

Directory Assisted TRILL Edge

- Overview
- draft-ietf-trill-directory-assist-mechanisms
- draft-ietf-trill-ia-appsubtlv
- draft-ietf-trill-channel-tunnel

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Directory Assisted Edge: Purposes

- “ Directories provide IP \Leftrightarrow MAC \Leftrightarrow nickname mapping information within a Data Label (VLAN or Fine Grained Label) to TRILL switches. This supports:
 - . ARP/ND/RARP optimization
 - “ draft-yizhou-trill-arp-optimization
 - . Pre-encapsulation
 - “ draft-ietf-trill-directory-assisted-encap
 - “ draft-ietf-trill-smart-endnodes
 - . Security against forged native frame source MAC and IP addresses, if directory information is complete.

Directory Assistance Overview

- “ Two types of directories: Push and Pull.
 - “ See RFC 7067, “Directory Assistance Problem and High-Level Design Proposal”
- “ Push Directories:
 - “ Push info to any RBridge subscribing using the ESADI protocol (RFC 7357). Granularity of subscription is by VLAN / Fine Grained Label (RFC 7172).
- “ Pull Directories:
 - “ Respond to queries from edge RBridges.
 - “ Can be hosted on an end station; an RBridge adjacent to the end station proxies for the end station as a Pull Directory.

draft-ietf-trill-directory-assist-mechanisms

draft-ietf-trill-directory-assist-mechanisms-01

- . Provides details on the mechanisms for Push and Pull Directories mentioned on the previous slide.
- . Change from -00 to -01 was to remove -00 Section 5 and most of section 4. These were mostly about ARP/ND optimization and the like, not directory mechanisms.
- . Push Directory needs known correction to state machine as discussed on the mailing list.

<http://www.ietf.org/mail-archive/web/trill/current/msg06197.html>

- . Pull needs a little work – in particular there are some error cases not handled.

draft-ietf-trill-ia-appsubtlv

draft-ietf-trill-ia-appsubtlv-02

- . Specifies an APPsubTLV data structure for address mapping information.
 - “ IA APPsubTLVs included in ESADI LSPs by Push Directories.
 - “ Value part included in some Pull Directory response messages.
- . Probably ready for WG Last Call after a little polishing although perhaps it should be put through with the mechanisms draft.

draft-ietf-trill-channel-tunnel

“ draft-ietf-trill-channel-tunnel-02

- . Extends RBridge Channel protocol (RFC 7178), including the addition of security.
- . Referenced by draft-ietf-trill-directory-assist-mechanisms for the security of Pull Directory messages.
- . Simplified in going from -01 to -02 by removing the “scope” feature for which there is no current application.
 - “ <http://www.ietf.org/mail-archive/web/trill/current/msg06531.html>
- . Needs some work on the security part.

Questions?

END