TRILL RBridge Architecture

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Editor
Still not complicated enough to show functionality
Use a link-state Routing Protocol (IS-IS) for: Peer Discovery, SPF

At A:
- add SHIM indicating –
  - A: is ingress
  - C: is egress
- add MAC header –
  - A: is MAC SA
  - B: is MAC DA
- Send to B

At B:
- note SHIM indicating –
  - C: is egress
- change MAC header –
  - B: is MAC SA
  - C: is MAC DA
- Send to C

At C:
- strip MAC header
- strip SHIM
- send to Host
At C (Host 2 -> 3):
add SHIM indicating –
  C : is ingress
  E : is egress
add MAC header –
  C : is MAC SA
  D : is MAC DA
Send to D

At D:
note SHIM indicating –
  E : is egress
change MAC header –
  D : is MAC SA
  E : is MAC DA
send to E

At E:
strip MAC header
strip SHIM
send to Host

At C (Host 2 -> 4):
C forwards transparently to Host 4
CRED – Cooperating RBridges and Encapsulation tunnel Domain

CFT – CRED Forwarding Table
CFT-IRT – CFT for the IRT
IRT – Ingress RBridge Tree

CFT is used for unicast forwarding to known DA
CFT-IRT is used for multicast, broadcast and flooded frame forwarding – may contain multiple forwarding entries

Ingress RBridge Tree is used for non-unicast and forwarding to unknown MAC DAs
DR – Designated RBridge
Allowed by Architecture

• VLAN pruning on a per-hop basis
• Multicast Pruning – RBridges may include multicast group information and use it to prune the IRT for multicast forwarding
• “Smart” Flooding – RBridges may “peek” at MAC DA for flooded frames and may change them to unicast forwarding if the MAC DA is known
• BPDU “snooping”
Required by Architecture

• VLAN pruning at egress from CRED
Where it all is…

• TRILL Information:

• Architecture Document:

• Me
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