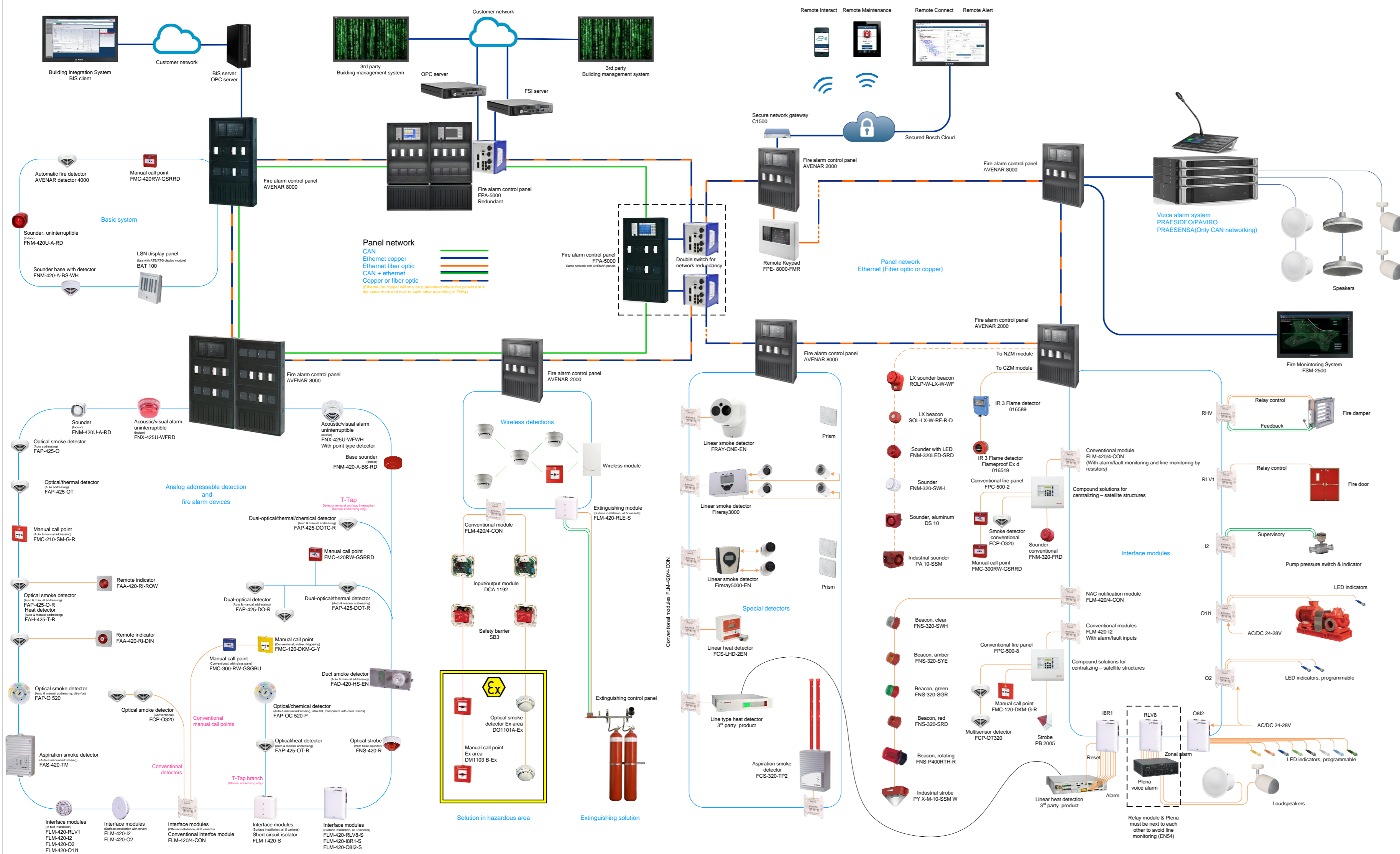


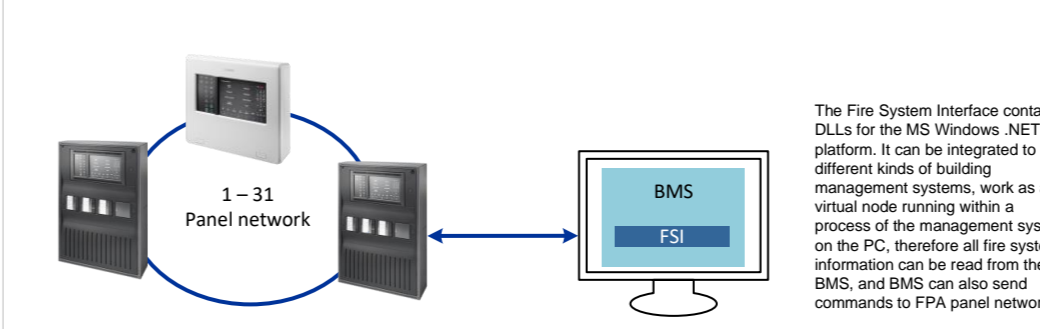
Solution advice and system overview

Bosch fire detection and alarm systems

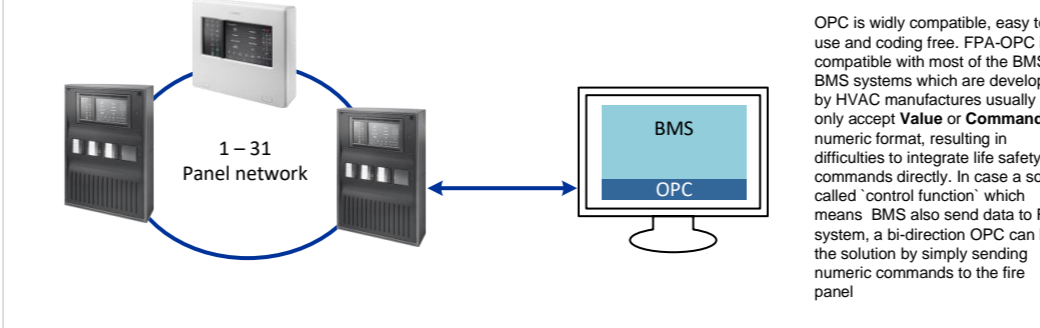
System overview



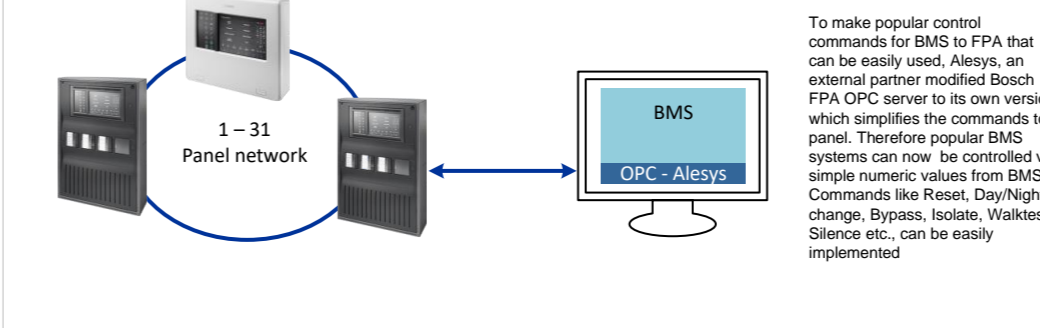
Integration with building management systems



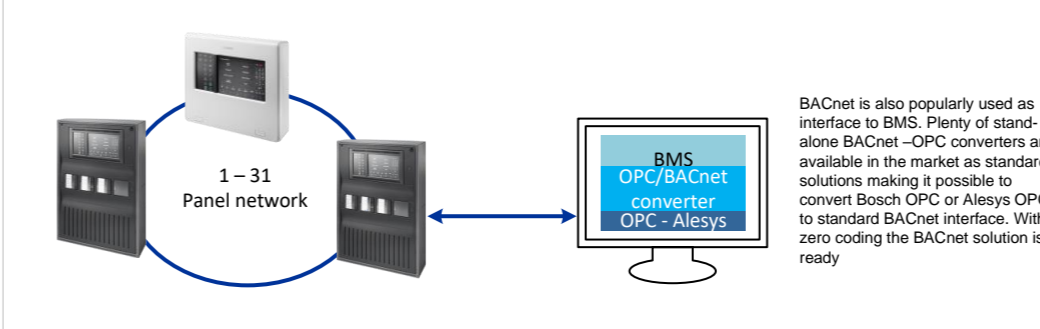
The Fire System Interface contains DLLs for the MS Windows .NET platform. It can be integrated to different kinds of building management systems, work as a virtual node running within a process of the management system on the PC, therefore all fire system information can be read from the BMS, and BMS can also send commands to FPA panel network.



