

KNX

BACnet

MQTT

Modbus

OPC  
(DA/UA)

SNMP

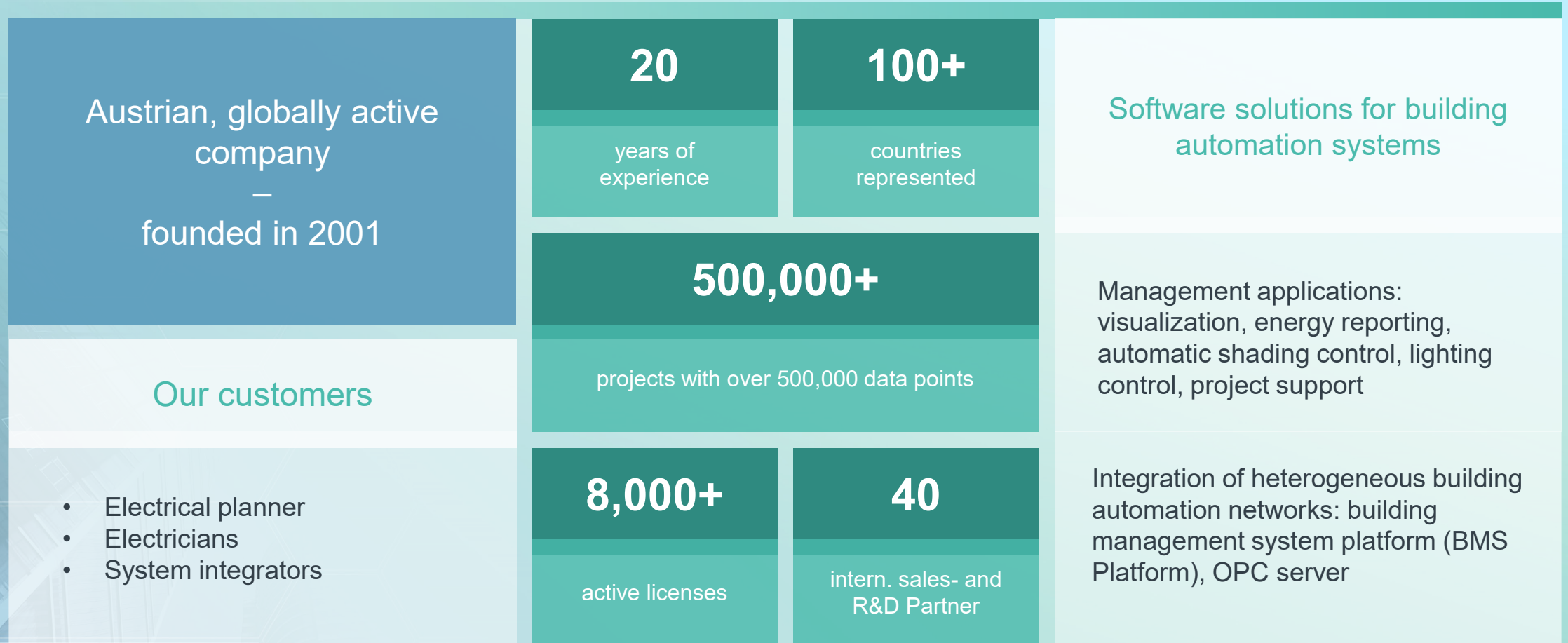
Fidelio/Opera | Protel | Infor  
RMS Cloud | CharPMS  
VingCard Web | Kaba | Salto

