



# Business Case Study

## Power BI Consulting for a Cargo Airline Client

Comprehensive Business Reporting Automation, Delivering Immediate Insights and Optimized Power BI report to Support Data-Driven Decisions.

### Abstract

The cargo airline, operating a global fleet of rented aircraft, received a comprehensive Power BI dashboard designed to meet its complex needs. This dashboard features customizable and interactive visualizations that allow for detailed, in-depth analysis of operational and financial data. Automated reporting ensures that stakeholders receive timely updates without the need for manual intervention, enhancing decision-making efficiency. The user-friendly interface is crucial for enabling quick and easy access to insights across all levels of management, from ground operations to executive leadership. Additionally, the client benefits from advanced predictive analytics, which help forecast trends, anticipate challenges, and optimize resource allocation. To ensure the highest standards of data integrity, the dashboard is equipped with robust compliance and security features, safeguarding sensitive information and aligning with industry regulations.



# 01. Power BI Engagement with Cargo Airline

## Digitizing Data Assets for End-to-End Reporting

In August 2023, Cargo Air embarked on a new journey by initiating Power BI reporting from scratch, as no visualization tools had previously been in use. The project began with connecting and integrating various datasets from multiple sources, followed by the transformation of raw data into meaningful insights. Parameters were meticulously developed to ensure the creation of insightful and actionable reports. As the project evolved, forecasting capabilities were introduced, allowing for predictive analytics within the reports. The outcome was a comprehensive, single report encompassing financial numbers with forecasts, uptime analysis, delay analysis, and HR analysis, providing the client with a powerful tool for informed decision-making.

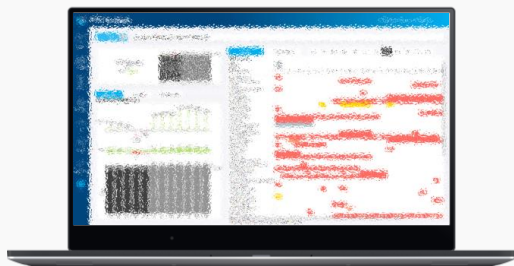
### OpenBI – Connecting various data source and delivered performance dashboard.



