

Eleware Technology (M) Sdn Bhd

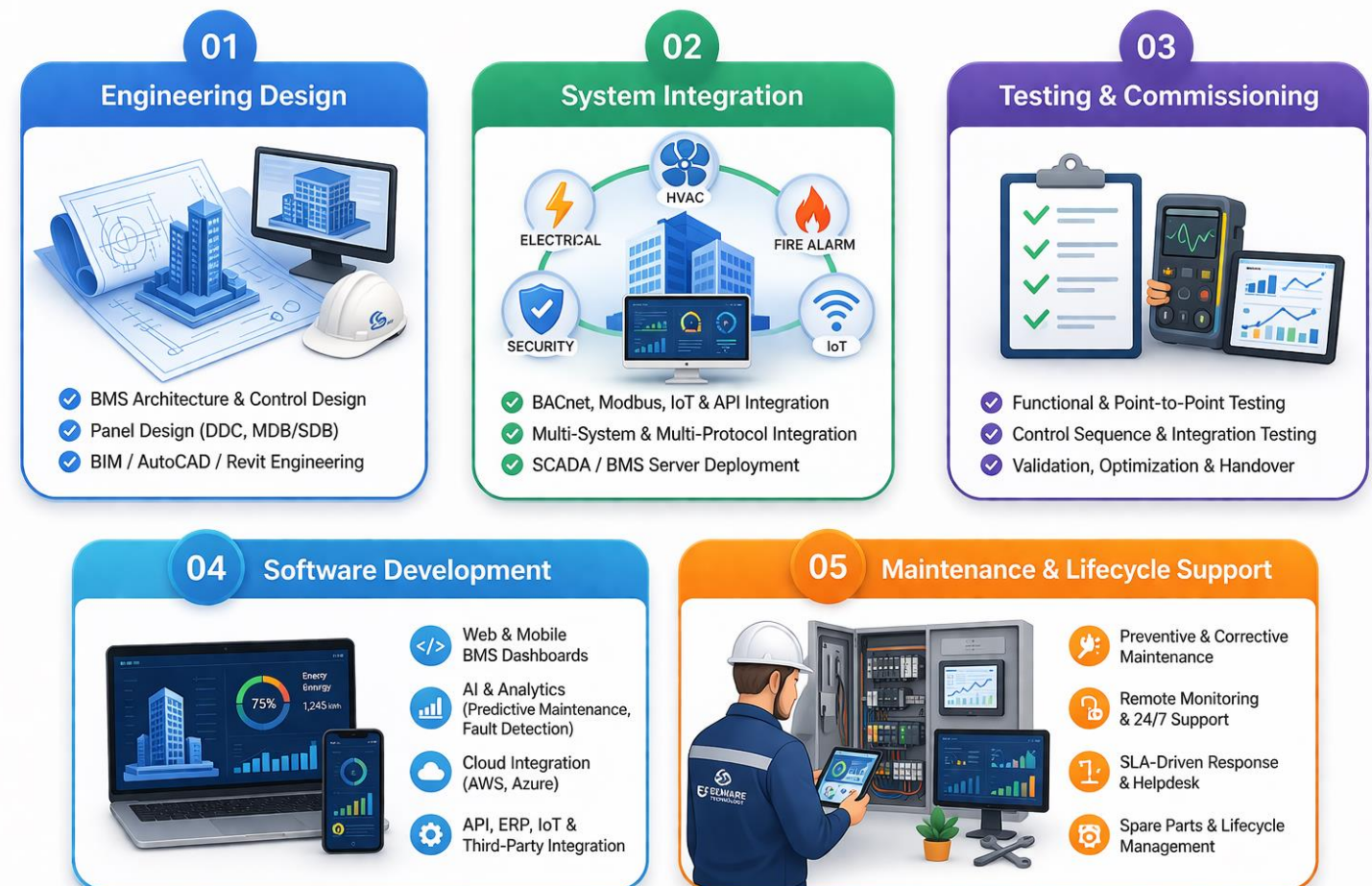
Transforming Buildings into Intelligent, Efficient, and Connected Ecosystems.

