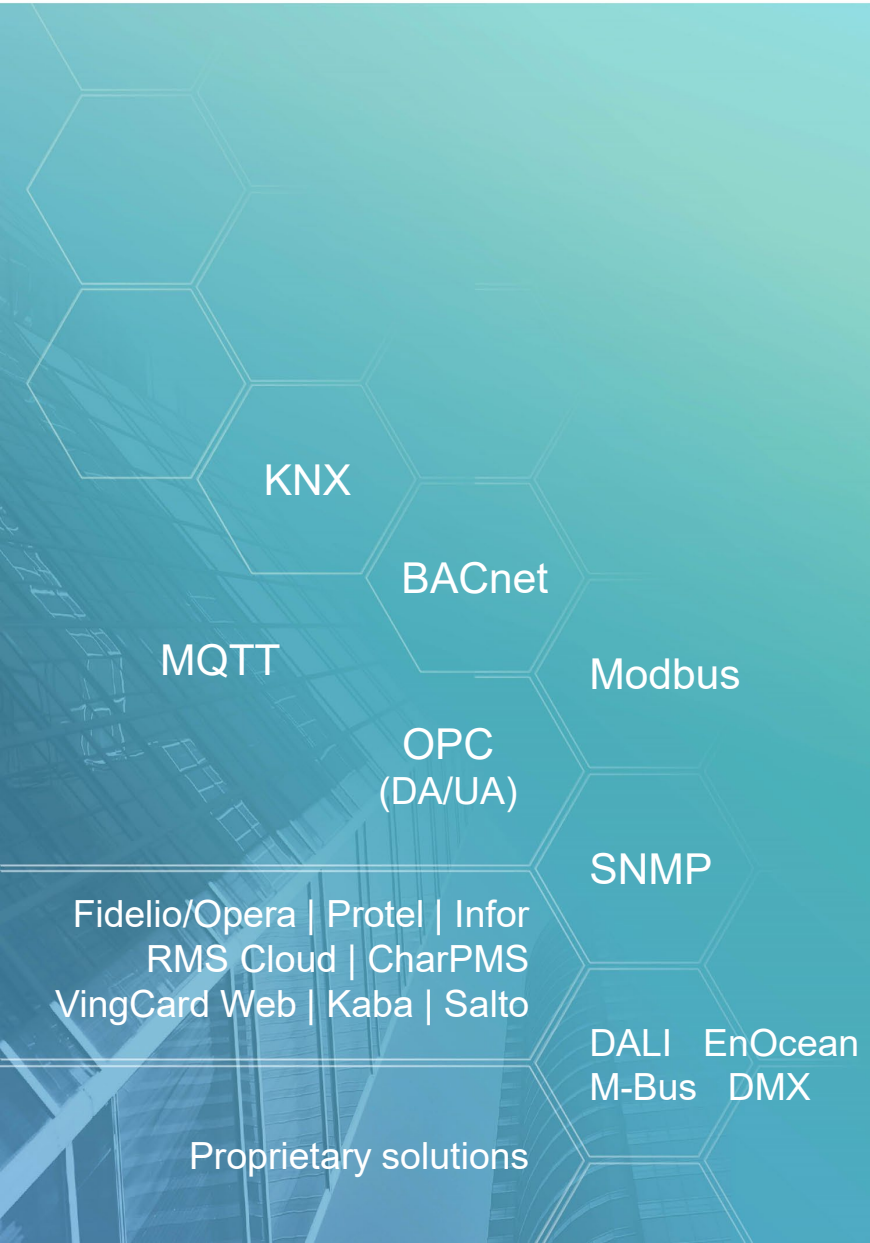
NETx AUTOMATION



All-in-one

Building management software for medium-sized and enterprise building automation projects

NETxAutomation Software GmbH

Austrian, globally active company
–
founded in 2001

20
years of experience

100+
countries represented

Software solutions for building automation systems

100,000+
projects with over 100,000 data points

Management applications: visualization, energy reporting, automatic shading control, lighting control, project support

Our customers

- Electrical planner
- Electricians
- System integrators

6,000+
active licenses

40
intern. sales- and R&D Partner

Integration of heterogeneous building automation networks: building management system platform (BMS Platform), OPC server

NETx solutions – main goals

Applications are based on open, world-wide standards

KNX®

OPC® FOUNDATION

ASHRAE BACnet

Modbus

Continuous development and enhancement of products

Member of OPC Foundation, KNX Association, BACnet International, Modbus Organization

Participation in the development of standard specifications

Close cooperation with universities: TU Vienna, University Antwerp, University Dresden for knowledge transfer