Uptime Analysis



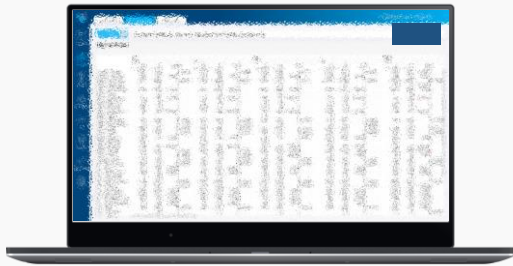
Delay Analysis



HR Analytics



Financial Analysis



Forecasting



Utilization Analytics

### Data Source Automation – Established a Personal Gateway for Power BI Data Integration.



Greentree  
Platinum  
Partner



### Technology Used – Effective usage of technology to drive process automation and deliver key insights.



Data Visualization – Microsoft Power BI



Data Integration - SQL



Process Automation – Microsoft Power Automate

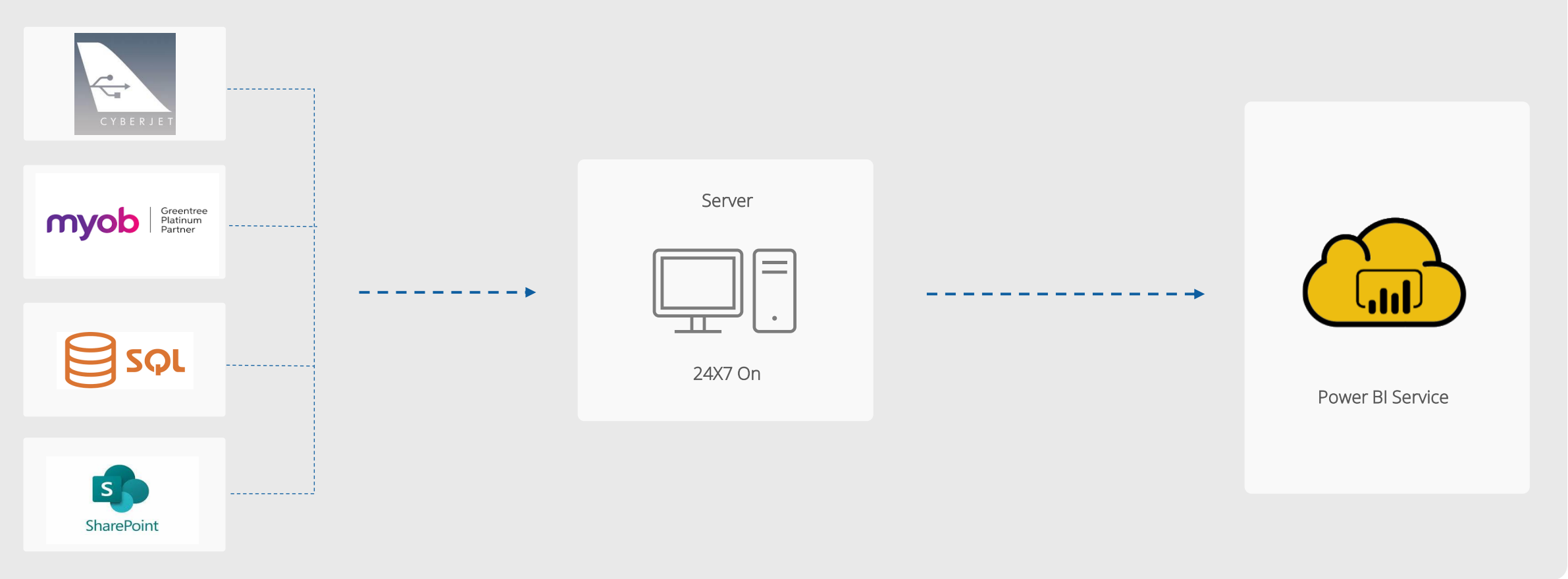
# 02. Solving the Data Challenge

## Data Refresh Architecture

The biggest challenge was integrating different data sources and creating a unified environment to ensure efficient report refreshes on the local system . Hence a personal gateway was successfully established to facilitate the seamless connection and integration of on-premises data sources with Power BI. This setup enables automatic and secure data refreshes for Power BI reports, ensuring that the latest data is always available for analysis and decision-making. The gateway acts as a bridge between the local data sources and the Power BI service, allowing scheduled refreshes and real-time updates. This setup is crucial for maintaining up-to-date insights and improving the efficiency of data-driven processes.

Frequent report refreshes successfully Achieved

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**< 12 Minute**  
Data Refresh Frequency

**\$0**  
For on-premises gateway

**< 6 Months**  
Investment ROI

Provides a secure bridge between local data sources and the Power BI service, safeguarding data during transfer.

The personal gateway itself doesn't incur any additional charges. It is a tool provided to Power BI users to enable data refreshes and integration from on-premises sources.

Interconnected Data Architecture Established

The diagram shows four data sources (CYBERJET, myob, SQL, and SharePoint) connected by dashed lines to a central box containing a bar chart icon, representing a unified analytics platform.

### Single Platform for Analytics – Power BI

Through ongoing innovation, we have developed an automated system enabling the comparison of values across multiple systems. This showcases the strategic advantage of Power BI reporting, capable of analyzing data from diverse sources and presenting it on a unified platform.

### Power of Cross Functional Analytics

Today we can cross compare data from any source system to define meaningful KPI's required to monitor organizational performance. For e.g., Actuals vs. Forecast, Block hours, Flight hours and so on.

### Process Automation & Governance

Process automation optimizes efficiency by scheduling data refreshes, automating report distribution, and integrating with Power Automate. Governance ensures data security and compliance by managing roles, permissions, and report standards, maintaining data integrity.