DALI EnOcean  
M-Bus DMX

Proprietary solutions

# All-in-one

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



Applications are based on open, world-wide standards



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

Building automation systems are heterogeneous



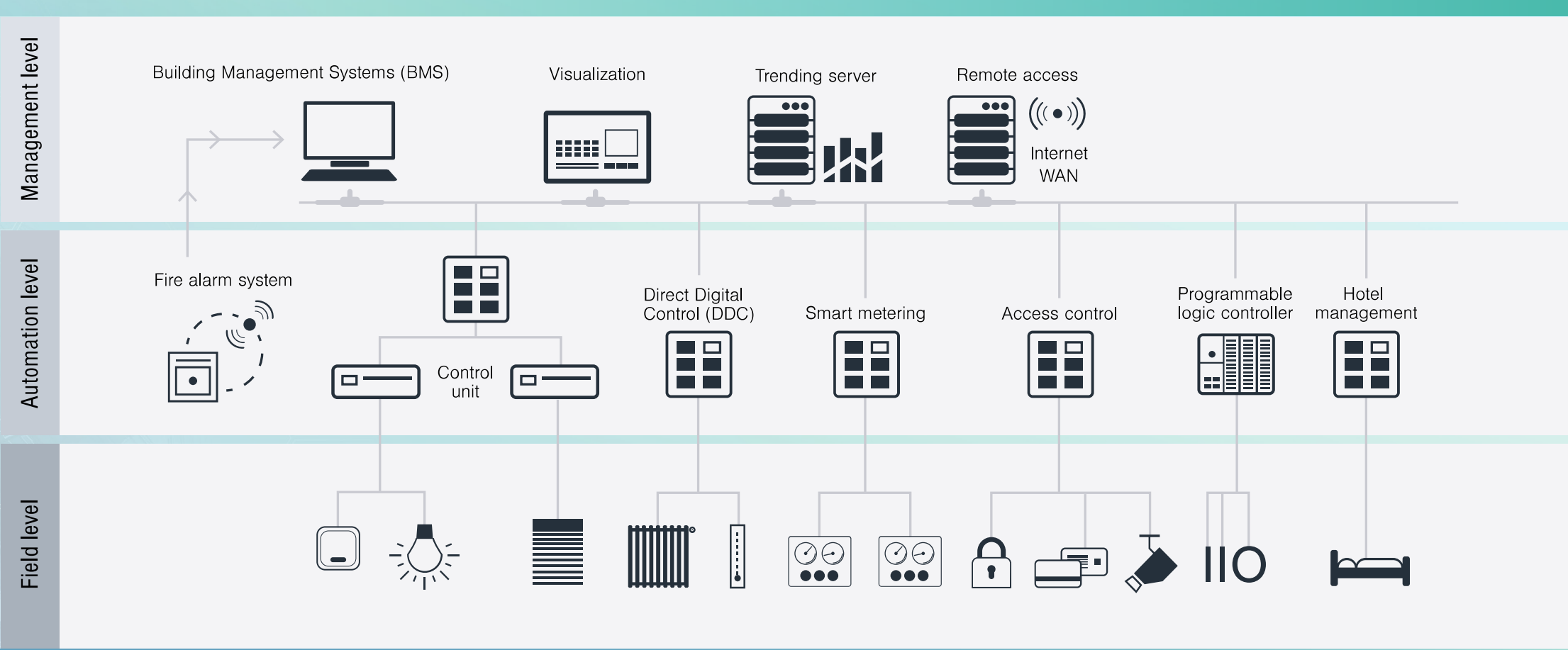
Many different technologies are used

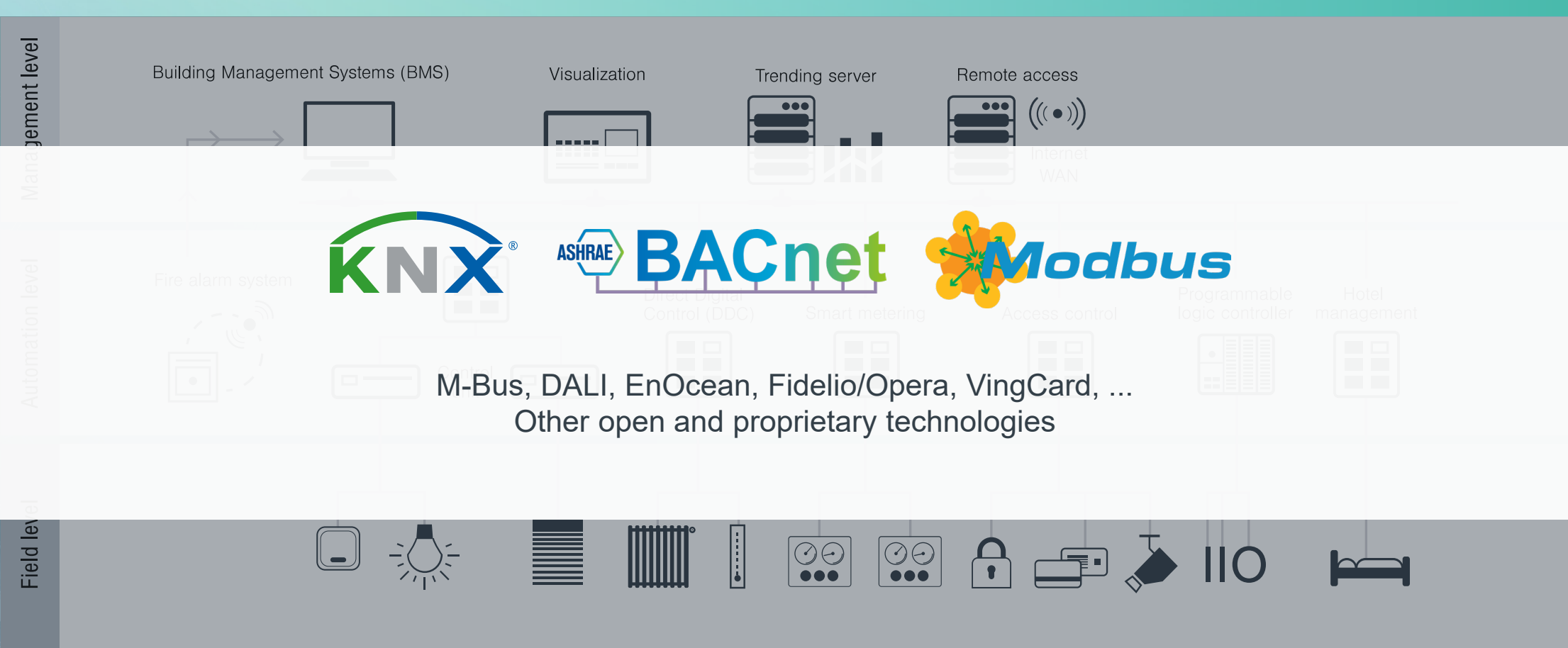


Each technology has its characteristics and its own way to represent and process control data



# Building automation





Management level

Building Management Systems (BMS)

Visualization

Trending server

Remote access



Internet  
WAN

How to integrate management applications e.g. visualization, trending, alarm management, ...?



Direct Digital Control (DDC)



BACnet

Smart metering

Access control



Programmable logic controller

Hotel management

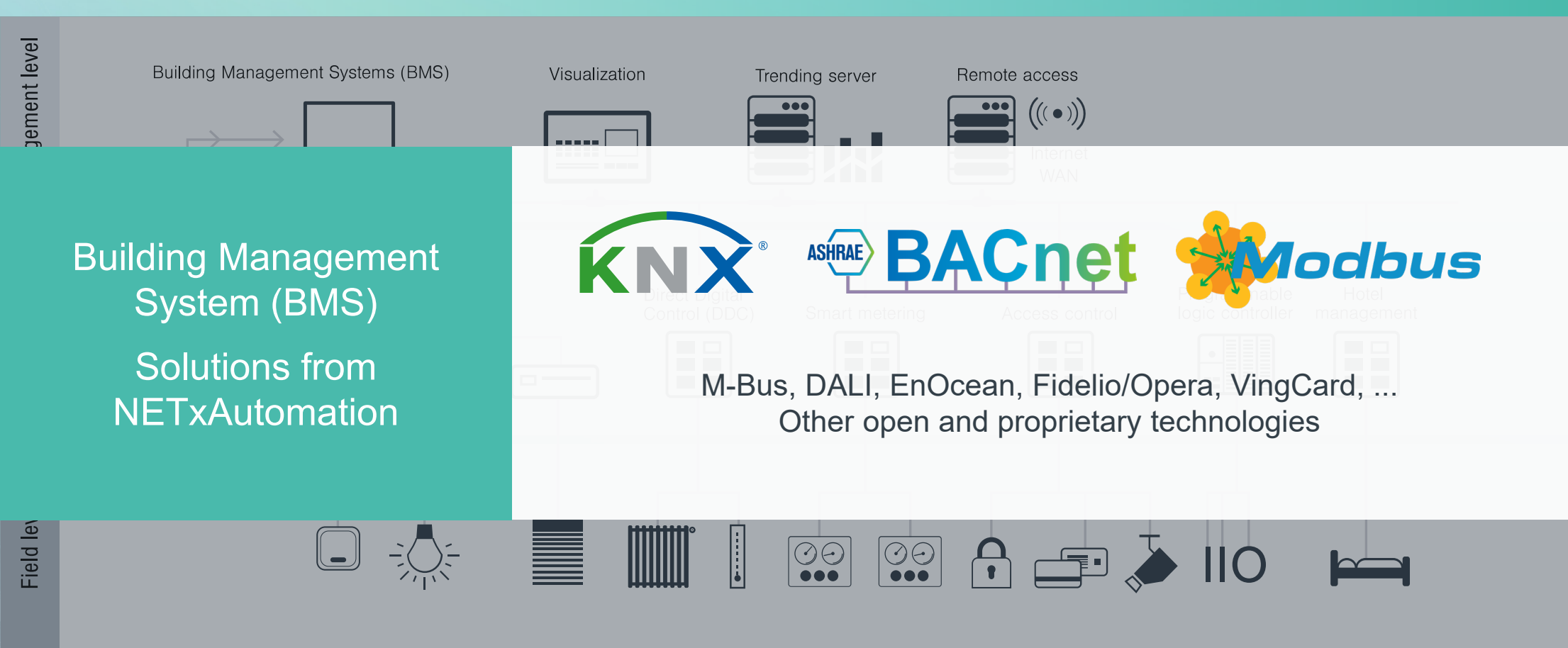
M-Bus, DALI, EnOcean, Fidelio/Opera, VingCard, ...  
Other open and proprietary technologies

