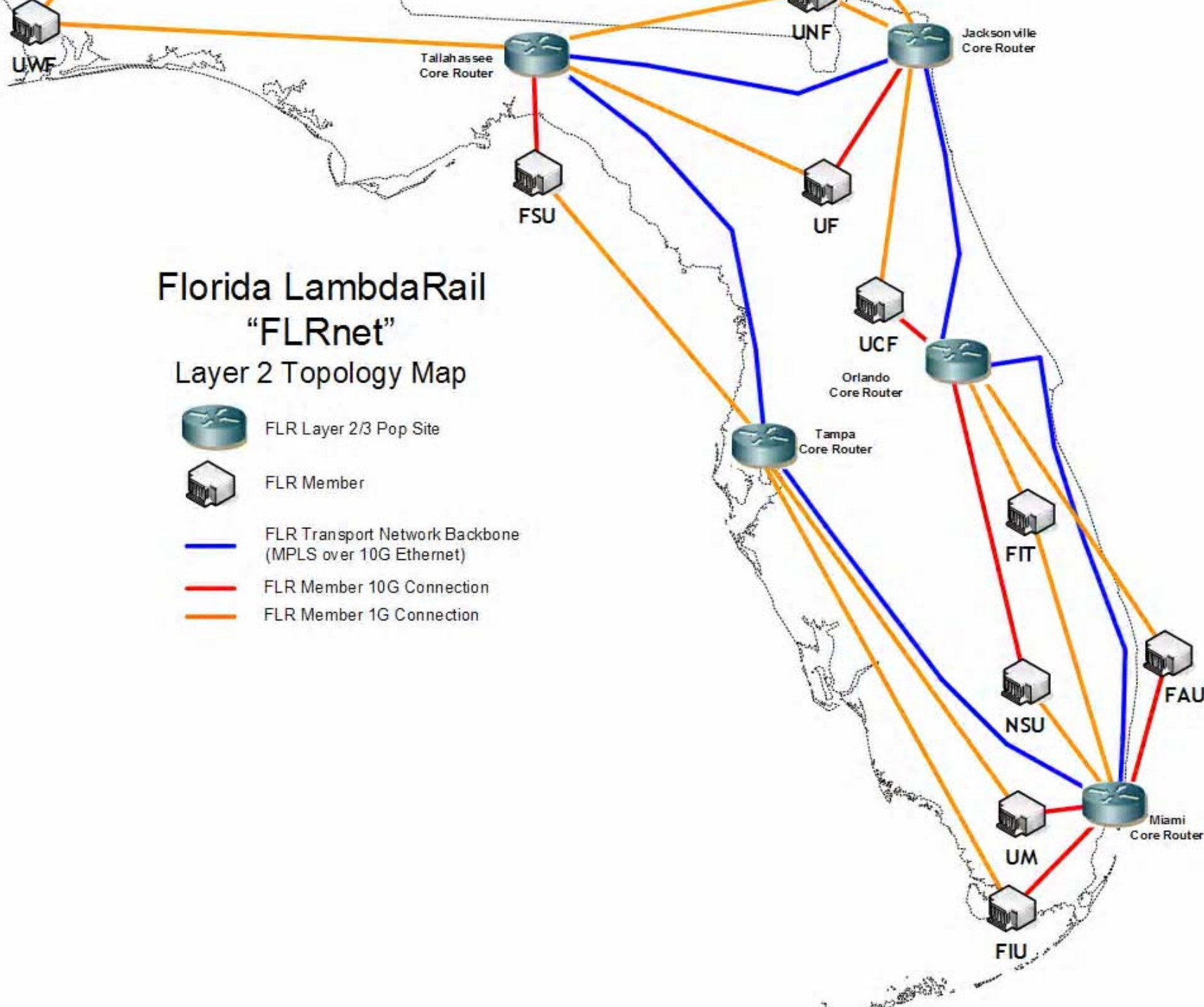
Redundancy

- Core network
- Five core routers
- Participating universities have primary and secondary connections to different core routers
- Upstream ISP connectors go to gateways in at least two locations (Orlando, Tampa, Miami)
- NOC can move if needed



Florida LambdaRail "FLRnet" Layer 2 Topology Map

-  FLR Layer 2/3 Pop Site
-  FLR Member
-  FLR Transport Network Backbone (MPLS over 10G Ethernet)
-  FLR Member 10G Connection
-  FLR Member 1G Connection



Communications

- With participating institutions
- With vendors
- Importance of web site availability

Long Term Outages

- Andrew, Ivan, Wilma
Whole area hit
- Implications for IT
- Implications for interaction with other areas in institution – processes critical
- Implications for interaction with others outside of university

What This Means

- While hurricanes get lots of attention, there is usually warning
- Many vulnerabilities don't give warning
- Important to plan, review, test and revise

What FLR Means

- Capabilities not possible before
- Several members investigating out of state warm/hot sites
- Exploring emergency back up potential with local entities