Comprehensive Application-Centric Visibility with A10 Networks & AppViewX

Challenge:

Infrastructure and operation leaders are tasked with managing very complex environments for continuous application delivery, but they also need to increase the automation of configurations on ADCs to achieve data center agility.

Solution:

The A10 Networks and AppViewX partnership provides customers with a single pane of glass for managing and monitoring diverse ADC infrastructures. The joint solution enables organizations to have application-centric visibility and configuration management capabilities across ADCs.

Benefits:

- Increase visibility across application delivery infrastructure
- Increase operational efficiency via seamless collaboration across cross-functional network teams
- Reduce manual configuration errors across the network by more than 70 percent
- Enable capacity planning and performance management through big data
- Gain end-to-end ADC lifecycle management

AppViewX

The Challenge

Infrastructure and operation leaders are tasked with managing very complex environments for continuous application delivery. The application delivery controller (ADC) is a key component within enterprise and cloud data centers, improving application availability, security and performance.

Organizations need to increase the automation of configurations on ADCs to achieve data center agility. Multiple teams require ADC visibility. The absence of a centralized platform, providing secure access control across these teams, increases operational overhead. These organizations lack an orchestration and automation platform that combines these tools into a single console – all while being user-friendly.

The AppViewX platform enables the management, automation and orchestration of services in a multi-vendor environment.

A10 Networks Thunder ADC and AppViewX Platform

The joint solution enables organizations to have application-centric visibility and configuration management capabilities across ADCs. AppViewX ADC+ and CERT+ products integrate with the A10 Thunder® ADC product portfolio via the ACOS Harmony architecture, which is common across both Thunder Hybrid Virtual Appliances (HVA) and Thunder ADC physical, virtual and bare metal appliances.

A10 Thunder ADC appliances are built on the highly scalable and flexible Advanced Core Operating System (ACOS®). The open standards-based programmability and industry-standard protocol support in the ACOS Harmony architecture make it easy to integrate A10 products with various SDN, NFV, and cloud automation and orchestration platforms.

The aXAPI SDK and RESTful APIs enable network infrastructure management solutions like AppViewX to fully manage, control and provision A10 ADC devices and provide telemetry services for the A10 devices it manages. Application owners can quickly test apps in development environments and move to production by using the same configuration templates across development and production environments.

Centralized Device Management

AppViewX provides a vendor-agnostic view of the application delivery infrastructure, delivering an inventory of all load balancers in the infrastructure, including information on how multiple services are configured. Users can perform device- and application-level configuration backups that can be scheduled and stored in the database. Backups may be compared across devices and archives, or may be restored during troubleshooting.

AppViewX also provides a single window to perform software upgrades and hot fixes across the ADC infrastructure. Device-level reporting and alerting can be leveraged to monitor device performance.

Configuration Agility with Change Management Automation

Manual configuration management in individual controllers can be risky and provides no change control and validation. Errors on ADC configurations can lead to application downtime, resulting in a major impact on businesses.

AppViewX allows users to build repeatable and scalable templates for configurations that can be self-serviced to application teams. These templates are integrated with IPAM and DNS systems for IP allocation and to automate DNS record creation.

The configuration management module (Application Provisioning system in AppViewX) may also be tied to external ticketing systems for change control and implementation validation. This significantly reduces manual configuration errors and provides change management automation.

Cross-Team Collaboration with Self-Servicing Portal

AppViewX provides a secure, role-based access control (RBAC) system, allowing organizations to define granular roles to provide access to a limited set of objects on the ADC.

The authorized functions and access control checks provide security, enabling the application and operations teams to self-serve by providing limited access and functions to their application services. The RBAC module integrates with external directory service systems to offload user management and administration overload for the application.