EU-wide research projects allow the integration of new systems and technologies

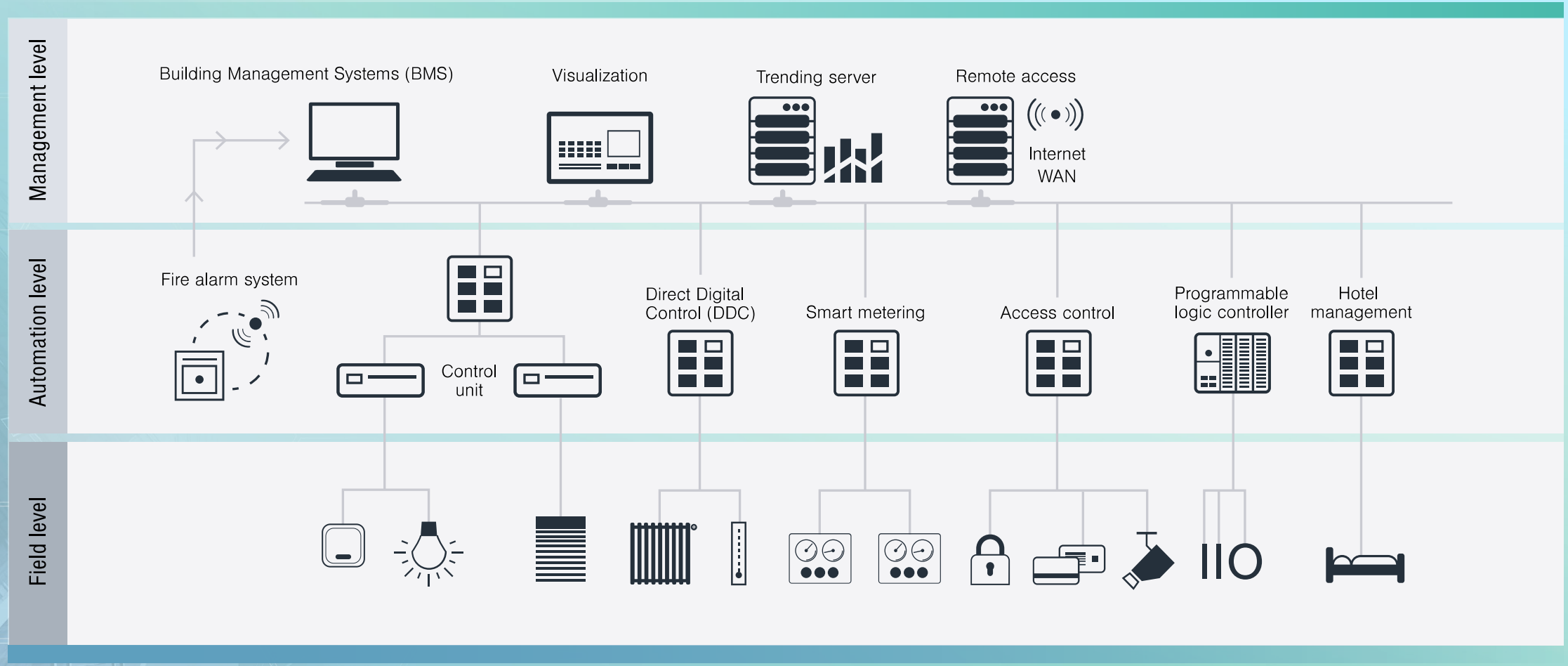
Motivation

Building automation systems are heterogeneous

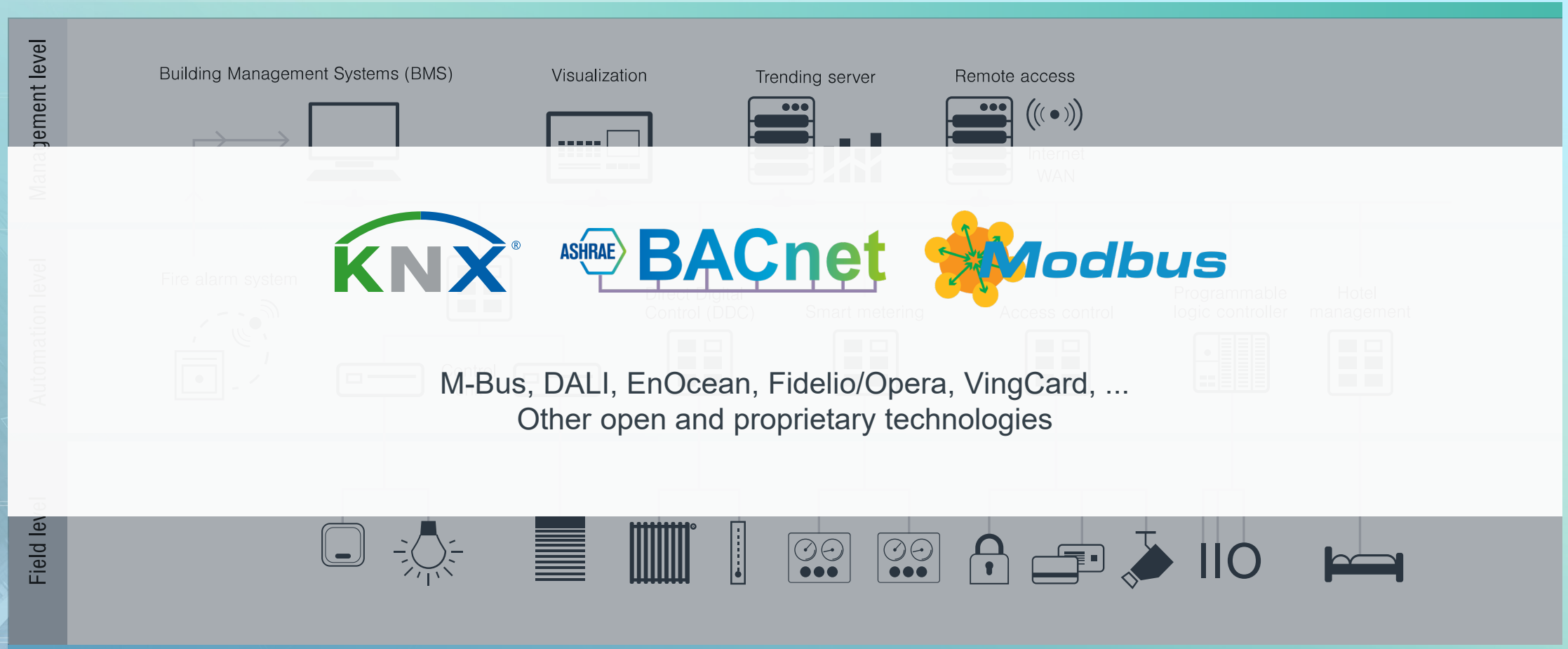
Many different technologies are used

Each technology has its characteristics and its own way to represent and process control data

