Manage VNFs at the Edge with CruzLog Analytics and Dynamic Visualization

#### **BENEFITS**

Leverage analytics in troubleshooting, capacity, and intent/software defined network control

Minimize onsite technical support costs

Holistic visibility of edge logs – from bare metal through virtual functions

Remotely manage collection configuration and log filtering across complete edge stack

Route key log events directly to real time monitoring system

Consolidate visibility and processing of event, log, and telemetry. Cruz Operations Center (CruzOC) is a unified Enterprise IT management system to view, monitor, deploy, and configure your infrastructure to maximize performance, reduce office/store visits, eliminate unplanned truck rolls and

#### LOG MANAGEMENT FOR THE VIRTUALIZED EDGE

Logs have been a staple in network management for many years. But today, logs in various forms are an integral part of operational support processes for information and communication systems. While implementing these systems in the cloud or traditional data centers is standard, increasingly virtualized functionality is delivered in distributed environments and closer to the edge. This model requires more than log collection but also automation to deploy and update analytics in the same fluid fashion as the functions themselves.

# Managed Log Sources

- · Syslog, rSyslog
- Telemetry
- · Files (csv)
- · Packets (Netflow)
- · Window/Powershell / Linux
- · Cloud Platforms
- · VM and Containers

## **CRUZLOG MANAGEMENT SOLUTION**

CruzLog is a set of integrated, and flexible tools for IT administrators and operators to collect, filter, analyze, visualize, and manage network, server and application logs for issue tracking, auditing, and compliance.

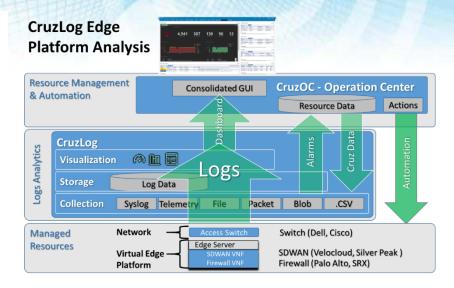
CruzLog adds comprehensive log collection, analytics, data management, and detailed visualization to Cruz Operations Center's (CruzOC) expansive suite of IT resource management features. Together, they provide a single console management product for managing datacenter and network operations of today's converging infrastructures. Fully integrated with CruzOC, infrastructure management for IT and network resources, results in comprehensive and automated problem resolution from a single pane-of-glass. A consolidated presentation allows easy access to CruzLog analytics, such as definable filters and single-click context refinements. It also presents select automations, such as device log configuration, data retention, and log event notification.

#### **SOLUTION FEATURES**

**Log Collection** – Use a wide range of collection processes to ingest diverse log structures from simple Syslog, various file formats, cloud blob storage, and optimized telemetry protocols.

**Visualization** – Select from more than twenty visualization templates for an informative display of captured data and incorporate the filtering and analysis process into each view.

Intelligent Dashboards – Group visualizations of IT management tasks and drill into the data by simply selecting a displayed visual object.



**Economical Data Storage** – Attain efficient, cost-effective, and responsive storage and retrieval of log data with advanced log indexing, cluster and hosting options, and querying processes.

**User Management** – Assign employees access rights and role-based permissions to ensure that the right employee, IT expert, or administrator has access to the required logs and processes.

**Cloud Storage Offerings** – Provide integrated cloud offering to store and manage CruzOC analytics data.

**Automate Resource Onboarding** – Configure the managed device to route selected logs to the correctly configured CruzLog collectors, data structures, and visualizations.

**Data Retention Control** – Manage the behavior of the underlying data structure for retention, backup, and data sizing both on an automated and ondemand basis.

**Offline Data Backup** – Use cloud facilities to store aged data structures for historical review.

# Managed Edge Software Assets

- Bare Metal (iDrac, Redfish, IPMI)
- BIOS
- Network OS
- Compute OS (Linux, MS)
- Hypervisor (KVM, ESXi, HyperV)
- Orchestrators (VCO, Openstack, vCenter)
- VM/Containers
- SDWAN (Velocloud, Silverpeak, etc.)
- VNF (Palo Alto, Juniper SRX, Cisco)
- Access Points (Ruckus, Aruba)

**Dynamic Device Log Control** – Start, modify, filter, and stop the flow of managed logs from each managed device.

**Real-time Log Alerts** – Create rule-based alerts to notify CruzOC of events discerned from log data and correlate against managed resources or other alerts.

