

# Cisco Application Centric Infrastructure (ACI)

Connecting your world

# Introduction to Cisco ACI

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Cisco ACI (Application Centric Infrastructure) simplifies data center network management and enhances security by providing a centralized application-centric approach.

With automation and policy-based control, it enables businesses to achieve agile IT operations and accelerate digital transformation in the data center. measure ROI. We will also discuss the return on investment (ROI) that organizations can expect from implementing Cisco ACI.

## Optimize your network



Automation through common policy for data center operations

## Protect your business



Business continuity and disaster recovery with pervasive security

## Accelerate multicloud



Seamless connectivity to any workload anywhere, on premises to cloud

**Are you currently an installed Cisco ACI customer?**

Yes

No

[Post answer](#)



# About Cisco ACI

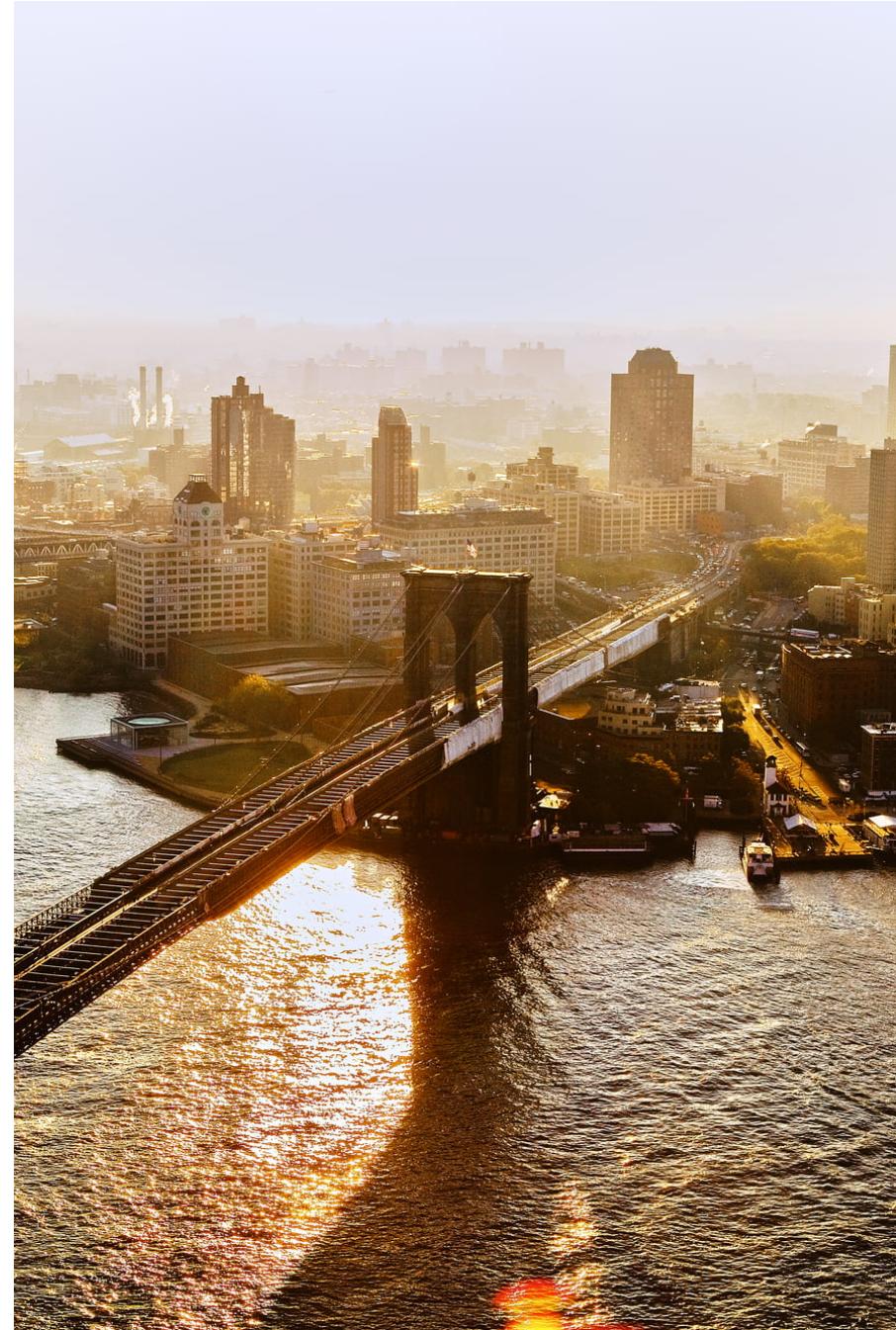


## Cisco ACI Value

The value of Cisco ACI lies in its ability to provide a unified view of the entire data center network, including physical and virtual infrastructure, applications, and services. This holistic approach enables organizations to simplify network operations, reduce complexity, and improve agility.

