

Establishing highly reliable service infrastructure in the growing Asia-Pacific region.



■ About Lufthansa Systems

Lufthansa Systems is one of the leading IT service providers for the airline and aviation industries worldwide. As a systems integrator, the wholly-owned subsidiary of the Lufthansa Group covers the entire range of IT services, including consulting, development, implementation and operations. Lufthansa Systems provides its infrastructure and network services to a variety of airlines across the globe. In particular, the demands for Lufthansa Systems' services are increasing rapidly in the Asia-Pacific region including China, which is opening new airports and adding new flights one after another.



Challenges :

Lufthansa Systems' data center is processing 800 data transactions per second. Real-time data are running over the network, thus the network is required to have "perfect reliability" that never interrupts system operation and "high quality" that is capable of high-speed data processing. In addition to the reliability and quality, airline companies require the highest level of security because they handle information related to flight security and passenger's privacy.

Dr. Hannes Pfister, Senior Vice President of Infrastructure Services, Lufthansa Systems, explains, "Since the Asia-Pacific region has been attracting corporations from all over the world, demands for flights arriving and departing these parts of the world are increasing. Along with expansion of business in these regions, new airports and new flights are springing up across the Asian region. The increase of new destinations means increasing investment for networks and systems by airline companies. This is our big business opportunity."

Yet, it is still a difficult task to satisfy these prerequisites in the Asia-Pacific region compared to Europe, where the telecommunication environment is under development. Furthermore, in Lufthansa Systems business, the network has to be delivered to airports that are usually located far away from business districts. It is a challenge to have a stable network operation in such an environment.

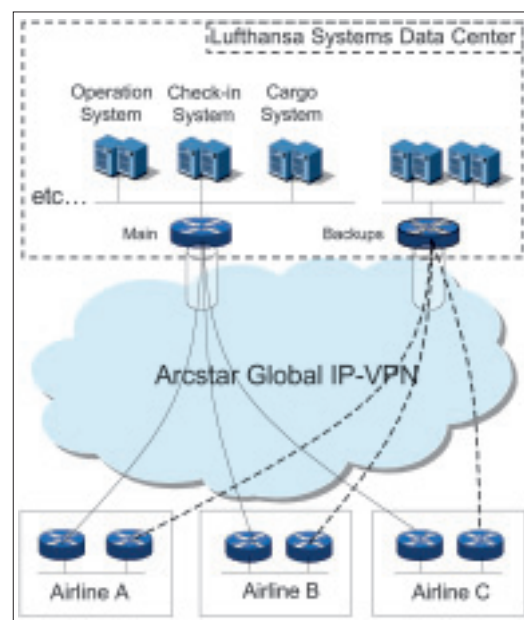
Solutions :

Introducing Arcstar Global IP-VPN

NTT Communications' solution for establishing an optimized network for Lufthansa Systems is to use Arcstar Global IP-VPN, a world-class quality network based on the continuous efforts in quality improvement initiatives such as "Arcstar Carrier Forum".

Adding optimal backup solutions for each location, NTT Communications manages up to the routers and ensures reliable operation of the entire network.

NTT Communications offers integration of connectivity at the data center via a technology called multi VRF (Virtual Routing and Forwarding).



Results :

As a result of implementing the solutions, Lufthansa Systems successfully reinforces its reliable operations in the Asia-Pacific region overcoming a number of challenges.

While consolidated connectivity enables efficiency in bandwidth usage at the data center, NTT Communications ensures security among different companies by taking advantage of multi VRF (Virtual Routing and Forwarding) technology.

"We can reduce the number of days required to deliver our service and the cost can be lower than setting up dedicated circuits to each airline." -- Mr. Bardo Werum, Vice President, Cross Industries & Operations, Lufthansa Systems.

Voice of the Customer :

"It is sometimes challenging to enhance the communication infrastructure in the Asia-Pacific region. Not all telecom operators meet our requirements. We compared several communication carriers. Our focus is that the carrier should be financially stable, it should have low possibility of a merger, which often weakens service levels, and it should be able to provide consistent service for the long term. In addition, the provider should have a good record of achievements in global business, and should have cutting-edge and high technology of its own. NTT Communications is qualified in all these fields." (Mr. Bardo Werum)

*Arcstar Carrier Forum is an annual conference hosted by NTT Communications, where partner carriers across the globe discuss quality enhancement measures and build close relationships for better operation of Arcstar network. NTT Communications' initiative in the forum since 2000 has contributed to the actual quality improvement of access lines especially in the Asia-Pacific.