Gain business agility through data center automation

Modernize application networking with Citrix NetScaler and Cisco Application Centric Infrastructure (ACI)

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- Customer success: YRC Freight
- Customer success: Woolworths
- Move forward with Citrix NetScaler and Cisco ACI
Refresh IT to improve business agility

Software-defined networking (SDN) is a critical component in modernizing your data center to meet new and growing customer expectations and demands. Trusted innovators Citrix and Cisco share a common vision for applying the concepts of SDN to simplify and automate data center and application networking to help their customers succeed.

Using an application-centric approach to solve customer challenges, the two companies bring together Cisco’s IT leadership in connecting people, processes, data, and things and Citrix’s expertise in securely delivering apps and data to enable people to work better. Together, Citrix and Cisco provide measurable business outcomes with comprehensive solutions. Based on validated designs, these solutions are tailored to specific customer delivery models and use cases.

Cisco and Citrix have partnered to develop a leading SDN solution using the Citrix NetScaler application delivery controller (ADC) and Cisco ACI. This integrated solution automates application infrastructure, streamlines management, and improves scalability, security, flexibility. The result is faster application delivery, reduced deployment complexity, and better alignment between applications and dynamic business requirements for both existing and next-generation datacenters.
The business benefits of automation

Through data center automation, the Citrix NetScaler and Cisco ACI solution delivers many business and IT advantages.

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<tr>
<th>SECURITY</th>
<th>AGILITY</th>
<th>SCALABILITY</th>
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<tr>
<td>Implement comprehensive security while ensuring compliance with industry standards using native ACI security and NetScaler security services.</td>
<td>Rapidly address business changes with infrastructure management tools that feature uncompromising integration between NetScaler and ACI.</td>
<td>Maintain uncompromised performance across multiple apps—even as demands fluctuate—through NetScaler services that work directly with ACI.</td>
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<td>Protect your users.</td>
<td>Easily adapt to change.</td>
<td>Enhance performance.</td>
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<td>Maintain compliance.</td>
<td>Deploy quickly.</td>
<td>Reduce costs.</td>
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Modernizing with Citrix NetScaler and Cisco ACI

Tight integration between the Citrix NetScaler ADC and Cisco ACI delivers a secure, scalable, and automated application infrastructure.

Cisco ACI provides a scalable, resilient, and high-speed fabric that uses SDN concepts to automate network setup. Included with ACI, the Cisco Application Policy Infrastructure Controller (APIC) supplies centralized, policy-based control and management of application infrastructure. The Citrix NetScaler ADC delivers integrated Layer 4 through 7 services, like application acceleration, load balancing, and application security.

Through integration and a device package, ACI leverages the feature set of NetScaler ADC appliances, applying Layer 4 through 7 network services to configure NetScaler to intelligently control traffic flows. Use the APIC to set up and manage the ACI infrastructure, NetScaler, network service policies, and application profiles. Together, ACI and NetScaler technologies provide a flexible way to link network services to applications, improving application security, increasing performance, and optimizing service levels.

Several key features make the Citrix NetScaler and Cisco ACI solution ideal for IT modernization.

- Centralized network control and full lifecycle service management
- ADC service policy coordination and automation
- End-to-end telemetry and visibility of service-aware applications and tenants
- Scalable, elastic architecture for both physical and virtual applications
- Compatibility with existing ADC networks and service operation models through open standards protocols
- Interoperability with service integration ecosystem though the IETF standard for Network Service Header (NSH) protocol
- Tri-Scale Technology that scales up, out, and in
- Platform flexibility—virtual, physical, and multi-tenant appliances and Linux containers
A secure, policy-driven architecture

Speed service deployment and simplify operations across physical, virtual, and container environments with secure, programmable, application-centric networking.
Deployment flexibility and choice

Citrix and Cisco offer three deployment modes so you can choose the automation strategy that works best for your organization today and as needs change over time.

**SERVICE POLICY/ MANAGED MODE**

- Centralized L2-L7 automation
- Cisco ACI fabric
- Citrix NetScaler
- APIC
- Fully automated stack with centralized control using Cisco APIC
  - Full stack (L2-L7) automation of ACI fabric
  - L4-L7 services dictated by device package and managed by APIC
  - Comprehensive, industry-leading device package integration

**NETWORK POLICY/ UNMANAGED MODE**

- L2-L3 network automation
- L2-L7 ADC automation
- Cisco ACI fabric
- Citrix NetScaler
- APIC
- NetScaler MAS
- Mini device package
- L2-L3 network automation using existing operational playbook
  - Application policy-driven L2-L3 automation of ACI fabric only
  - L4-L7 services managed outside ACI by service device controller
  - Leverages existing operational roles and playbooks

**SERVICE MANAGER/ HYBRID MODE**

- L2-L3 network automation with service insertion
- L2-L7 ADC automation
- Cisco ACI fabric
- Citrix NetScaler
- APIC
- NetScaler MAS
- L2-L7 ADC automation
- Mini device package
- Full stack automation with operational flexibility
  - Application policy-driven L2-L7 automation of ACI fabric
  - L4-L7 services managed jointly by APIC and NetScaler MAS
  - Leverages existing operational roles and playbooks
An integrated solution

A key benefit of the Citrix NetScaler and Cisco ACI solution is tight integration. Using a full-featured device package, a rich set of ADC features and deployment templates are exposed to and controlled by the APIC in service policy/managed mode and service manager/hybrid mode.

Device package features include:

- Accounting, authentication, and authorization (AAA)
- Application firewall
- Cache redirection
- Compression
- Content accelerator
- Content switching
- DataStream
- Domain name service
- Global service load balancing
- Integrated caching
- Load balancing
- SSL offload
- SSL VPN
“Citrix enables a lot of our key business operations. It gives us the ability to implement new business initiatives more quickly than we’ve ever done so in the past.”

Austin Lang
Infrastructure architect,
YRC Freight

Click to read about YRC Freight’s success.
“We are excited by the direction Citrix has taken with NetScaler and their integration with Cisco ACI. We believe that a concrete SDN solution with L4-7 automation is a game-changer in how next-generation datacenters will operate and deploy applications.”

Matt Chamley
Head of Global Infrastructure,
Woolworths
Move forward with Citrix NetScaler and Cisco ACI

Transform your infrastructure with accelerated application delivery, scalability, security, and ease of management.

Get started today.

Find solutions guides, technical documentation, and videos at:
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