Single Pane Integration – Incorporate CruzLog analytics and visualizations directly in associated CruzOC pages.

Advanced Analytics – Store, analyze, and visualize resource management data and metrics collected by CruzOC.

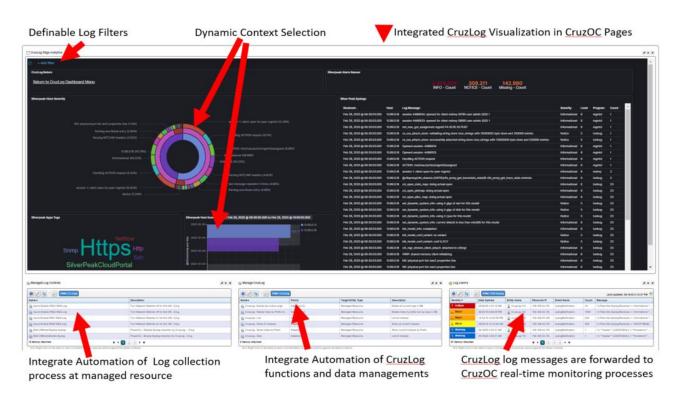
### **CRUZ USE CASE: VIRTUAL EDGE PLATFORM**

Many technology service business initiatives are moving network and computational processing closer to the customer or specific distributed sites, otherwise known as the edge. With limited onsite support staff and knowledge across the breadth of their infrastructure features, an effective support management strategy is critical to the success of these business models.

A central feature of most, if not all, edge deployments is flexible network connectivity. The key technology enablers for flexible network connectivity are virtualized functions, network optimized compute processes, and software-defined WAN capabilities. Although edge platforms can run various applications beyond virtual network functions, generally, they are positioned with an SDWAN network function to optimize the external network traffic and an associated firewall function to extend routing and security features. Several packaged appliance-based offerings also provide the same core functions. Another common feature for many remote office edge solutions is the inclusion of wireless access technology, for instance, vendors like Ruckus and Aruba. CruzLog collects and analyzes logs across the whole distributed edge. Regardless of specific configuration or vendor, CruzLog can manage the collection and analysis of log-based metrics produced by the underlying hardware infrastructure and any combination of virtual functions deployed on the edge platform.

#### **VISUALIZING AND MANAGING YOUR LOG ASSETS**

CruzLog analytics and their management processes are integrated in CruzOC's single-pane-of-glass GUI. A consolidated presentation allows easy access to CruzLog analytics, such as definable filters and single-click context refinements. It also presents select automations, such as device log configuration, data retention, and log event notification.



#### **TECHNICAL SPECIFICATIONS**

# **Edge Infrastructure Support Examples**

- SD-WAN
- VNFs
- Virtualized Network Edge

## **CRUZ Multi-tech/ Multi-vendor Support**

- Technology Examples: Networking, Wireless, Storage, SD-WAN, Servers, Hypervisors, Clients, Hyper Converged, Backup
- Vendor Examples: Cisco, VMWare, Microsoft, Ruckus, Aerohive, Dell EMC, Brocade, Juniper, Netgear, Extreme, Foundry, HPE, F5, Sonicwall, Sonus, Aperi, Palo Alto, Aruba, Avaya, Linux, Lenovo, Ericsson, Siemens, Enterasys, Nortel, Alcatel, 3Com and many more.
- For more details and a complete device listing, contact sales@doradosoftware.com

## **Supported Web Browsers**

- Chrome
- Safari
- Firefox
- Internet Explorer

## **Deployment Options**

- Supports single server and high availability deployments with MySQL and Oracle databases
- Cloud data stores Azure, AWS
- Operating Systems: Microsoft Windows Server, Linux for Redhat and CentOS, or Virtual Appliance

# **Trials, Pricing, Demos**

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## **About Dorado Software**

Dorado Software, Inc. is a leading provider of integrated resource management, performance monitoring, and service orchestration software to automate cloud operations across converged infrastructure fabrics. Dorado helps IT professionals to monitor, configure, and manage converged infrastructures (physical and virtual storage, servers, networking, applications), virtualized network functions and cloud services. www.doradosoftware.com.

