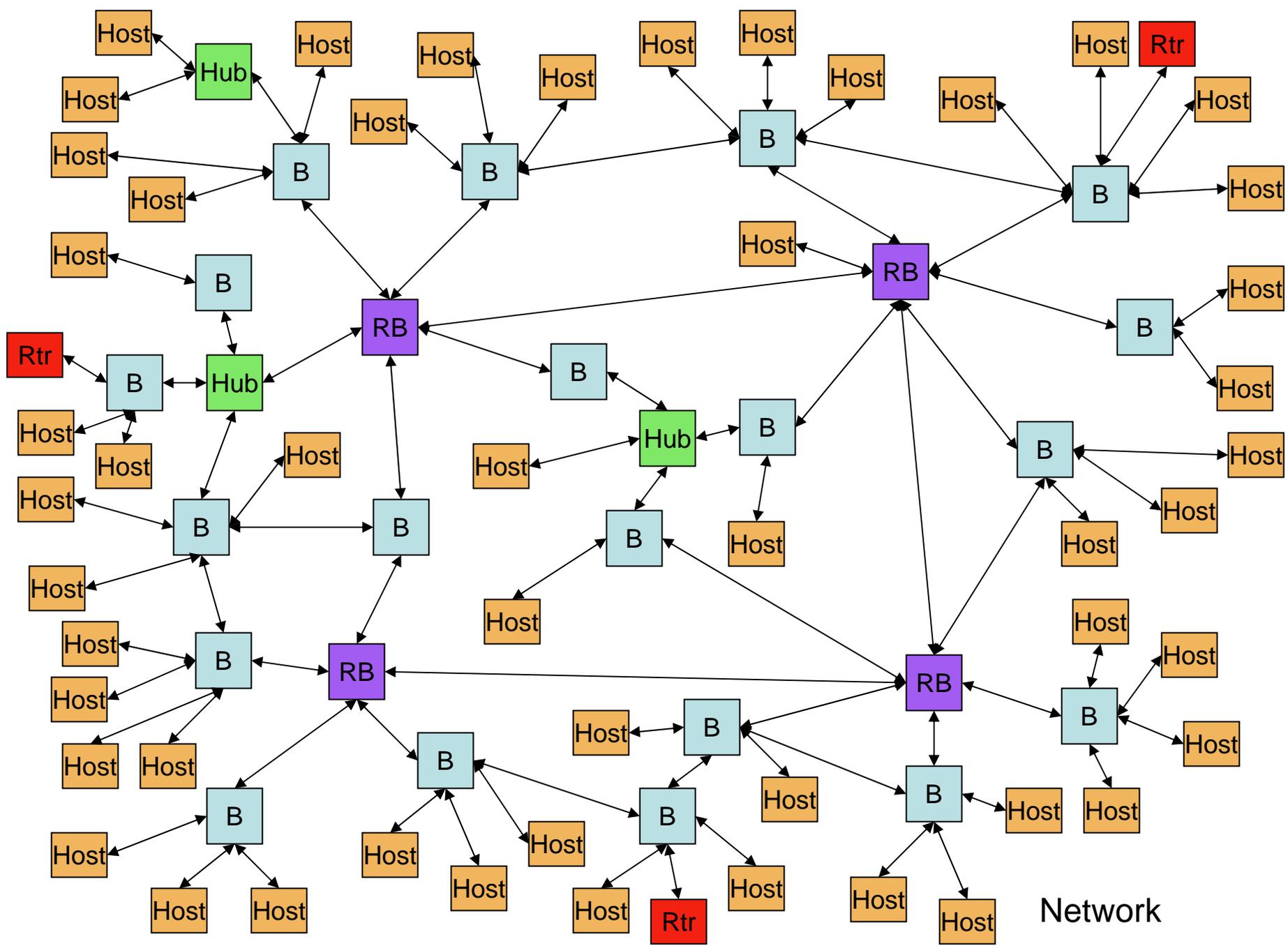
