

# AIRLINE'S SDN TRANSITION HAS SMOOTH TAKEOFF WITH SEVONE.

## Customer

Major airline  
 Size: 23,000 employees  
 HQ location: Hong Kong

## Goal

Revamp network to increase operational efficiency and business agility.

## Challenge

Transition smoothly from legacy network to new, SDN-based environment.

## Results

- Unified monitoring of legacy and SDN networks during migration avoided problems.
- Full visibility into SDN's highly dynamic provisioning eases network management.
- Real-time visualization of virtual and physical layers helps ensure service quality and reliability.
- Efficient implementation provided short time-to-value.

## THE ORGANIZATION

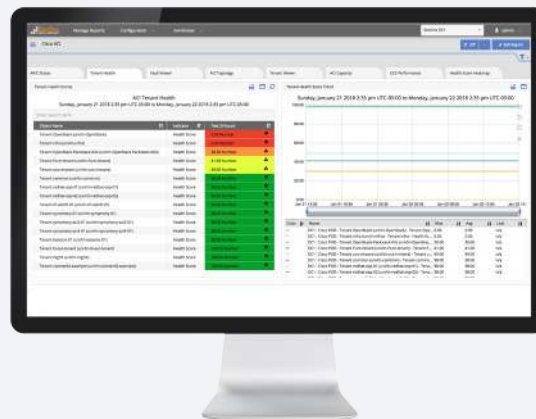
This SevOne customer is a major international airline that provides passenger and cargo flight services to nearly 200 destinations in 42 countries worldwide. Headquartered in Hong Kong, the company has more than 23,000 employees, and flies nearly a million passengers each month.

To increase its operational efficiency and business agility, the company is transitioning from a legacy, hardware-centric network infrastructure to software-defined networking (SDN) environment. The airline reached a major milestone in the transition early 2017 when its first SDN-based datacenter went live.

## THE CHALLENGE

Like workers at most other companies, the airline's employees were increasingly using the web, as well as smartphones, tablets, and other connected devices to do their jobs. While having more mobile and connected workers helped the airline in many ways, they also were creating challenges.

One of the biggest challenges was provisioning employee devices with optimal amounts of networking capacity and bandwidth. Mobile employees expect to be able to connect at any time from any place. For the airline, this was causing big fluctuations in demand for applications and network services, and the bandwidth and capacity needed to support them.

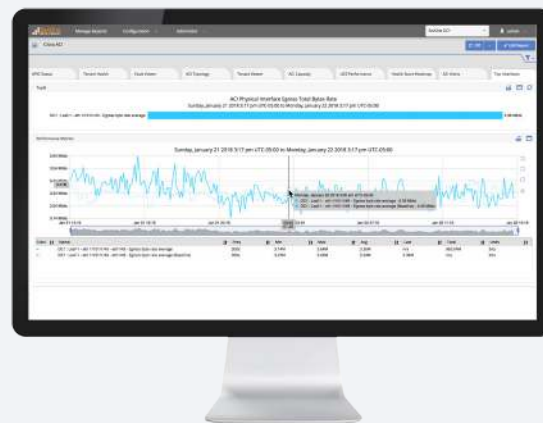


### Tenant TopN Dashboard:

*Easily visual tenant TopN across a Cisco ACI deployment historically and in real-time.*

These surges and drop-offs in demand, and the difficulties the network operations team had in anticipating them, were a big part of the problem. Another major issue was the legacy network's hardware-centric design and static approach to provisioning.

Regardless of what changes in demand were occurring, the legacy network simply could not keep up. It was also too rigid to be adapted to meet future requirements. The airline clearly needed a more dynamic and efficient way to provision network services. As a result, the management team made the decision to embrace a more up-to-date networking approach.



#### **Proactive Detection of Anomalies:**

*Cisco ACI health data can be saved like any other metric in the SevOne system. Like all other metric data in the SevOne system, baselines can be set to help you detect abnormal behavior. With this solution, operations and engineering teams can be automatically alerted when behavior of Cisco ACI systems are abnormal based on historical trends.*

Moving to SDN was the answer, but with it came new questions. How could the airline ensure a smooth transition to the new networking environment without missing a beat in its extensive and complex operations? How could it ensure delivery of reliable, high-quality network services during and after the SDN migration? How could it accommodate the next phases of growth and plan for future requirements?