NO. A-02-03A 2ND FLOOR, BANGUNAN PERDAGANGAN SIERRA ARA DAMANSARA, JALAN PJU
1A/5A, ARA DAMANSARA, 47301 PETALING JAYA, SELANGOR DARUL EHSAN, MALAYSIA

Executive Summary

Eleware Technology (M) Sdn Bhd is a technology-driven engineering company specializing in **Building Management Systems (BMS)**, **Energy Management**, and **Integrated Security Platforms**.

Our strength lies in combining engineering expertise, software innovation, and on-site delivery capability.



Why Eleware?

OUR VALUE PROPOSITION

Proven Critical Infrastructure Experience

Airports, MRT, and Data Centers — delivering at scale where it matters most.

In-House Engineering + Software Team

A rare combination of field engineers and developers under one roof.

Multi-Protocol Integration Expertise

BACnet, Modbus, IoT, and API — seamlessly connected.

Smart + AI-Driven Building Systems

Full lifecycle support from design → commissioning → operations.



Core Service Offerings

Eleware provides end-to-end BMS services, supporting clients from concept design and engineering through system integration, commissioning, and implementation.

Engineering & Design

- BMS architecture design for HVAC, electrical, and utility systems
- Control logic design and point scheduling
- Sequence of Operations (SOO) documentation
- Load flow analysis and energy simulation
- Panel design for DDC, MDB, and SDB integration
- BIM / AutoCAD / Revit-based modelling
- As-built drawing preparation and documentation
- Coordination with M&E consultants and contractors
- Energy-efficient design aligned with GBI / ESG standards
- Compliance with local authority requirements, including JKR, TNB, and BOMBA

System Integration & Implementation

Integration of HVAC, electrical, fire alarm, access control, CCTV, and other building systems across a unified BMS platform.

- BACnet/IP, Modbus TCP/RTU
- OPC-UA and MQTT protocol support
- IoT / Cloud API connectivity
- Integration with third-party systems such as lifts, generators, and UPS
- SCADA / BMS server deployment
- Centralized BMS server setup with redundancy
- Cybersecurity-compliant network architecture
- Cloud integration with AWS / Azure
- Commissioning support and site supervision
- Factory Acceptance Testing (FAT) and Site Acceptance Testing (SAT)

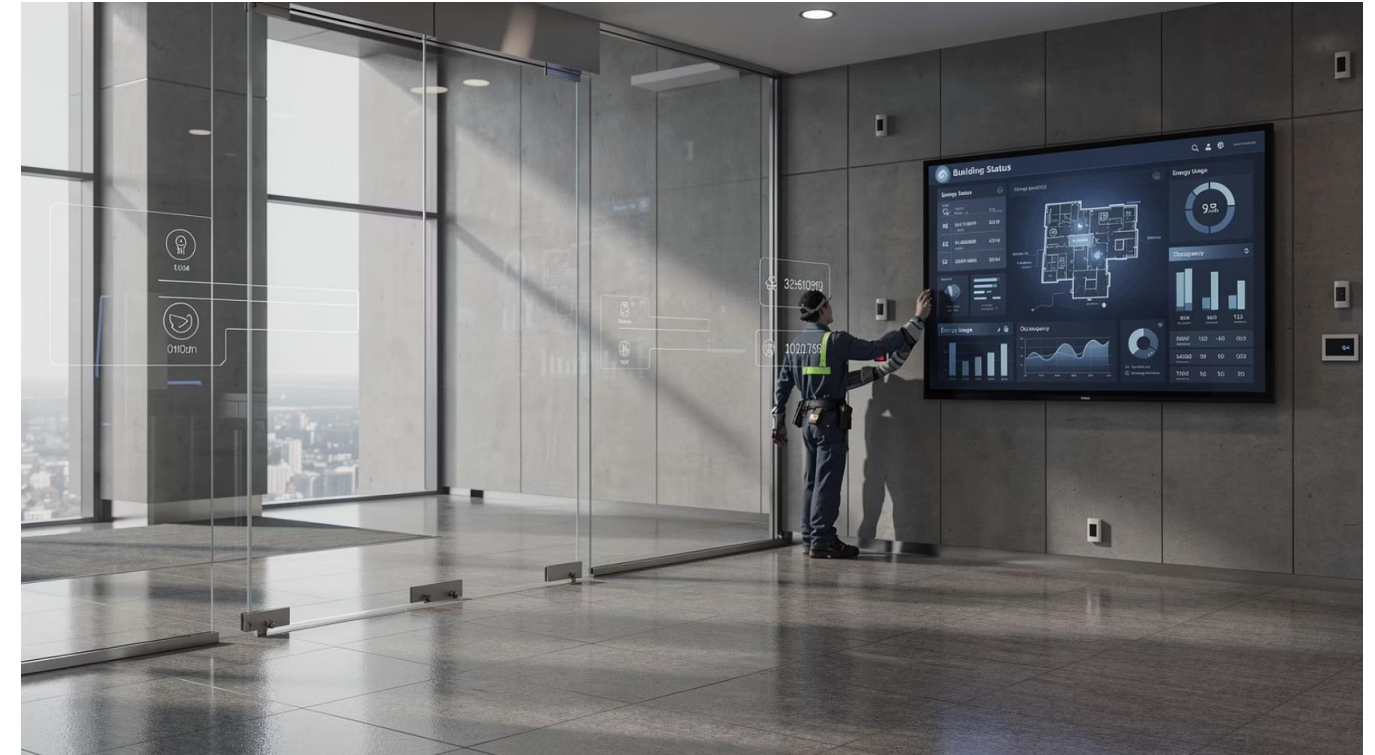
Testing & Commissioning + Smart IoT Integration



