Integrated planning, KTR and rolling forecast – Lufthansa CityLine flies on Qlik Sense and Write!

“We have also prepared ourselves well for the future with the process landscape that we have established here based on Qlik Sense and Write!. We have not just created a project that will live for two years and then have to be completely revamped, we have also created a basis on which we can meet future requirements.”

Patrick Lowski, Senior Commercial Officer and Co-Project Manager, Controlling2.0@CLH, Lufthansa CityLine GmbH
The Customer
Lufthansa CityLine is a fully-owned subsidiary of Deutsche Lufthansa AG. Around 8.2 million passengers currently fly with Lufthansa CityLine each year. Lufthansa CityLine’s fleet of some 50 modern and environmentally friendly medium- and short-haul jets serves all major airports in Europe. There are 355 daily departures to 72 destinations in 25 countries.

Starting Situation
Lufthansa CityLine was searching for an alternative for the predominantly static reporting system based on SAP BW. “On the one hand, we wanted to introduce a greater degree of self-service and room for manoeuvre in the specialist departments,” explains Florian Bertsch, Business Architect, Data Warehouse and BI at Lufthansa CityLine GmbH. “On the other hand, we wanted to accelerate the development of reports and simplify the maintainability of the BI environment.”

In the course of evaluating various solutions, Bertsch examined the Qlik Sense analysis and reporting platform at another Lufthansa subsidiary and was quickly convinced that the software would also meet the requirements of Lufthansa CityLine. The key factors in favour of the solution were its ability to act both as a frontend and to cover the ETL process in the backend, its high flexibility in handling source systems and analyses as well as its self-service functions.

In addition, the controlling department of the airline also wanted to optimize the cost planning, in particular regarding the degree of automation, reliability and transparency of the planning values. The increasing complexity of the process landscape with SAP ERP, SAP BW and non-SAP systems as well as the expansion of the product portfolio through long-haul flights made such a modification necessary: up until now, the approx. ten controllers and commercial operators used an Excel-based process for planning costs on cost centres and cost types for the next year and the year after that. This process proved to be too time-consuming and susceptible to errors due to the high amount of manual work involved: Data had to be collected in the individual departments and uploaded into the systems.

“We initially looked at the Group setup based on SAP BW,” reports Patrick Łoski, Senior Commercial Officer and Co-Project Manager, Controlling2.0@CLH at Lufthansa CityLine. “We could have very easily integrated ourselves here from a purely technical point of view – but we lacked the long-term investment security because the system was getting on in years. Secondly, this approach was not economical for us as a medium-sized company. The operating and license costs we would have had to bear on a proportional basis as well as the project costs were too high in total – in contrast to the setup with Qlik Sense. The use of the Qlik SAP Connector ensured that we were able to connect the SAP module in a straightforward manner, without having to rebuild and adapt the SAP structure.”

“We used to have more of a mapping function in the controlling department - thanks to the use of Qlik Sense and Write!, we are now able to concentrate fully on information supply and controlling tasks.”

Thomas Bayer, Senior Consultant Controlling and Co-Project Manager, Controlling2.0@CLH, Lufthansa CityLine GmbH
Mapping of Processes
- Budget planning
- Expected actual
- Plan KTR
- Actual KTR (in implementation)
- Simulation

Return of Investment
1 day instead of 1.5 days monthly workload for the preparation of the forecast and efficient reports through self-service BI approach

Time to value
6 months until the productive start-up of the first applications

Solution
One thing Qlik Sense lacked, however, was the ability to map integrated planning. So Lufthansa CityLine got the information that the Qlik-Elite solution provider INFORM was developing an extension that could implement exactly this requirement: The Qlik extension Write! allows users to edit data directly in the Qlik interface or to create new data in Qlik Sense. Write! also offers complex planning functionalities, such as the transfer of reference data or planning execution based on real historical data. New fields such as customers, regions and budget can be created quickly and easily. INFORM has been offering Qlik solutions for companies within the German-speaking area (DACH) for more than ten years now. INFORM is also no stranger to Lufthansa: The airline is already deploying various solutions from the software house, including a duty scheduling tool. “This is why there was enough basic trust there for us so that we could enter the areas of system-supported cost unit accounting and budget planning together with INFORM,” say Thomas Bayer and Patrick Lowski, Co-Project Managers, Controling2.0@CLH.

A further requirement arose during this project planning phase: A rolling forecast should be mapped out to take into account relevant developments and to bridge the gap between the planned values prepared in the previous year and the current actual values. Bayer and Lowski: “We had previously planned the “Estimated Actual” (EA) – as we refer to the forecast – in Excel and reported it to the Group. We always had to manually record the estimated actual cost items individually in the system or import them via uploads. We wanted to automate this input process instead.”

“INFORM then implemented the processes of budget planning, planned cost unit accounting and EA in one efficient procedure and in doing so, also put in one or two-night shifts, for instance to develop an algorithm for calculating the expected actual value,” continued Bayer and Lowski. “INFORM proved to be a very committed partner and demonstrated comprehensive expertise - both with regard to IT technology and the specific and complex cost factors in aviation. We have always felt that INFORM was the right partner for us. On a human level, too, it was a good fit.”
**Range of Application and Benefits**

Lufthansa CityLine uses Qlik Sense to prepare cost unit accounting for determining wet lease rates. This involves combining data from various sources: values for cost types and cost centres from SAP on the one hand, and the keys for allocation from Excel on the other. Flexible handling and adjustment of the allocation within cost unit accounting is ensured through the mapping of key values in Excel and Qlik Sense’s ability to automatically merge data from any sources. A further application scenario is the simulation of cost and revenue trends on the cost units – these are aircraft types in the case of Lufthansa CityLine. The Qlik Extension Write! is used to prepare plan scenarios for cost types and at cost centre level.

Automated price and quantity effects are then simulated at prototype level via cost unit accounting and communicated to the Lufthansa Group.

Lufthansa CityLine benefits from significant time savings. “When we made our monthly forecast in the past, the controllers in each department were busy for up to 1.5 days. Today, the plan version is created within two hours and everyone still has to incorporate their changes. We had loading times of approx. 3 to 4 hours in our old DW. An SAP data extraction takes about 30 minutes with Qlik Sense,” say Bayer and Lowski.

The fact that the data is entered and stored centrally in Qlik Sense also provides much greater transparency and reliability of the values. “The key aspect for us in controlling is that the self-service BI approach entails completely different possibilities,” Bayer and Lowski note. “We can now operate independently and implement analysis and reporting requirements on an ad hoc basis. End users can track reports independently via Qlik Sense instead of having to wait to be provided with reports.”

This change can also be felt in IT, as Florian Bertsch confirms: “Since our reporting system used to be very static, it was down to the IT department to customise and structure the report. Through Qlik Sense, we are able to gradually transfer more and more responsibility for reporting to the specialist divisions, which results in a significant workload relief for our department.”

A positive side effect: Qlik Sense highlights inconsistencies in the data so that appropriate corrections can be made to enhance data quality.

**Future**

Actual cost unit accounting will also be implemented in Qlik Sense in the future. This is based on data from SAP and the MRO software solution AMOS, which contains additional information concerning individual aircraft, engines or APUs, for example. It will then be increasingly possible for the airline to see exactly which engine or which aircraft causes which costs in a BI system. “The actual KTR will bring us substantial added value so that we are able to derive statements at cost unit level during the course of the year and identify differences from the planned rates,” say Bayer and Lowski.

The long-term objective is to map out the entire company reporting in Qlik Sense and to completely replace SAP BW.

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