## THE SOLUTION

For the foundation of its new SDN environment, the airline selected the Cisco Application Centric Infrastructure (ACI) platform. With industry-leading features including a unified policy, operational, and management framework, and automated provisioning, Cisco ACI delivered the highly dynamic networking capabilities the airline wanted.

However, the airline's network operations team wanted more infrastructure visibility than what Cisco ACI provided 'out of the box.' To meet this need, the company evaluated digital infrastructure monitoring and management offerings from several vendors.

A rigorous evaluation showed that some of the products had difficulty monitoring the 'underlay' or virtualized elements in the new environment down to the endpoints. Others could not encompass the entire, multi-vendor datacenter infrastructure. That left the NetOps teams having to piece sections together to get a total picture of the infrastructure. In short, none of these products made the grade.

When the airline's team evaluated the SevOne Platform, they found that it met all of their critical requirements and more. Some of the key features and functions the team focused on included:

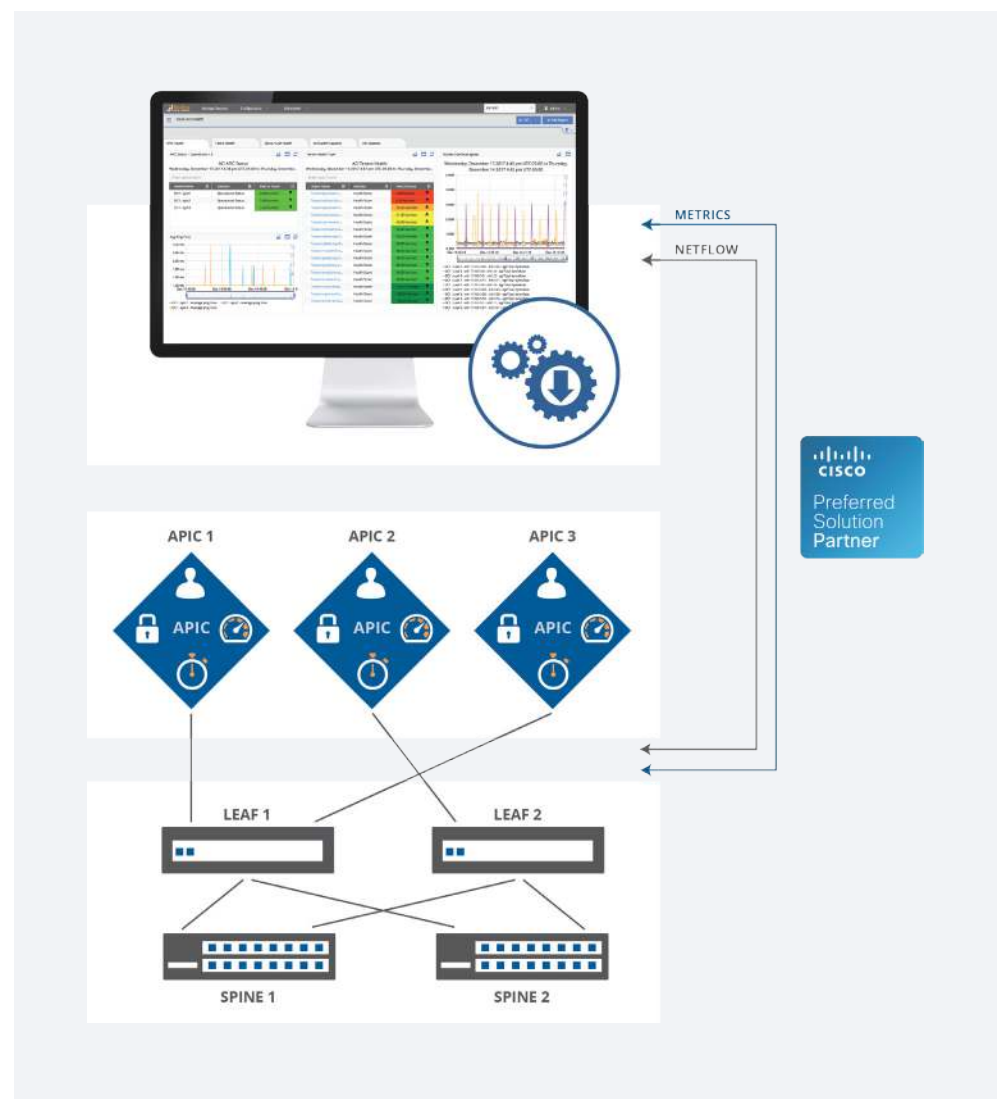
- **Infrastructure monitoring with speed at scale:** With a large and complex network supporting time-sensitive operations, the airline needed full end-to-end infrastructure visibility in real time. The SevOne Platform meets these needs with its broad coverage data element types, proven scalability, intuitive dashboards and reports, and unmatched speed.
- **Unified virtual and physical visibility:** One of the airline's key requirements during and after its SDN migration was the ability to get a holistic view of its infrastructure. The SevOne Platform checked this box with its ability to automatically detect both virtual and physical endpoints as they come online and immediately begin monitoring their performance. Easy and intuitive visualization is provided through a range of preset dashboards that show physical and virtual relationships in real time with automated mappings of network resources, objects, elements, and more.
- **Native Cisco ACI integration:** With a migration this complex, the airline was looking to simplify its network monitoring and management requirements where possible. Certified as a Cisco Preferred Solution Partner, SevOne has done extensive integration with Cisco ACI. This makes it easier for the airline's staff to understand the physical, endpoint and tenant topological relationships in their network, and spot problems with granular reports and detailed performance alerts.
- **Performance analytics and network planning:** To ensure effective handling of both near-term needs and future requirements, the airline required robust network performance analytics capabilities. The SevOne Platform exceeded this requirement with its enterprise-grade capabilities for using monitoring data and real-time data analytics to identify, assess, and predict network activities in ways that enable the airline to stay ahead of trends.