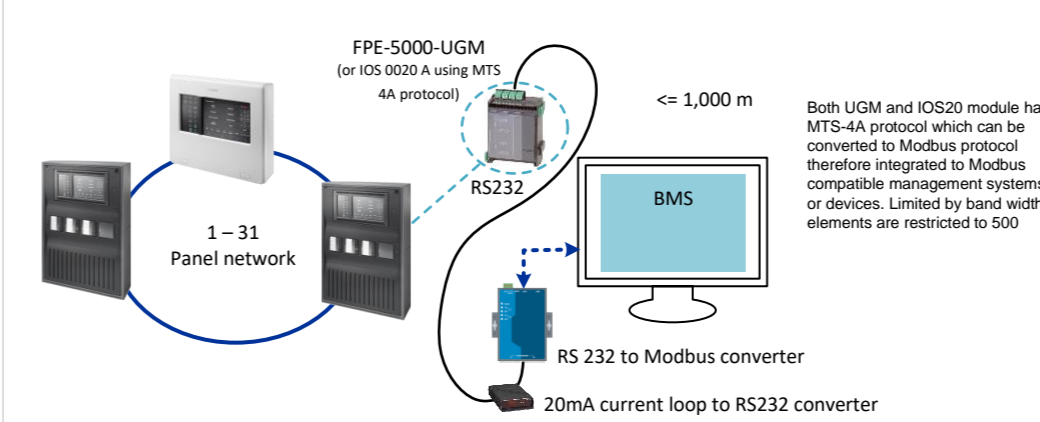
OPC is widely compatible, easy to use and coding free. FPA-OPC is compatible with most of the BMS/BMS systems which are developed by HVAC-manufacturers usually only accept Value or Command by numeric format, resulting in difficulties to integrate its safety control function which means BMS also send data to FPA systems, a bi-directional OPC can be the solution by simply sending numeric commands to the fire panel.



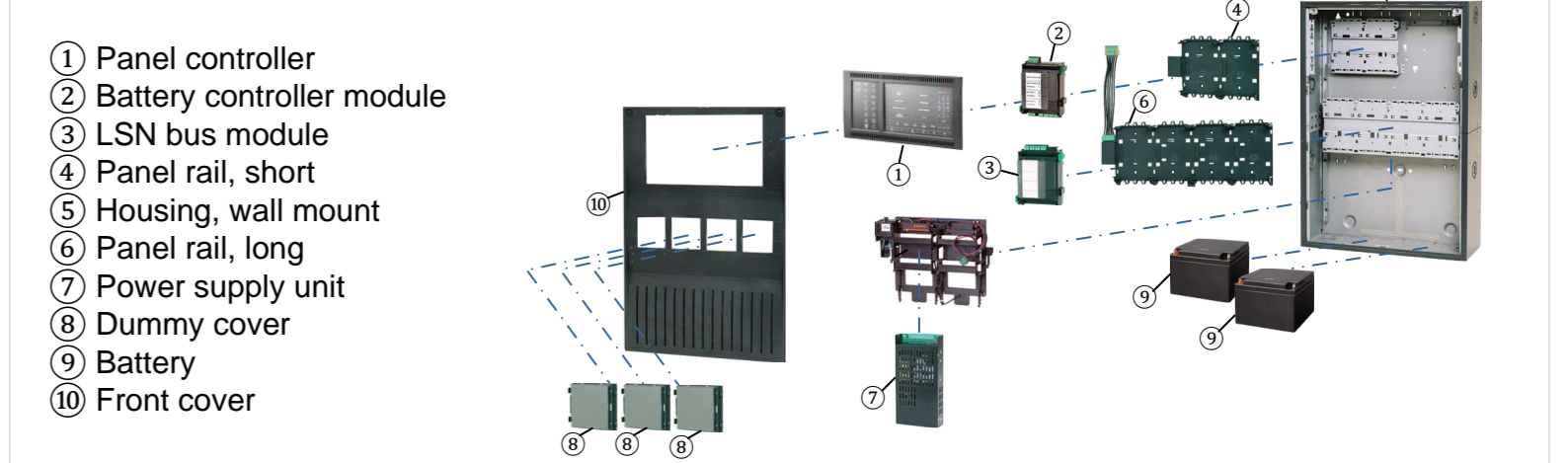
To make popular control commands for BMS to FPA that can be easily used, Always, an external partner modified Bosch FPA OPC server to its own version which simplifies the commands to panel. Therefore popular BMS systems can now be controlled via simple numeric values from BMS. Commands like Reset, Day/night change, Bypass, Isolate, Waitlist, Silence etc., can be easily implemented.



