PWE3 Architecture

PWE3 IETF-55 July 21, 2002

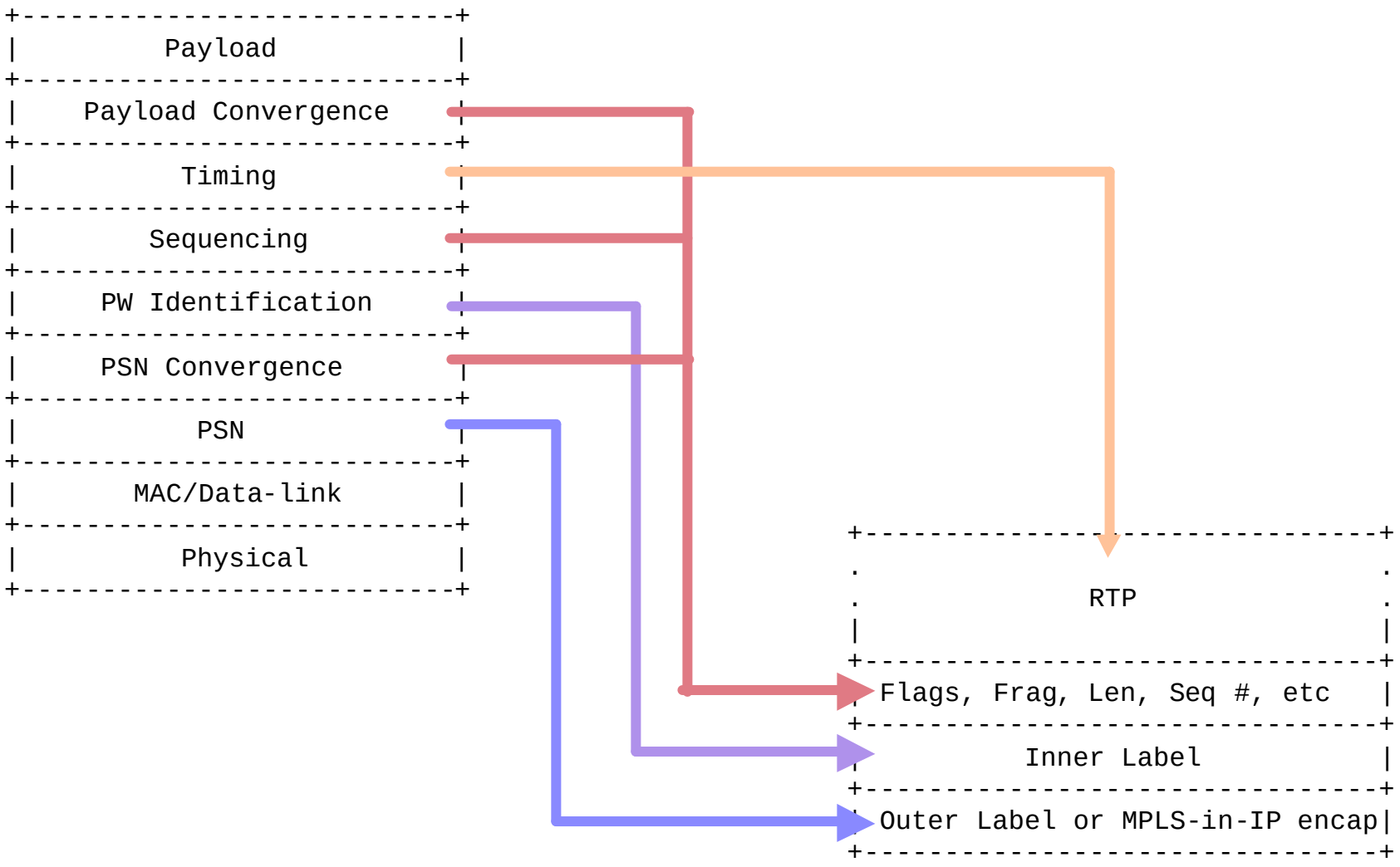
Stewart Bryant <stbryant@cisco.com>

The Architecture Draft

draft-ietf-pwe3-arch-00.txt
was the result of merging
draft-ietf-pwe3-framework-01.txt &
draft-ietf-pwe3-protocol-layer-01.txt

All comments received prior to 11-1-02 were then incorporated into
draft-ietf-pwe3-arch-01.txt
which we are discussing here

MPLS PSN


Payload
Payload Convergence
Timing
Sequencing
PW Identification
PSN Convergence
PSN
MAC/Data-link
Physical
RTP
Flags, Frag, Len, Seq #, etc
Inner Label
Outer Label or MPLS-in-IP encap

Structured Bit-stream

The following additional text change is proposed for section 3.3.4

o Some part of the original bit-stream are stripped in the PSN-bound direction by NSP block. For example, in Structured SONET the section and line overhead (and, possibly, more) may be stripped. A framer is required to enable such stripping. It is also required for frame/payload alignment for fractional T1/E1 applications.

o The PW must preserve the structure across the PSN so that the CE-bound NSP block can insert it correctly into the reconstructed unstructured bit-stream. The stripped information (such as SONET pointer justifications) may appear in the encapsulation layer to facilitate this reconstitution.

Security

- Need to add some short text AKA RFC-3378 emphasising need user to be aware that this network may be more vulnerable to security issues than traditional network.
- Operation over IPsec is already explicitly called up and will support L2TP and MPLS over GRE over IP.
- Configuration security provided by signalling protocol.

Congestion

- **Need to add some text describing how PW detects PSN congestion and appropriate action.**
- **Applicable when running non-IP payloads over public Internet.**
- **Low pass filter applied to packet loss detection mechanism.**
- **Shutdown the PW**

Control Word

- **Definition of the common PWE3 control word will be moved to the architecture document.**

What is an Ethernet Pseudowire?

- **Issue raised on the list about definition of an Ethernet PW.**
- **PWE3 provides basic transport for Ethernet frames.**
- **The implicit model assumes that we are working with an Ethernet attachment circuit (A CAT5 cable, an AUI cable or the plug connection BNC T).**
- **If a more complex function is needed (i.e. a bridge), then this resides in the PREP.**
- **This model is consistent with the work of PPVPN.**
- **If anyone takes a contra view than they need to describe the issues that are not addressed by the combination of PWE3 and PPVPN.**
- **This will be clarified in the next revision of the Architecture draft.**

Terminology

At IETF-54 we agreed that there should be single document that defined the common terminology, and that this should be a separate document.

draft-bryant-pwe3-terms-01.txt was submitted for review. This is identical to section 1.4 of the architecture draft.

However there is a view that it would be better to place the common terminology in the Architecture definition.

Some requests to tighten the definition of terms is coming in as a result of ITU-T work. If there is a problem with definition, now is the time to tell the editors.

Anything Else?

If there are are any other corrections, or clarifications needed, please tell me soonest, as we would like to take this to last call 9th December.