BGP EVPN Layer 2 Overlay CLI Simplification

You can now do away with multiple steps while provisioning the EVPN Layer 2 overlay. Cisco IOS XE 17.13.1 simplifies the CLIs and automatically sets default values for most of the common configurations.

Simplified CLIs for Layer 2 Overlay Configuration

Use the following set of CLIs to provision an EVPN Layer 2 overlay with three contiguous VLANs and the corresponding EVPN instances (EVIs).

```
l2vpn evpn
 route-target auto vni
!
vlan configuration 100-102
 member evpn-instance
!
interface nve1
 no ip address
 source-interface Loopback2
   host-reachability protocol bgp
!
```

With the above configuration, the EVPN instance (EVI), EVI ID, and the VNI are auto-generated. The EVI ID is generated using the the EVI base and the VLAN ID. If an EVI base is not explicitly configured through a Service Profile, a default value of zero is assigned to it. By default, the encapsulation is set to *vxlan* and the replication-type is set to *ingress*.

Service Profile

A service profile represents a common set of characteristics that are shared by a group of services such as VLANs. A common set of characteristics that are shared by VLAN-based services can be replication-type, EVI mapping, VNI mapping, route-target mapping, and so on.

The **member evpn-instance** and **l2vpn evpn** CLIs are enhanced to provide an optional **profile** *profile-name* keyword to group the common characteristics of an EVPN instance.

l2vpn evpn profile {**default** | *profile-name*}

If you do not provide a profile name and its definition, a default EVPN profile is created. Use the **show l2vpn evpn profile default** command to see the default profile values.

```
Leaf1# show l2vpn evpn profile default detail
EVPN Profile (VLAN Based): default (auto)
  evpn id base: 0
  l2 vni base: 20000
  Encapsulation: vxlan
  Replication Type: Ingress
  IP Local Learn: Not set
  Flooding Suppression Address Resolution: Not set
  Adv. default-gateway: Not set
  Adv. Multicast: Not set
  RT5 Re-originate Flag: Disabled
  Local Routing: Not set
  vlan(s):
    101-102,111-114,131-132
Leaf1#
```

The following shows how to create an EVPN profile and use it.

```
l2vpn evpn profile CCTV
  evi-base 3
  l2vni-base 30000
  replication-type ingress
  encapsulation vxlan
  default-gateway advertise enable
  multicast advertise enable
  ip local-learning disable }
  flooding-suppression address-resolution disable
  re-originate route-type5
  local-routing enable
!
vlan configuration 10-12
  member evpn-instance profile CCTV
```

The example creates a profile named CCTV and defines the basic EVPN characteristics like the replication type, local routing, encapsulation, flooding suppression, and so on. When this CCTV profile is applied to an EVPN instance through the **member evpn-instance profile CCTV** command, the EVPN instance inherits all the definitions under the CCTV profile.

The following table summarizes the simplified CLIs.

Replace these CLIs ….	…with New CLIs
```l2vpn evpn instance 10 vlan-based encapsulation vxlan l2vpn evpn instance 11 vlan-based encapsulation vxlan l2vpn evpn instance 12 vlan-based encapsulation vxlan … vlan configuration 10 member evpn-instance 10 vni 20010 vlan configuration 11 member evpn-instance 11 vni 20011 vlan configuration 12 member evpn-instance 12 vni 20012 … interface nve1 source-interface Loopback0 host-reachability protocol bgp member vni 20010 ingress-replication member vni 20011 ingress-replication member vni 20012 ingress-replication ! router bgp 65001 …```	```vlan configuration 10-12 member evpn-instance [profile profile-name] ! interface nve1 source-interface Loopback0 host-reachability protocol bgp ! router bgp 65001```