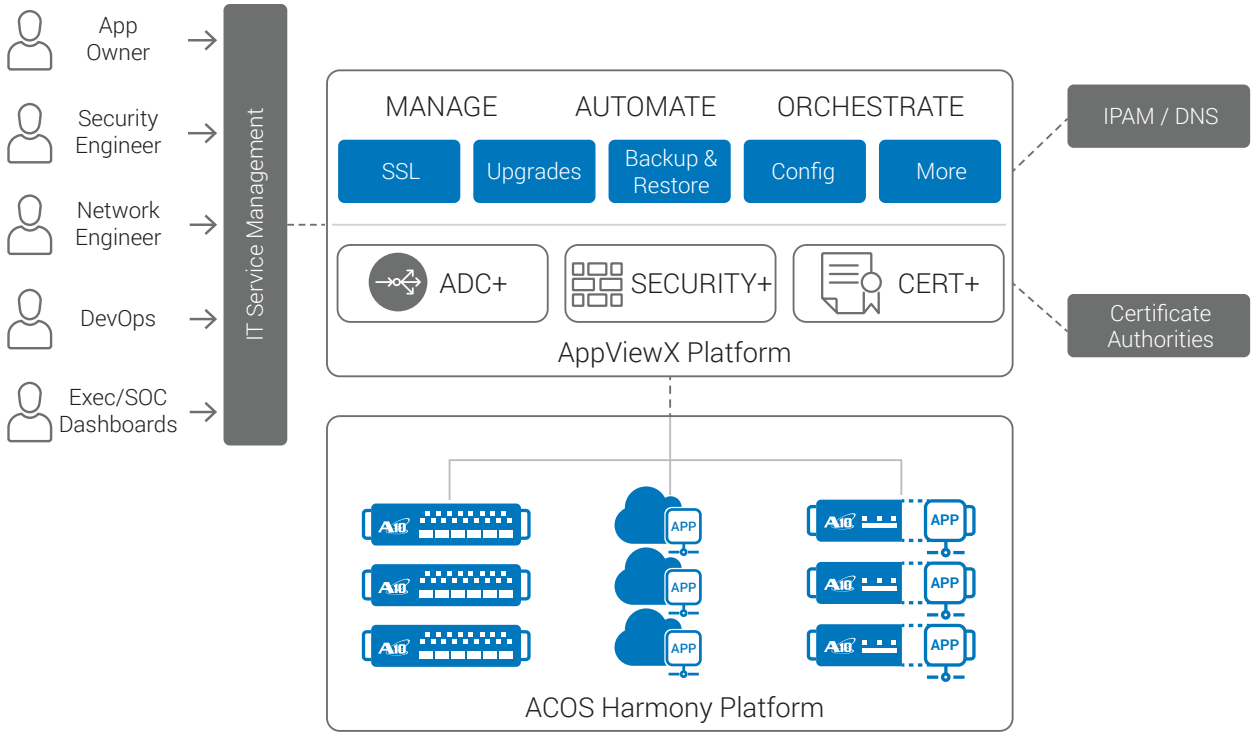
Optimize Operations with Customizable Dashboards

Customizable dashboards provide insights into application health, status and performance. Dashboards are created to provide access to application and operations teams to perform simple tasks like enabling and disabling objects during server rotation.

AppViewX creates a topological map of the ADC infrastructure, including global and local load-balancer dependencies. The AppViewX Control Center is the network node map of all the application services across the infrastructure. Users can search for application services across the network service infrastructure to quickly identify and rectify failures.

Enhance SSL Management with Certificate Lifecycle Automation

AppViewX's CERT+ helps ensure 100 percent uptime, security compliance and efficient use of an organization's resources. SSL certificates on the ADCs can be discovered and managed on the AppViewX platform. CERT+ allows the user to monitor the expiry status of certificates and send alerts at configurable intervals through emails/SNMP traps. It also helps renew certificates and deploy certificates on the load balancers through an efficient work flow-based process.



Reference Architecture – The above figure shows the integration between the A10 ACOS Harmony and AppViewX platforms, which create an opportunity for customers to use the template-based, self-service management portal from AppViewX to manage their A10 Thunder ADC appliances. Different groups within a company or an organization may utilize a common service management platform to manage, automate and orchestrate ADC functions.