Testing & Commissioning (CX)

- Functional testing & point-to-point validation
- Control sequence verification
- Multi-system integration testing
- Performance tuning and optimization

30+ Commissioning and CX Engineers specialized in BMS, SCADA, and IoT systems.



Smart Building & IoT Integration

- IoT sensor integration (temperature, energy, occupancy)
- Real-time monitoring dashboards
- Predictive maintenance alerts
- Smart automation logic

Backed by engineers skilled in PLC programming (Siemens, Omron) and IoT platforms (Node-RED).

Energy Management & Software Development



Energy Management & Optimization

- Energy dashboards and analytics
- Demand monitoring and peak optimization
- Tenant billing systems (E-Manager platform)
- ESG and carbon footprint reporting



Software Development & BMS Analytics

- Web-based BMS dashboards
- Mobile monitoring applications
- AI-based analytics (fault detection, anomaly detection)
- Integration with ERP, HRMS, and IoT platforms

Supported by **10 in-house developers** (.NET, Python, React, SQL).

Operation, Maintenance & Support

LIFECYCLE SUPPORT



Preventive Maintenance

Scheduled programs to ensure continuous system uptime and performance.



Corrective Maintenance

Rapid response corrective services to minimize operational disruption.



24/7 Remote Monitoring

Helpdesk & SLA response with spare parts and lifecycle management.



Technology Stack & Competitive Advantage

BMS / Control

BACnet / Modbus, PLC (Siemens, Omron), SCADA / BMS Platforms, DDC controllers, field device integration, and multi-vendor system support

Software & Cloud

.NET, Python, NodeJS, React, MSSQL, IoT platforms, AWS / Azure, RESTful APIs, microservices architecture, and real-time data pipelines

Analytics & AI

Predictive maintenance, energy optimization, video analytics integration, AI-based fault detection, anomaly detection, and digital twin integration

- **End-to-End Delivery** — Design → Build → Operate: From concept engineering and panel design through system integration, commissioning, and long-term maintenance.
- **Strong CX Team** — 30+ Engineers: Specialized in BMS, SCADA, IoT, and multi-system integration testing across complex environments.
- **In-House Software Development** — 10 developers building custom dashboards, mobile apps, and AI analytics tools tailored to each project.
- **Proven Large-Scale Projects** — Airports, MRT, Data Centers: Delivered across KLIA, TIA Cambodia, MRT Malaysia, Singapore MRT, and Tier 3 data centers.
- **Smart + AI-Enabled BMS** — Beyond traditional control: predictive analytics, energy optimization, and cloud-connected building intelligence.

Commercial & High-Rise

Eleware has delivered integrated ELV and BMS solutions across some of Malaysia's most iconic commercial developments, combining security, energy management, and building automation under a unified platform.

KLCC Twin Towers

Security & EMS dashboard integration across one of Malaysia's most iconic landmarks. Covers access control monitoring, energy metering, and centralized alarm management across both towers.

