

# Transforming A Legacy Cable And Electrical Manufacturer With Unified Analytics

## ABOUT CLIENT

- Our client, a leading cable and electrical manufacturing enterprise in the Middle East, has been operating in the industry for over 40 years.
- It employs over 1,000 people, produces more than 70,000 metric tons annually, and serves more than 500 clients across 15 countries with high-quality electrical solutions.

## PROBLEM STATEMENT

While trying to improve efficiency and make decisions based on data, the organization ran into significant obstacles due to isolated analytics processes and manual data handling. Each department worked on its own, and the absence of a shared data system caused delays and reduced the company's ability to respond quickly.

### Manual and time-consuming analytics workflows

The organization spent 10 to 15 days compiling and analyzing data from different departments, which slowed down reporting and decision-making.

### Siloed data systems

Each department worked independently, making it hard for teams to collaborate or access a single source of truth for business information.

### Lack of automation

Data processing and visualization were done manually, limiting the ability to generate insights quickly and consistently.

### Delayed visibility into operational KPIs

Leadership struggled to respond to trends and deviations promptly due to slow access to key performance indicators.

### Absence of a centralized analytics platform

There was no single platform providing real-time dashboards or integrated reporting across manufacturing, logistics, and finance teams.

Telecommunications

Azure Data Engineering | Business Intelligence (BI) | Data Warehousing | ETL | Power BI

Middle East

IT and Technology Support, Sales and Business Development

End to End Project Lifecycle Management

## SOLUTION

To help the organization speed up decision-making and reduce delays caused by manual reporting, DataToBiz implemented a complete business intelligence and data management solution. The goal was to make data easier to access, understand, and act on across all teams.

### Centralized Data Warehouse

A single, unified repository was created to bring together information from all departments, giving everyone a reliable source of truth.

### Power BI Dashboards

Interactive dashboards were developed for different roles, allowing teams to see key operational, financial, and manufacturing metrics in real time.

### ETL Automation Pipelines

Data extraction and transformation processes were automated to provide timely and accurate reports with minimal manual effort.

### Secure Access and Role Management

Access controls were set up to ensure that each user could view only the data relevant to their role, keeping information secure and compliant.

### Scalable Cloud Architecture

The solution was deployed on a cloud-ready framework to handle future data growth, new reporting needs, and overall business expansion.

## TECHNICAL IMPLEMENTATION

### Cloud Deployment and Architecture:

The solution was set up on a cloud-native environment with containerized services, allowing it to scale easily and receive updates without disruption. Data from various sources flowed seamlessly through REST APIs and SQL connectors.

### Data Warehousing and ETL

A centralized data warehouse was built to bring together information from all departments. Automated ETL pipelines were created to prepare clean and ready-to-use datasets for analysis on time.

### BI and Visualization

Power BI dashboards were developed with drill-downs, key metrics, and layouts that worked well on mobile devices. Teams across finance, manufacturing, and logistics could access real-time reports.

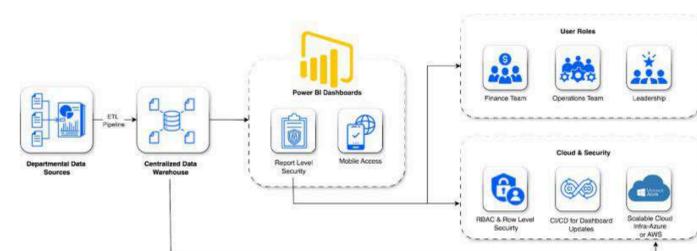
### Access Control and Governance

Role-based access and row-level security were configured to protect sensitive data. Audit logs and usage tracking were implemented to support compliance and governance.

### Monitoring and Handover

Automated refresh schedules, alerts, and continuous updates were set up for dashboards. Clear guides and team training were provided to ensure smooth adoption and long-term use.

## TECHNICAL ARCHITECTURE



## BUSINESS IMPACT

### Reduction in Reporting Time

By automating data workflows and creating centralized dashboards, the time to prepare analytics dropped by 70%, from 10-15 days to just a few hours.

### End-to-end Elimination of Manual Consolidation

The unified data warehouse replaced separate departmental efforts, providing a single reliable source of truth for all teams, eliminating 100%.

### Improvement in Decision-Making Speed

Real-time Power BI dashboards allowed leadership to monitor KPIs instantly and made decisions 2 times faster.

### Increased Cross-Departmental Visibility

Centralized reporting improved transparency across operations, helping manufacturing, finance, and logistics teams work more closely and stay aligned.

### Conclusion

We helped the client transform their analytics ecosystem by bringing together expertise in data management, cloud infrastructure, and business intelligence. The solution made reporting faster, improved visibility across teams, and created a system that is easy to use and can grow with the business.

This allowed the client to make informed decisions confidently and prepared them for future growth in manufacturing and operations.