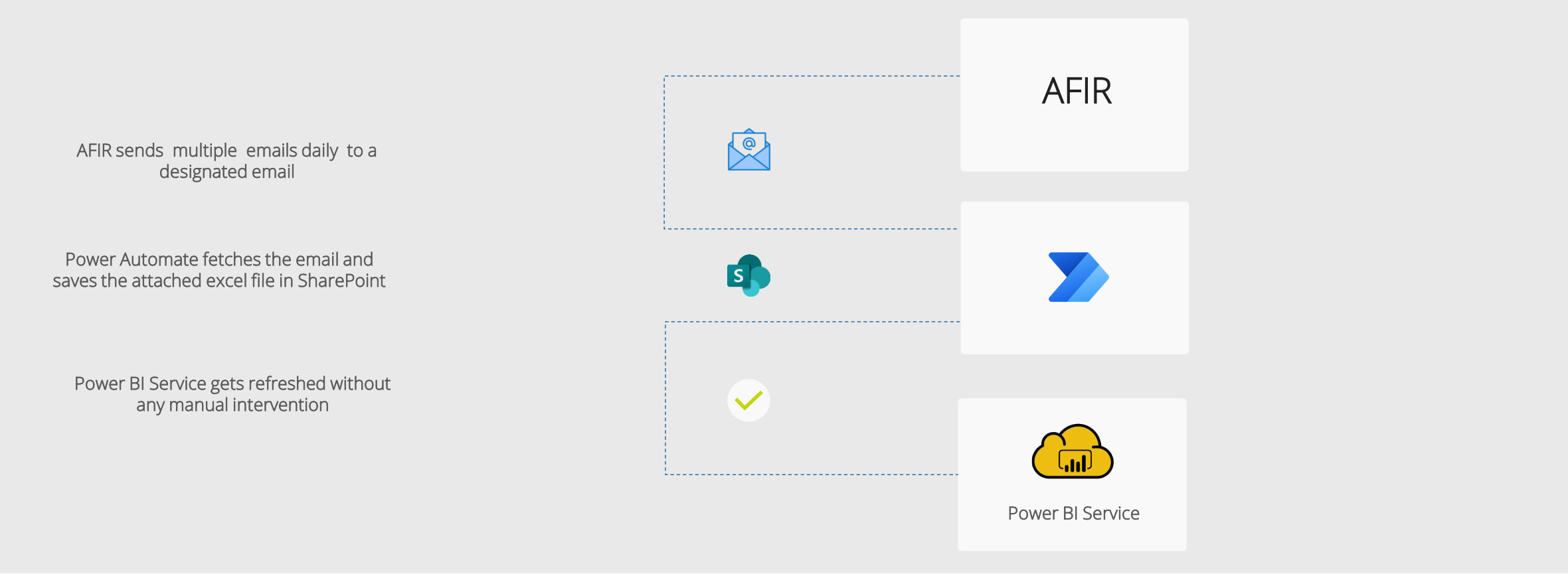
# 03. Process Automations

## Process Automations leading to Better Productivity & Insights

OpenBI partnered with the client to streamline operations and eliminate manual processes. A key achievement was automating the accumulation of AFIR emails. To achieve this, we integrated AFIR's daily emails, which contain block hours, flight hours, and cargo weight details, into SharePoint using a Power Automate flow. The SharePoint file is then linked to Power BI, which automatically refreshes with each new email from AFIR, ensuring that the data remains up-to-date for analysis. Usage of power automate reduced the manual input and also increased the productivity.

Touchless Data Update on Cloud

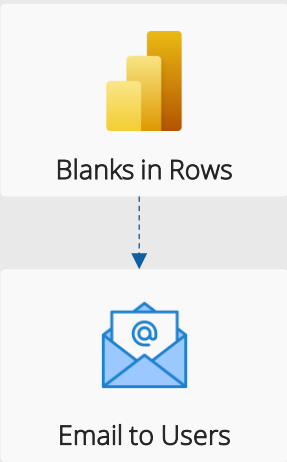
OpenBI



## Automated Email Alerts

### Real Time Email Alerts

By leveraging Power BI and Power Automate, we have implemented a robust solution to detect blank values in critical data columns. When blanks are found, automated email alerts are sent to stakeholders with the necessary information, enabling them to promptly address and fill in the missing values..

