

SAPs & MTU

Essentials: SAP encapsulations and treatment of Q-tags

Agenda

- Meet-up **tonight** 5:30-8:30pm <https://www.meetup.com/Open-Source-Networking-Ottawa-Group/events/245886507/>
- Term Test #2: NEXT **Wed March @ 4pm, room T302**
 - all lecture & lab material up to and including today (omit Mod 5.93-140)
- Review: SA Module 3 – VPLS, sections 1-2 (slides 1-34)
- Start Module 2 – SAPs
- Coming Next: Complete Module 2 – MTU, x-Pipe interworking

Assignments and Lab work

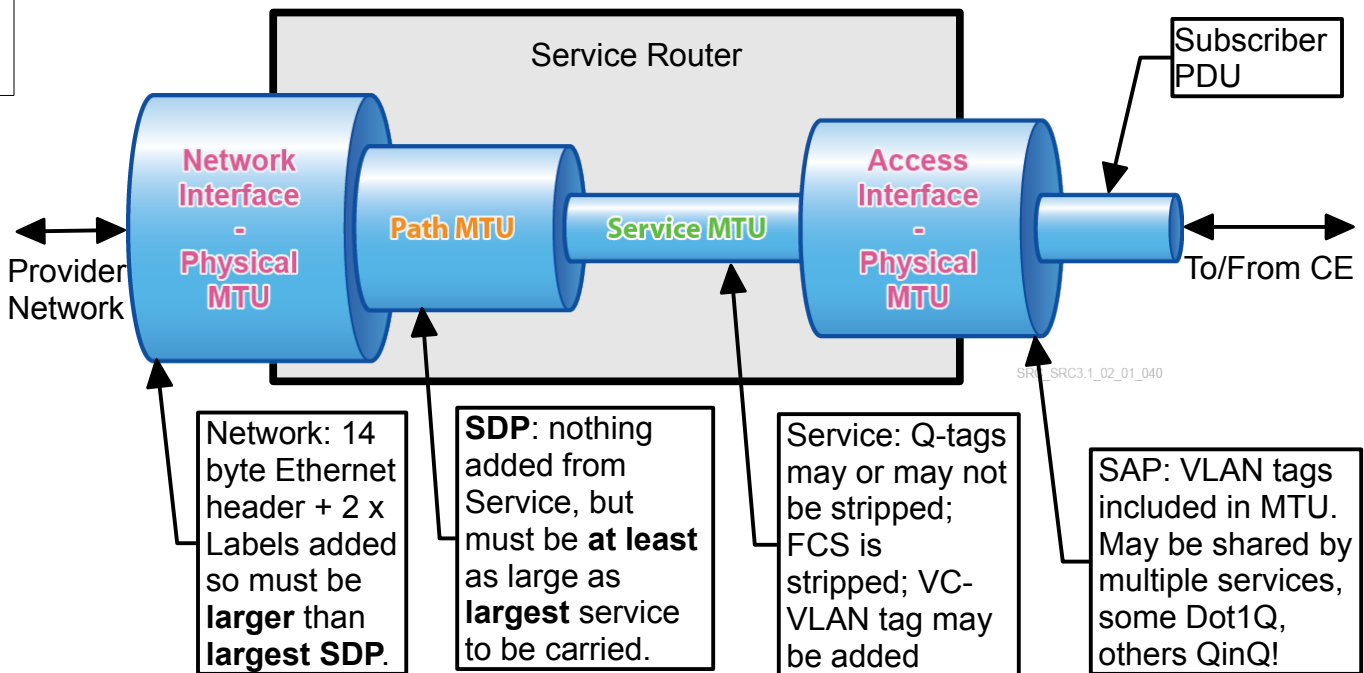
- Read NRS-II book: Chapter 19 on VPLS by Mon Mar 12
- **Exercise 2** due **3:00pm** Wed Mar 14th
- Lab 7 post-lab: due by **11:59pm** on lab section's due date (Thu/Sat)
- Lab #8: SA Lab 2: basic Epipe / VPWS service

References

- NRS-II Chapter 18: VPWS Services, p. 1018-1066
- Inter-dependencies of MTU values: SA Module 2.24-25; NRS-II p. 1046-7

MTU Diagram (for Epipe)

The diagram below illustrates the fields & changes to a frame or packet as it traverses through the PE router providing a SAP for a service. Note that the 4-byte FCS in the Subscriber frame is dropped (Module 2-9; NRS-II p. 1024).



Compatibility for Ethertype on singly and doubly tagged frames

Ref: SA Module 2, slide 14; NRS-II p. 1029-1030

In the SR OS, the ethertype of Dot1Q or QinQ frames can be configured to any value in the range 0x600-0xffff (1536..65535), with a default = 0x8100. The configuration is applied on a per-port basis, with the command:

```
configure port • {port Num} • ethernet • {dot1q-etype | qinq-etype} {value}
```

Below is a chart for multi-vendor interoperability (from data published in 2008). Note that any frame with a non-matching etype is simply considered untagged.

Vendor	Top / Outer Tag	Bottom / Inner Tag
Cisco	0x8100	0x8100
Foundry	0x9100	0x8100
Extreme	0x88a8	0x8100
Juniper	0x9100 ; configurable	0x8100
Nokia 7x50 SR	0x8100; configurable	0x8100; configurable