Field level

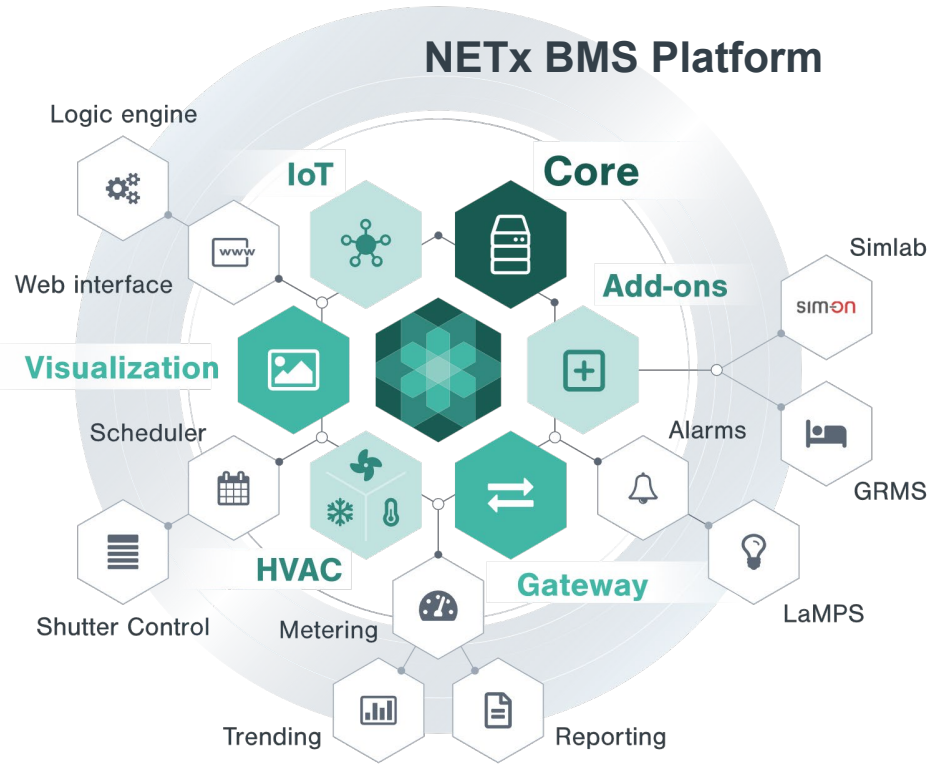


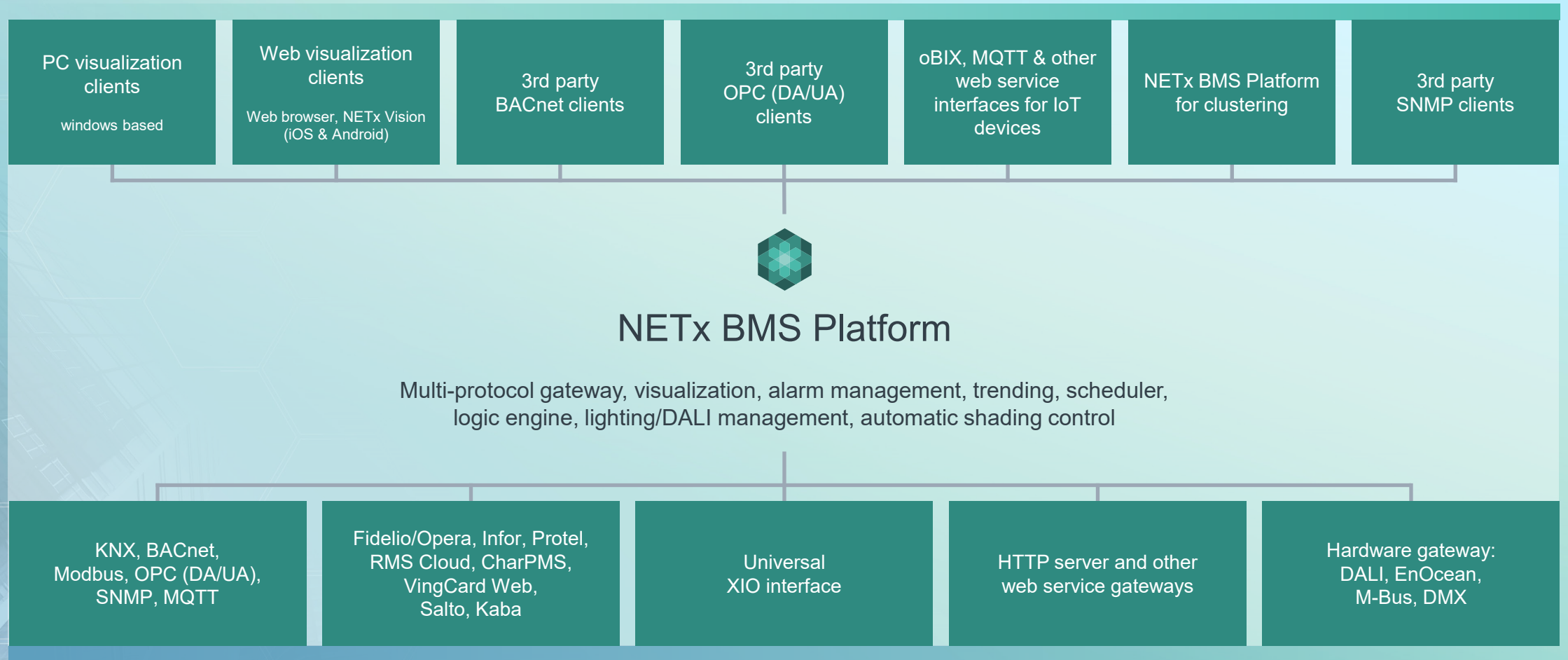
I/O





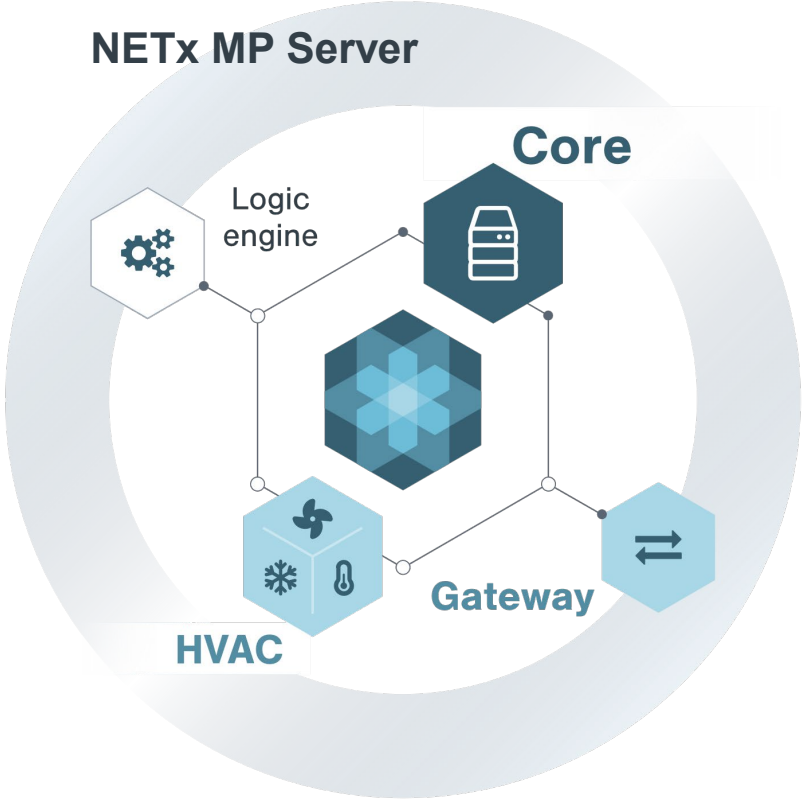




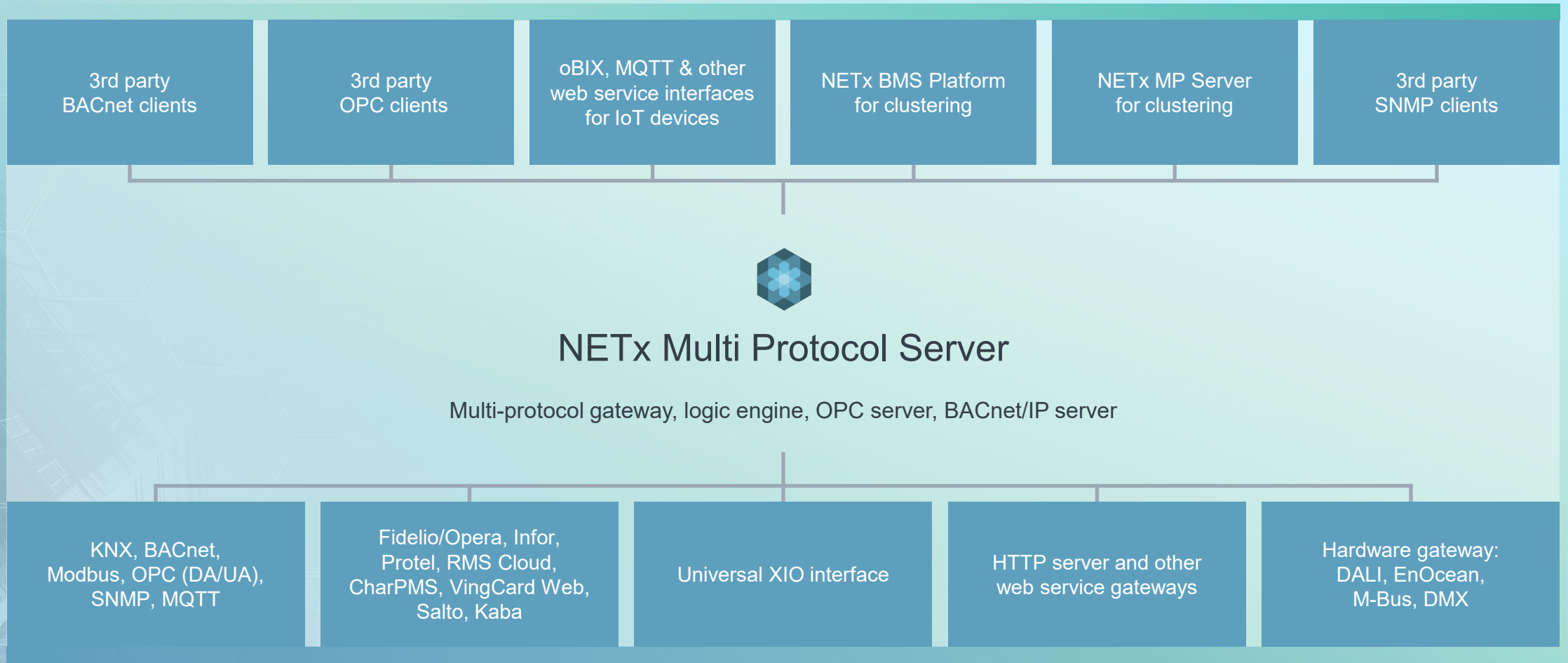


# Components

Core	Visualization	LaMPS	Shutter Control	mySmartSuite	Add-ons	
<ul style="list-style-type: none"> <li>• Gateway functionality</li> <li>• Alarm management</li> <li>• Trending</li> <li>• Reporting</li> <li>• Scheduler</li> <li>• Logic engine</li> <li>• Metering</li> <li>• GRMS</li> </ul>	<ul style="list-style-type: none"> <li>• Visualization for small, medium and large projects</li> <li>• PC and web-based clients</li> <li>• Any number of clients possible</li> </ul>	<ul style="list-style-type: none"> <li>• Lighting management</li> <li>• DALI management</li> </ul>	<ul style="list-style-type: none"> <li>• Automatic shading system</li> <li>• Complex buildings</li> <li>• Inclusion of weather data</li> <li>• 3D design and simulation</li> <li>• Add-on for BMS Server</li> </ul>	<ul style="list-style-type: none"> <li>• Overview of all rooms</li> <li>• Guest information</li> <li>• Check in and check out information</li> <li>• Room status</li> <li>• Message processing</li> </ul>	Functions	
<b>Web interface</b> <ul style="list-style-type: none"> <li>• Alarm management</li> <li>• Trending</li> <li>• Scheduler</li> <li>• Explorer</li> <li>• Actions &amp; Conditions</li> </ul>	<b>Web interface</b> <ul style="list-style-type: none"> <li>• Visualization</li> </ul>	<b>Web interface</b> <ul style="list-style-type: none"> <li>• LaMPS app</li> </ul>	<b>Web interface</b> <ul style="list-style-type: none"> <li>• Shutter Control app</li> </ul>	<b>Web interface</b> <ul style="list-style-type: none"> <li>• mySmartSuite app</li> </ul>	Web Manager apps	