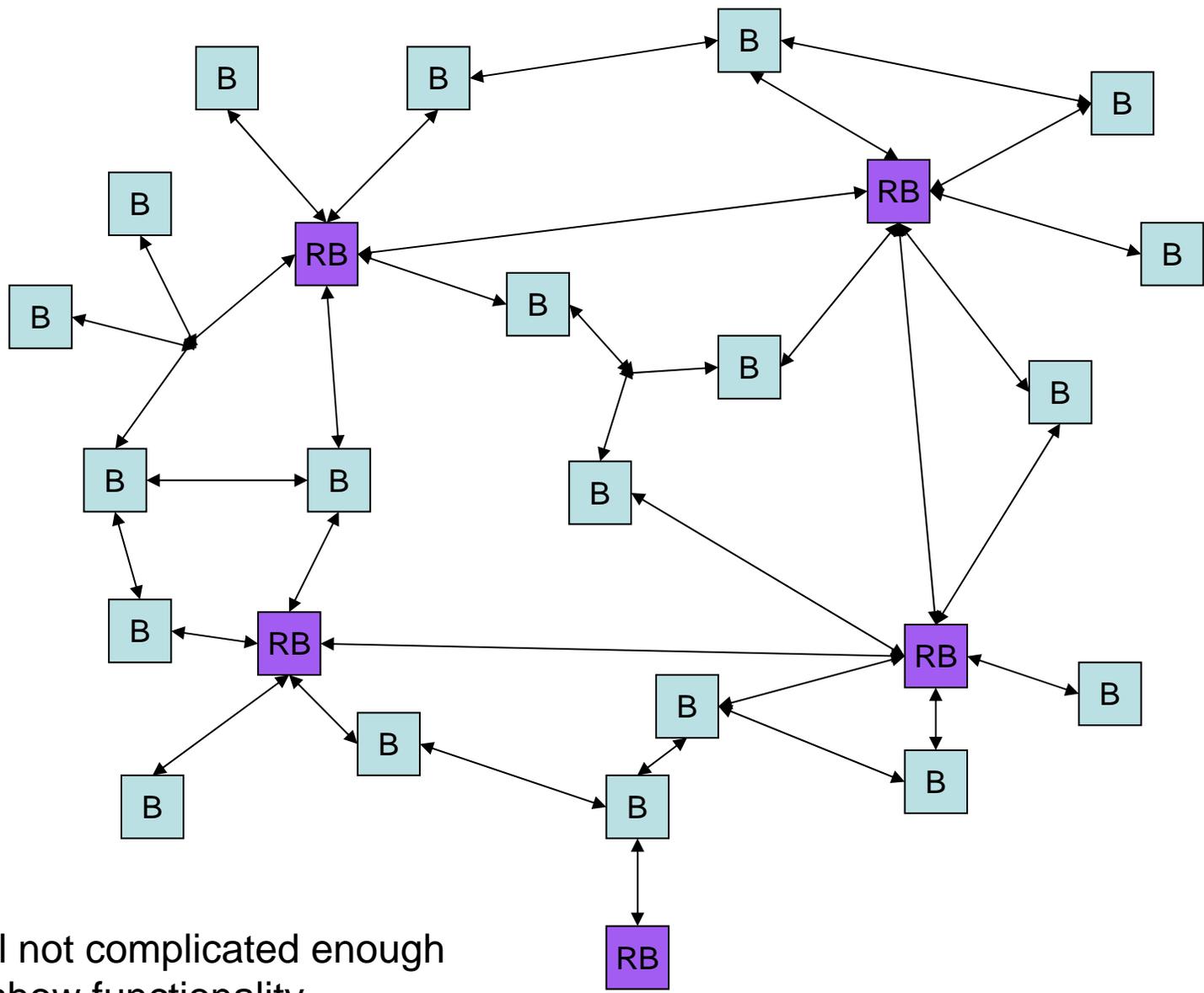


