



NUCLEUS

3D Unified Management System (UMS) for Smart Buildings and Cities

Buildings and cities today are increasingly interconnected with sensors providing real-time information for security, facility, environmental and enterprise management applications. The exponential rise in the number of installed sensors brings out the challenge of real-time situation awareness to city and building managers i.e. the challenge of swiftly and correctly interpreting the real-time data avalanche, making decisions and responding to real-time situations.

NUCLEUS is the **award-winning** 3D unified management system that provides you with the most comprehensive situation awareness for your smart buildings and cities.

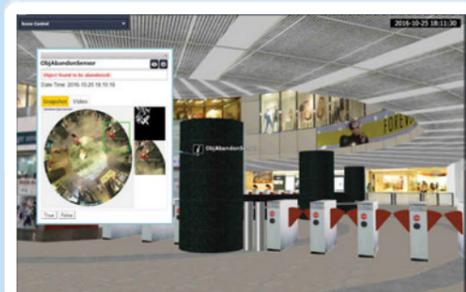
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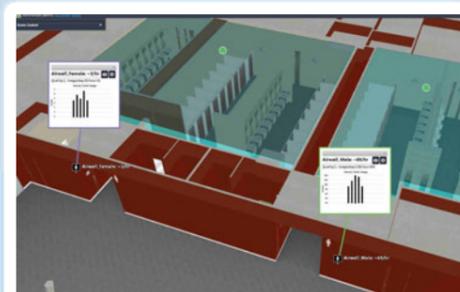
NUCLEUS 3D Unified Management System

Smart Cities

NUCLEUS 3D unified management system helps city managers achieve a safe, clean, green and efficient city through the unification of situations, systems and maps. City managers can react to incidents faster with supporting data from one single unified platform.



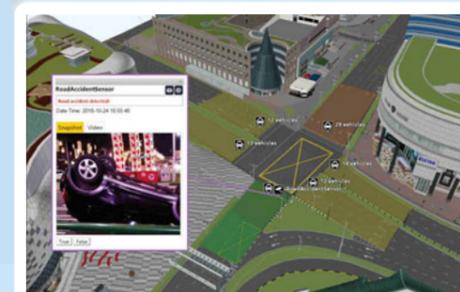
1 Safe city - Unifying CCTV and video analytics for better situation awareness



2 Clean city - Utilizing smart toilet/bin management for cleaner public areas



3 Green city - Street lamp management for city wide energy saving



4 Efficient city - Transport management for faster and smoother traffic



Smart Buildings

NUCLEUS 3D unified management system helps building managers achieve comprehensive real-time situation awareness in a single, unified view, providing unified situation awareness through unification of situations, systems and maps. Building's operations becomes more efficient and cost saving.



5 Smart campus management



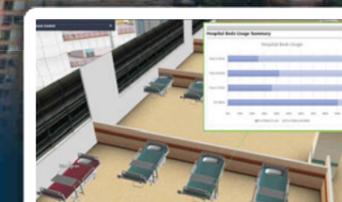
6 Smart lift / Precinct monitoring



7 Smart data centre management



8 Smart airport management



9 Smart hospital management



10 Prison security monitoring



11 Office building management



12 Smart factory management

Contact us for a more detailed business discussion

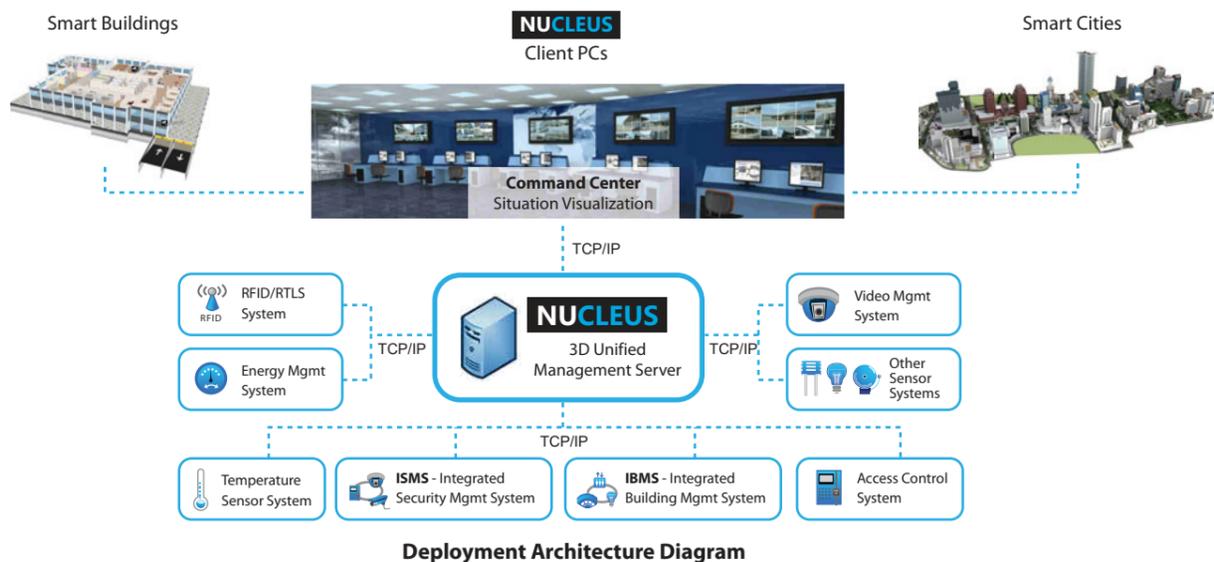
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Benefits of NUCLEUS 3D UMS

- 1 Immediate Situation Sense-making With One Unified 3D Model.** Single view unified real-time sensor and 3D building information improves location interpretation and situation insight for informed decision-making.
- 2 Direct Situation Communication/Co-ordination.** Through use of 3D situational display and multi-touch UI, managers can vividly coordinate and brief situations and response plans.
- 3 Enhanced Situation Management/Response.** Fast on-demand retrieval of 3D building model and device information for situation understanding. Tools aid in visualization of 3D building interior and annotate/ plant 3D asset objects for situation response planning.
- 4 Open Integration Platform Enables Optimal System Design.** NUCLEUS's open integration platform supports protocols such as Restful API, SOAP, HTTP, JSON etc.

Technical Architecture

NUCLEUS can either be deployed as a 3D unified management system integrating all your sub-systems (e.g. VMS, ACS, RTLS, etc.) or as a 3D unified HMI (Human Machine Interface) integrating to an existing integrated management system (e.g. ISMS, PSIM or IBMS). Please refer to the integration architecture diagram below :



Corporate Information



Founded in 2001, G Element is Asia's leading software company in developing 3D solutions for smart buildings and cities, enabling smarter high-level management of buildings and cities for our clients so as to achieve optimal efficiencies in building security, operations and workflows.

Headquartered in Singapore, G Element has built up a strong distribution network and presence all over Asia and the Middle East, in countries such as Singapore, Malaysia, Thailand, Indonesia, Hong Kong, South Korea, U.A.E., and China. Our 3D solutions have been deployed in commercial buildings, hospitals, government facilities, academic institutions, exhibition centres, major events, concept islands and city districts.

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