# CAPTURE CLOUD BUSINESS WITH INNOVATIVE APPLICATION DELIVERY

Radware's Alteon is an agile and scalable application delivery controller (ADC) that enables cloud service providers (CSP) with the ability to offer customers differentiated ADC offerings to increase margins. The licensing model makes it easy for CSPs to invest via a simple pricing model and offer competitive pricing to their customers and tenants. The licensing also ensures complete investment protection for tenants as applications move to the cloud. Radware's ADC solution provides a full feature set that includes advanced automation and REST APIs to allow CSPs to attract tenants and expand their strategic and operational role with clients.

## THE CHALLENGES

CSPs are increasingly concerned about the rapid growth and expansion of Amazon Web Services (AWS), Microsoft Azure and Google Cloud Platform into their markets. Hosting providers that only provide commodity services, such as co-location and web hosting, have realized they are one service outage away from losing customers to larger cloud providers. In addition, many CSPs that provide managed services are struggling to grow because their current business is resource intensive and difficult to scale.

CSPs are looking for economical solutions to quickly scale, automate and deliver a differentiated infrastructure-as-a-service (IaaS) offering. To increase their value to customers, CSPs are looking to offer hybrid cloud solutions that span both their cloud and customers' data centers. These offerings must include key criteria.

- Cost predictability for their organizations, customers and tenants
- Available value-added advisory services, such as technical and consulting opportunities
- Reduction of resources via the ability to automate and integrate with a customer's existing systems
- Solutions that span both private and public cloud infrastructures

## THE SOLUTION

Transition projects, such as moving from a physical data center to the cloud, often require investments in both environments to enable gradual migration. Radware's solution eliminates the growing complexity of planning and sizing by allowing CSPs to acquire a single license for all of their ADC needs.

This license allows CSPs to implement as many ADC instances of varying capacities as needed. These ADC services can also be moved between cloud and physical or virtual data centers without investing in separate ADC licenses for each environment.
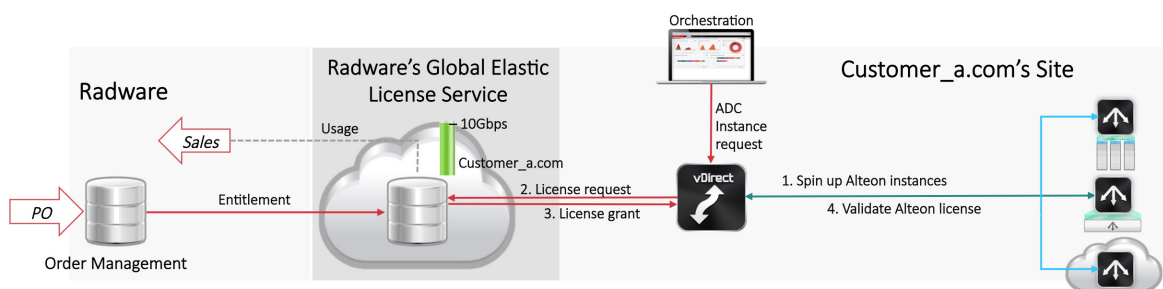


Figure 1: Radware Global Elastic License

If additional capacity is needed or no longer required, Radware's automation solution can automatically allocate or deallocate capacity from the license pool.

## Advanced and Secure ADC Solutions Across All Form Factors

Radware's ADC and security solutions enable organizations to experience a smooth and cost-effective journey to the cloud by providing a scalable and secure ADC service.

Radware's automation solution allows organizations to instantly configure, license and provision secured ADC services across multiple environments. Its built-in cybersecurity functionality enables organizations to add advanced network and application protection as part of any automated application delivery service provisioning.

Radware's APSolute Vision consolidates the monitoring and configuration of up to 1,000 devices across multiple data centers. It provides immediate visibility into health, real-time status, performance and security of enterprisewide application delivery and security infrastructures from a single console.

## Advanced Automation Out of the Box for Self-Service

One of the key values of Radware's solution is its ability to automate almost any process related to the life cycle of the ADC and/or security service.

