



# Bank Central Asia accelerates service innovation with application-centric, software-defined infrastructure

Size: 25,000 employees | Industry: Financial services | Location: Jakarta, Indonesia

Bank Central Asia (BCA) is one of the leading private banks in Indonesia, offering business transactions, credit loans, and financial solutions for more than 16 million corporate, commercial, and individual customers. BCA services are delivered through 1213 branches, 17,207 ATMs, more than 400,000 electronic data capture (EDC) machines, and 24-hour Internet and mobile banking.

## Challenges

- Accelerate service innovation
- Increase operational agility and responsiveness
- Protect sensitive client and financial data
- Maintain high availability

## Solutions

- Application-centric, software-defined networking
- Centralized, automated infrastructure management

## More Information

- Visit: [cisco.com/go/aci](https://cisco.com/go/aci)

## Results

- Faster infrastructure deployments and changes
- Better data segmentation and security
- Easier IT monitoring and troubleshooting

### Products

**Cisco® Application Centric Infrastructure**  
(Cisco ACI™)

**Cisco Application Policy Infrastructure Controller** (Cisco APIC)

### Challenge: Accelerate banking innovation

Banking customers manage their finances in a variety of ways and through a variety of channels, from physical branches and ATMs to banking websites and mobile apps. Convenience and reliability are essential. A fragmented or frustrating customer experience can have debilitating consequences in an increasingly competitive market.

That's why a state-of-the-art banking network is one of BCA's major differentiators. And the bank has a reputation for proactively adapting its transaction banking systems and adopting new technologies that can help it deliver new services and applications to customers.

"We proactively introduce innovative transaction banking products and services that are in line with the changing needs of our customers and rapid technological development," says Lily Wongso, data center network manager at BCA.

That's difficult to do when there are so many technology systems and network components on the back end and so many customer-facing products and services on the front end. Any changes to existing systems and services—or the deployment of new systems and services—used to require a significant amount of time and manual effort.

"We needed to be faster and more efficient," says Hans Christianto, network engineer at BCA.



## Increasing speed and agility

To reduce manual tasks and accelerate innovation, BCA implemented Cisco® Application Centric Infrastructure (Cisco ACI) in its two data centers. The industry's leading software-defined networking (SDN) solution, Cisco ACI is bringing policy-based automation and centralized management to BCA's banking network and 50 core applications.

"We were the first bank in Indonesia to implement Cisco ACI in a production capacity," Hans says, noting that the implementation went live in December 2015.

BCA's entire network environment is now managed from a single console, the Cisco Application Policy Infrastructure Controller (Cisco APIC). Automation has replaced a host of manual tasks, speeding up infrastructure deployments and changes in support of business, customer, and application development needs.

This speed and the agility it provides are already paying dividends. BCA used to spend several days preparing for long public holidays, for example, when branch locations are closed and Internet and mobile banking increases 10 to 20 percent. BCA had to manually adjust servers, switches, and VLANs to accommodate the additional, short-term demand. With Cisco ACI, however, they can make the adjustments in minutes. No physical changes to the infrastructure are needed.

BCA Task	Before Cisco ACI	After Cisco ACI
Server connectivity	Configuration on each switch or router	Configuration through centralized management console (Cisco APIC)
Virtual Machine (VM) connectivity	5 manual processes	3 manual processes
New VM server for existing application	10 to 20 minutes	10 seconds
Endpoint physical port tracing	5 to 10 minutes	30 seconds
Capacity measuring	10 to 30 minutes	20 seconds
Network configuration	Manual	XML/JSON scripting through API

**"Moving from traditional networking to application-centric networking has made us all faster and more efficient."**

**Lily Wongso**  
Data Center Network Manager, BCA





## Better security and troubleshooting

In addition to speeding up frontline innovation and agility, Cisco ACI has helped improve BCA's ability to protect and manage its foundational technologies and data resources.

For example, the SDN architecture has strengthened the bank's security posture, which is essential when dealing with sensitive customer and financial information. With Cisco ACI, no connections are established without explicit, policy-based instruction, providing granular segmentation and control that can be extended across multiple environments.

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### Lily Wongso

Data Center Network Manager, BCA

Cisco ACI has also improved infrastructure visibility and troubleshooting. BCA's IT operations team can see where all of the bank's physical and virtual components are located, and can trace application and data flows from back-end systems to customer-facing channels. If a problem occurs, the team can quickly identify and address the root cause.

“It used to take a lot of time and manual effort to locate a problematic virtual machine and its physical host,” Lily explains. “We now have a full map of our environment that includes all of the application flows, so it's much easier to identify and troubleshoot problems.”

BCA also receives health scores for the components within its infrastructure. The health scores show if and where a problem is occurring, and can help identify issues—such as the reduced capacity of a link or an increased rate in errors—before they result in downtime.

“The health scores are great,” Hans says. “They include a clear description, like ‘Port X is down,’ with an explanation and recommended action. There is even a Trace Route feature that maps out all of the connections, ports, and endpoints. It helps us identify and focus on the source of a problem.”

Troubleshooting tasks that used to take 10 minutes or more now take seconds, he adds.

## Looking ahead

With policy-based automation and centralized management from Cisco ACI, BCA's IT operations team is more efficient, more agile, and better able to support the bank's innovation goals.

“In the past, we spent most of our time fulfilling requests from the server and application teams,” Lily says. “Now we have the time to try new things, explore new products and features, and enhance our underlying systems and overall security posture.”

Implementing Cisco ACI has spawned a cultural shift within BCA's IT organization. Bringing down the technological and procedural walls that previously separated operations, server, and application teams has improved communication and collaboration among them.

“Moving from traditional networking to application-centric networking has made us all faster and more efficient,” Lily says. “And we are still finding new ways to leverage Cisco ACI and new things to automate.”