University Malaysia

Fully integrated building systems for a landmark mixed-use development in Kuala Lumpur. Includes BACnet integration across multiple building for fire panel, fire hydrant and reservoir tank monitoring using IOT devices.

Q-Sentral

Building automation integration for a major commercial hub in KL Sentral. Multi-tenant BMS deployment with individual energy metering and remote monitoring capability.

Pavilion Damansara Heights

Smart building automation for a premium mixed-use development, integrating CCTV, access control, and ALPR.



Airports & Critical Infrastructure

Eleware has proven capability in delivering large-scale BMS and security monitoring platforms for critical infrastructure, where reliability and integration complexity are paramount.

KLIA / KLIA2

Large-scale integrated BMS systems across Malaysia's primary international airport terminals, covering UVSS, electrical, fire alarm, and access control integration across multiple terminal buildings with centralized SCADA monitoring.

TIA Cambodia

Security and monitoring platform deployment for Techo International Airport in Cambodia. Includes integrated ELV systems, perimeter security, and real-time monitoring dashboards for a greenfield international airport.

Data Centers - Malaysia

Mission-critical BMS deployment for data center. This includes design verification, commissioning, documentation and project management

Data Center – Manila, Jakarta, Seoul

High-availability system integration for a Singapore-based data center to deploy PTW systems covering environmental controls, and cybersecurity-compliant network architecture.



Transportation & Industrial

From urban rail networks to oil & gas facilities and data centers, Eleware brings large-scale ELV integration expertise to Malaysia's most demanding industrial and transportation environments.

MRT Malaysia

System integration across multiple MRT stations in the Klang Valley network.

Singapore MRT

Large-scale ACS, Intercom and CCTV monitoring deployment for Singapore's rail infrastructure.

Petronas & Dialog Pengerang

Industrial IOT and Fire System Monitoring for oil & gas facilities.

Thailand Orange and Blue Line

Train video management system for Station, OCC and IOCC. Include centralized alarm handing for train communication system



Vantage KUL14

Owner : Vantage
Industry : Data centre
Location : Cyberjaya
No of Points : 10,000

Scope of Work

- Installation of BMS Control panel at designated location.
- Integration with BMS server through BACnet
- Installation, Commissioning and Testing of the System.
- SCADA systems provide centralized monitoring and control over various
- Building automation components such as HVAC, lighting, fire alarms, and energy management.



Microsoft KUL03

Owner : Microsoft
Industry : Data centre
Location : Cyberjaya

Scope of Work

- Design verification
- Verify BMS points, alarms, graphics, schedules, and trends.
- Perform point-to-point testing for sensors, actuators, and DDC panels.
- Test integration with HVAC equipment and third-party systems.
- Troubleshoot defects and coordinate rectification with vendors/contractors.
- Prepare commissioning reports, checklists, test records, and handover documents.



Amazon KUL70

Owner : Amazon
Industry : Data centre
Location : Bukit Jalil

Scope of Work

- Site Project Management and Reporting
- Verify BMS points, alarms, graphics, schedules, and trends.
- Perform point-to-point testing for sensors, actuators, and DDC panels.
- Test integration with HVAC equipment and third-party systems.
- Troubleshoot defects and coordinate rectification with vendors/contractors.
- Prepare commissioning reports, checklists, test records, and handover documents.



Courtyard by Marriott

Owner : KH Group
Industry : Hotel
Location : Kuala Lumpur

Scope of Work

- Siemens BMS system commissioning.
- HLI Software Integration with Lift and Fire System
- Design of HMI for Electrical, Mechanical and EMS.
- Prepare commissioning reports, checklists, test records, and handover documents.



University of Malaya

Industry : Education
Location : Malaysia
No of Points : 3000

Building Management System (BMS)

1. Fire Alarm Monitoring System
2. Pump House Monitoring System
3. Water Distribution Monitoring System
4. Surveillance System



Legend BMS Project

Owner : Moxy
Industry : Hotel
Location : Clarke Quay
No of Points : 10,000
Software : EcoStruxure Building Operation

Scope of Work

- installation of BMS system field devices and cabling works
- Supply and installation of BMS backbone network for the overall system
- Supply and installation of ASP Schneider control panel to Monitor and control ACMV
- Electrical and other systems
- Supply and Installation of Control panel at designated location.
- Programming, graphics creation using EBO software v 6.0
- Integration with BMS server through Bacnet
- Installation, Commissioning and Testing of the System.
- ASP Control is a method where the fan speed or operation is automatically adjusted based on process variables or external conditions. It's a form of closed-loop control that optimizes fan performance, energy efficiency, and system stability.



