

Lufthansa: Replicating Flight Planning Data to Other Airlines through HVR

Use Case



As one of the world's leading full service IT providers and industry specialists for the airline and aviation sector, Lufthansa Systems offers Lido/FlightPlanning as well as other airline solutions to some 200 national and international airlines across the world. The company is an expert in its field; it offers a modular range of products and services to manage all aspects of airline planning as well as a large team of navigation experts on the ground that collate information from a variety of sources such as updated weather reports and air traffic information, in order to update airlines' operation teams and pilots en route in real-time.

Lido/FlightPlanning

When we take a flight, the majority of us are oblivious to the amount of planning and checks that take place in the background to ensure that we have a safe and pleasant journey. While we are busy making ourselves comfortable in the cabin, behind the scenes the airlines are hard at work to understand how they fly from our place of origin to our destination. Among many other things, airline dispatchers and pilots need to understand a plethora of information including: what speeds they must fly and at what heights, what take-off weights are permissible, what routes need to be considered, what fees are due if they fly certain pathways and how much fuel they need to get from A to B.

Replicating Lido/FlightPlanning Data in Real-Time

A central database serves as the repository of information that powers Lido/FlightPlanning. The company sells the application to airlines and transportation companies across the world and continues to run it; Lufthansa Systems installs and maintains the solution and updates data in real-time to ensure that the airlines have the latest information at their fingertips when they need it. Every time there is a new piece of data or information about a new flight path, a new flight restriction, an airport closure or severe turbulence on the horizon, Lufthansa Systems replicates this data with HVR to the different Lido/FlightPlanning databases at the data centers of its customer airlines. In several customer cases, HVR is also used to create a hot-standby database for Lido/FlightPlanning at the customer data center. By calculating the cost for optimal flight routes, Lido/Flight guarantees to generate millions of dollars in extra profits for its customers annually.

Synchronizing Hundreds of Databases

The hub concept of HVR enables replication from one or more sources in a very efficient way to hundreds of different target databases. The extreme network compression and pipelined architecture of HVR are very efficient over restricted network links and hence for geographical distribution of data. HVR also makes it easy to add customer specific additional targets for high availability and reporting requirements.



Customer

Lufthansa Systems

Challenges

Updates to the flight planning data in the central Lido/FlightPlanning system at Lufthansa Systems must be replicated in real-time to all Lido/FlightPlanning installations at the sites of the customer airlines.

Solution

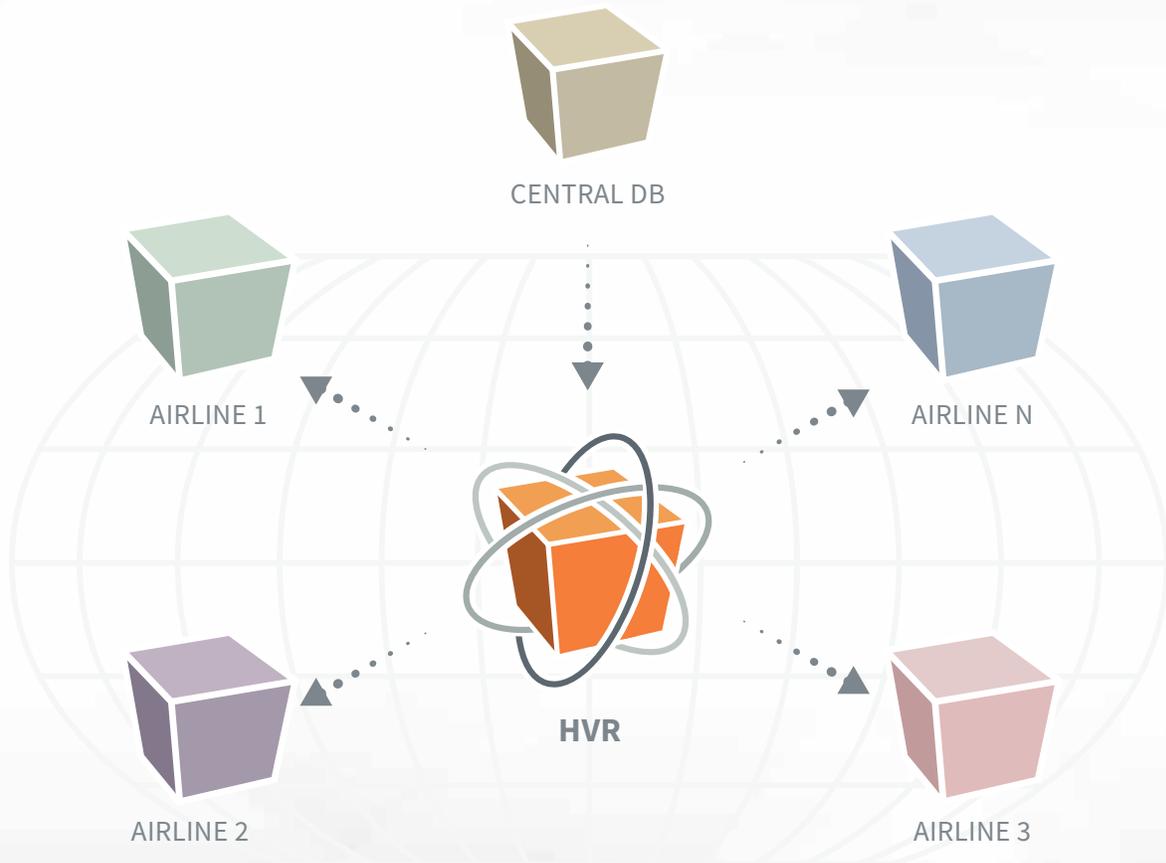
HVR replicates from the central source to hundreds of different target databases all over the world – even over restricted network links. In some instances, local copies for HA and reporting are created.

Benefits

- Local availability of real-time flight planning data
- Flexibility, scalability & robustness

HVR: Flexibility, Performance and Robustness

“We have been using HVR now more than ten years for our flight planning system business,” explains Rudi Koffer, senior database software architect at the Lufthansa Systems Airlines Operations Solutions division in Frankfurt-Raunheim, Germany. “With the combination of flexibility, performance and robustness HVR has proven to be a very good choice to embed in our flight planning system.”



About HVR

At HVR, we believe it should be easy to deliver large volumes of data efficiently, reliably and at the right time into your data store of choice. Our software, the HVR High Volume Replicator, does exactly this using real-time data capture between data sources including SQL databases, Hadoop, data warehousing and business intelligence data stores as well as the most commonly used file systems.

For those organizations where real-time data replication is a mission critical process, HVR has been proven to be a reliable, secure and scalable solution by some of the largest global companies and leading government and defense organizations.

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