



# High-performance smart networks

Lufthansa Systems GmbH & Co.KG uses Cisco® Intelligent WAN (IWAN) to simplify operations and support Lufthansa Group and its worldwide partners.

“Our smart, scalable network allows us to support all alliance members. SkyConnect is the all-in-one WAN, LAN, and voice solution.”

- Markus Voegelé, Senior systems and design engineer, Lufthansa Systems GmbH & Co.KG

Lufthansa and other airlines need intelligent IT management and infrastructure to share flight information with their partners including Amadeus, Sabre, Worldspan, and others.

## Challenges

- Support Lufthansa and other Star Alliance members
- Manage network equipment across locations
- Improve bandwidth utilization and reduce costs

With operations in 81 countries, Lufthansa is Europe's largest airline. Supporting operations is a monumental task, and Lufthansa Systems GmbH & Co.KG, a 100 percent subsidiary of Lufthansa Group, handles IT infrastructure. The company will soon begin operations as IBM Deutschland Aviation and Industry Services GmbH, a 100 percent subsidiary of the IBM Holding Germany, to leverage greater investment and economies of scale.

Several years ago, Lufthansa Systems GmbH & Co.KG embarked on an initiative to build a worldwide network for Lufthansa and Star Alliance carriers. The SkyConnect solution connects more than 1800 locations and dozens of customers. As SkyConnect expanded in scope, Lufthansa Systems GmbH & Co.KG faced increasing inside and outside costs and complexity.

“To expand our customer services, we needed performance routing, load sharing, and greater utilization,” says Markus Voegelé, senior systems and design engineer at Lufthansa Systems GmbH & Co.KG. “In other words, we needed an intelligent network. With the Cisco Intelligent WAN solution we can optimize scale and performance using our Cisco routers.”

## Case Study | Lufthansa Systems GmbH & Co.KG

Size: 1,400 Employees

Location: Worldwide

Industry: IT Services





## Cisco IWAN helps dynamically route application traffic to deliver better performance for less.

### Solutions

- Implemented Cisco Intelligent WAN to achieve optimum scale across locations of any size
- Standardized infrastructure to simplify management

### Balancing loads for better utilization

Performance Routing (PfR) uses intelligent path control policies for dynamic load balancing. This means Lufthansa Systems GmbH & Co.KG can offload noncritical applications to keep booking and reservations running. It's reducing downtime while increasing the consumable bandwidth by 30 percent.

### Less waste means lower costs

Before Cisco IWAN, the company needed backup lines to assure connectivity, but they went unused most of the time. Now it's augmenting MPLS networks with less-expensive Internet to achieve fantastic performance and higher bandwidth at a lower cost.

### Connecting hundreds of locations



Lufthansa Systems GmbH & Co.KG is determined to provide excellent service, and Cisco Dynamic Multipoint VPN (DMVPN) simplifies communications to all customers, including Lufthansa, Malaysian Airlines, Royal Air Maroc, Ethiopian Airlines, Star Alliance members and other Airlines around the world.

### Standard configurations simplify management

Inspired by the airlines Lufthansa Systems GmbH & Co.KG serves, the company offers three levels of WAN services: Economy, Business, and First Class. By offering standard configurations of Cisco equipment, its IT team can reuse configurations and control all of the routers from a central location, making operations much easier. Cisco Application Visibility and Control (AVC) is particularly helpful in helping monitor flow and identify performance metrics across the network.





## Results

- Increased bandwidth by 30 percent
- Simplified management through standardized infrastructure
- Improved utilization rates by eliminating need for redundancies

## Looking to the future

Lufthansa Systems GmbH & Co.KG is already working on the next generation of SkyConnect. The next release will likely use Cisco Application Policy Infrastructure Controller (APIC) Enterprise Module and Cisco Prime™ Infrastructure to further simplify network management and provisioning of new locations.

“We’ve been a Cisco gold partner and customer for years, and we couldn’t ask for anyone better to help us turn our performance ideas into a reality,” says Voegelé.

## Products & Services

### Data Center

- Cisco UCS® B Series Blade Server
- Cisco ASR 1000 Series Aggregation Services Router
- Cisco 7606 Router

### Routing and Switching

- Cisco 1941 Router
- Cisco 2900 Series Integrated Services Routers



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