

## FRR; VPRNs

Essentials: FRR operation; 3 main config sections for VPRN

### Agenda

- Pop quiz on IES, secondary paths for LSPs
- Notice: SBA: 2.5 hrs, **Sat Apr 14<sup>th</sup>**; times/sections posted on BB
  - study guide & preview posted on course site
- **News:** SDN/Cloud course possibly being offered *free* Oct 22-26, 2018
  - free: course materials, lab access, and 100% discount exam voucher
  - no exams, no tests, no homework\* (... \*self-study required for success!)
  - open to anyone who's taken NET3012; held on-campus at Carleton
- Check in: anyone noticed any latency to Nokia labs in the past 5 days?
- Review: selection process for secondary LSP paths
  - single selection criteria for non-standby
  - 3-step selection process for (hot) standby
- 1<sup>st</sup> hour: complete Module 6 on Resiliency: FRR
- Notice: Cisco DreamTeam applications due Apr 15<sup>th</sup>; you'll need a ref letter
- Review: 6PE - principles of operation; protocols & config req'd at each node
- 2<sup>nd</sup> hour: start VPRN basics – SA Mod 5, slides 28-54
  - (1) MP-BGP on PE's; (2) VPRN service; (3) Proto for PE-CE routing

### Assignments and Lab work

- Read: NRS-II Ch 20 and SA Module 5 – L3 services; due Monday (today!)
- Lab 10 post-lab: due **8:00am on Mon Apr 2** for everyone.
- Lab #11: MPLS resilience – Secondary LSPs and Fast Reroute
  - Mon sect A1: postlab due Sat Apr 7 @ 11:59pm ("normal")
  - Fri sect A2: postlab due Tue Apr 10 @ 11:59pm ("early")
- Lab #12 (last one!): VPRN (from SA Lab 9 – VPRN)
  - Post-lab #12 official due-date 11:59pm **Wed Apr 11** for everyone
- Start preparing for SBA:
  - Necessarily includes everything you know about routing protocols, especially OSPF and BGP
  - Really know & understand IPv6 configuration on Nokia equipment
  - LDP, RSVP, and LSPs
  - Direct uses for MPLS: IGP-shortcuts, 6PE, iBGP full-mesh, LDP-o-RSVP
  - Service components:
    - ports pre-configured for SAPs; pre-configured LSPs for SDPs
    - SAPs, and SDPs used in both spoke & mesh mode
    - epipe, VPLS, IES, VPRN
  - Really understand SAPs: what's stripped/added, when, and why
  - Really understand MTU issues and calculations
  - **Lab Exam study guide** is posted on course site with more details