# CRUZ FABRIC CONTROLLER

## Fabric Creation, Deployment & Automation

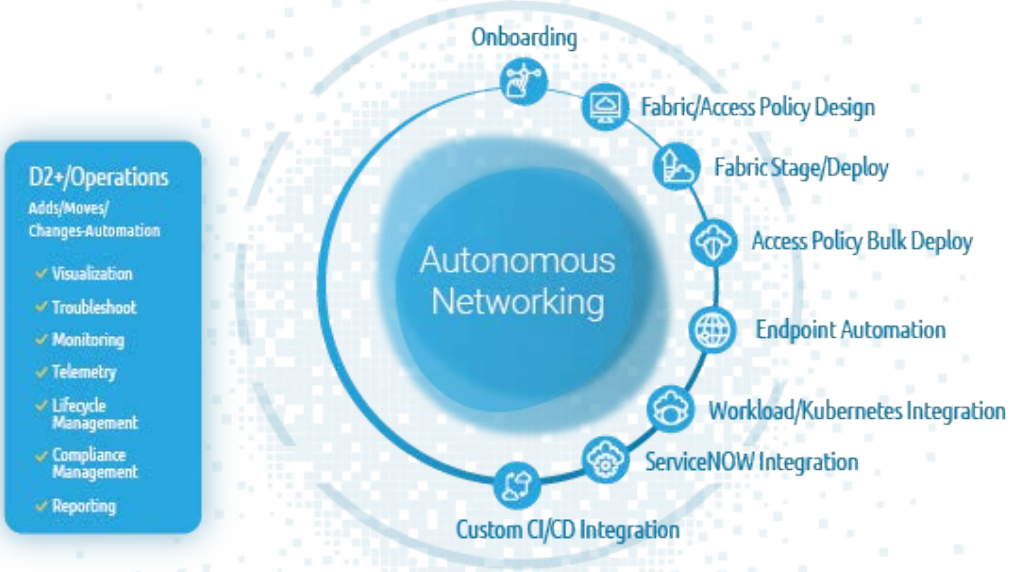
### Software-Defined Networking and Control to Orchestrate Fabrics

**Cruz Fabric Controller** provides software-defined networking and control to *orchestrate fabrics* in your local or remote data center, remote edges, and remote sites.

Managing, monitoring, and configuring numerous switches in any environment can be challenging. Add the complexity of L2/L3 fabrics with Spine and Leaf nodes, and overlays like VXLAN, and device-by-device management becomes time-consuming and ineffective. For instance, if you need a new VLAN, you simply want to update the fabric, not be bogged down by touching various elements in the fabric, CLI syntax, or order of operations.

The Cruz Fabric Controller provides a solution to manage the fabric as a single entity. It offers true SDN and control to orchestrate fabrics from a single-pane-of-glass.

Cruz Fabric Controller lets you deploy and update fabrics, in addition, to manage, monitor, and maintain the fabric and automate operations across the entire fabric topology. It provides a single console management product for managing the data center and network operations of today's converging infrastructures.




## KEY BENEFITS

- Improve efficiency
- Minimize or eliminate daily operational complexity
- Expedite fabric deployments
- Reduce the time it takes to rollout fabric updates or other configuration changes
- Eliminate operator error and misconfiguration
- Validate fabric configuration and design
- Visibility to fabric inconsistencies
- Automation eliminates configuration delay dependencies due to forced network change approval process

## KEY FEATURES

### Single-Pane-of-Glass

- Manage system-wide fabric and any managed resource through their full lifecycle via a single interface.

### Deep Discovery, Inventory, CMDB Fabric Monitoring

- Track CPU, MEMORY Disk, and other KPI and fabric metrics.

### Data Center Fabric Lifecycle Management

- Fabric design, stage, preview, deploy, updates and decommission for DC fabrics.
- Visibility for Network Engineers and Architects.
- Visibility for operators who need to perform daily operations.
- All centralized on one single-pane-of-glass.
- Rollback all or part of a configuration.
- Improve reliability and availability through simplified rollout process.

### Fabric Visualization

- Topology maps and geographic mapping let you visualize your fabrics links, physical and logical topology, as well as view fabrics by location.

### Fabric Monitoring

- Global telemetry to track fabric by fabric performance.
- CPU, MEMORY Disk, and other KPI and fabric metrics.
- Interface metrics and analytics.
- Fabric change with anomaly alerting and recovery.

### VMware Integration / NSX-T and vCenter

- Visibility NSX-T instances, segments, interface. groups, NSX-t Hosts, virtual switches, endpoints, TEPS.
- Insight into the virtual networks and workloads.
- Identify and resolve inconsistencies between the physical network and the NSX-T underlay and overlay.

### Reporting

- Report on inventory, firmware versions, port or interface utilization, flow data by fabric.

### Traffic Flow

- Capture applications, protocols, conversations, endpoint flowing across the fabric.

### Low-touch Fabric Deployment or Updates

- Accelerate rollout of new fabrics or additions of Leaf with automated resource and network configuration.

### Software Lifecycle Management

- Corporate-wide application of software updates across fabrics and other devices with dependency validation for network functions, computer processes, and applications.
- Track fabric elements, service tags, serial numbers, OS versions, warranty status.
- Backup/restore and intelligent node isolation so traffic is unaffected by maintenance activities.

### Automation

- Schedule or trigger action workflows or rules or to auto-configure the fabric. Use pre-built templates to automate common deployment and configuration tasks from a single user interface to quickly define, provision, and deploy configurations for an entire fabric topology.

### Asset Management

- Manage green field and brown field fabric installations and deployment as a single entity for performance, root cause visibility, and reporting.

### Active Security Compliance

- Validate fabric configurations, change auditing and automated compliance enforcement for security policies.

### Pre-built Design Templates - Examples

- Two tier VLT Fabric L/S
- L2 and L2/ w VLT fabric, MCLAG
- Layer 3 fabric with OSPF
- L2/L3 Fabric with VLAG and OSPF
- Layer 3 fabric with BGP
- Layer 3 VXLAN EVPN over BGP Fabric – Overlay
- LAN/SAN Fabrics

### Ecosystem Integration

- OPEN APIs for easy northbound and southbound integration.
- Cloudstack Integrations: Redhat, VMWare

## ARCHITECTURE

The Cruz Automation Framework can initiate any system operation, like script execution, configuration back-ups, and or restorations in response to any event. Built upon a componentized Device Driver (DD) architecture, DDs provide standardized application support protocols and configurations. By simply installing a new driver, Cruz can manage additional devices without needing to upgrade applications. In addition, for those vendors where a driver is not currently available, you can easily create your drivers with the DD Software Development Kit (SDK). Cruz features a graphical user interface based upon standard web portal technologies. This allows for a highly customizable user experience to satisfy customer specific operational procedures, all within a multi-tenant environment.

## CRUZ PORTFOLIO

The Cruz portfolio is designed to make it easier to plan, modernize, manage, and extend multi-vendor, converging environments. The Cruz integrated portfolio includes products for **infrastructure management and operations**, and **automation and control** – with deployments on-premises or from the cloud.