Continuous integration/continuous delivery (CI/CD) encompasses all the activities that ensure the real-time deployment of code into production. The practice of continuous deployment delivers significant advantages across the organization. For the CEO, CD means the ability to respond to new business opportunities. For the CTO, it’s about better service efficiency. For the line manager, CD provides better schedule visibility. For the DevOps team, it’s about sharing tools and processes. For the application developer, it speeds time to production with higher quality.

Powered by a programmable full services proxy, A10 Networks Lightning® Application Delivery Controller (ADC) supports CD operations using precise traffic steering and blue-green deployment capabilities.

**Blue-Green Production Servers**

A10 Lightning ADC steers traffic between blue and green groups of servers based on policies under the control of the operations team. Blue-green deployment is a powerful technique for directing traffic between old (blue) and new (green) deployments—all while both environments remain online.

A10 Lightning ADC allows organizations to define and manage a traffic split rule for their blue-green deployments. Policies include percentage of traffic and traffic from geographies—or any parameter in the HTTP request—for example, port or expression match. Various application metrics, such as latency, server CPU, or errors can be compared across the blue and green servers. Simply specify the server instances for blue and green versions and control the portion of live production traffic that should be directed to the blue or green servers.
Gain precise phased rollouts without any effort on development side. Set and change the traffic split rule from the A10 Harmony® Controller user interface and monitor health and success metrics for both deployments. As confidence in the green release increases, drive more traffic to it. If problems arise, direct all traffic back to the blue release. Follow the “Blue-Green Deployment Flow” diagram on to improve efficiency and agility.

**Figure 1:** Easy continuous integration / continuous delivery

**Production Traffic Copied to Test Servers**

Requests to production servers can be seamlessly copied to test servers, allowing you to test new application code with real-world traffic and loads.

**Figure 2:** Blue-green deployment flow
Automated and Improved Runtime Services

A10’s cloud-native stateful full proxy, which maintains separation between client-side and server-side connections, makes continuous deployment more efficient, easy and automated.

Single Easy-to-Manage Interface

Use A10’s Self Service Portal—a single, easy-to-manage interface—to phase in new application code in green groups of servers alongside established blue groups of servers without disrupting user sessions.

Replication of Live Production Traffic

Replicate live production traffic and forward it to test application servers. Get first-hand visibility into how new or upgraded code actually performs against live production traffic, which de-risks new production code.

Detailed Traffic and Health Metrics

Gain real-time health monitoring and access to detailed deployment metrics and logs. Program your own criteria for health. See detailed traffic metrics for both high-level dashboards and detailed drill-down views on the before-and-after CD scenarios.
DevOps-Friendly Open Interfaces

A10 Lightning ADC offers open REST APIs that support DevOps practices and toolsets. It integrates tightly with Jenkins Continuous Integration, an open-source continuous integration tool that many organizations use as their CD platform. Integrate with configuration management tools like Chef, Puppet and Ansible that run locally or in the cloud.

A10 Lightning ADC can run on multiple cloud networks and use various data centers without requiring code changes to existing applications, application tuning, or any new software or hardware.

Summary

A10 Lightning ADC supports blue-green deployments and precise traffic steering between different releases. Adding the solution’s continuous deployment capabilities to your cloud environment improves deployment efficiency and agility while reducing risk.

Integrating with A10 Lightning ADC requires no code change and is a risk-free method of leveraging CI/CD practices. This is incredibly useful for application migration scenarios, cloud deployments or aggressive development schedules.

Additional benefits include application load balancing, advanced traffic management, content switching, application security, protection against DDoS attacks and more.

About A10 Networks

A10 Networks (NYSE: ATEN) provides secure application services for on-premises, multi-cloud and edge-cloud environments at hyperscale. Our mission is to enable service providers and enterprises to deliver business-critical applications that are secure, available and efficient for multi-cloud transformation and 5G readiness. We deliver better business outcomes that support investment protection, new business models and help future-proof infrastructures, empowering our customers to provide the most secure and available digital experience. Founded in 2004, A10 Networks is based in San Jose, Calif. and serves customers globally.

For more information, visit: a10networks.com or tweet @a10Networks