BACnet is also popularly used as interfaces to BMS. Plenty of stand-alone BACnet-OPC converters are available in the market as standard solutions making it possible to connect Bosch OPC or Always OPC to standard BACnet interface. With zero coding the BACnet solution is ready.



Modular panel assembly



Wall mount panel housing



Frame mount panel housing

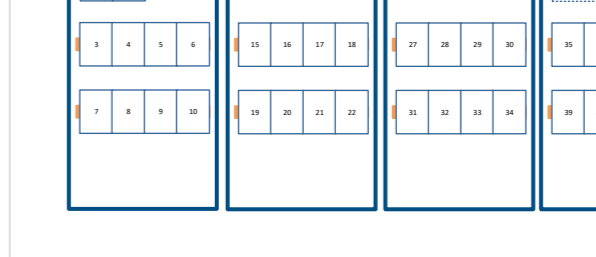


Max load single panel



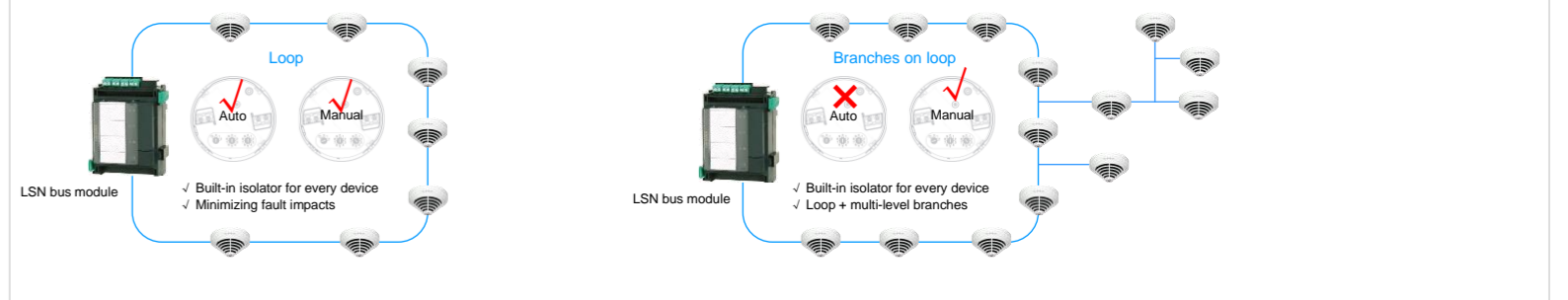
Panel Modules	Image	Functions short description	Max/panel
BCM-0000-B		Battery controller module, two voltage outputs of 2.8 A at 24 V each	8
AM 0016 A		Annunciator module, status display of 16 individually programmable detection points	32
LSN 0300 A		Bus module, max 300mA, 254 elements and unshielded line length 1600 m	32
LSN 1500 A		Bus module, max 1500mA, 254 elements and unshielded line length 3000 m	11
FPE-5000-UGM		Communication module to MTS protocol device e.g. UGM, FAT, management system	4
IOS 0232 A		Connection of peripherals with RS232 serial interface e.g. Plena	4
IOS 0020 A		20 mA communication module to FAT, management system & RS232 interface	4
CZM 0004 A		Connection of 2-wire and 4-wire conventional elements	32
ENO 0000 B		Connection of Fire Service System according to DIN 14675 e.g. Key deposit	8
IOP 0008 A		Input-output module for electrically isolated inputs and outputs	32
RMH 0008 A		8 freely programmable relay outputs module, low voltage	32
RMH 0002 A		5 A contact rating high voltage relay module	32
NZM 0002 A		Notification appliance zone module, monitored control of signaling devices	8

