

## MPLS LSP Protection

Essentials: Failure detection; (Hot-)Standby vs non-standby Secondary LSPs

### Agenda

- Zoom URL for this lecture: <https://algonquincollege.zoom.us/j/560097971>
  - Full video + audio-only recordings posted on BS in Weekly Lectures sect.
- Lab sessions: extended to 5 hrs total for remainder of term  
BUT pls attend regularly scheduled lecture at conclusion of 2 hrs
- Notice: **Post-lab #12** official due-date 11:59pm **Tue Apr 7** for everyone
- Complete Module 2 – MTU, and some details of x-Pipe interworking
- Start on MPLS Module 6: Resiliency - Secondary LSPs and FRR
  - Yes, there's some jumping back & forth but it works out well in the end ...

### Assignments and Lab work

- Read: MPLS Module 6 slide deck; due by next Wed  
Ref: NRS-II Ch 16
- Lab #10: SA Lab 8: VPLS Spoke Termination on IES  
Fri Mar 20: <https://algonquincollege.zoom.us/j/666767948>  
Mon Mar 23: <https://algonquincollege.zoom.us/j/634032980>

### MTU References

- Lecture summary notes for Wk09Day1: MTU diagram (for ePipe)
- NRS-II Chapter 18: VPWS Services, p. 1018-1066
- Inter-dependencies of MTU values: SA Module 2.24-25; NRS-II p. 1046-7

### MPLS Resiliency

The key to this section is understanding the difference in behaviour between *Standby* and *Non-Standby* secondary LSPs, and Fast Re-Route for *node* or *facility* protection.

For the FRR, consider the difference between link colouring vs strict/loose paths:

- Which one allows a *node* (ie. router) to be specified, but *not* a link?
- Which allows a *link* to be specified, but *not* a node?

Be sure to make a chart of all the different terminology in this Module:

- primary LSP; secondary LSP; (hot) standby; non-standby
- one-to-one backup; facility backup; node protection; link protection
- PLR; MP; head end; tail end