<ul style="list-style-type: none"> <li>• KNX</li> <li>• BACnet</li> <li>• Modbus</li> <li>• OPC (DA/UA)</li> <li>• SNMP</li> </ul>	<ul style="list-style-type: none"> <li>• Fidelio/Opera</li> <li>• Infor</li> <li>• Protel</li> <li>• RMS Cloud</li> <li>• CharPMS</li> </ul>	<ul style="list-style-type: none"> <li>• VingCard</li> <li>• Salto</li> <li>• Kaba</li> </ul>	<ul style="list-style-type: none"> <li>• Universal XIO interface</li> <li>• HTTP Server and other web service gateways</li> </ul>	<ul style="list-style-type: none"> <li>• 3rd party BACnet, oBIX, MQTT and OPC (DA/UA) clients</li> <li>• 3rd party web service clients</li> </ul>	<b>Hardware gateways:</b> <ul style="list-style-type: none"> <li>• Dali</li> <li>• EnOcean</li> <li>• M-Bus</li> <li>• DMX</li> </ul>	Interfaces



Upgrade from NETx MP Server to NETx BMS Platform possible



# 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
<b>LaMPS</b> Lighting and DALI management	✓	✗	<b>Shutter Control</b> Automatic shading of complex buildings	✓	✗
<b>Metering Module</b> Monitor, analyze and process data from smart meters	✓	✗	<b>mySmartSuite</b> Integrated hotel solution for any type of hotel project	✓	✗
Interfaces to the management level	NETx BMS Platform	NETx MP Server		NETx BMS Platform	NETx MP Server
<b>OPC</b> provides data for other OPC clients	✓	✓	<b>MQTT</b> provides data via MQTT	✓	✓
<b>BACnet/IP</b> provides data for BACnet clients	✓	✓	<b>SQL</b> MariaDB, MS SQL Server for historical data	✓	✗
<b>oBIX</b> provides data for oBIX clients	✓	✓	<b>Web</b> Web Manager and Web Visualization	✓	✗

# NETx BMS Platform < > NETx MP Server

Interfaces to the field level	NETx BMS Platform	NETx MP Server		NETx BMS Platform	NETx MP Server
<b>KNX</b> Secure KNXnet/IP tunnelling   KNXnet/IP tunnelling/routing	✓	✓	<b>Hotel management</b> Fidelio/Opera, Infor, Protel, RMS Cloud, CharPMS Door locking systems: VingCard   Kaba   SALTO	✓	✓
<b>BACnet</b> BACnet/IP   other BACnet media (BACnet MS/TP,... )	✓	✓			
<b>Modbus</b> Modbus/TCP   Modbus RTU over IP	✓	✓	<b>Own interfaces</b> via LUA script, UDP, TCP, RS-232 protocol   via C# .NET API	✓	✓
<b>SNMP</b> v1, v2, v3	✓	✓	<b>DALI</b> Digital Addressable Lighting Interface	with hardware gateway	
