INSIGHTFUL REPORTS AND SAVINGS, SERVED HOT

Abstract

Thomas Gravier, a Technical Project Manager with a global food packaging company had a challenge on his hands. His teams, responsible for organisational reporting, found it challenging to provide the strategic insights the company needed because of fragmented data across multiple siloes and underpowered reporting software. Read this case study to discover how Infosys BPM helped Thomas with a cutting-edge reporting solution that significantly reduced his teams' manual efforts and delivered the reports the enterprise needed in real-time, while saving AU$ 520k in costs.

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Not a good report

Thomas Gravier is a Technical Project Manager with a global food packaging company operating in 13 markets worldwide. Thomas' teams create reports for all the functions in the organisation including HR, Safety, Production, Engineering, Finance, Commercial, Logistics, Planning, and Quality.

Yet organisational reporting was severely challenged, with data fragmented across different databases and spreadsheets and in various inconsistent formats, making it difficult for the reporting teams to access and consolidate relevant information. There was a lot of manual effort and time consumed in collating the data for

each reporting cycle, and more so for the frequent ad hoc requests coming in. Effective visualisation for strategic insights was even more challenging because of the complex data, and because the team was using Excel which was not capable of handling some of the larger datasets. As a result of all these factors, reports were largely descriptive and lacked visibility into key performance indicators. These coupled with lack of mechanism for data warehousing hindered the company's ability to identify patterns and analyse trends quickly.

Realising the importance of timely, data-driven decision-making and the need for

a more efficient, visual, and accessible way to present and analyse data, the company mandated Thomas with looking out for a better way to get things done. He decided to reach out to their transformation partner, Infosys BPM and brought on board an expert team from Infosys BPM headed by Vinita Panicker, a veteran data transformation specialist.

Thomas explained his challenges to Vinita, highlighting how most of the organisation's data was in unstructured format, and how the enormous amount of time the teams regularly spend on delivering reports needed to be addressed by building efficient reporting dashboards.

Getting all the siloes to talk

Vinita soon realised that the source of all of Thomas' reporting challenges was the organisational data sitting in siloes. The need of the hour was a designated data warehouse that would act as a single source of truth, with reporting dashboards pulling the data in real-time for actionable insights. In a series of initial project kick-off meetings, she explained to Thomas how her solution would involve not only

designing the data warehouse but also cleansing the data, creating the necessary data models, and lastly migrating all the data from their siloes into the warehouse which would be primarily located in the cloud.

After obtaining a sign-off from all the stakeholders, she then collaborated closely with Thomas to design the solution.

Vinitha helped him build the wireframes and business requirement documents for the dashboards, provided the team access to the data sources needed, and set up multiple workshops with his subject matter experts so that the team could gain a comprehensive understanding of the reporting processes and the issues involved.

Approach summary

Conducted workshops with SMEs

Performed data transformation of unstructured data using Power Query

Built data models using Power BI

Developed reporting dashboards

Data Warehouse Design
- Defining Business requirements/objectives
- Environment set up (dev, test & prod)
- Infra readiness – Servers/DB's/VMS etc.
- Create data models (Conceptual, Logical, Physical)
- ETL pipelines/Stored Procs/workflows/Notebooks creations & implementation

Cloud Migration
- Data Migration Assessment (lift and Shift OR Re-architect OR Rebuild)
- Networking – Subnets, DNS
- Storage review – IOPS, Latency, hot/cold data
- Scalability Review – VM's, Servers
- Cost/Performance Assessment

Data Governance
- Master Data Management – Data Owners/ stewards
- Data Mapping, Data Duplication
- Data Compliance Monitoring
- Policies, standards, processes – Blueprints
- Data Archiving

Infrastructure Set Up

Business Intelligence Engine

Define / Quantitively Managed / Managed / Initial / Optimizing

1 2 3 4 5 6 7 8

Design Data Model
- Define & Design Schemas (Star/snowflake)
- Automated data workflows/pipelines strategies
- Finding Entity relationships, attributes, dependencies etc.
- Need of data aggregation & structures

Dashboard Development
- Existing reports/dashboards assessment
- Dashboard/Reports development (Mock-up/ Prototypes)
- Dashboard/Report deployments
- Unit Testing & UAT
- Dashboards Deployments

Change Enablement
- User trainings
- Establish SOP for dashboards/Reports
- Necessary training / upskilling
- Updated Operating Model

Data Cleaning
- Data Availability- accuracy, completeness, integrity, consistency
- Data Source connectivity – Legacy apps/sources
- ETL – Extract Transform and Load OR ELT (Extract, load and transform)
- Automation –Workflows/pipelines
- Data Exception handling