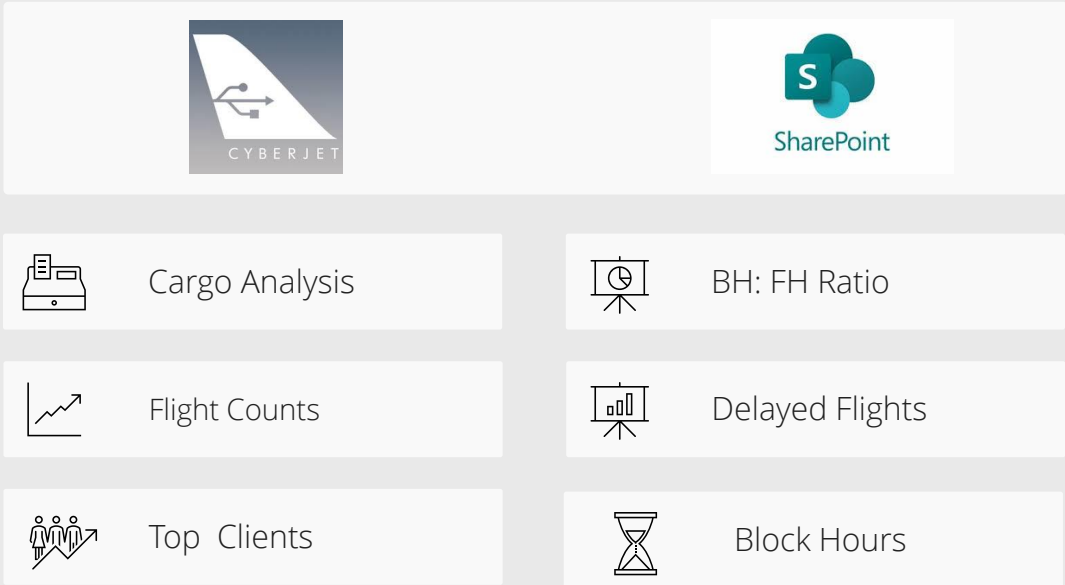


### Corrective Analysis

Through process automation, we have developed an error-proof model. Power BI functions as a dynamic self-diagnostic tool, providing advanced capabilities and flexibility to handle a broader range of queries than traditional reporting tools.

### Weekly Newsletter for Uptime report

By analyzing Cyberjet, SharePoint data, we will generate a weekly newsletter for selected stakeholders featuring visuals related to uptime. This newsletter will be fully automated and provide an executive summary of weekly performance, optimized for mobile viewing.





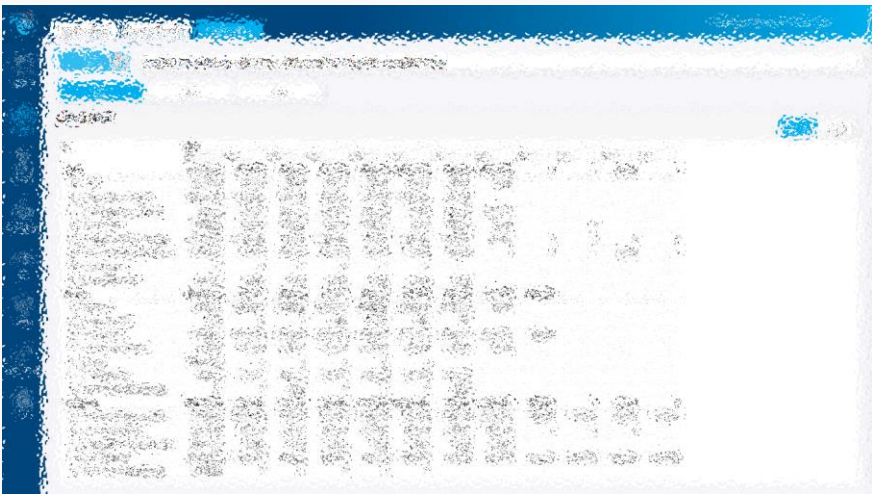
# 04. Visualizations & Insights

## Enhancing User Interface/ Experience and Report Performance

OpenBI prioritizes creating well-articulated dashboards to enhance user readability and streamline navigation. A thoughtfully designed UI ensures that users can effortlessly access and interpret key insights. Concurrently, optimizing report performance accelerates data processing, minimizes delays, and boosts productivity. These enhancements not only make data more accessible but also empower users to swiftly derive actionable insights, leading to more informed and effective decision-making

Standardized Designs across all Power BI Dashboards

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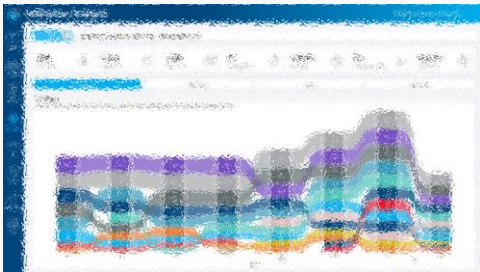


