



Case Study - Dashboards, Design, and Data-warehouses

Our customer is the Cyber Security Division of a tier 1 Bank with a large technology estate to manage. They were tasked to report on the security and compliance of the estate from data provided by various tools. These reports were to take the form of **Business Intelligence (BI) dashboards** which would be clearly presented and easy to understand.

These dashboards were to be used at the highest level in the bank to determine the priority of where the security remediation budget should be spent. This was a significant undertaking due to the diversity and complexity of the data feeds which came from several standard device-scan/inventory tools as well as some specialist security products.

The Challenge

The scope of the project covered building **Management Information Summary, Sub-category and Remediation dashboards**. These were based on some existing dashboards with data feeds and several new user groups with their specific requirements.

The previous collection of dashboards suffered from a poor understanding of the underlying data, with many levels of hard-coded data manipulation logic and no user experience design work. These were considered functional but primitive and the users found them unreliable.

Business stakeholders were in constant communication requesting figures to be validated. In some cases, this resulted in them not using certain dashboards at all! Other individual teams resorted to taking data extracts from the dashboards and processing them further in Excel. Some dashboards ended up having to have hard-coded values inserted and changed on a periodic basis, negating the veracity and integrity of the report and the effort expended in the automation of the process.



Our Solution

The project was initiated to deliver a set of informational tools which would enable business improvements to be made. These dashboards built on data logic were designed to highlight specific areas of importance and, by including data drill-down components, allow an understanding of the root cause of potential security issues and areas of non-compliance within the estate.

To ensure **data information validity**, we focused on ensuring that all figures and tables were traceable from original source to final dashboard and were presented clearly and concisely. Additionally, we undertook an analysis of the full data available and completed a gap analysis against the requirements to understand where potential data points were missing from datasets.

The first step was to fully understand the requirements of the various teams that used the dashboards and what their challenges were in using the existing ones.

This resulted in the creation of a **data silo** for each dashboard that was then assigned a dedicated developer who owned that silo. The developer would then work with the client team that used the dashboard to get the real depth of understanding on their specific requirements. By working closely with the user team(s) aligned to each silo we promoted positive dialogue on their requirements and current challenges. Also within the scope of this silo approach was to gain an understanding and knowledge about the various tools that provided the data feeds into the data warehouse solution. An iterative approach to development with regular playback sessions of ongoing prototypes helped to enable a rapid short cycle of change and feedback.

A study of the existing **User Interface** was also carried out and a consistent “Look and Feel” designed from scratch. This design approach was then applied to any new or existing dashboards that were in scope across all the silos.

The Result

The single silo strategy gave the end teams a single point of contact covering the design of the dashboard and all the way back to the original tools that generated the data. This breadth allowed the developer to either quickly iterate on a requested change or confirm that it was not achievable with the current data feeds. The user teams also regained their confidence in the dashboards as the **data quality improved**. They now have a clearer view that is presented to the users based on more reliable data.

There is currently a transition taking place to a new BI platform (Qlik Sense). The existing silo structure can now be easily applied to convert the dashboard to the new product and bring a significant reduction in time that would otherwise be taken up creating it.