# Label Distribution Protocol

## Essentials: Characteristics & parameters of LDP

## Agenda

- Note: Module 2 has *lots* of new terminology. If it wasn't important **and** useful, it wouldn't be in the course materials!
- Lab prep: Only a few commands are required for (link-)LDP configuration
- Theory:
  - Complete Module 2
  - Time permitting: start MPLS Module 3, section 1
  - the section summary on slide 63 is a good starting point for studying for quizzes & term tests!

## Assignments and Lab work

- Other items as per Wk02Day1 lecture summary notes
- Lab work: Nokia MPLS Lab Guide, Labs 3.1-3.3 (use all **/24** subnets)

## References

- Original MPLS RFC3031: http://tools.ietf.org/html/rfc3031 (updates exist)

## Cross-ref: MPLS Course & NRS-II book

Here's a handy chart for studying if you get the recommended textbook.

| MPLS Course | | | NRS-II book | |
|---|---|---|---|---|
| 1 | Intro to MPLS | | 11.1-11.3 | Intro to MPLS |
| 2 | Fundamentals | | 11.4-11.8 | Intro to MPLS |
| 3 | LDP | | 12 | LDP |
| 4 | RSVP | | 13 | RSVP-TE Operation |
| 5 | Traffic Engineering | | 14,15 | RSVP-TE: Routing & Reservations |
| 6 | Resiliency; FRR | | 16 | Resiliency |

## Lab Prep

Very few commands are required for basic (link-) LDP. Compare with OSPF:

**OSPF**

```
A:R1>#  config router
A:R1>config>router# ospf
        ------------------------------
        area 0                                  Protocol specific params

        interface system                        } May need to add system i/f
        exit
        interface toR2                          } List all the participating interfaces
        exit
        interface toR3
        exit
        interface toR4
        exit
```

**LDP**

```
A:R1>#  config router
A:R1>config>router#  ldp
        ------------------------------
        interface-parameters

            interface "toR2"                    } List all the participating interfaces
            exit
            interface "toR3"
            exit
            interface "toR4"
            exit
```

... and then lots of ***show*** commands to see what's happening!

## Module 3, Section 1 Summary

- Link vs Targeted (... LDP)
- LDP parameters
- Session establishment and "maintain-ance"
- OAM lsp-ping and lsp-trace