IFS/Xudu Data Case Study - Whitepaper

Unlocking your Commercial Data with IFS Analysis Models

4th June 2021

IFS

Background

Following IFS' implementation of APPS 10 to run its business in 2019, the teams involved in reporting and analysing business performance were given access to the standard BI tools that are also provided to customers.

Whilst these tools were initially adequate, the analysts found that the existing applications based on multi-dimensional cube technology were too prescriptive and when there were requirements to develop these environments to meet business needs it was a challenge to customise them.

IFS pride itself on building solutions for our 5 key industries, unfortunately as a software business IFS are not represented in these markets. As a result, a higher level of customisation is needed to support IFS' Commercial reporting needs.

In IFS' case the specific challenges were:

➢ Total company reporting and related hierarchies wasn't possible
➢ The ability to drill down to transactional level had been removed due to performance and refresh frequency dependency
➢ The standard release to customers included different ways to access the same data making the environment seem complex which hampered wider user adoption
➢ Requested functionality such as multi-currency analysis and joining data across IFS modules would take significant time to develop in the multi-dimensional environment

At this point, IFS engaged with a specialist Business Intelligence company, Xudu Data, to work in partnership with the IFS R&D Business Modelling Reporting and Analytics (BMRA) team to take a fresh look at how reporting and analysis should be performed using the data stored within IFS using the latest functionality developed by the BMRA team. This partnership has the goal to:

1. Quickly improve the quality of mission critical financial reporting
2. Test new technology in a real-world scenario before we release to customers
3. Ensure learnings and best practices were incorporated into IFS Analysis models

A Smarter Approach to IFS BI

Critical to any successful BI implementation is the flexibility to develop to actual business requirements and accept that these will change and evolve over time in line with changes in normal business operations.

One barrier to achieving this at IFS was the use of older Microsoft technology with respect to SSAS multi-dimensional cubes. With the significant improvements in computer processing power, lower cost of hardware and optimisation for Cloud deployment, Microsoft recommend using their newer technology in the form of SSAS Tabular Models. This new solution allows for some significant design pattern changes to be implemented that; simplify the ELT process, reduce the technical skill requirement, reduce development time and increase the amount of data that can be analysed.

The first task of the project was to perform a gap analysis of the data and functionality the business teams required versus the existing BI solutions. This was vital to identifying the baseline model that the IFS teams were able to work with whilst planning for enhancements in future phases of the project.

Armed with the understanding of what was required by the business and the technology to deliver this, the next key part was to hire additional resources with the skill sets to complement existing development teams to implement the new solutions. The key roles supplied by Xudu Data for the project were:

➢ BI Business Analyst to interpret the business requirements for the technical development teams
➢ BI Project Manager to implement an Agile mindset to deliver quick tangible business value
➢ SQL BI Developers with experience of building SSAS Tabular Models and Power BI reports

Once resources were onboarded, the team quickly set about building a Tabular Model for the highest priority IFS APPS 10 application, the General Ledger. After six weeks the baseline model off the standard APPS 10 GL Transactions Information Source was produced for the Finance team. This demonstrated the following:

• Most of the base information sources were fit for purpose
• Loading transaction data (22mill row) and letting the Tabular model do calculations in memory was efficient and performant
• Power BI worked well and was able to leverage the performance gained in using tabular models
• Excel works well when the cells populated is low, however has limitations when working down to the transaction level

Additional features were released over the course of the next two months delivering added value using an agile approach.

After the baseline GL model was delivered and it was proven that the rapid agile approach was possible to use with the people and technology provided by IFS BMRA products, the team expanded the scope of their work to developing Tabular Models for CRM, Group Consolidations and the Maintenance Contract Management tool used for order processing.

Following the same approach to GL, the team delivered new functionality to the IFS business users that provided them with analytical insight and reporting not previously possible which helped drive changes in the way the business was performance managed.

In summary, the key outcomes and benefits of the project were:

A smarter approach to analytics unlocked business benefits

The change from multi-dimensional to tabular made functionality and data available from the IFS ERP not previously available to users. In turn, this empowered users by delivering data to the level of the organisation that needed it the most. The data format made it easy to be consumed by expert and non-expert users alike in the form of analytical tools for ad-hoc analysis and standard management reports

New capability

The move to Tabular Models delivered capability not previously possible:

➢ Multi-company reporting and analysis

- ➢ Ability to drill through to transactional detail
- ➢ Integration across IFS modules e.g. Customer Segmentation from CRM into the GL model
- ➢ Near real time incremental data refresh
- ➢ Multi-currency reporting
- ➢ Availability of multiple budgets and forecast versions for reporting
- ➢ Alternative reporting hierarchies
- ➢ Creation of 'Snapshot' versions to support change impact analysis
- ➢ Row Level Security was applied to restrict user's data access
- ➢ Integration of data that resides outside of IFS Apps into the analysis models

Speed of implementation

The out of the box Information Sources and Code Part data structures available within APPS10 are designed to quickly deliver analytics and reporting to users. This means any organisation utilising these can quickly demonstrate a return on investment by adopting the IFS Analytical Models

Customer Supportability

The resources required to develop and support the various Tabular Models although specialised in Business Intelligence had capability in the standard Microsoft skill sets. Similarly, although the developer's tool kit was Microsoft based, the Tabular Model can be connected to BI tools and Excel that an organisation has already invested in.

Summary:

By working together, Xudu Data and IFS have been able to:

1. Deliver business value quicky and in a repeatable way
2. Incorporate these changes into the IFS Cloud product for future customers
3. Validate the design and technology choices the IFS BMRA team have made
4. Demonstrated that a more Agile working process is supported by these tools
5. Developed a deep working partnership between IFS RnD and Xudu which empowered each other with deep technical knowhow and customer insights