## Dynamic Insights on Fingertips

### Delay and Utilization Analysis



Delay Analysis

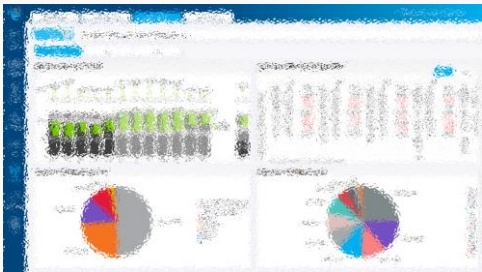


Utilization Analysis

### Monthly Trends



Flight Cycle Trends

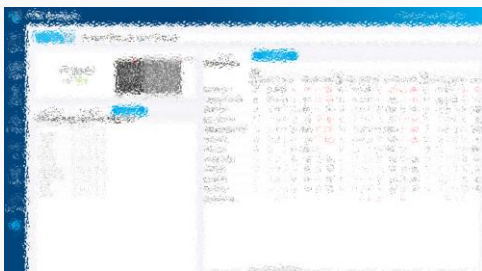


Block Hour Trends

### HR Analytics



Daily Leave



Monthly HR Matrix

### Alerts



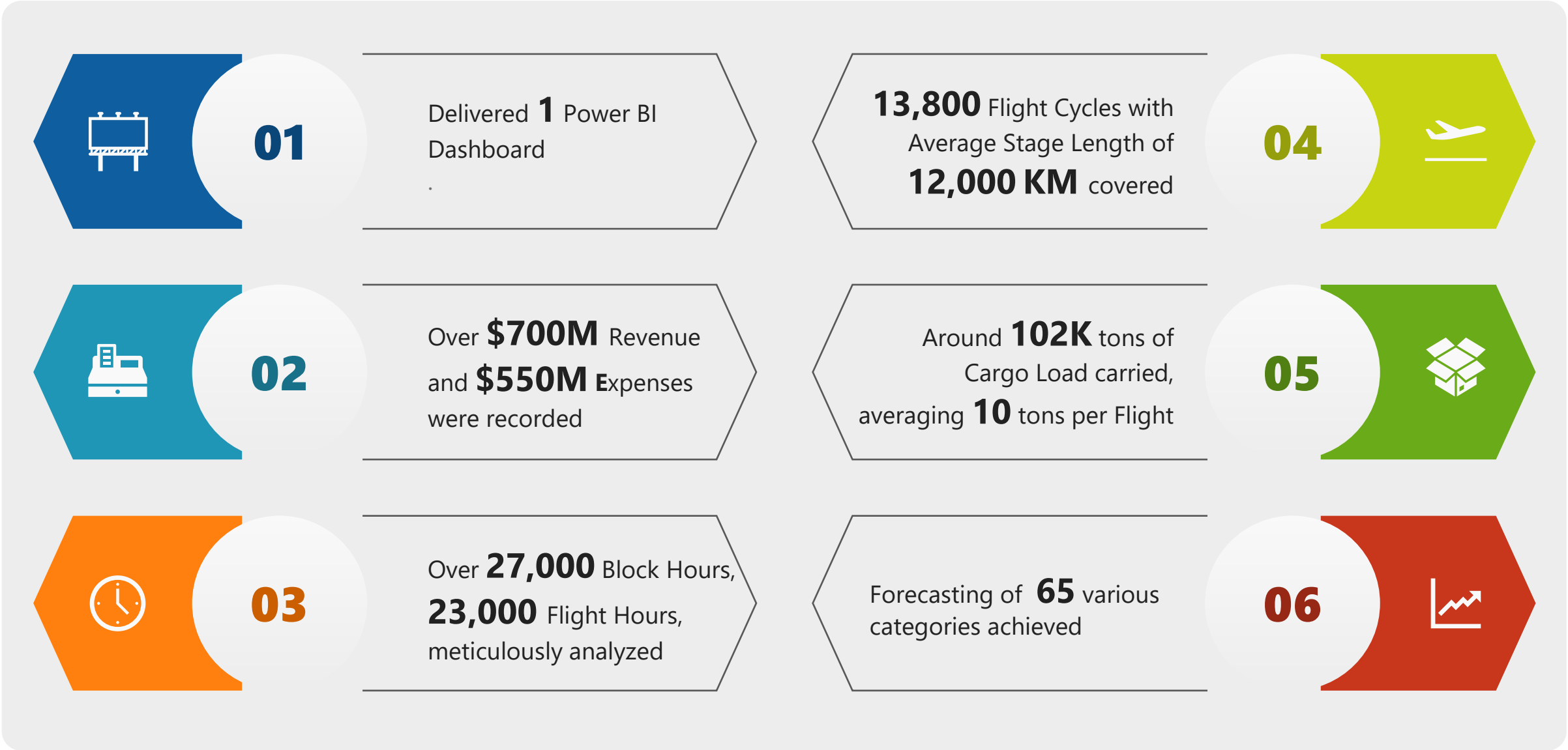
Block Hour : Flight Hour



Uptime Analysis

# 05. Conclusion

OpenBI provided a report with real-time analytics, enabling the organization to make informed decisions swiftly and effectively. The interactive dashboards allow for deep data exploration, revealing trends and insights that might otherwise remain hidden. With highly customizable visualizations, Power BI reports can be tailored to the specific needs of various stakeholders, ensuring that the most pertinent information is easily accessible. Moreover, automated data refreshes and seamless integration with multiple data sources guarantee that the reports are consistently up-to-date, reducing manual data handling and minimizing the risk of errors. In essence, this approach enhances decision-making, improves operational efficiency, and supports strategic business growth.



For more information, contact [contact@openbi.ai](mailto:contact@openbi.ai)



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