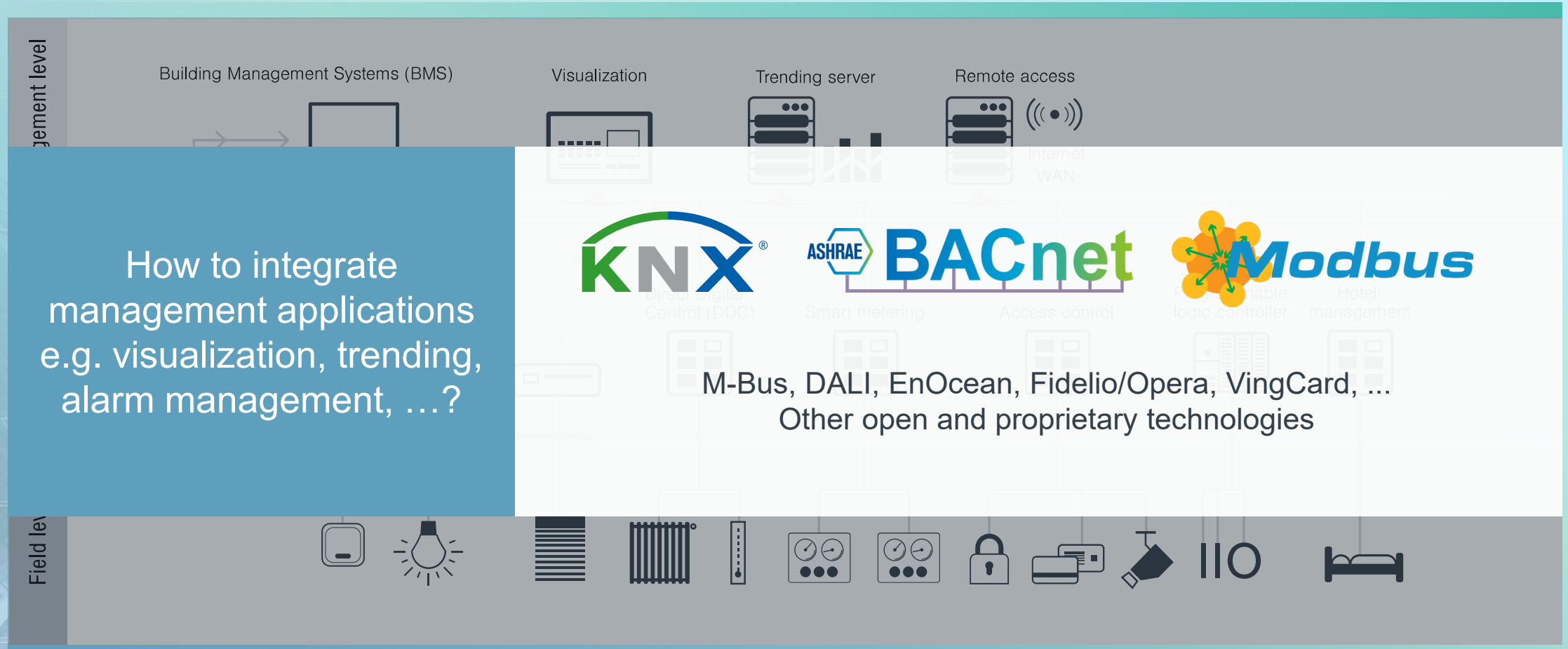
Building automation



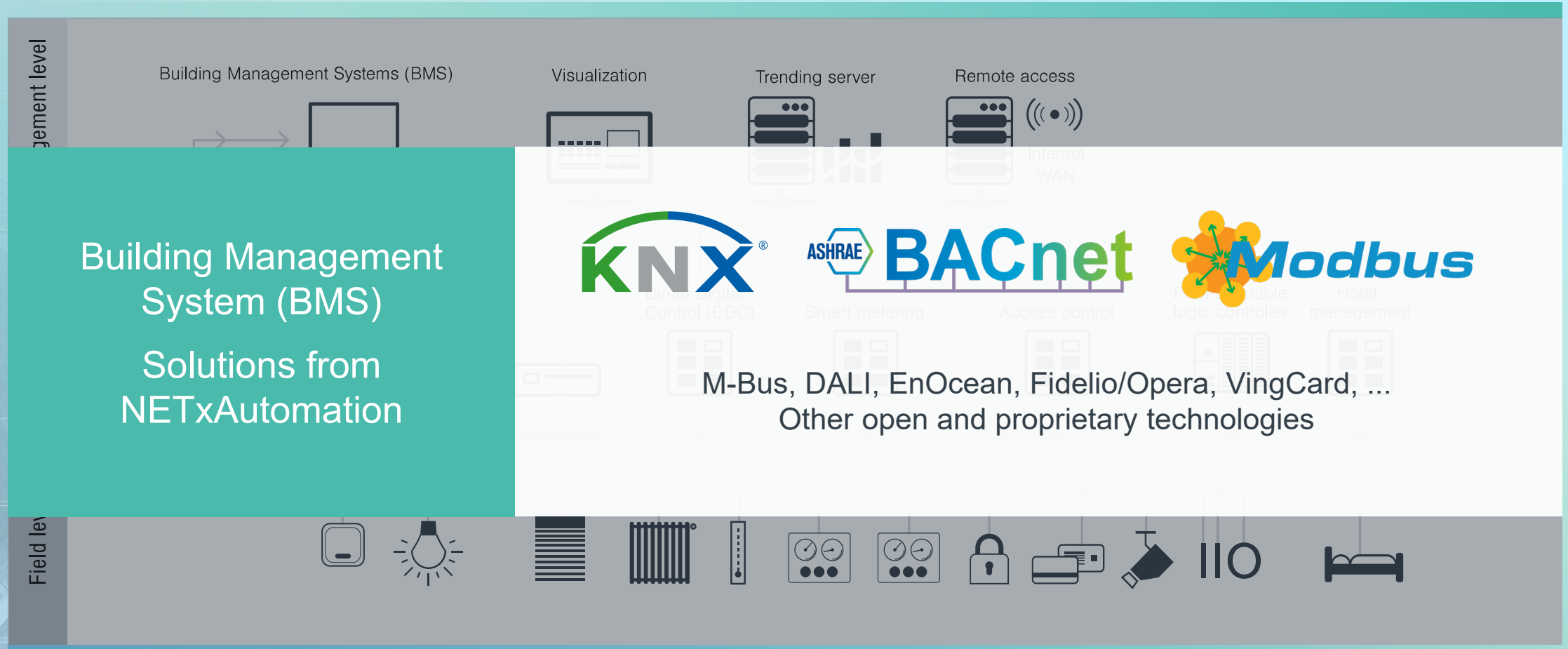
Building automation



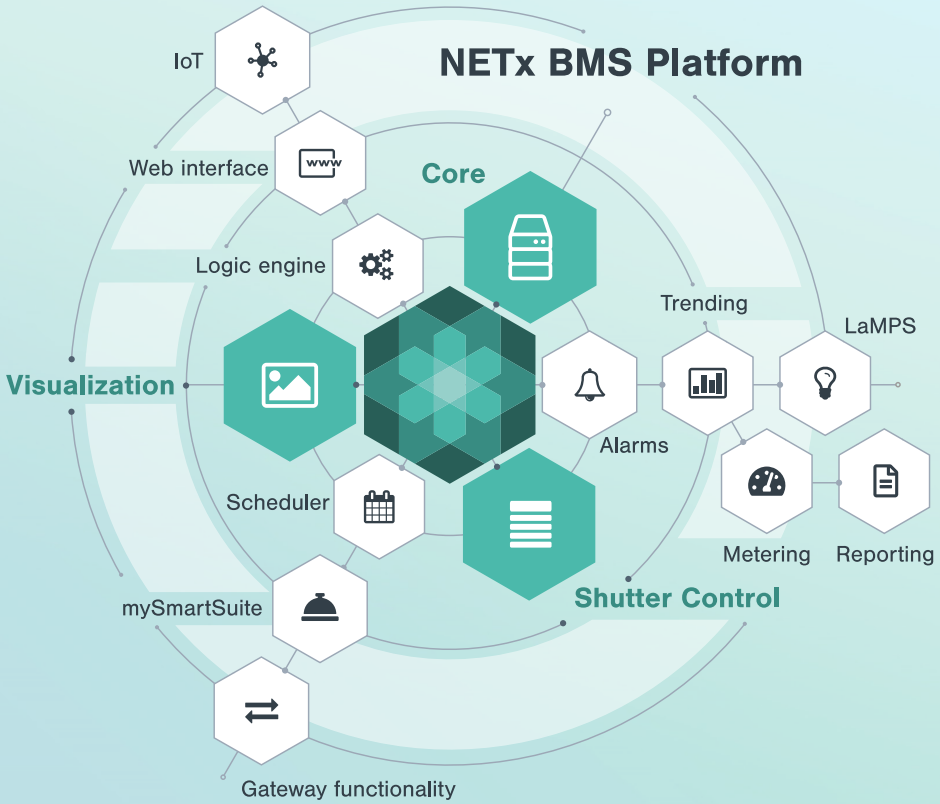
Building automation



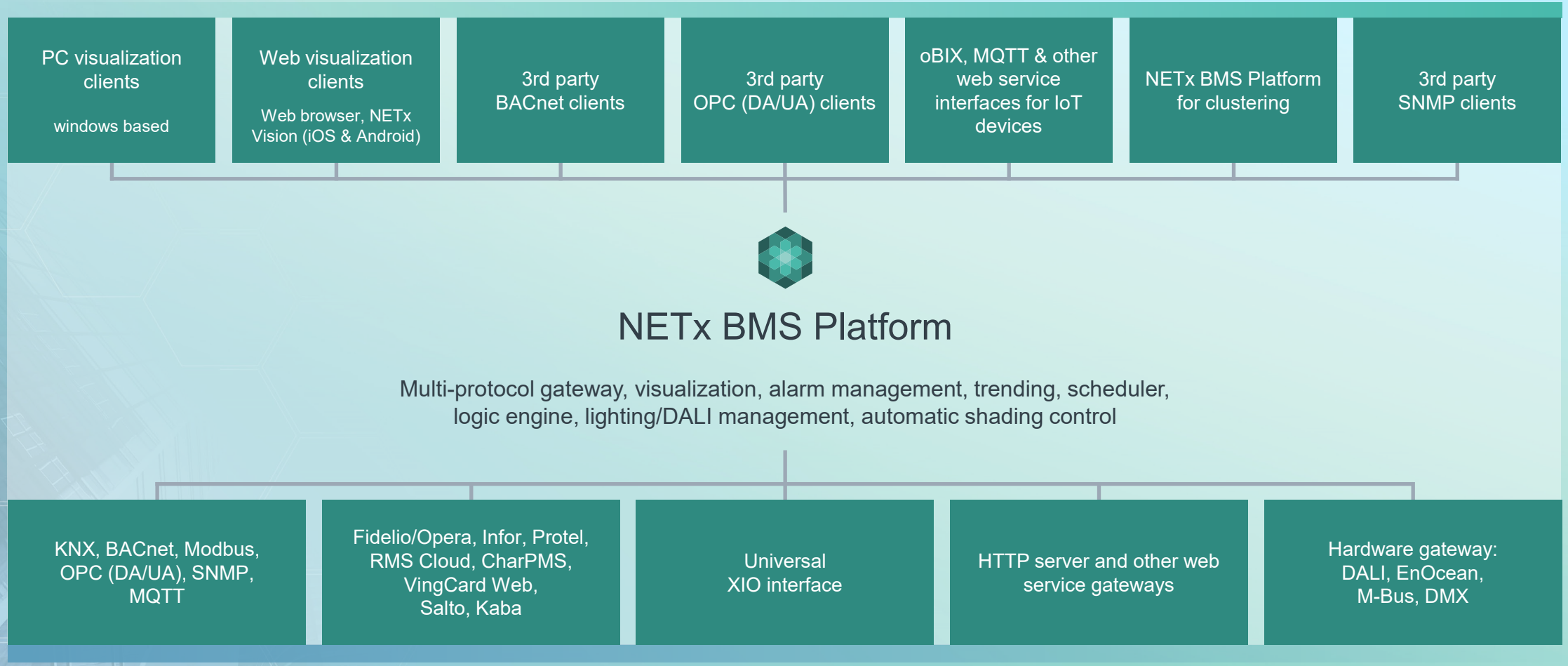
Building automation



NETx BMS Platform



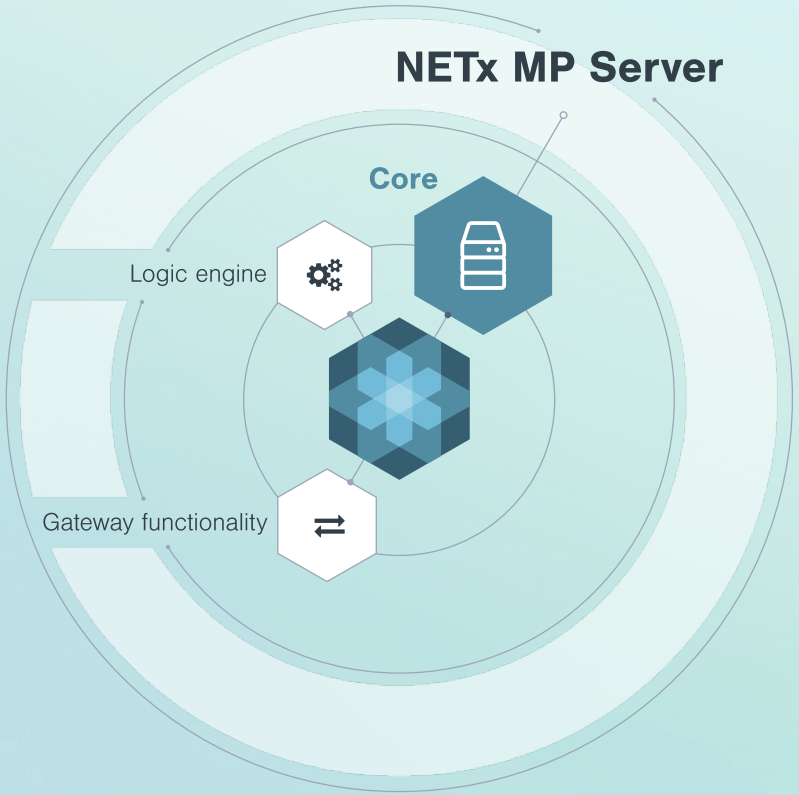
NETx BMS Platform



NETx BMS Platform

Core	Visualization	LaMPS	Shutter Control	mySmartSuite	Add-ons
• Gateway functionality • Alarm management • Trending • Reporting • Scheduler • Logic engine • Metering • GRMS	• Visualization for small, medium and large projects • PC and web-based clients • Any number of clients possible	• Lighting management • DALI management	• Automatic shading system • Complex buildings • Inclusion of weather data • 3D design and simulation • Add-on for BMS Server	• Overview of all rooms • Guest information • Check in and check out information • Room status • Message processing	Functions
Web interface • Alarm management • Trending • Scheduler • Explorer • Actions & Conditions	**Web interface** • Visualization	**Web interface** • LaMPS app	**Web interface** • Shutter Control app	**Web interface** • mySmartSuite app	Web Manager apps
• KNX • BACnet • Modbus • OPC (DA/UA) • SNMP • Fidelio/Opera • Infor • Protel • RMS Cloud • CharPMS • VingCard • Salto • Kaba	• Universal XIO interface • HTTP Server and other web service gateways	• 3rd party BACnet, oBIX, MQTT and OPC (DA/UA) clients • 3rd party web service clients	**Hardware gateways:** • Dali • EnOcean • M-Bus • DMX		Interfaces