Capacity Management

AppViewX collects statistical data from all ADCs. Users can look at the historical data by creating custom graphs for different device and application-level statistics. This data provides a heat map report of all the ADCs in the environment, with the CPU utilization, memory, connections and bandwidth utilization details on load balancers. Various reports and graphs can be created to achieve efficient infrastructure capacity planning.

How it Works

The integration between the AppViewX platform and A10 Thunder ADC – through A10 Networks' northbound APIs – enables customers to self-serve application deployment on A10 Thunder ADCs, leveraging the template-based configuration management utility of AppViewX platform.

Features and Benefits

The combined solution enables organizations to deploy, manage and monitor ADC infrastructure across data centers from a single pane of glass. Leverage the AppViewX platform to automate ADC provisioning, define configuration workflows and templates, roll back configurations, self-serve authorized tasks and use external ticketing systems for change management automation.

- **Increase visibility.** Gain application-centric visibility and configuration management capabilities across ADCs.
- **Improve operational efficiency.** Implement seamless collaboration across cross-functional network and application teams to improve team and business efficiency. Gain a centralized platform for secure access control across required teams to increase operational overhead, orchestration and automation.
- **Reduce manual processes.** With repeatable and scalable configuration templates, reduce configuration errors across the network by more than 70 percent. Integrate external ticketing systems for further change control and implementation validation.
- **Make smart decisions.** Build custom dashboards to manage capacity and performance across a number of device and application categories, including CPU utilization, memory, connections and bandwidth utilization details on load balancers.

Summary

With an increasing demand on applications and related services, the need for around-the-clock application availability has never been as significant as it is today. Network engineers and application teams require detailed insight into the performance of their applications and ADCs, ensuring security and availability of services.

More than ever, organizations rely on automation. A solution that encapsulates the essence of monitoring and managing ADCs and SSL certificates onto a single platform is very much in demand. The Thunder ADC product portfolio and the AppViewX platform complement each other in both homogeneous and multi-vendor heterogeneous deployments.

Next Steps

To learn more about A10 Networks and AppViewX's joint solution, please contact your A10 representative or visit www.a10networks.com.

About AppViewX

AppViewX is a global leader in management, automation, and orchestration, helping enterprises accelerate application delivery. The AppViewX Platform is the most advanced and extensible IT tool for deploying best-in-class and open source L2 - L7 services in traditional and greenfield data centers. The world's largest businesses and consumer brands rely on AppViewX to move faster, eliminate errors, and reduce costs. AppViewX is headquartered in Seattle, Washington with offices in the U.K. and India. For more information, visit www.appviewx.com.

About A10 Networks

A10 Networks is a leader in application networking, providing a range of high-performance application networking solutions that help organizations ensure that their data center applications and networks remain highly available, accelerated and secure. Founded in 2004, A10 Networks is based in San Jose, California, and serves customers globally with offices worldwide. For more information, visit: **www.a10networks.com**

Corporate Headquarters

A10 Networks, Inc
3 West Plumeria Ave.
San Jose, CA 95134 USA
Tel: +1 408 325-8668
Fax: +1 408 325-8666
www.a10networks.com

Part Number: A10-SB-19167-EN-01
Oct 2016

Worldwide Offices

North America
sales@a10networks.com
Europe
emea_sales@a10networks.com
South America
latam_sales@a10networks.com
Japan
jinfo@a10networks.com
China
china_sales@a10networks.com
Hong Kong
hongkong@a10networks.com
Taiwan
taiwan@a10networks.com
Korea
korea@a10networks.com
South Asia
southasia@a10networks.com
Australia/New Zealand
anz_sales@a10networks.com

To discover how A10 Networks products will enhance, accelerate and secure your business, contact us at **a10networks.com/contact** or call to speak with an A10 sales representative.