

Client Overview

The client is an industrial equipment supplier headquartered in the **United Arab Emirates**, operating across multiple countries. The company supplies large-scale heaters and chillers and manages multi-currency pricing, quotations, and sales orders. An internal system maintains all transactional and master data, including country, region, currency, and price lists.

Business Challenge

Although the application efficiently handled transactional operations, it lacked advanced reporting and analytical capabilities. Management faced several challenges:

- No centralized reporting system
- Limited visibility into regional sales performance
- Difficulty analyzing multi-currency revenue
- Manual Excel-based reporting
- Slow performance when generating large reports
- No historical or trend-based analysis

As the business expanded across regions, there was a clear need for a scalable Business Intelligence (BI) solution to support data-driven decision-making.

Implemented Solution

To address these challenges, we designed and implemented a structured BI architecture using:

- **Microsoft SQL Server Integration Services (SSIS)** – Data extraction and transformation
- **Microsoft SQL Server Analysis Services (SSAS)** – Analytical data modeling
- **Microsoft Power BI** – Interactive dashboards and reporting

Solution Flow:

Willis Application → ETL (SSIS) → Data Warehouse → SSAS Analytical Model → Power BI Reports

Key Implementation Highlights

1. SQL Server & Excel
2. Data Integration & Transformation (SSIS)
3. Analytical Modeling (SSAS)
4. Reporting & Visualization (Power BI)

Business Impact

The BI implementation delivered measurable benefits:

- Faster and more reliable reporting
- Centralized and consistent business metrics
- User-level report generation through slicing and dicing using SSAS cube on Power BI
- Enhanced visibility into regional and product performance
- Accurate multi-currency revenue analysis
- Reduced dependency on manual reporting
- Empowered management with real-time analytical insights

Decision-makers can now effectively monitor quotation conversion rates, evaluate heater vs chiller sales performance, analyze pricing strategies, and track revenue growth across regions.

Technology Stack

Angular 16 | Bootstrap | .NET Core Web API | AWS | Docker

Conclusion

The project transformed the application system into a scalable, high-performance BI platform. By implementing ETL, analytical modeling, and interactive reporting, the organization achieved improved visibility, strategic insights, and data-driven decision-making across global markets.

Data Warehouse architecture

