ObSAS vs BMS

Why a building management system is inadequate as a shelter management system

Although conventional Building Management Systems enhance the intelligence and efficiency of facilities, the Observis ObSAS Automated Shelter Control System ensures their comprehensive safety. ObSAS beyond mere comfort and energy efficiency by safeguarding shelters from CBRN threats, managing blast doors and filtration systems, and guaranteeing resilience in the most severe situations. Where a BMS optimizes buildings, ObSAS safeguards lives.

Purpose & Focus

BMS:

Optimizes comfort, energy efficiency, and operational expenses in commercial or residential structures.

Main drivers: efficiency, practicality, sustainability.

ObSAS:

Ensures survivability, safety, and operational readiness in critical civil defence or CBRN-protected shelters.

Main drivers: resilience, swift response, operational continuity amidst adverse conditions.

Core Functions

BMS:

HVAC, lighting, energy, water, fire alarms, access/security.

Optimizes for normal day-to-day operations.

ObSAS:

Automatic control of blast doors, overpressure valves, air filtration (CBRN filters), CBRN-protected ventilation, and emergency power.

Continuous monitoring of hazardous substances, radiation levels, and air quality. Shelter automation workflows (lockdown, filtration start-up, safe re-entry protocols).

Monitoring & Alerts

BMS:

Alerts for maintenance, energy spikes, equipment failures. Cloud dashboards for facility managers.

ObSAS:

Real-time alerts for CBRN contamination, pressure loss, filter clogging, power failure, or intrusion attempts. Alarms prioritized for operators in high-stress emergency scenarios.

Built-in shelter equipment miantenance monitoring and control system.

User Interface

BMS:

Facility dashboards, energy analytics, user comfort settings. Cloud- and app-based interfaces.

ObSAS:

Mission-critical operator console with simplified workflows for emergency scenarios.

Interfaces emphasize transparency and reliable functionality in high-pressure situations.

Integration

BMS:

Integrates with IoT, smart meters, CCTV, fire/security systems.Protocols like BACnet/Modbus/KNX for interoperability.

ObSAS:

Integrates CBRN detectors, environmental sensors, power backup systems, and secure communications. Can also communicate with BMS via BACnet and take over its functions when shelter is active.

Engineered to function independently in the event of external network failures (fortified and redundant).

Resilience and Safety

BMS:

Designed for comfort, safety codes, and efficiency in normal urban environments.

ObSAS:

Engineered to **safeguard lives during disasters, CBRN assaults, or armed conflict**, featuring redundancy and fortified systems.

Comparison

Feature / Focus	Building Management System (BMS)	ObSAS Automated Shelter Control System (ASCS)
Primary Purpose	Comfort, energy efficiency, and cost savings in buildings.	Protection of life, survival, and operational readiness in crisis situations.
Core Functions	HVAC, lighting, fire safety, water, security, energy management.	Blast doors, overpressure valves, CBRN air filtration, protected ventilation, emergency power. In lockdown mode also HVAC, pressure control and security systems.
Safety & Protection	Fire alarms, access control, CCTV.	Protection from chemical, biological, radiological, nuclear (CBRN) threats, intrusion prevention, lockdown protocols.
Monitoring & Alerts	Energy spikes, equipment failures, maintenance reminders.	Real-time alerts for contamination, CBRN filter obstruction, power failure, pressure breaches, hostile intrusion. Shelter maintenance reminders.
Integration	IoT devices, smart meters, building subsystems (BACnet/KNX/ Modbus).	CBRN detectors, environmental sensors, backup power, secure comms; designed to operate even if external networks fail. In lockdown mode takes control of BMS using BACnet.
User Interface	Cloud dashboards, apps, energy analytics, facility management tools.	Mission-critical operator console with simplified, stress-resilient workflows for emergency operation.
Operational Focus	Efficiency, comfort, sustainability.	Survival, resilience, rapid emergency response.
Resilience	Built for urban infrastructure and commercial continuity.	Robust, redundant systems engineered for military conflict, emergencies, and civil defense.

CBRN Filtration

monitoring and control

Gas tight and Blast valve
monitoring and control

Summary

A BMS is about making a building smart, efficient, and comfortable.

The ObSAS Shelter Control System aims to ensure that a shelter is life-sustaining, durable, and functional under harsh CBRN or conflict scenarios.

To maintain a functional installation there is need for both. While there are some overlapping features neither can manage the system in their own. But when disaster strikes **ObSAS is specifically designed to keep people inside the shelter safe and secure while providing time critical information on all the connected systems** and even take control some of the BMS features.

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