Cheatography

Arista VXLAN Control Plane Options Cheat Sheet

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IP Multicast

VTEPs within a VNI join a configured control-plane multicast group.

BUM traffic is sent to all VTEPs within the VNI over the configured multicast-group.

Arista supports multicast decapsulation to interoperate with third-party VTEP(s).

The underlay needs to be multicast capable which makes the deployment limited.

Recommended for deployments where Arista VTEPs need to interop with legacy third-party VTEPs that support only multicast underlay for BUM traffic handling.

CloudVision eXchange (CVX)

Locally learned MACs and VNI binding published to CVX.

CVX dynamically distributes state to remote VTEPs.

MAC address learning is via CVX control plane.

Automated provisioning of each VTEP's flood-list.

No manual overhead for the flood-list when adding/removing VTEP(s).

Reduction in flooded traffic as there's no flood and learning process.

OVSDB support to allow easily integrate into third-party controller in the future.

CloudVision eXchange (CVX) (cont)

High-Availability (HA) Cluster support for resiliency.

Recommended for both small and large deployments where manual flood-list configuration could be a lot of overhead.

Recommended for cases where there's a requirement to integrate with third-party controllers such as NSX, Nuage, OpenStack, etc.

Head End Replication with static flood-set (HER)

BUM traffic within a VNI is replicated and transmitted unicast to each of the VTEPs in the flood-list for that VNI.

Replication carried out on the ingress VTEP.

MAC address learning occurs via the standard flood and learn process.

Flood-list needs to be edited on all the VTEPs when adding/removing VTEP(s).

No requirement for IP multicast in the underlay.

Recommended for small deployments where there's a handful of VLANs and VTEPs, and in cases where flood-set changes are minimal.

Ethernet VPN (EVPN)

MP-BGP is used to distribute local MAC address and MAC/IP bindings to VTEPs.

Reduction in flooded traffic with ARP suppression in IRB mode. This facilitates more efficient use of underlay bandwidth.

Dynamic MAC distribution and VNI learning; configuration can be BGP intensive.

Support for third-party VTEP(s) with standards-based MP-BGP approach.

Operates outside the CVX model (controller-less).

Recommended for both small and large deployments where standards-based control plane is a requirement.