The power behind **your mission**

Johnson Controls

Mactan-Cebu International Airport Authority champions operational excellence with Johnson Controls Metasys BMS

Introduction

Mactan-Cebu International Airport (MCIA) is a 797-hectare site in Lapu-Lapu City, Mactan, Philippines. It is the second largest and busiest airport in the country, serving over 10 million passengers annually and acting as the main gateway to the Central Visayas region.

For operational and energy efficiency, Aboitiz GMR Megawide Cebu Airport Corporation partnered with Johnson Controls to implement the Metasys Building Management System in Terminal 1 (T1), upgrade the system in Terminal 2, then integrate it with T1. MCIA is also committed to significantly reducing its carbon footprint through this intervention, in light of the fact that airports currently contribute to **2.5% of the global carbon emissions and have contributed nearly 4% to global warming**.

The Challenge

Before partnering with Johnson Controls, MCIA had room for improvement in consolidating its operations, resulting in occasional inefficiencies, delays in passenger flow, and slower query resolution. This in turn led to rising operational costs, also owing to the fact that one of the terminals was not operating in a digitally unified environment.

The core objectives for MCIA were:

Enhance Passenger Experience

Leverage intelligent technology to improve passenger footfall, provide personalised services and improve overall satisfaction.

Reduce Operational Costs

Utilise smart systems and automation to enhance operational efficiency, optimise resource allocation, and improve energy management.

Provide a safe and secure environment

Implement smart technologies and predictive analytics to enhance operational resiliency and ability to adapt to unexpected disruptions.

Johnson Controls deploys the Metasys Building Management System for Mactan-Cebu International Airport Authority, reducing carbon emissions and boosting efficiency.

Company

Johnson Controls

Customer

Aboitiz GMR Megawide Cebu Airport Corporation / Mactan-Cebu International Airport Authority (MCIAA)

Industry

Aviation

Product

Metasys Building Management System

Johnson Controls deploys the Metasys Building Management System

Johnson Controls Metasys software functions as a complete family of systems and servers designed to work together as one cohesive unit that helps buildings' energy management efforts. Made up of several interconnected components that enhance a building's ability to maintain coordinated control over its systems, the software has proven effective and reliable for even the most complex and demanding applications.

Its key features and benefits are:

Enhanced productivity and effectiveness with a simple and intuitive user interface

Dynamic accessibility at any time and anywhere through a compatible mobile device

More responsive and quick decision-making ability with data displayed through Graphics+

Reduced programming, commissioning, and troubleshooting time with Tailored Summaries

Relevant and usable delivery and presentation of building data (including collection and summarization) with Advanced Reporting

Integration with other systems in facilities using popular communication protocols

Automation of repetitive tasks for facility managers and staff

Increased effectiveness and lower operational costs

Our Intervention

Besides integrating T1 with a new Metasys Building Management System, we did the following:

- To maximise cost savings, upgraded MCIA's existing and outdated Metasys hardware by deploying the Optimum Metasys UI, bringing it up to the most current version of the software.
- To keep the system continuously updated, we put in place a software subscription.
- With the ADX Software, MCIA was able to improve the performance, capacity, and capability of their existing system, including enabling them to configure the Metasys UI.

The Result

Deploying the Johnson Controls Metasys BMS to Terminal 1 of Mactan Cebu International Airport, and upgrading and integrating it with an existing BMS in Terminal 2 has yielded both tangible and intangible results, with a promise of continued impact.

- **Centralised monitoring and control of 2 buildings for better management and operation.**
- **Consistent and centralised collection of critical data such as alarms, history, and other critical trends.**
- **Greater speed of interaction and synchronisation of operations between the two terminals such that they virtually operate as one single entity.**
- **Reduced energy consumption and increased ROI on equipment, resulting in cost reduction and greater margins.**
- **Improved passenger experience owing to reduced bottlenecks and reduced passage time.**

Measuring the pillars of performance across specific parameters, the following are reflective of the measurable impact of the project:

Cost Efficiency

In 2023, the gross value added (GVA) generated from the air transportation industry in the Philippines reached approximately 106.28 billion Philippine pesos. This reflects a significant increase from the previous year, where the GVA was at 78.72 billion Philippine pesos.

Operational Efficiency

In February 2023, the Mactan-Cebu International Airport (MCIA) was named the best airport in Asia under the five million passenger category by Routes Asia, an international aviation and airline events company based in the United Kingdom.

Energy Efficiency

In May 2024, MCIA received the Platinum Green Airport Award 2024 from the Airports Council International (ACI). Additionally, MCIA is also counted among the 12 exceptional airports across the Asia-Pacific and Middle East regions recognised for their groundbreaking sustainability efforts.

Why Johnson Controls?

1. End-to-end capabilities and highly customisable offerings
2. Most equipped for the BMS Integration between the two terminals into one seamless workstation
3. Highly capable and responsive team with a hands-on approach