Malaysia MRT1 & MRT2 Integration

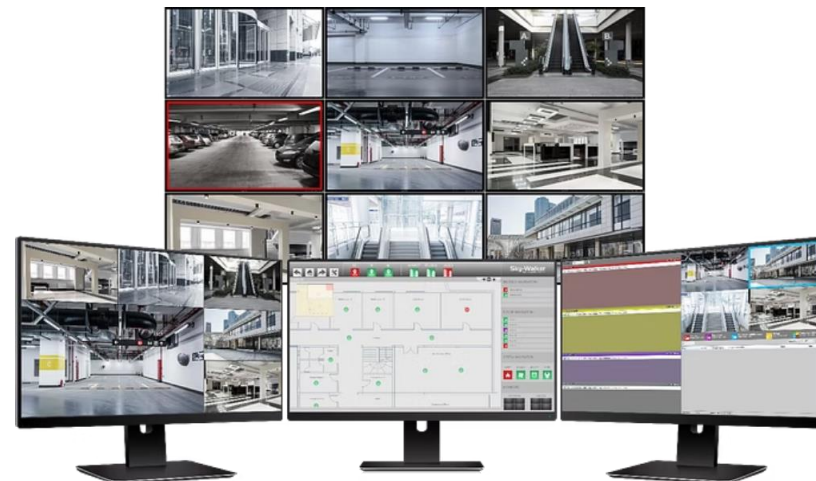


Access Control & Fire Alarm Integration

Serving as the software integrator for Malaysia's MRT1 and MRT2 projects, we integrated comprehensive ACAM and fire alarm systems with local OCC and BOCC platforms.

Key Deliverables

- Monitoring of 2,000 doors and 200 fire alarm systems
- Integration services to local platform providers
- Design guidelines for interface protocols
- Robust data traffic management architecture



Thailand Blue Line and Orange Line Train Video Management



System Architecture

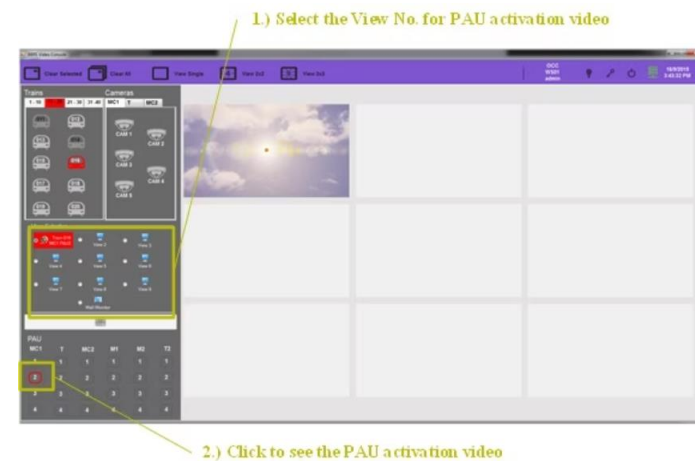
Deployment of comprehensive Train Video Management System across stations, stations, OCC, and BOCC with robust DC and DR architecture ensuring maximum uptime and cybersecurity compliance.

Technical Highlights

- Monitoring of 1,200 cameras across 30 trains
- Video stream signaling network management
- Incident situation management platform
- Dual data center deployment for redundancy
- Full IT security standards compliance

Main Contractor: ST Engineering Pte Ltd

Subcontractor: CBC Ganz Ptd Ltd



Singapore Circle Line & Thompson Line PSIM

We deployed a comprehensive Physical Security Information Management system integrating video surveillance, access control, train VMS, fire alarms, IT systems, perimeter intrusion detection, and intercom systems across Singapore's Circle and Thompson Lines.

