

SMART BUILDING CHEAT SHEET#1

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STEP 1: PRIORITIZE USE CASES

Which functionalities / use cases should be prioritized?

Prioritize your use cases with the pyramid!

Don't know which use cases you need?

Talk to an Expert



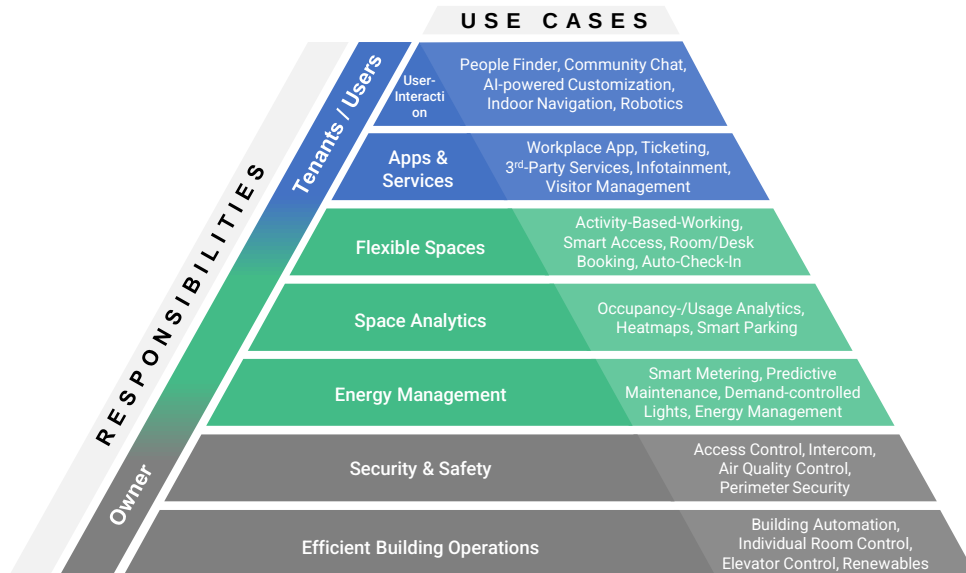
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SMART BUILDING PYRAMID OF USE CASES

Principle: Lower level use cases should be implemented before higher levels become relevant. Based on Abraham H. Maslow's Hierarchy of Needs and [Andrew Krioukov](#). Considerations for single tenant buildings. This is a basic approach, not a specification!



HOW TO USE:

- 1 / Allocate your use cases to pyramid levels.
- 2 / Prioritize use cases in lower levels.
- 3 / Assign responsibilities for implementation.

CONSIDERATIONS FOR THE PYRAMID

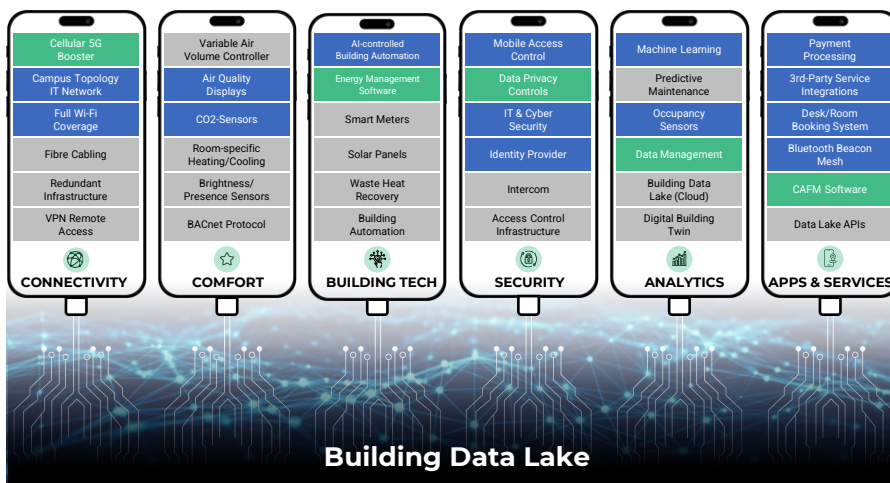
The allocation of use cases to responsibilities was done under at least the following considerations:

- ▶ Single tenant
- ▶ Construction
- ▶ Building operations
- ▶ Process cost
- ▶ Data management
- ▶ Allocation property value regulations

STEP 2: ASSIGN TECHNOLOGIES / SCHEMAS

Who will be responsible to implement required technologies or schemas?

KEY TECHNOLOGIES / SCHEMAS



NEXT STEPS

- 1 / Which project members and skills are required?
- 2 / Which KPIs are relevant to measure success?
- 3 / Who will operate the final solution and analyze the data?
- 4 / FOLLOW US ON LINKEDIN for the next SMART BUILDING CHEAT SHEETS!

DICTIONARY

CONNECTIVITY

Campus Topology IT Network: High performant, redundant and optimal coverage sized network infrastructure for internal data communication characterized by Core, Distribution and Access Layer.

Cellular 5G Booster: Repeater for cellular coverage inside the building.

Redundant Infrastructure: Infrastructure designed with a redundant concept using ring topologies, parallel cabling, redundant distribution and devices.

VPN Remote Access: Secure remote connection to building management system.

COMFORT

Variable Air Volume Controller: Adjust ventilation flow per room based on indoor air quality.

Air Quality Displays: Visual display of indoor air quality for user to react.

Room-specific Heating/Cooling: Individually adjust heating/cooling per room.

BACnet Protocol: Open standardized protocol for building automation for easy data access.

BUILDING TECH

AI-controlled Building Automation: Continuously self-improving building automation system.

Smart Meters: Digital consumption measurement, data transfer and intelligent control of devices.

Waste Heat Recovery: Recovery of waste heat from ventilation, production etc.

Building Automation: Automated control system for heating, ventilation and air conditioning regulated by preconfigured parameters and conditions.

SECURITY

Mobile Access Control: Using the smartphone as an ID to enter access points like doors, gates and turnstiles or smart lockers.

Data Privacy Controls: Technical methods to manage consent, data access and deletion.

IT & Cyber Security: Cyber Security controls over various layers.

Identity Provider: Central software, that manages authentication and authorization for access between applications and users.

Intercom: Communication system between door panels, concierge or smartphones.

Access Control Infrastructure: Cabling and prepared space for tenant card readers and access components.

ANALYTICS

Machine Learning: Method to detect patterns in large data sets.

Occupancy Sensors: Sensors to detect occupancy at desks rooms or parking spots.

Data Management: Management of data structure, quality and compliance.

Predictive Maintenance: Proactive maintenance and analysis of equipment status data to prevent system failure.

Building Data Lake (Cloud): Central data platform for raw data storage and provisioning for further systems.

Digital Building Twin: Digital model of building components like geometry, plants, operational data, etc.

APPS & SERVICES

Payment Processing: Clearing of digital payments for third party services like EV charging.

3rd-Party Service Integrations: Integration of apps from 3rd party services through various methods.

Desk/Room Booking System: Book a desk, meeting room or other resource in the office.

Bluetooth Beacon Mesh: Low power, large area Bluetooth network for various features.

Building Data Lake APIs: Application Programming Interface to exchange data between data lake and external systems.

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Get in contact with us to get expert support on how to plan, install and operate your Smart Building.



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