Figure 2: Radware's APSolute Vision for Multidevice Management and Monitoring

Figure 3: Radware's Operator Toolbox (OTB)

Radware's Operator Toolbox enables the automation of ADC and security tasks to transform manual-based processes into automated workflows to cut ADC and security management and provisioning up to 95%. Operator Toolbox provides many commonly used prebuilt wizards for operational and configuration tasks and simplifies the creation of cross-device and cross-domain scripts. These scripts can be converted into wizards via an intuitive GUI and reused via a personalized toolbar.

One of the goals for automation is to enable self-service so DevOps can accomplish continuous development without networking and security hindering this goal.

Radware vDirect is a software API gateway that enables automation and management of Radware's ADC and security solutions. vDirect comes with a rich set of APIs and an intuitive web interface. This allows both administrators and operators to use vDirect's management and orchestration capabilities from any interface. In addition, it provides benefits for developers looking at integrating vDirect's capabilities into existing management and orchestration systems for a "single pane of glass."

Figure 4: Radware vDirect User Interface

For example, vDirect APIs can be used to create self-service applications using workflows that automate tasks. DevOps is only prompted regarding information that is pertinent to them when workflows span multiple systems and/or require automation of workflows.
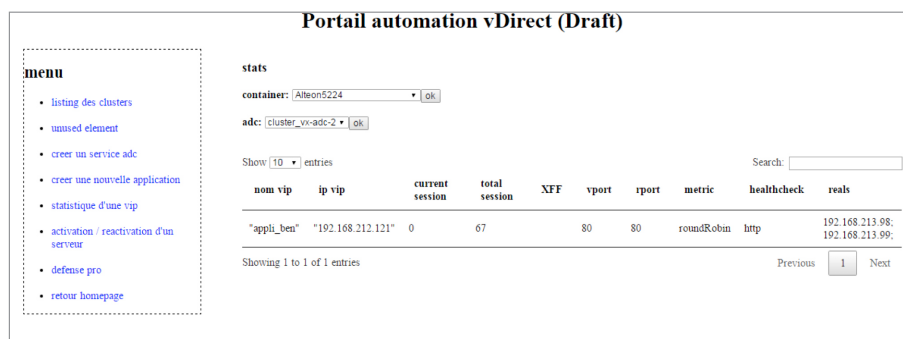


Figure 5: Custom Self-Service Application Using vDirect REST API

vDirect is also the integration point to various networking virtualization and automation solutions. With vDirect, enterprise and cloud IT personnel can provision, decommission, configure and manage complex ADC and security services in a matter of minutes, thereby maintaining maximum business agility and IT efficiency from the orchestration system of their choice. Out-of-the-box integration is available for many technologies, including Cisco ACI, VMware vRealize Orchestrator, Ansible, OpenStack and others.
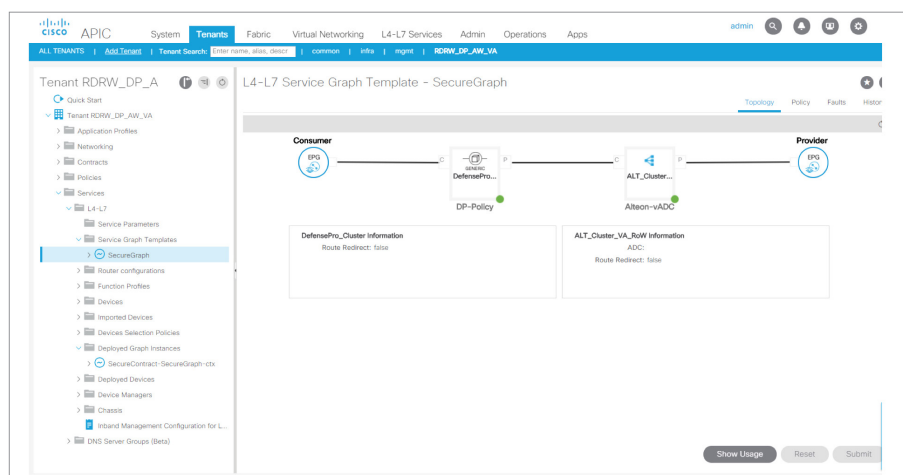


Figure 6: Service Graphs in Cisco ACI

## Value-Add ADC Capabilities to Differentiate From Public Cloud Providers

Cloud and hosting providers can differentiate themselves and create additional revenue streams by offering advanced ADC services that address customers' needs for secure application delivery while overcoming challenges associated with hosting. The benefits include secure and highly available application hosting, scalability, infrastructure protection and various attack mitigation methods.