NETx Multi Protocol Server

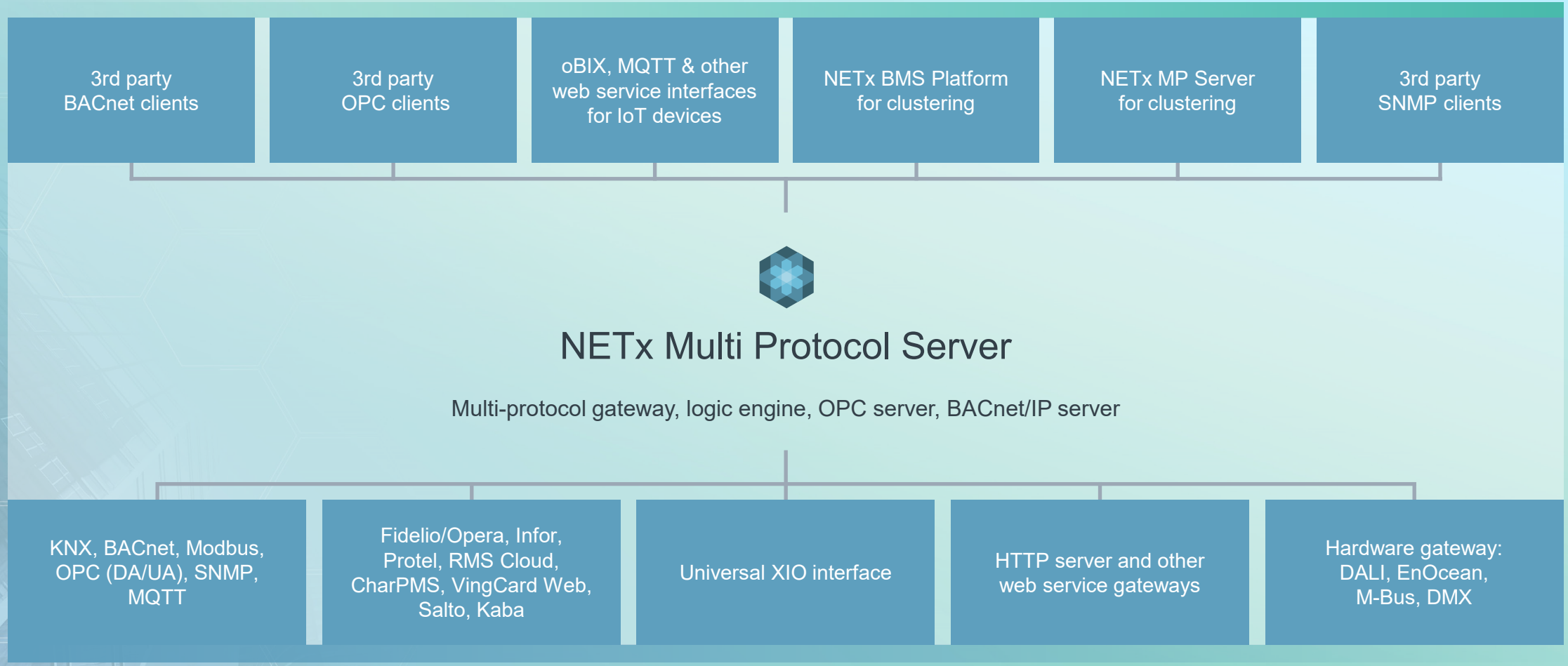


Successor product of

NETx KNX OPC Server 3.5

Upgrade from NETx MP Server to NETx BMS Platform possible

NETx Multi Protocol Server



NETx BMS Platform < > NETx MP Server

Product features	NETx BMS Platform	NETx MP Server		NETx BMS Platform	NETx MP Server
Several interfaces to the field level KNX, Modbus, BACnet, SNMP, etc.	✓	✓	Alarm management definition of alarms, displaying alarm lists	✓	✗
Several interfaces to the management level OPC, BACnet/IP, oBIX, KNX WS, MQTT, etc.	✓	✓	Trending historical database	✓	✗
Multi-protocol gateway connects several interfaces to the field level	✓	✓	Scheduling time-based events	✓	✗
Import of the device configuration for KNX ETS projects, BACnet discovery, OPC/BMS explorer	✓	✓	Reporting create PDF, Excel,... reports	✓	✗
Monitoring field level and management level analysis	✓	✓	Web-based visualization access with all devices with web browser	✓	✗
Programming logics LUA Script, graphical programming	✓	✓	Web-based management Web Manager including user management	✓	✗
Clustering data exchange between servers	✓	✓	PC-based visualization access with Windows devices	✓	✗

NETx BMS Platform < > NETx MP Server

Product extensions	NETx BMS Platform	NETx MP Server		NETx BMS Platform	NETx MP Server
LaMPS Lighting and DALI management	✓	✓	Shutter Control Automatic shading of complex buildings	✓	✗
Metering Module Monitor, analyze and process data from smart meters	✓	✓	mySmartSuite Integrated hotel solution	✓	✗

Interfaces to the management level	NETx BMS Platform	NETx MP Server		NETx BMS Platform	NETx MP Server
OPC provides data for other OPC clients	✓	✓	MQTT provides data via MQTT	✓	✓
BACnet/IP provides data for BACnet clients	✓	✓	SQL MariaDB, MS SQL Server for historical data	✓	✗
oBIX provides data for oBIX clients	✓	✓	Web Web Manager and Web Visualization	✓	✗

NETx BMS Platform < > NETx MP Server

Interfaces to the field level	NETx BMS Platform	NETx MP Server
KNX Secure KNXnet/IP tunnelling | KNXnet/IP tunnelling/routing	✓	✓
BACnet BACnet/IP | other BACnet media (BACnet MS/TP,…)	✓	✓
Modbus Modbus/TCP | Modbus RTU over IP	✓	✓
SNMP v1, v2, v3	✓	✓
OPC Integration of other OPC servers	✓	✓
HTTP and web services Integration of data from HTTP servers & web service gateways	✓	✓
Special interfaces on request	✓	✓

	NETx BMS Platform	NETx MP Server
DALI Digital Addressable Lighting Interface	with hardware gateway	
DMX512 stage lighting and effects	with hardware gateway	
EnOcean wireless building automation	with hardware gateway	
M-Bus europ. standard for remote reading of smart meters	with hardware gateway	
Hotel management Fidelio/Opera, Infor, Protel, RMS Cloud, CharPMS Door locking systems: VingCard | Kaba | SALTO	✓	✓
Own interfaces via LUA script, UDP, TCP, RS-232 protocol | via C# .NET API	✓	✓

Operating system & hardware

Operating system - Windows based operating system required

Windows 10 / Windows 11	Windows Server 2016 / Windows Server 2019 / Windows Server 2022

For maintainable systems we strongly recommend at least Windows 10 or Windows Server 2016 (or higher). Our products basically also run on older Windows versions down to Windows 7 and Windows Server 2008. However, due to limited future support for these operating systems by Microsoft we will not be able to provide full support for our software running on these systems.

Hardware

Any device that supports Microsoft Windows can be used	Use of virtualization environments possible
Requirements depend on project size (small embedded device up to server systems)	VMWare, Virtualbox, Hyper-V, ...

NETx BMS Platform licensing

License

Number of data points

Integrated data points from field level like KNX group addresses, BACnet objects, Modbus registers, SNMP data points, ...

Number of visualization clients

Web and/or PC based clients

Optional: additional license fees for special modules and interfaces

- **Hotel management interfaces Fidelio/Opera or Protel**
  Fix fee + 5 data points for each room
- **Door lock interfaces VingCard, Salto, Kaba**
  Fix fee + 5 data points for each door lock
- **NETx LaMPS**
  Fix fee + 1 data point for each DALI ballast
- **NETx Shutter Control**
  Project specific fee
- **NETx Metering Module**
  Fix fee + 10 data points for each measurement value
- **NETx mySmartSuite**
  sufficent number of NETx visualization clients required
- **and more**

Licensing process

Hardlock

USB Dongle
hardware independent

Softlock

Unlock code
dependent on hardware and operating system

NETx MP Server licensing

License

Number of data points

Integrated data points from field level like KNX group addresses,
BACnet objects, Modbus registers, SNMP data points, ...