Cisco ACI also provides a policy-based approach to network management, which allows organizations to define and enforce policies across the entire network. This approach ensures consistent application performance and security, regardless of where applications are deployed.

Another key value of Cisco ACI is its ability to support multi-cloud environments. With Cisco ACI, organizations can extend their policies and security controls to public cloud environments, providing a consistent experience across all clouds



# Cisco ACI Benefits

**The benefits of Cisco ACI are numerous and include:**

## 1. Simplified network operations:

Cisco ACI provides a single point of management for the entire data center network, reducing complexity and improving operational efficiency.

## 2. Consistent application behavior:

With Cisco ACI, organizations can define and enforce policies that ensure consistent application behavior, regardless of where the application is deployed.

## 3. Increased agility and scalability:

**Cisco ACI enables organizations to quickly and easily provision new applications and services, and scale the network to meet changing business needs.**

## 4. Enhanced security:

Cisco ACI provides a policy-based approach to network security, enabling organizations to define and enforce security policies across the entire network.

## 5. Multi-cloud support:

With Cisco ACI, organizations can extend their policies and security controls to public cloud environments, providing a consistent experience across all clouds.



# Core Building Blocks of Cisco ACI

The core building blocks of Cisco ACI include the Cisco Nexus 9000 series switches and the Cisco APIC.

The Cisco Nexus 9000 series switches provide high-performance, low-latency switching for the data center. They support speeds of up to 400G/800G and are designed to meet the demands of modern data center applications.

The Cisco APIC is the central point of management for the entire Cisco ACI solution.



**Cisco APIC is the main architectural component of Cisco ACI**

It is the unified point of automation and management for the Cisco ACI fabric, policy enforcement and health monitoring for physical, virtual and cloud infrastructures

**Are you currently leveraging telemetry with Cisco ACI?**

Yes

No

[Post answer](#)



# Unique Capabilities of Cisco ACI

## 1. Multi-tenancy:

Cisco ACI enables administrators to create multiple virtual networks within a single physical network, providing secure isolation for multiple tenants.

## 2. Physical and virtual network automation:

ACI automates the provisioning and management of both physical and virtual network components, making it easy to deploy, scale, and manage networks across a wide range of devices and platforms.

## 3. Automated hypervisor network constructs with VMM:

ACI integrates with hypervisors, such as VMware and Microsoft Hyper-V, to automate the creation of virtual networks, reducing the time and complexity involved in configuring them.

## 4. Container networking:

ACI provides seamless integration with container management platforms, like Kubernetes and Docker, enabling the creation of containerized network services.

**Cisco ACI offers several unique capabilities that set it apart from other SDN solutions:**

## 5. Pervasive security model:

ACI provides built-in security features, such as micro-segmentation and role-based access control, to ensure that sensitive data is protected across the network.

## 6. Centralized monitoring, management, and configuration with Cisco APIC:

ACI is managed through a central controller, known as the Application Policy Infrastructure Controller (APIC), providing a single point of control for network policies, configurations, and monitoring.



Overall, Cisco ACI's unique capabilities make it a leading networking solution for data centers and cloud networks that require automation, security, and ease of management.

# Return on Investment (ROI)

**Real customers weigh in.**

**Skanska Construction:**

Skanska Construction: With Cisco ACI, Skanska Construction improved their data center efficiency “ On-premises deployments that used to take a week now take less than a day and the multiweek cloud deployments of the past are now completed in a few days”

**Eric Nilsson, Senior Network Engineer,,**

**Rakuten mobile:**

Rakuten mobile: Cisco ACI helped Rakuten mobile to reduce their network operating costs. “We are managing 48 fabrics with just 15 engineers. This would be impossible without the automation and centralized management of Cisco ACI and Cisco Crosswork. It’s a huge time and cost advantage for us.”

**Shinsaku Shimizu, Software-Defined Network Section Manager, Cloud Platform, Rakuten Mobile**



Overall, these customers have reported significant cost savings, improved network performance, and streamlined network management as the measurable ROI they received from implementing Cisco ACI solution.

# Conclusion



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Cisco ACI is a networking solution for data centers that simplifies network infrastructure and accelerates application deployment.

It delivers a network policy-based framework, extending to WAN, campus networks, and hybrid cloud environments, enabling businesses to dynamically provision networks, provide pervasive security, and network infrastructure services. With Cisco ACI, you can build a data center network fabric with hundreds of switches automatically, focusing on communication through a single point of network configuration. It is designed to minimize downtime, innovate faster, and optimize and automate network infrastructure deployment.



Thank you for reading

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