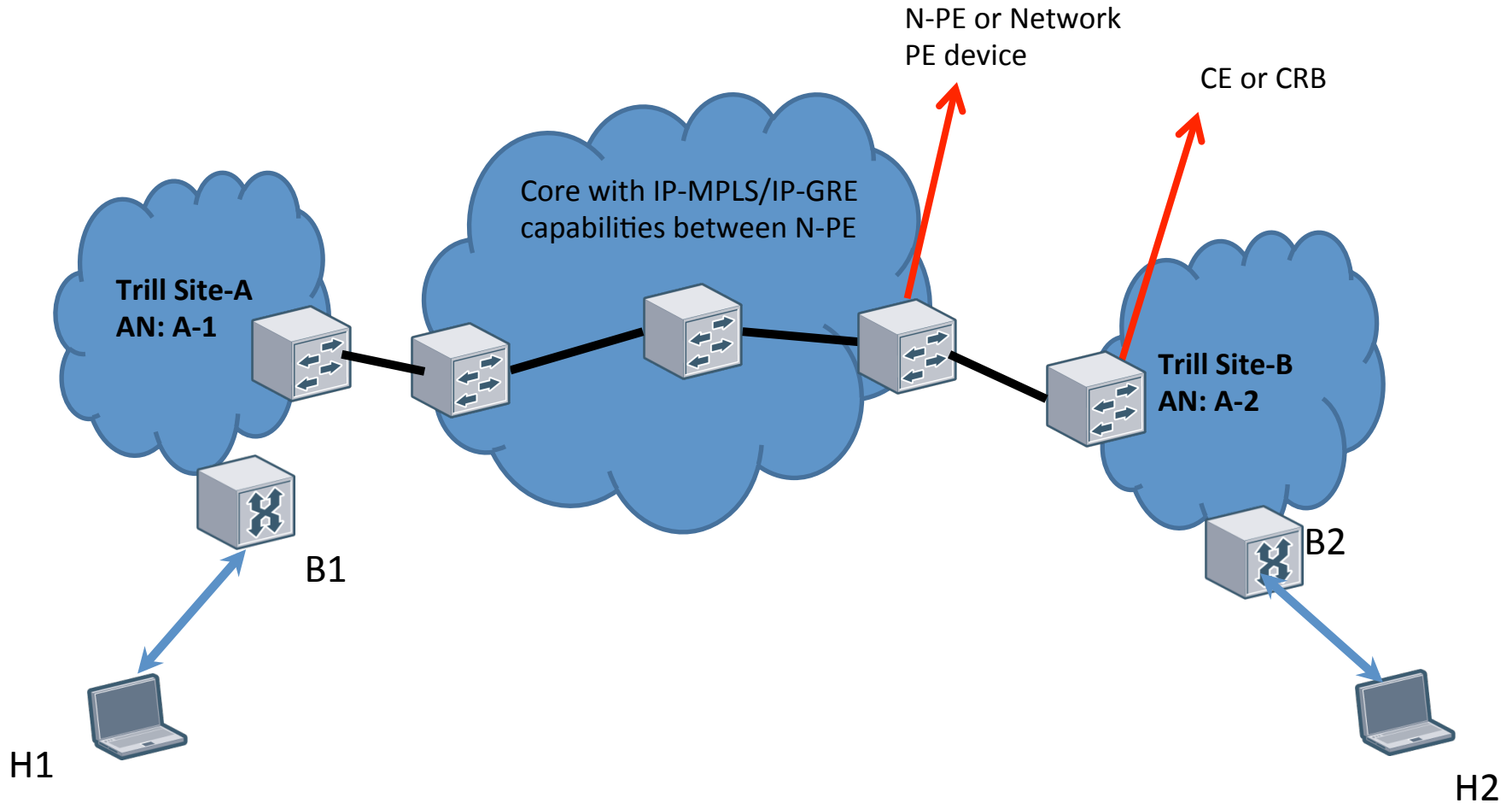


TRILL DC Interconnect

draft-balaji-l2vpn-trill-over-ip-multi-level-02.txt

Balaji Venkat Venkataswami