Licensing process

Hardlock

USB Dongle
hardware independent

Softlock

Unlock code
dependent on hardware
and operating system

Optional: additional license fees for special modules and interfaces

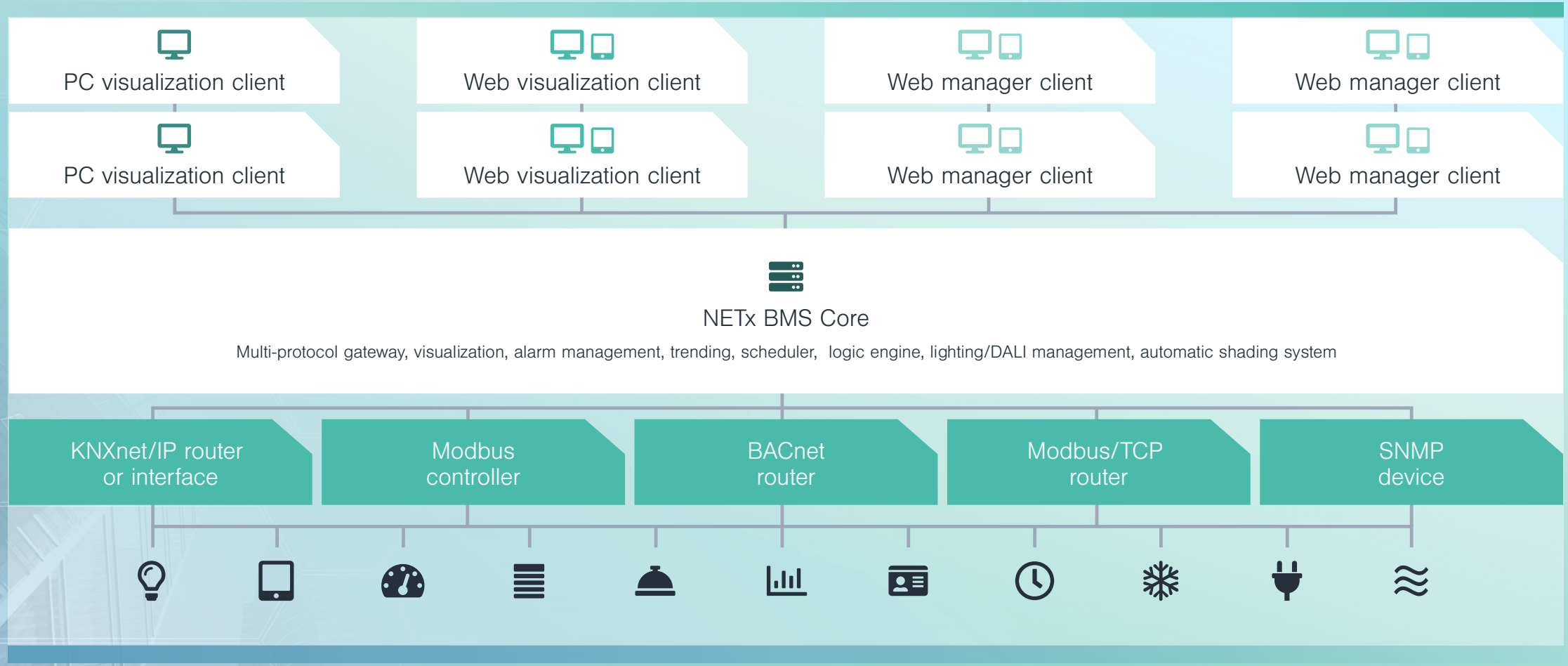
- **Hotel management interfaces**
  Fidelio/Opera or Protel
  Fix fee + 5 data points for each room
- **Door lock interfaces**
  VingCard, Salto, Kaba
  Fix fee + 5 data points for each door lock
- **and more**

Application areas

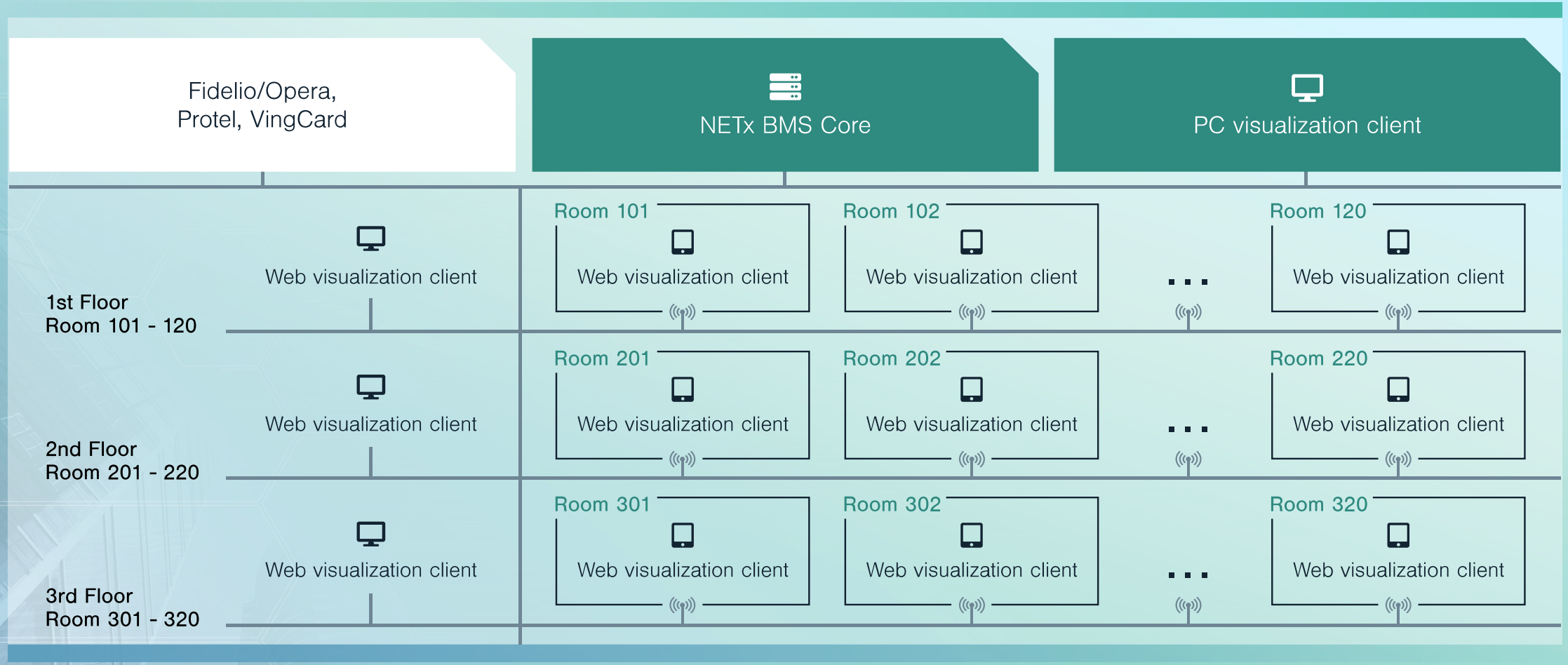
- BMS Solution for medium-sized and enterprise building automation projects
- Integration of different sub systems and technologies in all-in-one solution

Hotels & resorts	Airports	Office buildings	Shopping malls & shops
Hospitals	Sports & event centers	Universities & schools	Residential buildings