With these and other capabilities surpassing those of products from other, the airline selected the SevOne Platform as its infrastructure monitoring and management solution.

## RESULTS TO DATE

Despite a tight schedule and fairly high risks due to the complexity of the network migration, the airline's first SDN-based datacenter went live in early 2017. The transition to the Cisco ACI environment went according to schedule without any significant 'hiccups' in application or service provisioning or network performance.

One aspect of the deployment that particularly impressed the airline's SDN project team was how quickly and efficiently the SevOne team was able to deploy the Platform. With an experienced staff, and processes that have been honed over the course of many large-scale enterprise deployments, the SevOne Platform was installed, and up and running, within two weeks. The airline's team was impressed by the thoroughness and professionalism of SevOne's people, and the very quick time-to-value they achieved.



## RESULTS TO DATE (CONT.)

Today, in the airline's large IT facility in Hong Kong, the SevOne Platform is providing real-time monitoring and management functions simultaneously for three distinct network resources: the airline's new Cisco ACI datacenter, its mirrored disaster recovery environment, and the legacy network.

Across all three environments, the airline's team is SevOne's dashboards—including automated topology and logical visibility maps, endpoint group displays, and network baselining graphs—to monitor provisioning and performance. With real-time, end-to-end infrastructure visibility, the airline's network operations team can readily identify and mitigate issues before the cause performance problems.

The SevOne Platform helps that airline to ensure that its automated, policy-driven provisioning of applications and network services is operating efficiently, and that those resources, whether virtual or physical, are performing as expected.

Buoyed by the success of this first SDN initiative, the airline is now planning to upgrade and consolidate the networks and datacenters it uses to service other parts of its operations, including customer-facing aspects of its premium club and cargo operations. And since the airline has standardized on the SevOne for its infrastructure monitoring and management needs, the SevOne Platform will be an integral component of these and all future network upgrades and expansions.

**For this major international airline, the 'bumpy rides' with infrastructure monitoring and management are over. Thanks to SevOne and Cisco ACI, only smooth network operations and transitions lie ahead.**



### **Automated Topology Dashboards:**

*Leverage use to use visualizations to understand the health and performance of a SDN-based implementation requires knowledge of both the virtual (overlay) and the physical (underlay) components of an infrastructure, along with the relationships between them.*

## **Contact Us.**

To learn more about how SevOne can help your organization ensure a smooth transition to a Cisco ACI-based network or other SDN environment, contact a SevOne representative via email at [solutions@sevone.com](mailto:solutions@sevone.com) or visit us on the Web at [www.sevone.com](http://www.sevone.com).