

CRUZ FABRIC CONTROLLER

Fabric Creation, Deployment & Management

Dell OS10 and Dell Enterprise SONiC



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.

Dell OS10
Dell Enterprise SONiC

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 adds to Cruz Operations Center's (CruzOC) IT resource management features. Combined with CruzOC, you can deploy and update fabrics, in addition, to manage, monitor, and maintain the fabric and automate operations across the entire fabric topology. Together, they provide a single console management product for managing the data center and network operations of today's converging infrastructures.

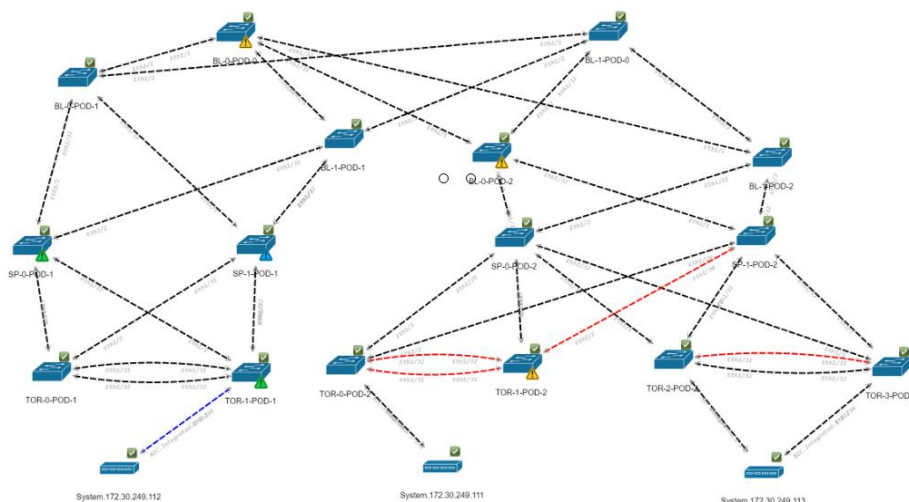
KEY BENEFITS

- 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

Cruz Fabric Controller

Pod Fabrics

All Pods Connect to Pod0 via Boarder Leaf Switches



Deep Discovery, Inventory, CMDB Fabric Monitoring

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

Fabric Visualization

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

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.

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.

Alarm, Event, and Syslogs

- Capture fabric information for deeper analytics, automated notifications, and fabric history.

Single Pane-of-Glass

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

Multi-vendor / multi-platform

- In addition to fabrics, configure, manage, and monitor routers, switches, firewalls, servers, clients, IoT, storage, and more.

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

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

Low-touch Fabric Deployment or Updates

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

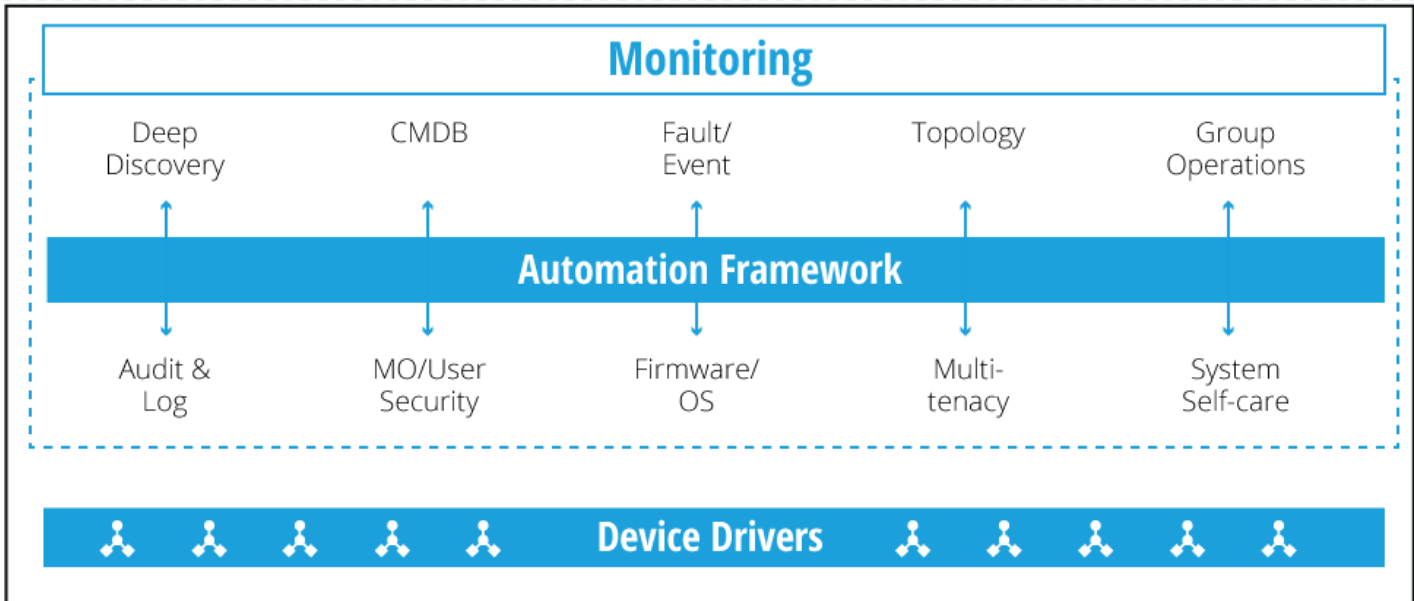
Pre-built Design Templates - Examples

- 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.

Collaboration Platform



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 Network Management & IT Operations 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. Here are some product examples:

- **Cruz Operations Center (CruzOC)** – Automate Data Center and Network Operations
- **CruzControl** – Service Orchestration and Control
- **CruzLog – Next Gen Log Management and Analytics**
- **Cruz Compliance Controller** – Active Compliance Management
- **See our website for the full portfolio**

SAMPLE USE CASES

Edge Management, Virtualized Network Edge, HCI, Campus Wired/Wireless, Remote Office/Branch Office (ROBO)

TECHNICAL SPECIFICATIONS

Interface Support

SNMPv1/v2/v3, Proprietary Device CLI, XML, SSH, WMI, CIM, Web Services API, HTTP/S, RMI/IIOP, XML, TCP/IP, UDP Multicast

Supported Secure Email Notification Protocols

SSL, TLS

Database Support

Oracle and MySQL

EJB Application Server-Based

JBOSS

Integration/Development Tools

Java, Web
RESTful Web Services

Operating Environments

MS Windows, Redhat/Centos Linux, Virtual Appliance

Collaboration Features

Community-based OPENSOCIAL, Wiki Knowledgebase, Activity Tracking, Instant Messaging, Message Boards, Shared Calendar, Conference Rooms

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