

SAPs & MTU

Essentials: SAP encapsulations and treatment of Q-tags

Agenda

- Pop quiz: SAP encapsulation definitions
- Notice: **Post-lab #12** will be due @ 11:59pm on **Thu Apr 6** for everyone
- Organize drivers & passenger lists for Field Trip to Nokia next Monday
- Review: SAP definitions & handling of Q-tags
- Complete SA Module 2 – SAPs, MTU, x-Pipe interworking

No cell phones;
no pictures!!

Assignments and Lab work

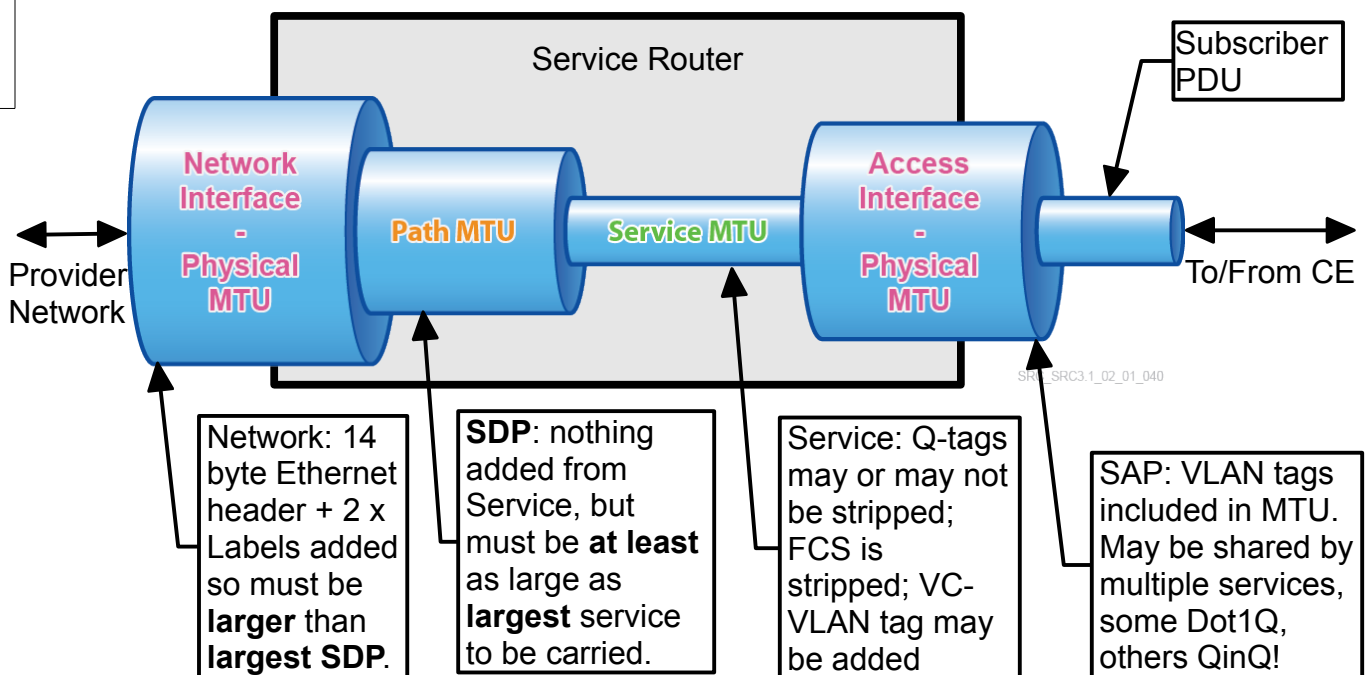
- Read NRS-II book: Chapter 19 on VPLS by Mon Mar 13
- Lab #10: Spoke-terminated VPLS; IES = SA Lab guide, lab #8
- Lab 9 post-lab: due by 11:59pm **the day before** your lab session #10.

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.

	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