Max load single redundant panel

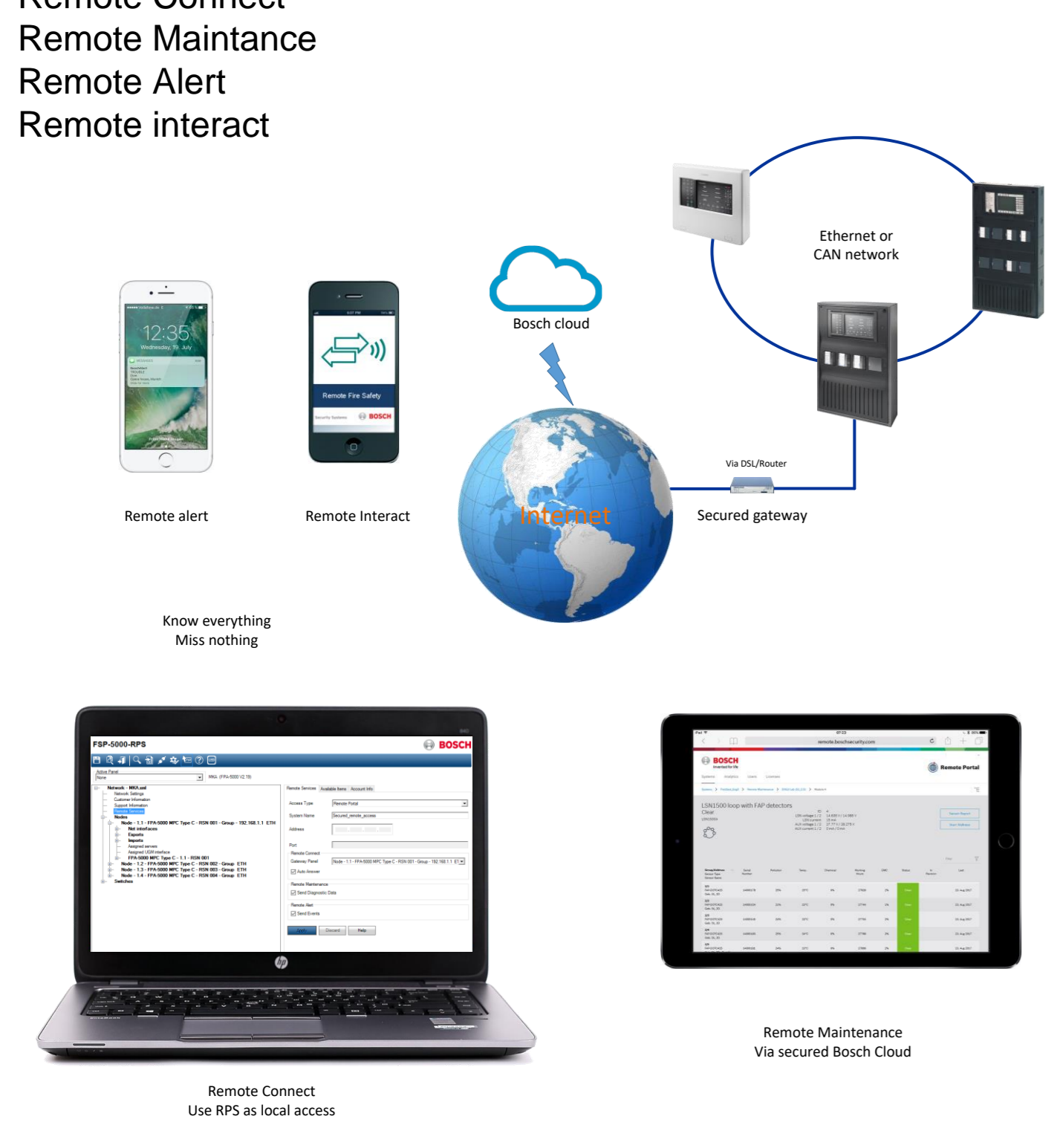


Single stand alone panel capacity: 4,096 devices
Single networked panel capacity: 2,032 devices
Total system up limits: 32,768 devices