<b>OPC</b> Integration of other OPC servers	✓	✓	<b>DMX512</b> stage lighting and effects	with hardware gateway	
<b>HTTP and web services</b> Integration of data from HTTP servers & web service gateways	✓	✓	<b>EnOcean</b> wireless building automation	with hardware gateway	
<b>Special interfaces</b> on request	✓	✓	<b>M-Bus</b> europ. standard for remote reading of smart meters	with hardware gateway	



# 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, ...

License		
Number of data points	Number of visualization clients	Optional: additional license fees for special modules and interfaces
Integrated data points from field level like KNX group addresses, BACnet objects, Modbus registers, SNMP data points, ...	Web and/or PC based clients	<ul style="list-style-type: none"> <li>• <b>Hotel management interfaces</b> <b>Fidelio/Opera or Protel</b> Fix fee + 5 data points for each room</li> <li>• <b>NETx Shutter Control</b> Project specific fee</li> <li>• <b>NETx Metering Module</b> Fix fee + 10 data points for each measurement value</li> <li>• <b>NETx mySmartSuite</b> sufficient number of NETx visualization clients required</li> <li>• <b>and more</b></li> </ul>
Licensing process		
Hardlock	Softlock	
<b>USB Dongle</b> hardware independent	<b>Unlock code</b> dependent on hardware and operating system	

License		Optional: additional license fees for special modules and interfaces
Number of data points		
Integrated data points from field level like KNX group addresses, BACnet objects, Modbus registers, SNMP data points, ...		<ul style="list-style-type: none"> <li>• <b>Hotel management interfaces</b> <b>Fidelio/Opera or Protel</b> Fix fee + 5 data points for each room</li> <li>• <b>Door lock interfaces</b> <b>VingCard, Salto, Kaba</b> Fix fee + 5 data points for each door lock</li> <li>• <b>and more</b></li> </ul>
Licensing process		
Hardlock	Softlock	
<b>USB Dongle</b> hardware independent	<b>Unlock code</b> dependent on hardware and operating system	

