

# DATA CENTER NETWORKING: FABRIC DEPLOYMENTS QUESTIONNAIRE

This questionnaire is designed to gather necessary information to plan and deploy Cruz Fabric Controller.

This questionnaire is designed to gather the necessary information in order to plan and deploy Cruz Fabric Controller (CruzFC). The questions primarily apply to the production network deployments but may also apply to deployments in POCs, pilots, and demo environments.

Please respond to all the questions below.

## GENERAL PLANNING

- What is the anticipated start date of the first fabric deployment?
- Is there a rollout schedule that can be shared?
- What is the target completion date for the fabric rollout?

## NETWORK

- What are the target switch models for spines, leaf's and management? (List quantity of each.)
- What are the target Switch OS – SONiC? OS10? Other?
- Is switch management IB or OOB.
  - What ports need to be configured?
- What is the design of the network? (Topology diagrams)
  - What are the components of the network, firewalls, other routers, switches, external connectivity, other servers NTP, DHCP, LOG, RADIUS, TACACS, LDAP, etc.
    - Provide models, OS versions and associated topology.
  - Specify in-band and/or out-of-band IP's and ports
  - Management switch IP's and ports
- Specific switch configuration? Specify how leaf switch ports are connected.
  - Port breakout? VLAN etc.,
- Is ZTP deployment of the network required?
  - Do you have strict MAC-IP mapping for IP address assignment?
- Are there any requirements for integration from Cruz to 3<sup>rd</sup>-party software? Explain use case and requirements where applicable.
  - vCenter
  - NSX
  - HyperV
  - Ticketing systems
  - Other?

- Does the primary fabric use cases involve greenfield deployment process?
  - Are there any ZTP or day 0 requirements?
  - Explain any requirements.
  - Other?
- Where fabrics already exist and need to be brought under CruzFC management:
  - Are there any requirements around how brownfield fabrics are to be onboarded?
    - For example, API only, from a source file, from network configurations, etc.
    - If not specified, we will assume any process can be used.
- Are there any API driven use case requirements?
  - If none specified, will assume all functions will be performed from the UI.
- Are there any requirements for the management network?
  - Discover, manage it? Topology?
  - If yes, what devices?
  - What are the requirements?

## FABRICS

- What is the target fabric type?
  - L3 EVPN
  - EVPN BGP -EBGP or IBGP
  - L3 OSFP
  - L3 BGP
  - L2/L3 VLAG OSPF
  - Two-tier VLT
  - Others
  - Provide fabric topology diagram or relevant configuration files.
- Will a standard-based fabric be deployed, i.e. POD style? With border leafs?
- What is fabric topology for external networking?
  - Provide topology diagrams with method/protocols used for external networking.
- How many fabrics will be deployed?
- What is the typical fabric size? If the fabric needs to scale, specify the start, and end count for fabric switches.
  - Number of spines
  - Number of leafs

- Number of border leafs
- How many connections between leafs and spines?
- What is the desired port selection strategy for leaf port to spine port allocation?
  - Sequential - low to high
  - Interlaced
  - User defined
  - Other custom scheme? Describe,
- Peering ports for all fabric or will they be user defined?
- If standard ports, which ports?
- Spines:
  - What is the desired starting spine port for underlay?
- Leafs:
  - What is the starting leaf port for the underlay?
  - Are all leafs in redundant pairs or is pairing optional?
  - If paired, how many peering links?
  - Will there be a standard set of peering ports for all fabric or will they be user defined?
  - If standard ports, which ports?
  - If auto allocated by Cruz, what is the desired starting port for peering?
- What is the naming convention for fabrics?
  - It is best practice to standardize naming for reference- and searchability.
- Specific fabric attribute allocation/auto allocation: Cruz Fabric Controller can allocate IP pool, ASN, VLANs, VNI, etc. This is recommended. Do you require any specific allocation strategy and values for the following? Explain.
  - BGP ASN
  - Loopback IP pool specified as ip/mask for starting pool range
    - For loopback IP pools, is there a specific order required for allocation if IPs? Options:
      - Ordinal – spine, leaf, peer, border leaf
      - By Role – spine, leaf, peer, border leaf
      - By Role – spine, leaf/peer, interleaved, border leaf
      - General Allocation – user-specified or auto allocate
  - Any cast IP pool specified as ip/mask for starting pool range
  - Virtual router MAC address
  - VLAN
  - VxLAN/VNI
  - VLT domains

- Port-channel numbering
- Other

### OVERLAY NETWORK

- Are L3 VRFs required for inter-VLAN routing?
- How will host be connected to leaf ports? Examples:
  - L2 trunk VLAN/VxLAN
  - L2 access VLAN/VXLan
  - L2 workload (VLAN)
  - Other

### HOSTS

- Describe the type of applications, i.e., VMs, VSAN, Services, etc., that will utilize the fabric.
- What type of host will be connected:
  - Windows servers
  - Linux Servers
  - Esxi
  - HyperV
  - KVM
  - OOB controller?
  - Other

### OTHER

- Are the pre-fabric deployment requirements? (There may be configuration or task required customer requirements BEFORE fabrics are deployed.)
- Are there post-fabric deployment requirements? (There may be configurations or tasks required, customer requirements AFTER fabrics are deployed.)
- Are there any hypervisor or virtualization requirements?
- Are there VM related requirements? And what VM's will be used – OS etc.?
- Are there any monitoring requirements?
- Additional comments or details?

### CONTACT DORADO

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