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Shivakumar Sundaram
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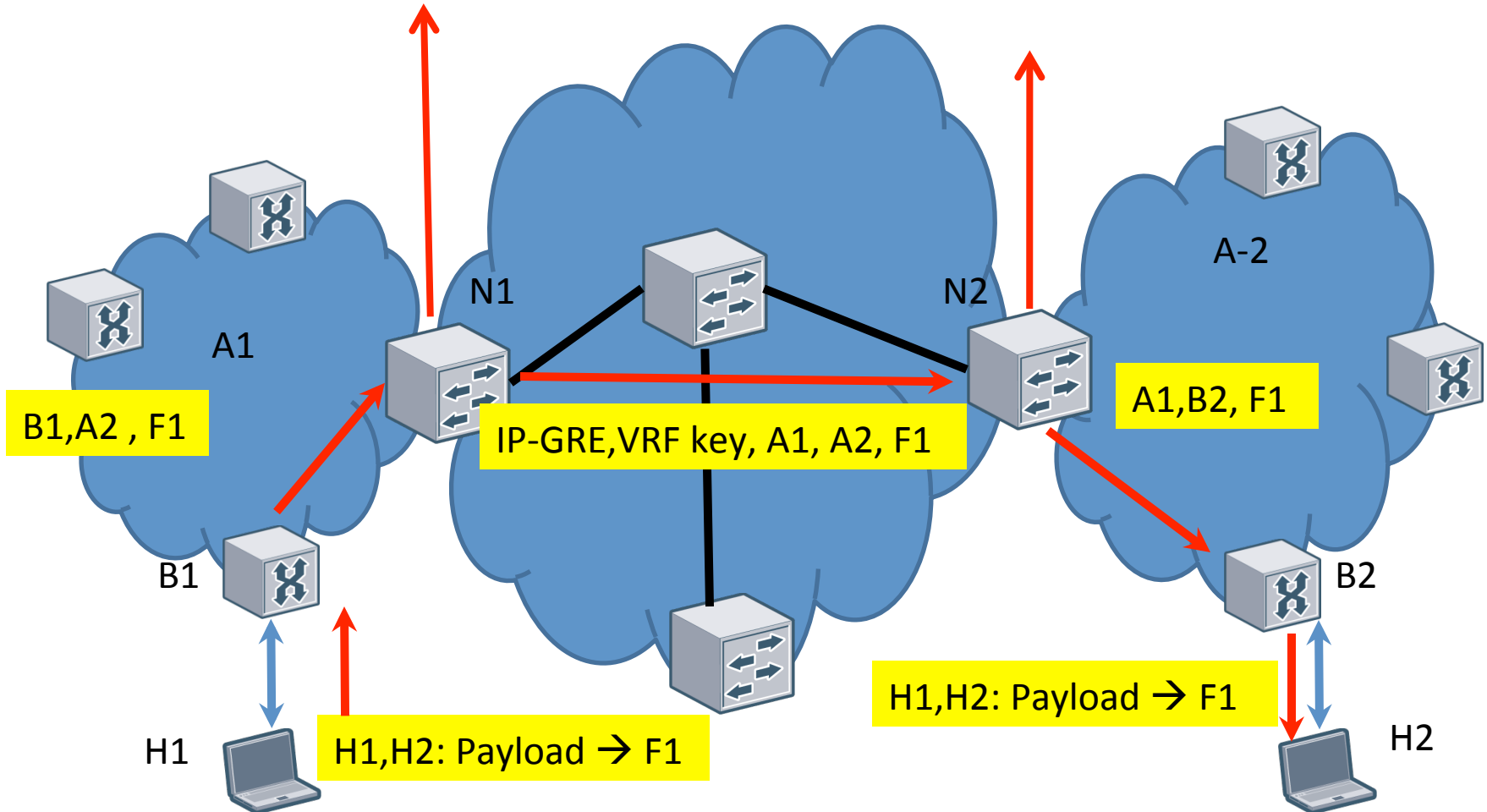
Architecture Considered