# 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

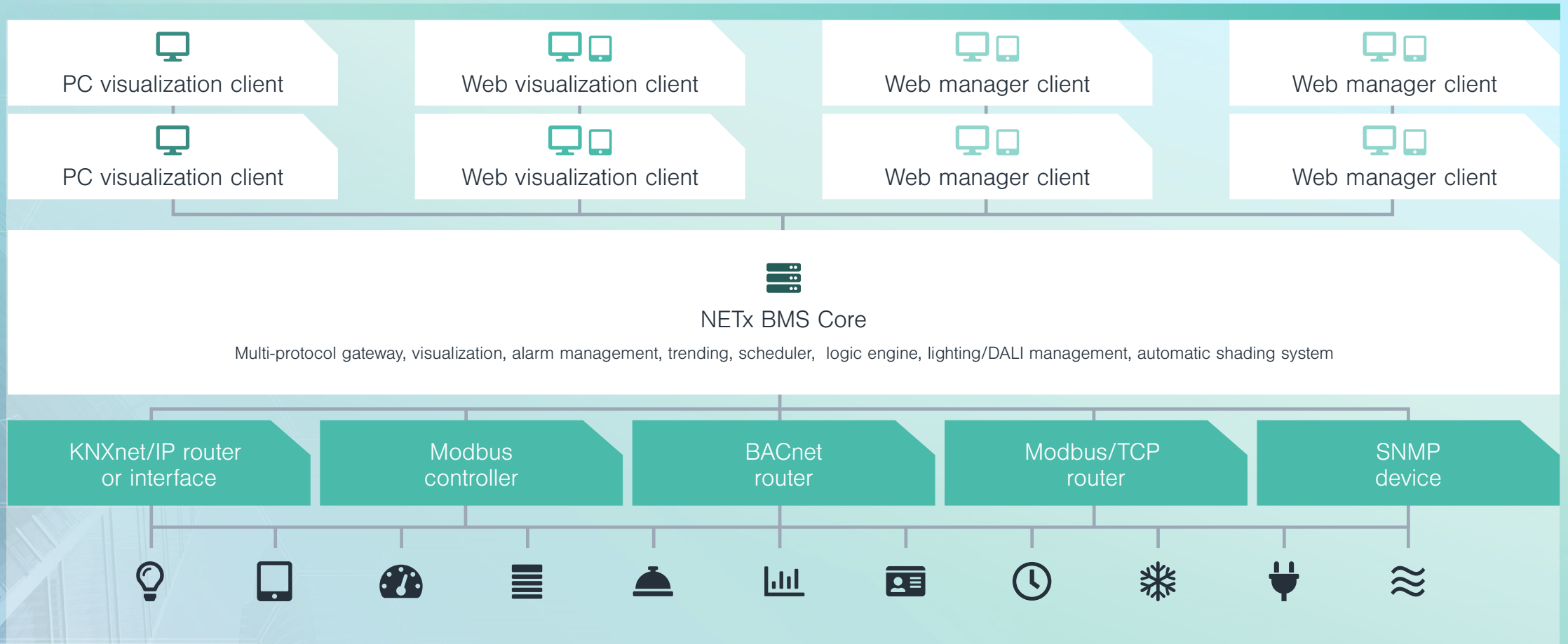


Universities & schools

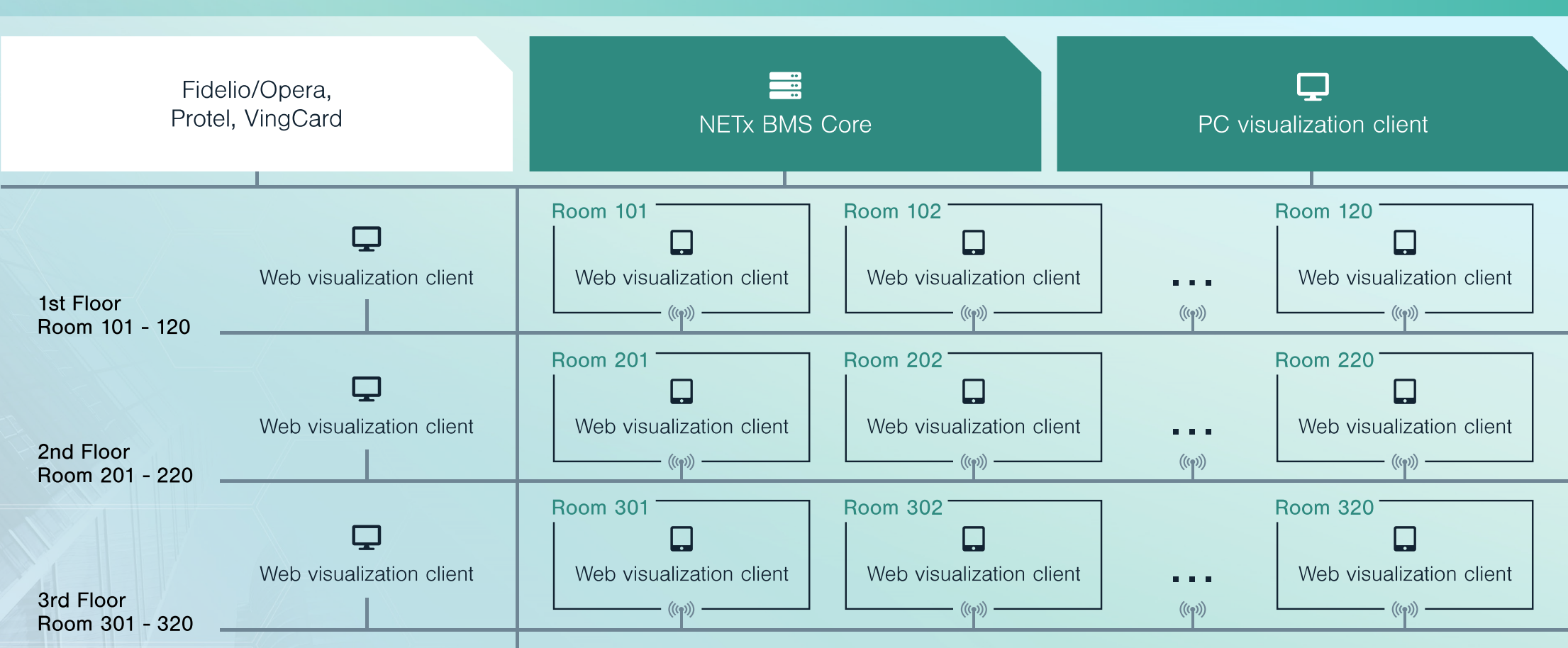


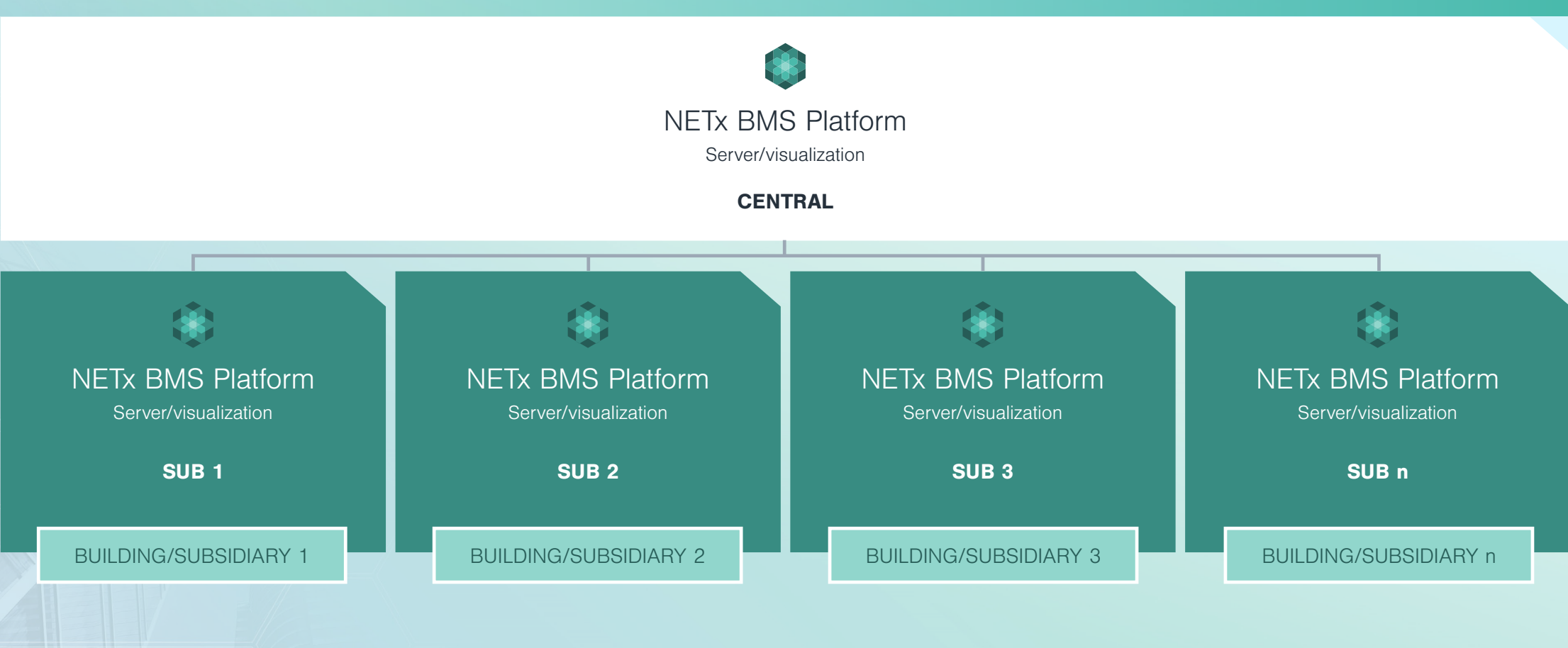
Residential buildings

# Applications – office buildings



# Applications – hotel





<https://www.netxautomation.com/references/overview>

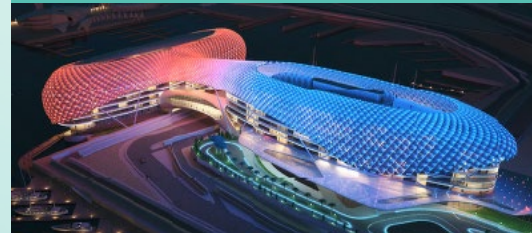
**Airport Pudong**  
Shanghai, China



**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

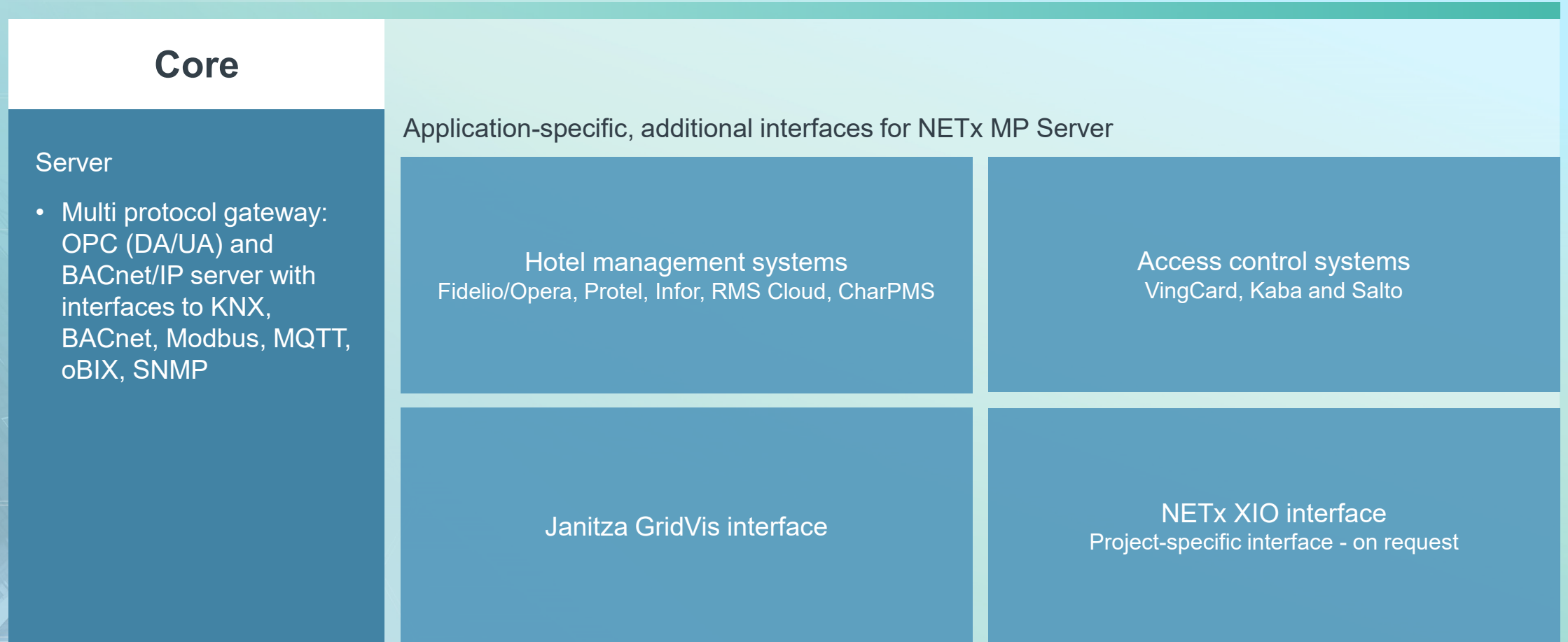




				
<b>International Award</b>	<b>International Award</b>	<b>Special Award</b>	<b>National Award</b>	<b>Energy Efficiency Award</b>
Asia	Africa, America, Australia			Asia