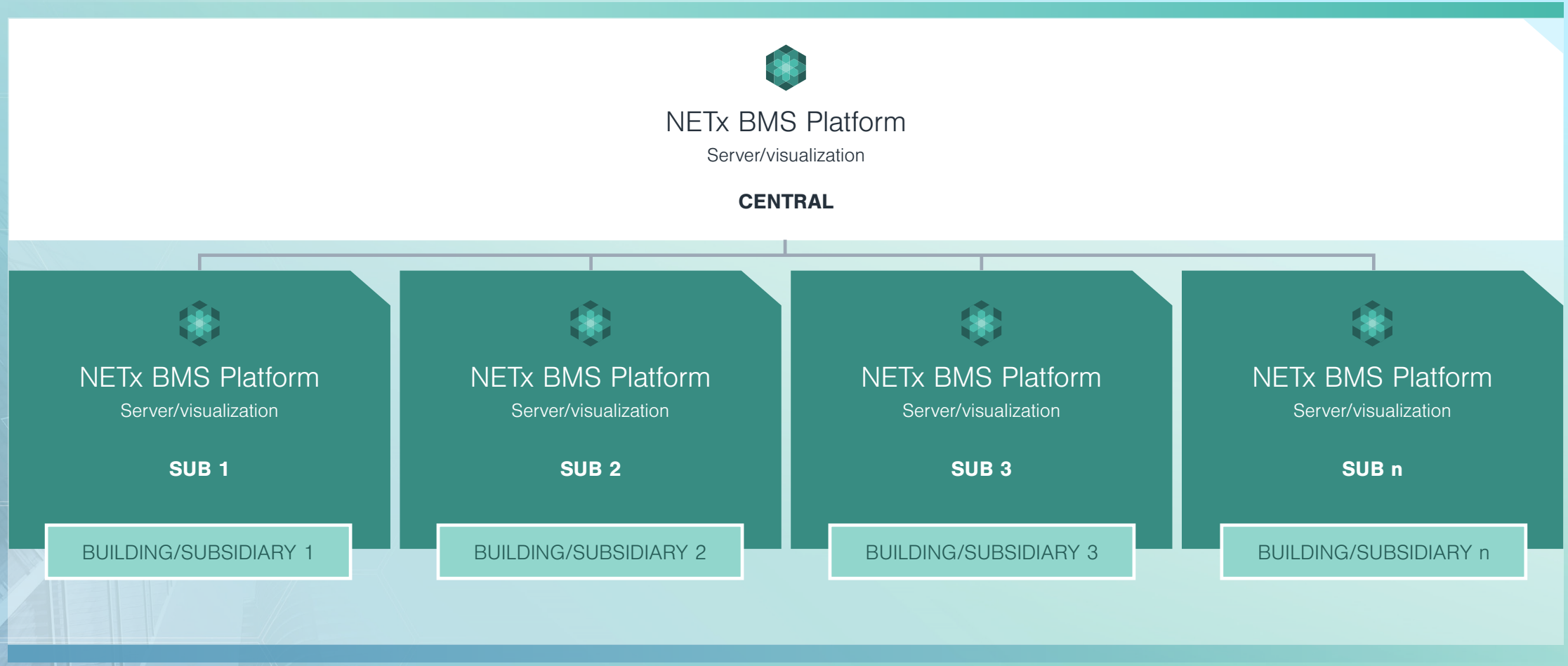
Applications – office buildings



Applications – hotel



Applications – large complex



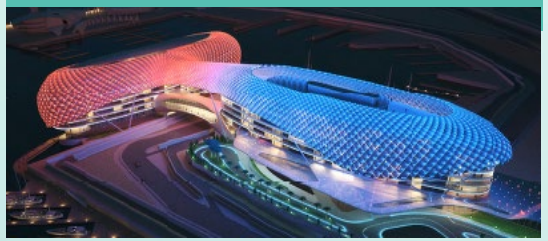
References

www.netxautomation.com/netx/en/applications/references/

Airport Pudong
Shanghai, China

ANZ Tower
Australia

The Yas Hotel
Abu-Dhabi



Samsung Central
Seoul, South Korea

Airport Bangkok
Thailand

PlusCity
Austria

The Post Hotel
Belgium

Port of Antwerp
Belgium

Awards - Light & Building Fair

International Award	**International Award**	**Special Award**	**National Award**	**Energy Efficiency Award**
Asia	Africa, America, Australia			Asia
Princess Noura University for women	Surf Coast Shire Civic Building	Gran Melià Resort & Luxus Villas Daios Cove	HDI-Gerling Hauptverwaltung	GAMA Headqurters
Saudi Arabia	Australia	Greece	Germany	Saudi Arabia

Product overview

Product overview - NETx BMS Platform

NETx AUTOMATION

Core

Server

- Multi protocol gateway: OPC (DA/UA) and BACnet/IP server with interfaces to KNX, BACnet, Modbus, oBIX, MQTT and SNMP
- BMS functions, e.g. alarm management, scheduler, trending and more

Visualization	LaMPS	Shutter Control	mySmartSuite
(optional) PC based and/or web based	(optional) Lighting and DALI management	(optional) Enhanced automatic shading	(optional) Guest Room management

Application-specific, additional interfaces for NETx BMS Platform

Hotel management systems Fidelio/Opera, Protel, Infor, RMS Cloud, CharPMS	Access control systems VingCard, Kaba and Salto
mySmartSuite app	NETx XIO interface Project-specific interface - on request

Product overview - NETx MP Server

Core

Server

- Multi protocol gateway: OPC (DA/UA) and BACnet/IP server with interfaces to KNX, BACnet, Modbus, MQTT, oBIX and SNMP

Application-specific, additional interfaces for NETx MP Server

Hotel management systems
Fidelio/Opera, Protel, Infor, RMS Cloud, CharPMS

Access control systems
VingCard, Kaba and Salto

Janitza GridVis interface

NETx XIO interface
Project-specific interface - on request

Integration of 3rd party systems

Integration of OPC clients	Integration of BACnet clients	Integration of OPC servers
3rd party clients	3rd party BMS systems from Siemens, Schneider Electric, Honeywell, Sauter	Fire detection systems, elevators, etc. with different proprietary systems

NETx AUTOMATION

www.netxautomation.com