**Security:** Security is a blocker for organizations transitioning to cloud-based environments. CSPs can address the concerns of these organizations by offering multitenant isolation. Ransomware attacks also highlight the need to offer security against denial-of-service and application attacks.

**Multitenancy and RBAC:** In an environment where tenants may share the same resources, a wrong configuration on a single tenant may affect other tenants, severely impacting an application's SLA and availability. CSPs need to offer solutions to separate individual tenant environments as well as support role-based access control (RBAC) that defines access to various services within a tenant's environment.

**Automation:** In addition to architecturally separating tenant instances, it is also important for administrative reasons to have the tools to automate error-prone tasks. Automation should include the capability to offer self-service applications and tools as well as integration with orchestration tools that a customer/tenant may use.

**Value-Add Services:** Businesses can easily add and update on-demand analytics, perimeter security, client acceleration, application security and multicloud support.

**Predictable Cost:** To reduce upfront investments while making it feasible for CSPs to cost-effectively sustain a large number of small tenants, CSPs should consider a consumption-based site license that may be split across tenants and customers.

**API Support:** CSPs should offer solutions to integrate with other products in a customer's network, so programmability via APIs, out-of-the-box support for automation, and templates to achieve self-service are capable.

### BENEFITS
### Competitive Features to Attract New Customers
Effortlessly launch differentiated, scalable and secure ADC services for CSPs and their customers.

- Add application and infrastructure security as part of any automated application delivery service launch
- Automatically resize and scale application delivery resources to the tenant's application demands
- Provide built-in automation to enable self-service to instantly configure, license and provision new ADC services across multiple environments
- Provide built-in role-based access control to support CSP and tenant administrators and operators
- Provide seamless maintenance and SLA management of application delivery services via powerful monitoring and analytics tools

### Eliminate Planning Risks for Tenants, and Increase Margins and Cash Flow for Your Business
Protect and leverage your customers' ADC investment throughout their transition to the cloud

- Ensure affordable deployments via flexible licensing while supporting DevOps initiatives
- Seamlessly move secured application delivery services and instances to the cloud without investing in separate ADC licenses for each environment
- Provide out-of-the-box automation for simplified life cycle management of secured ADC services for both CSPs and tenant administrators and operators
- Reuse existing investments in automation across hybrid deployments

**Eliminate Errors and Enable Self-Service via Integration with SDDC Environments**

Advanced automation with integration to any orchestration system

- Instantly provision new ADC services and automatically assign their corresponding license in any environment
- Reduce training costs by using out-of-the-box automation to enable self-service for CSPs and customer/ tenant administrators and operators
- Provide integration of leading orchestration vendors, such as Cisco ACI, VMware vRealize Orchestrator, OpenStack and Ansible.
- Quickly create your own automation workflows to reuse device-level automation for complex orchestrated workflows
- Integrate with custom portals using simplified REST APIs to any orchestration system covering both application delivery and security services

**Proactive Analysis — Enable SLA Visibility and Control for Administrators Across Your Business**

- Provide CSP administrators and customers with prebuilt tools to control ADC solution visibility, management and monitoring
- Differentiate from competition by enabling SLA monitoring for quick root-cause analysis and capacity planning
- Provide customers with visibility to distinguish between client, application and network issues
- Use APM reports to expand your business across tenants with ADC services such as web performance optimization, SSL inspection and application protection

## About Radware

Radware® (NASDAQ: RDWR) is a global leader of cybersecurity and application delivery solutions for physical, cloud and software-defined data centers. Its award-winning solutions portfolio secures the digital experience by providing infrastructure, application and corporate IT protection and availability services to enterprises globally. Radware's solutions empower more than 12,500 enterprise and carrier customers worldwide to adapt quickly to market challenges, maintain business continuity and achieve maximum productivity while keeping costs down. For more information, please visit www.radware.com.

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