Data Plane for DC

Only Site-local MAC address are installed in HW. H1 incase of N1

Only Site-local MAC address are installed in HW. H2 incase of N2

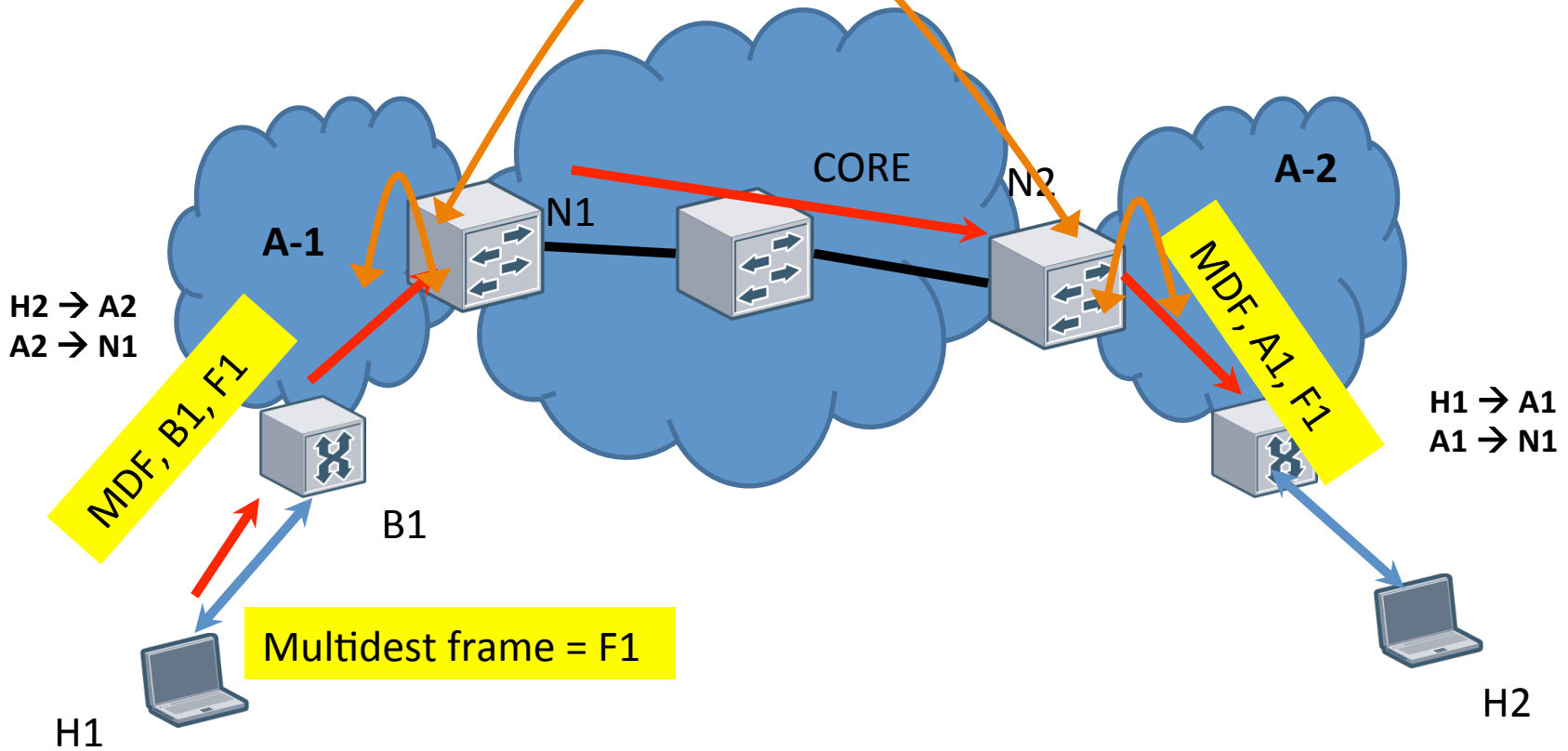


MAC Learning...