Scale

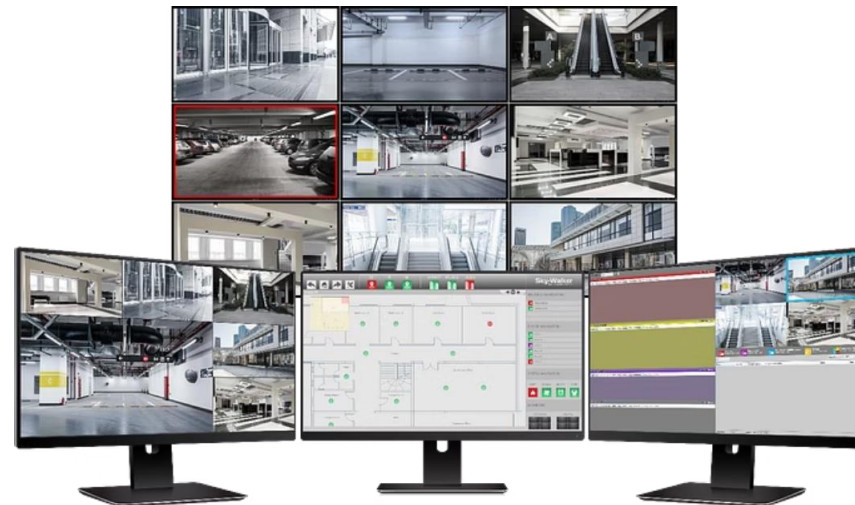
7,000 cameras and 2,000 doors monitored
monitored across OCC, BOCC, stations, and
and trains

Integration

Up to 5,000 data points for intercoms, fire
fire alarms, and IT systems

Reliability

DC and DR architecture ensuring business
continuity and cybersecurity compliance



KLIA Airport Physical Security Integration



Main Contractor: G3 Global Ltd

Comprehensive PSIM Solution

Implementing a unified security platform integrating multiple subsystems for Malaysia's premier international airport.

System Integration

- Schinder Security Expert access control (1,000 doors)
- Milestone VSS video surveillance (4,000 cameras)
- SenseTime AI and facial recognition (80 devices)
- Dahua UVSS for vehicle entry checkpoints
- Airport permit application with centralized access management
- Wireless padlock device monitoring and control
- Rule management module implementing airport security policies



Military Aviation Security

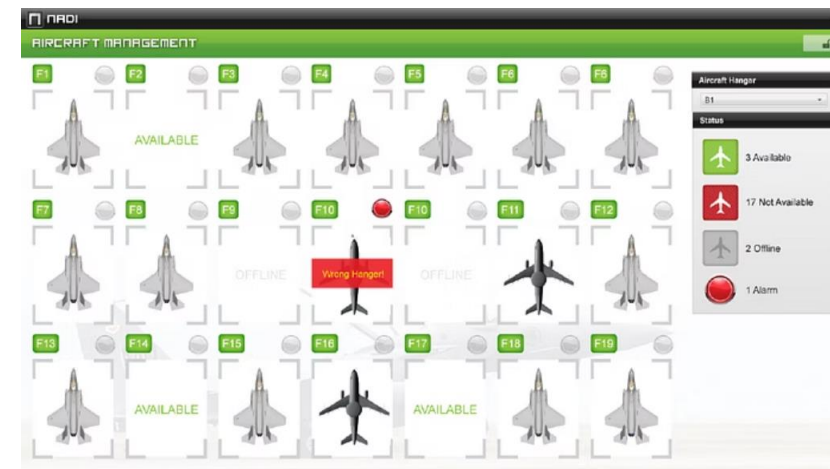


Main Contractor: ST Engineering Pte Ltd

Subcontractor: CBC Ganz Ptd Ltd

Specialized Military Applications

- Runway and hangar traffic light monitoring and control
- Plane identification system integration
- SecureNet access control system connectivity
- Hangar status visualization dashboards
- Flight information management interface
- Security control center integration



Conclusion

Eleware Technology delivers **next-generation Building Management Systems** that go beyond traditional control systems.

We are positioned as a **full-scope Building Management System solution provider** capable of delivering high-performance, future-ready smart buildings.

Engineering Excellence

Digital Platforms

AI-Driven Analytics

Cloud-Enabled Scalability