Static pseudowire configuration checking using Generic Associated Channel (G-ACh) Advertisement Protocol

draft-jc-pwe3-static-config-check-01

Authors:
Lizhong Jin
Ran Chen
Sami Boutros
Sriganesh Kini

Presenter:
Sami Boutros
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What updates?

• draft-jc-pwe3-mpls-tp-static-checking-00 was presented at IETF83 Paris meeting, and received comments from meeting and mailing list.

• draft-jc-pwe3-static-config-check-00 and 01 is the updated version of draft-jc-pwe3-mpls-tp-static-checking-00.

• Updates include:
  – Extend static PW checking for both MPLS-TP and Non-TP;
  – New Static PW FEC Element TLV is defined, instead of using Generalized ID FEC;
  – TX/RX Sequence number is used to ensure message delivery, instead of using local and remote PW element;
  – Control word configuration checking update;
  – MS-PW procedure update.
Extensions to GAP

• GAP is defined in draft-ietf-mpls-gach-adv-02.
• The extensions to GAP include:
  – New GAP application "static PW" is defined.
  – Application Data Block (ADB) for "static PW" application is defined with “Static PW FEC Element TLV”.
  – Define static PW suppress TLV to suppress static PW FEC element transmission.
Sending PW application
Element TLV

• When a PW is configured, the PE MUST send its local PW configuration information using the GAP over the PSN tunnel.
  – Set the TX sequence number to a non-zero value;
  – RX sequence number MUST be set to the previously received TX sequence number, otherwise set to zero;
Receiving PW application
Element TLV

• If PE has local PW configuration and previously sent GAP, it MUST check \textbf{RX seq#} received and \textbf{TX seq#} it previously sent.
  – If equal, send GAP message with static PW suppress TLV
  – Otherwise, do not send GAP message with static PW suppress TLV

• If there is no local PW configuration, the receiving PE MUST retain the remote static PW FEC Element information.
Message process

- **Config local PW info A**
- **Check TX&RX seq#:**
  1. B has received A;
  2. A has received B,
  3. tell peer to not send
- **Continue sending GAP**
- **Stop sending GAP**

PE-A

- **GAP Message with TX seq_A**
  - **GAP Message with TX seq_B**
  - **Suppress message for PW**

PE-B

- **Receive remote PW info A**
- **Config local PW info B**
- **Stop sending GAP**

- **Check TX&RX seq#:**
  1. A has received B;
  2. B has received A,
  3. tell peer to not send
- **Continue sending GAP**
- **Stop sending GAP**
MS-PW Procedure

• T-PE is same as SS-PW procedure
• S-PE
  – Verify the incoming and outgoing static PW labels only, and no other PW configuration parameters checking are needed at S-PE
  – S-PE MUST pass through static PW application TLVs carried in GAP messages, from one PW segment's corresponding PSN tunnel to the other PW segment's corresponding PSN tunnel.
Next steps

• Any more comments are appreciated.
• Ready for WG adoption.

Thank you