BGP to exchange Nicknames

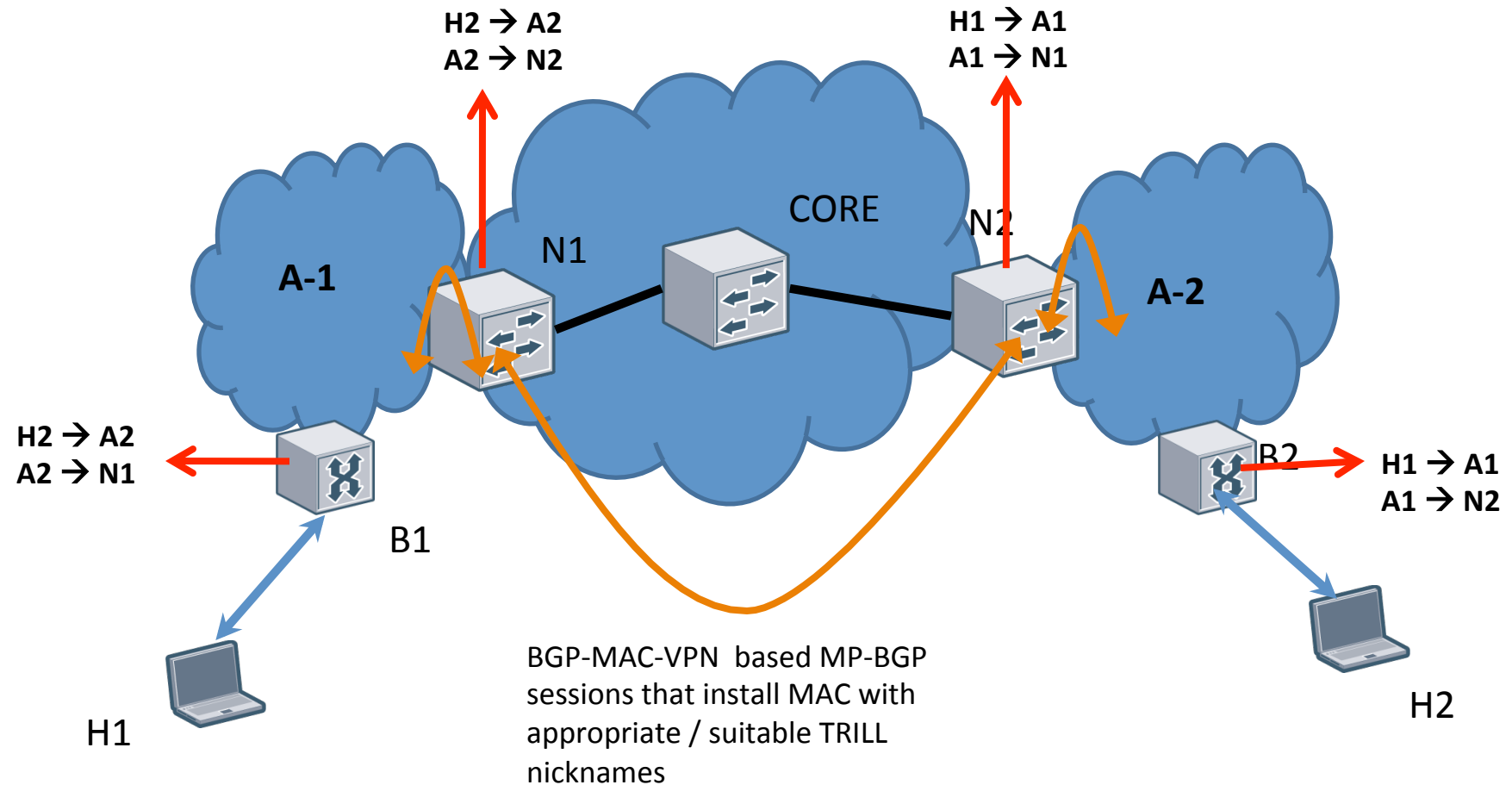
Nicknames redistributed in
ISIS

IP-GRE, VRFkey, Mbit, **A1**, F1



MAC Learning Using BGP.