<b>Princess Noura University for women</b>	<b>Surf Coast Shire Civic Building</b>	<b>Gran Melià Resort &amp; Luxus Villas Daios Cove</b>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

## Product overview

Core	Visualization	LaMPS	Shutter Control	mySmartSuite
<p>Server</p> <ul style="list-style-type: none"> <li>Multi protocol gateway: OPC (DA/UA) and BACnet/IP server with interfaces to KNX, BACnet, Modbus, oBIX, MQTT, SNMP</li> <li>BMS functions, e.g. alarm management, scheduler, trending and more</li> </ul>	<p>(optional) PC based and/or web based</p>	<p>(optional) Lighting and DALI management</p>	<p>(optional) Enhanced automatic shading</p>	<p>(optional) Guest Room management</p>
<p>Application-specific, additional interfaces for NETx BMS Platform</p>				
<p>Hotel management systems Fidelio/Opera, Protel, Infor, RMS Cloud, CharPMS</p>		<p>Access control systems VingCard, Kaba and Salto</p>		
<p>mySmartSuite app</p>		<p>NETx XIO interface Project-specific interface - on request</p>		

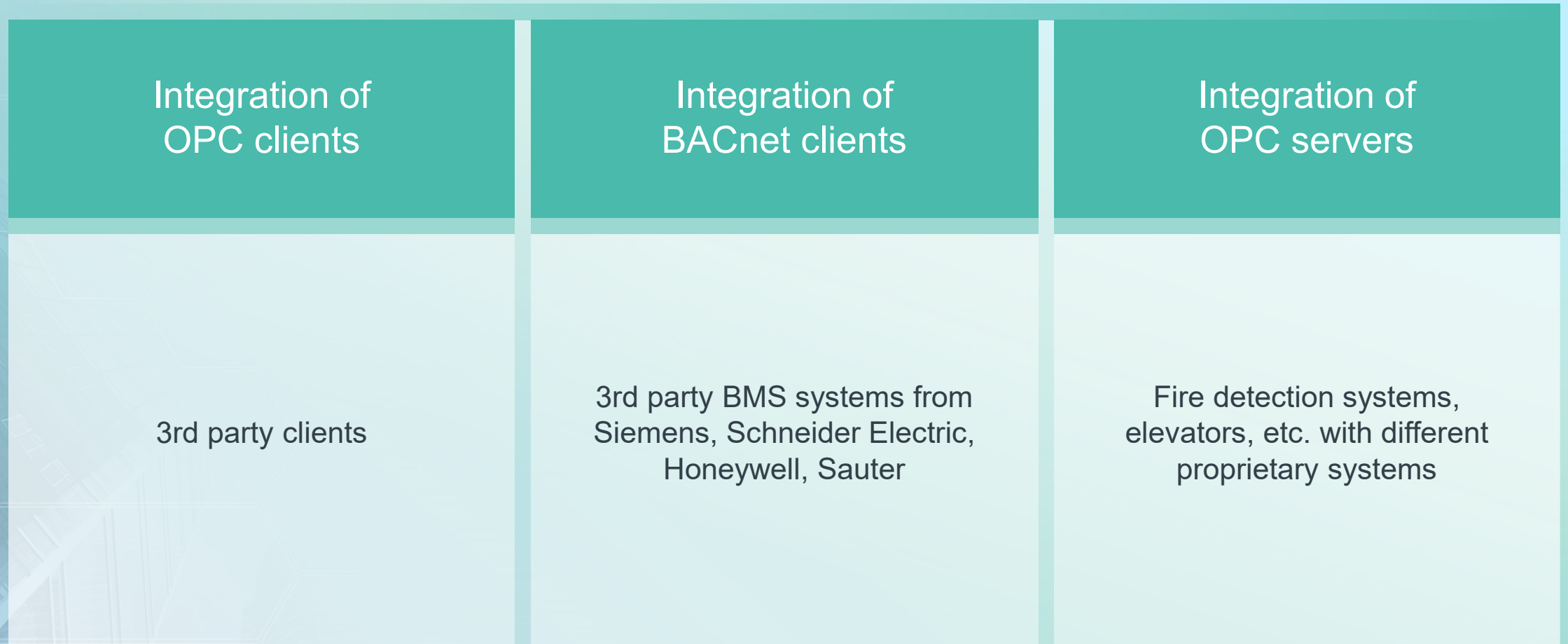


### Core

- **NETx BMS Server**  
Central BMS solution: OPC and BACnet/IP server with interfaces to KNX, BACnet, Modbus and SNMP including database, web server for web-based visualization and specific modules and interfaces
- **NETx KNX OPC Server**  
OPC Server for KNX - reference server of KNX Association

### Visualization clients

- **NETx Voyager**  
Central, PC-based solution for large-scale visualization
- **NETx BMS Clients** (only NETx BMS Server)  
Web based visualization
- **NETx MaRS Client** (only NETx BMS Server)  
Energy reporting



[www.netxautomation.com](http://www.netxautomation.com)