

Single Site ESI-Lag (collapsed-core)

This will define a single pair of collapsed core.

Note: This is an early draft of the API for EVPN-VXLAN. Things could change prior to going GA.

Required Variables:

- `device_id` (Core-1)
- `device_id` (Core-2)
- `mac_address` (Core-1)
- `mac_address` (Core-2)

Step 1: (Define Networks/VRFs)

This payload configures 2 networks (`vlan101`, `vlan102`) that go into the `internal_vrf`. The internal VRF also include a static route. In addition, we define a port_usage of `core_access` to describe the trunk link between the core and the access layer. This is a simple trunk, as there is no VXLAN running to the access layer.

We also specify the EVPN option, but these are not required.

This can also be applied to a network template, this example is using a site only.

```
PUT:
/api/v1/sites/:site_id/setting
```

```
{
  "networks": {
    "vlan101": {
      "vlan_id": "101",
      "subnet": "192.168.101.0/24",
      "gateway": "192.168.101.1"
    },
    "vlan102": {
      "vlan_id": "102",
      "subnet": "192.168.102.0/24",
      "gateway": "192.168.102.1"
    }
  },
  "vrf_instances": {
    "internal_vrf": {
      "networks": [
        "vlan101",
```

```

        "vlan102"
    ],
    "extra_routes": {
        "0.0.0.0/0": {
            "via": "192.168.192.1"
        }
    }
}
}
"port_usages": {
    "core-access": {
        "mode": "trunk",
        "disabled": false,
        "port_network": null,
        "voip_network": null,
        "stp_edge": false,
        "all_networks": false,
        "networks": [
            "vlan101",
            "vlan102"
        ],
        "port_auth": null,
        "speed": "auto",
        "duplex": "auto",
        "mac_limit": 0,
        "poe_disabled": true,
        "enable_qos": false,
        "storm_control": {},
        "mtu": 9200
    }
},
"evpn_options": {
    "overlay": {
        "as": 65000
    },
    "underlay": {
        "as_base": 65001,
        "subnet": "10.255.240.0/20"
    }
}
}

```

Step 2: Apply EVPN config to each collapse-core switches

In this section we are applying the router_id to each switch as well as enabling vrf for the two collapsed-core switches.

```

PUT:
/api/v1/sites/:site_id/devices/{{ Core-1_device_id }}

```

```
{
  "router_id": "192.168.255.11",
  "vrf_config": {
    "enabled": true
  }
}
```

PUT:
/api/v1/sites/:site_id/devices/{{ Core-2_device_id }}

```
{
  "router_id": "192.168.255.12",
  "vrf_config": {
    "enabled": true
  }
}
```

Step 3: Build EVPN Topology:

POST
/api/v1/sites/:site_id/devices/evpn_topology

```
{
  "overwrite": true,
  "switches": [{
    "mac": "{{ Core-1_mac }}",
    "role": "collapsed-core"
  },
  {
    "mac": "{{ Core-2_mac }}",
    "role": "collapse-core"
  }
]
```

Record Output from EVPN topology

You will need to identify which switches have uplinks/downlinks. In this scenario, both switches should have 1 uplink and 1 downlink.

Step 4: Match up the EVPN topology uplinks and downlinks.

Each switch will have uplinks, and downlinks. For Collapsed-core, each switch should have an uplink and downlink for redundancy.

For uplink ports, use the port_usage `evpn_uplink` For downlink ports, use port_usage `evpn_downlink`.

Also, make sure you match up the port to the correct port type (ge vs mge vs xe vs et)

Here will also push the config for the ESI-lag down to the access-layer switch, which will use the port_usage `core_access`.

In this scenario, we push the `ae_idx` in order to keep the configuration consistent between the two core switches.

PUT:

```
/api/v1/sites/:site_id/devices/{{ Core1-device_id }}
```

```
{
  "port_config": {
    "ge-0/0/23": {
      "usage": "evpn_uplink"
    },
    "ge-0/0/22": {
      "usage": "downlink"
    },
    "ge-0/0/0": {
      "usage": "core_access",
      "aggregate": true,
      "ae_idx": 1,
      "esilag": true
    }
  }
}
```

PUT:

```
/api/v1/sites/:site_id/devices/{{ Core2-device_id }}
```

```
{
  "port_config": {
    "ge-0/0/23": {
      "usage": "evpn_downlink"
    },
    "ge-0/0/22": {
      "usage": "evpn_uplink"
    },
    "ge-0/0/y": {
      "usage": "core_access",

```

```
        "aggregate": true,  
        "ae_idx": 1,  
        "esilag": true  
    }  
}
```

Multiple uplinks/downlinks:

If you have multiple uplinks/downlinks you are configuring, they must be put in a range statement for the port_config. And the order corresponds to the order they are in the EVPN topology.

Example

```
{  
  "port_config": {  
    "ge-0/0/10-11": {"usage": "evpn_uplink"},  
    "ge-0/0/20-21": {"usage": "evpn_downlink"},  
  }  
}
```

Step 5:

Configure uplink on access-layer switch as a normal aggregation in the mist UI.