TRILL RBridge Architecture

E. Gray, Ericsson
Editor

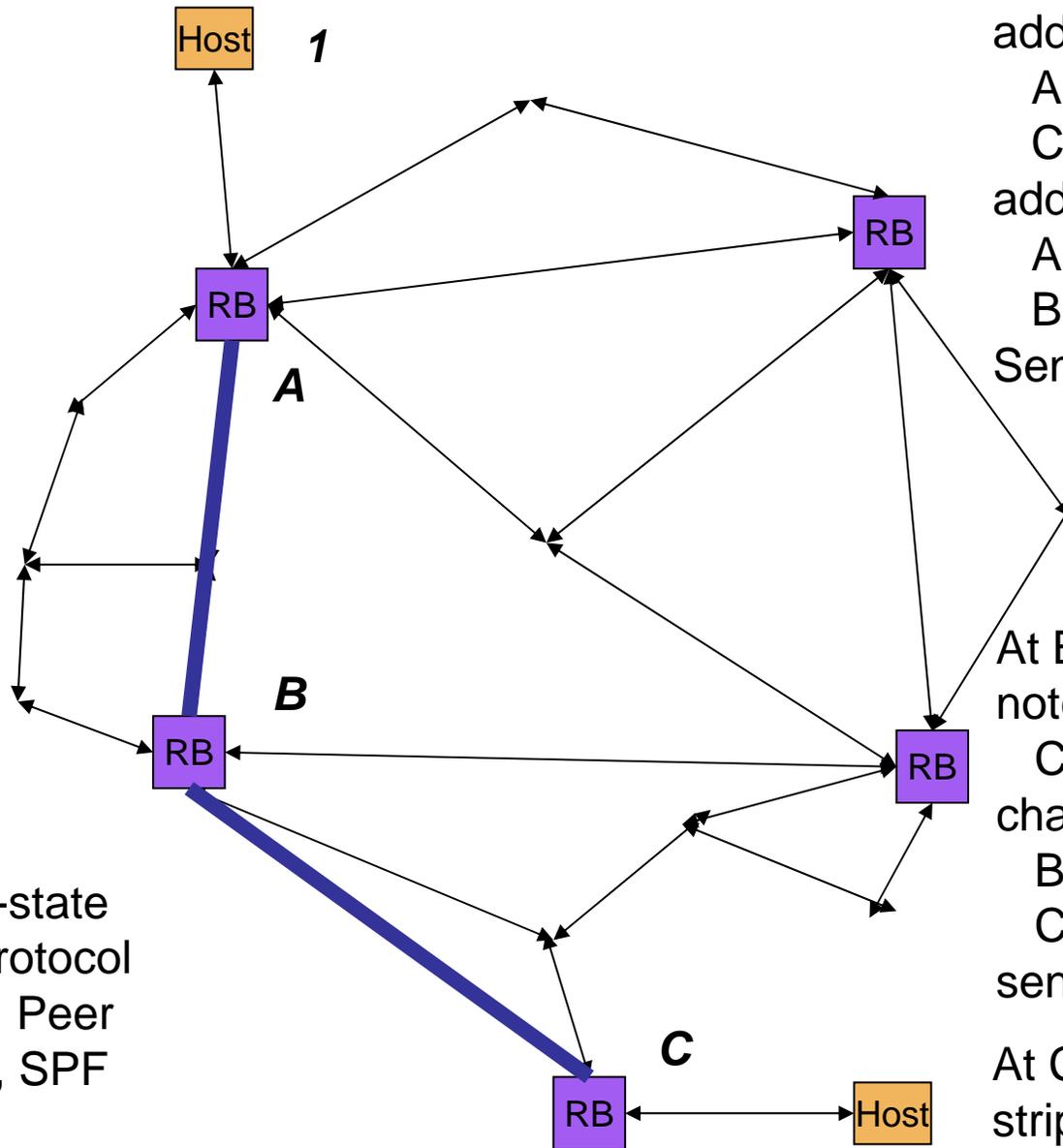


Network



Still not complicated enough
to show functionality

Use a link-state
Routing Protocol
(IS-IS) for: Peer
Discovery, SPF

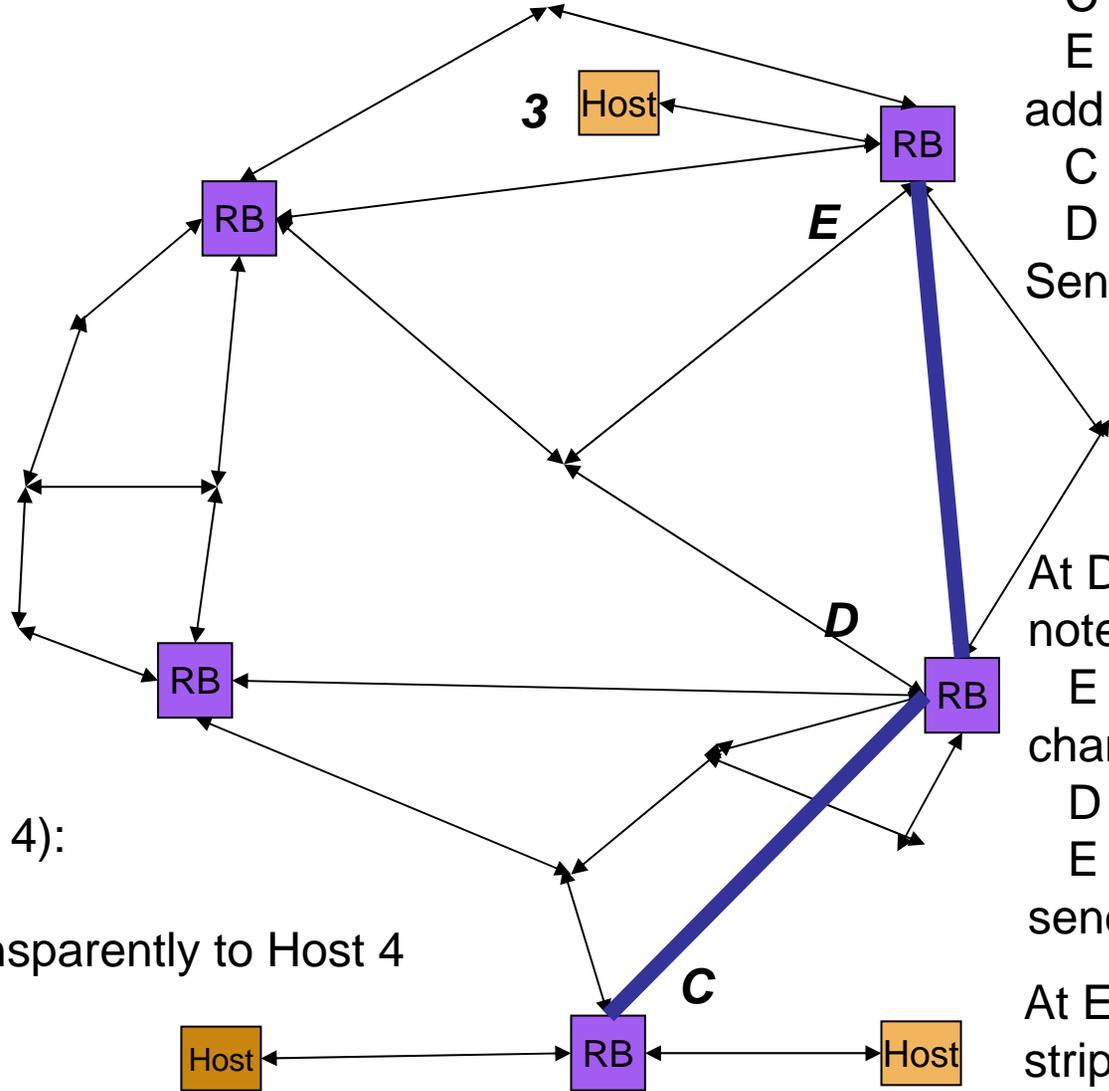


At A:
add SHIM indicating –
A : is ingress
C : is egress
add MAC header –
A : is MAC SA
B : is MAC DA
Send to B

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

2



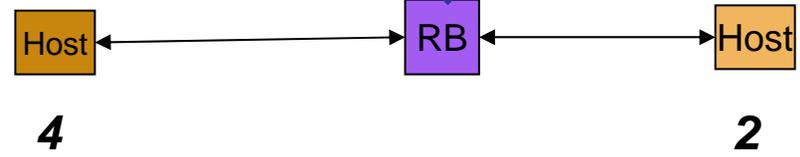
At C (Host 2 -> 3):
 add SHIM indicating –
 C : is ingress
 E : is egress
 add MAC header –
 C : is MAC SA
 D : is MAC DA
 Send to D

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



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:
 - <http://www.ietf.org/html.charters/trill-charter.html>
- Architecture Document:
 - <http://www.ietf.org/internet-drafts/draft-ietf-trill-rbridge-arch-01.txt>
- Me
 - eric.gray@ericsson.com