N1 and N2 redistributed routes in to IS-IS

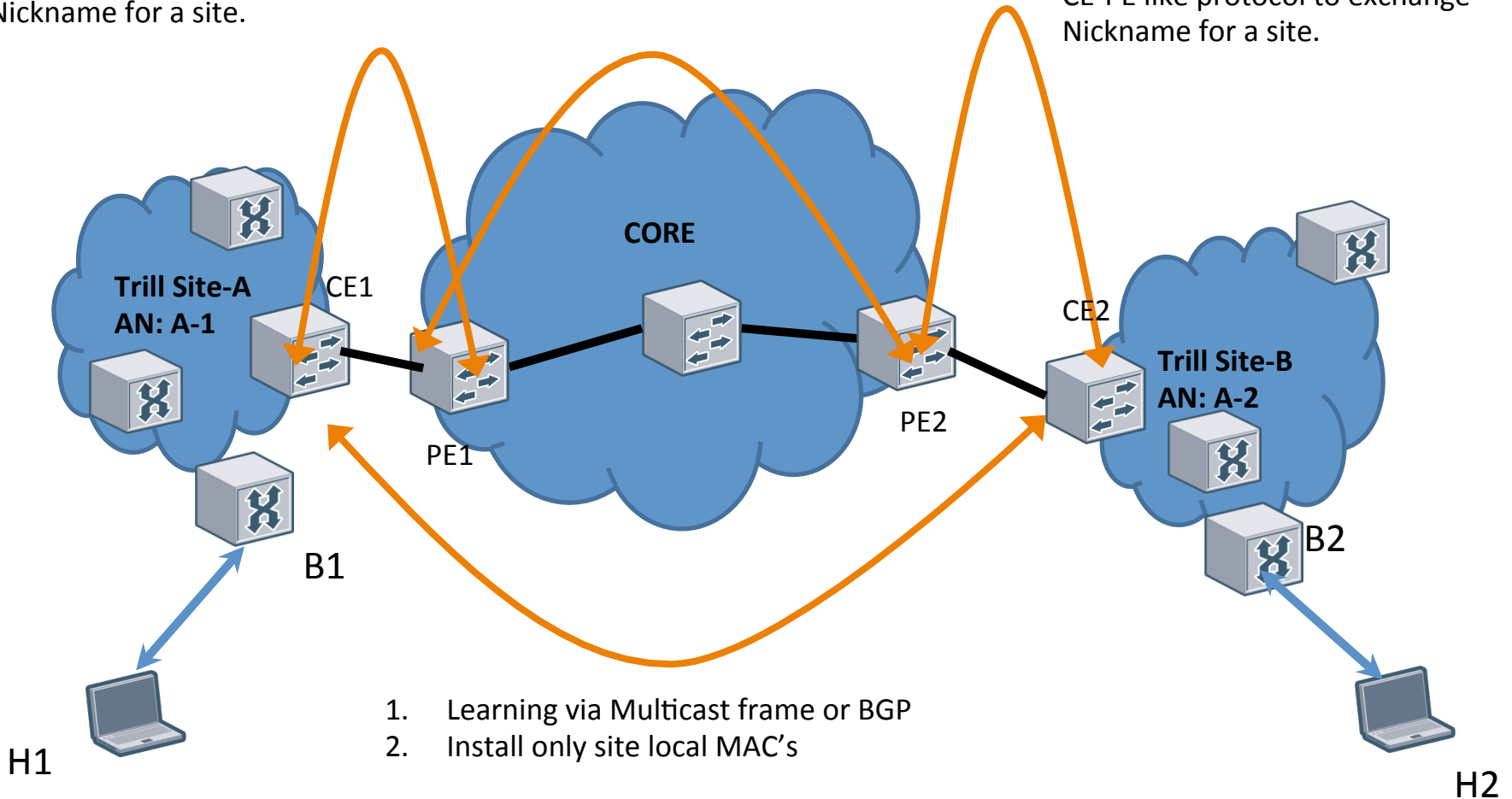


Site local-MAC learning's by CE's

CE-PE like protocol to exchange Nickname for a site.

Nickname exchanged using MP-BGP

CE-PE like protocol to exchange Nickname for a site.



Multicast

- Core to run multicast-VPN based PIM-Bidir tree for each customer to connect DTree's.
- If there are multiple N-PE's, each N-PE's is part of different MVPN PIM-Bidir tree.
- Uses Group Designated Border Router (GDBR) mechanism
 - Load balancing
 - Prevent loops
- Future versions of draft to cover in detail mechanism on Multicast and GDBR election.

Summary

- Nickname recalculations is not required when new TRILL Sites are added
- MAC scaling at PE
 - Forwarding table to have only Site local MAC's
 - Site local MAC's learning by CE only.
 - Install only conversational MAC's
- VPN mechanism also provides to use of over lapping MAC address/Nicknames across distinct customers.

Next Steps

- Suggestions/Comments from WG
- Future version based on comments/suggestions.