Data Security
- Security measure assessment
- Anomalies and incident Handling
- Data protection – backups, disaster, recovery etc.
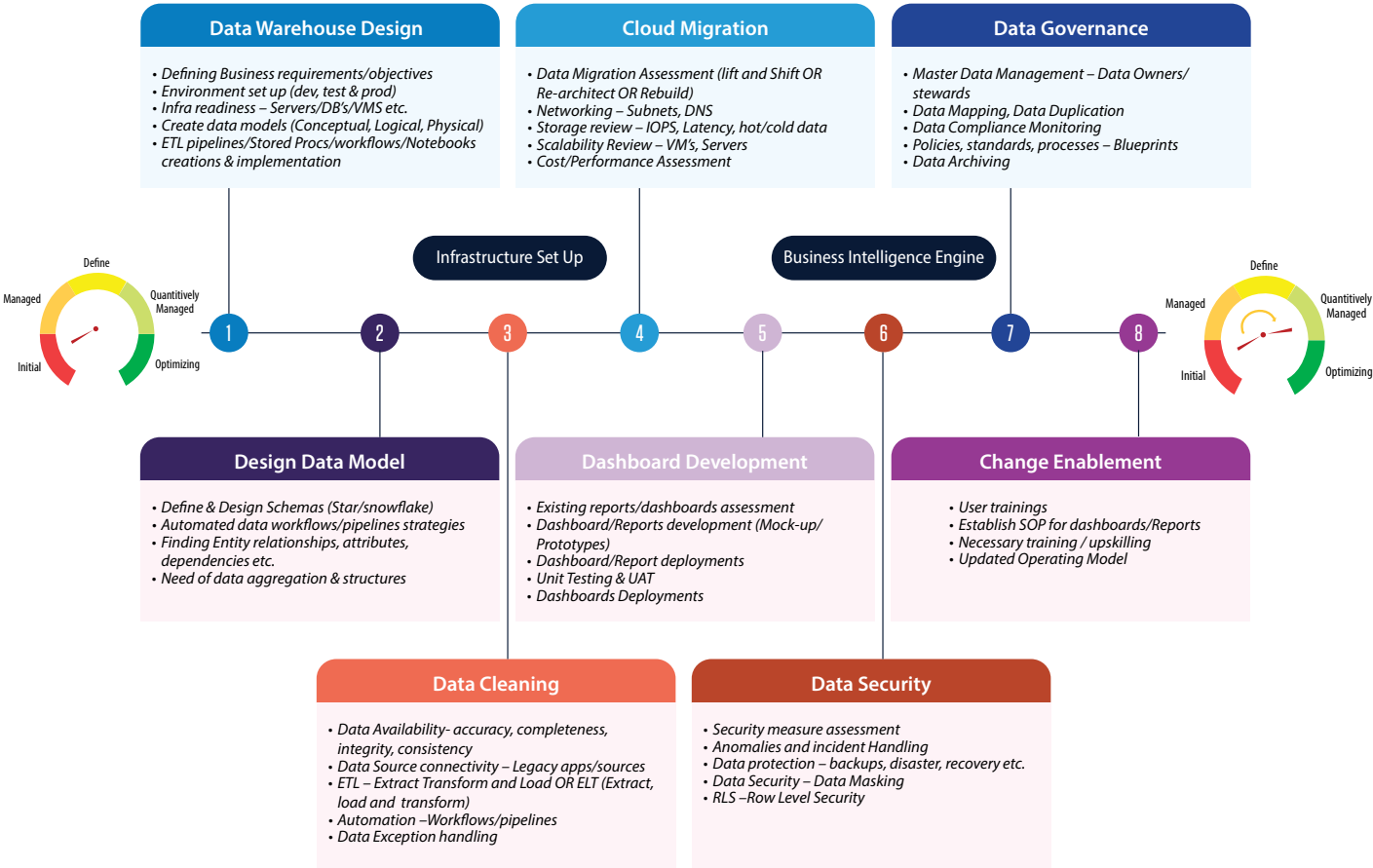- Data Security – Data Masking
- RLS –Row Level Security

Fig 1: A comprehensive implementation roadmap demonstrating setting up of modern data infrastructure

(Wave 1) and creating an insights engine over it (Wave 2)

Then, moving on to the first phase of actually building the solution, Vinita's teams tackled the challenge of dealing with the structured data available with the company. For this, they built some initial dashboards and then focused on the unstructured data. They then designed data models and also built several reporting dashboards.

In a review meeting after Vinita's teams had wrapped up the project, Thomas looked back on the journey. Undoubtedly there had been some challenges but Vinita had admirably collaborated with him and the other stakeholders to overcome them. For instance, Thomas' team had initially struggled to provide

data in a consumable form to the team. The team however managed the situation by writing ad hoc scripts to consume the available unstructured data. The team also proactively advised Thomas' IT team to prepare for additional VPN capacity, owing to the large development team logging into client systems remotely.

The sweet desserts of transformation

Having overcome all its multiple challenges, the data warehousing project was a huge success in the end. Vinita's

teams successfully delivered detailed reporting dashboards for the company's functional domains. These dashboards

were updated consistently, enabling near real-time monitoring of key metrics and performance indicators for each function.

Key benefits

- AUD 520,000 in cost savings
- 10k manual effort savings, annually
- Real-time KPI monitoring
- Data-driven decision making

Instead of having to gather data from multiple sources or systems, the functional teams now had a centralised location for accessing relevant information which greatly facilitated data-driven decision-making. Also, unlike earlier, the dashboards presented reports to stakeholders in a clear and intuitive format, thereby effectively communicating essential information. Thus, the organisation now could easily identify patterns and trends, respond quickly to changes, and had the insights it needed to make effective strategies.

For Thomas too, the dashboards greatly improved his reporting teams' efficiency and productivity. While earlier, they spent over 13k hours every year in manually collating their reports for the various functions, Vinita's reporting dashboards now saved them over 10k hours annually. Over time, the ease of reporting meant that Thomas was able to deliver savings of AU$ 520k, with all the efforts. The deep expertise in data transformation and the strong collaboration between Thomas and Vinitha indeed served up a delectable feast of benefits to the organisation.

Names have been altered to preserve the identities of the people involved.

For more information, contact infosysbpm@infosys.com

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