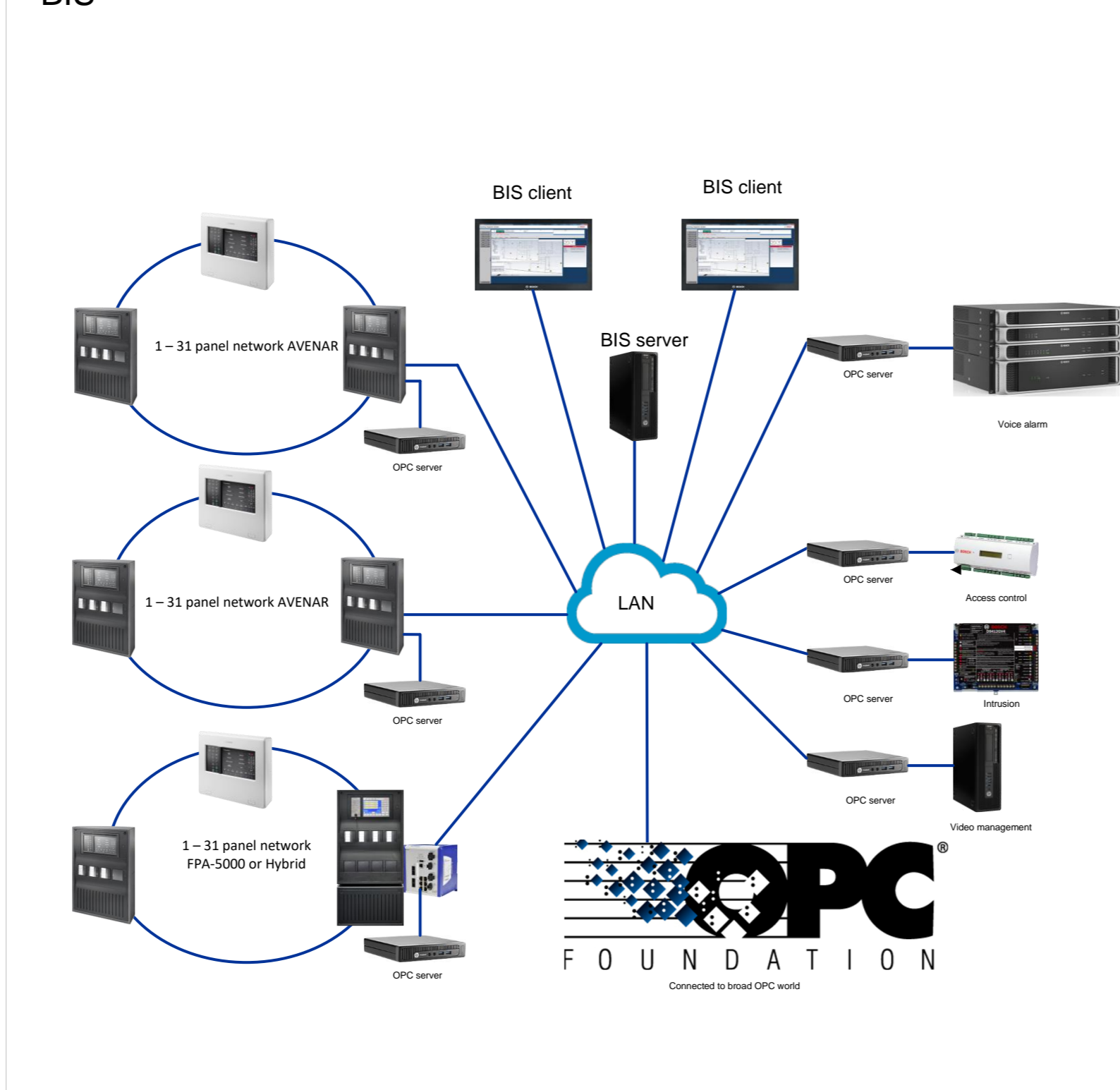
Loop planning Topology



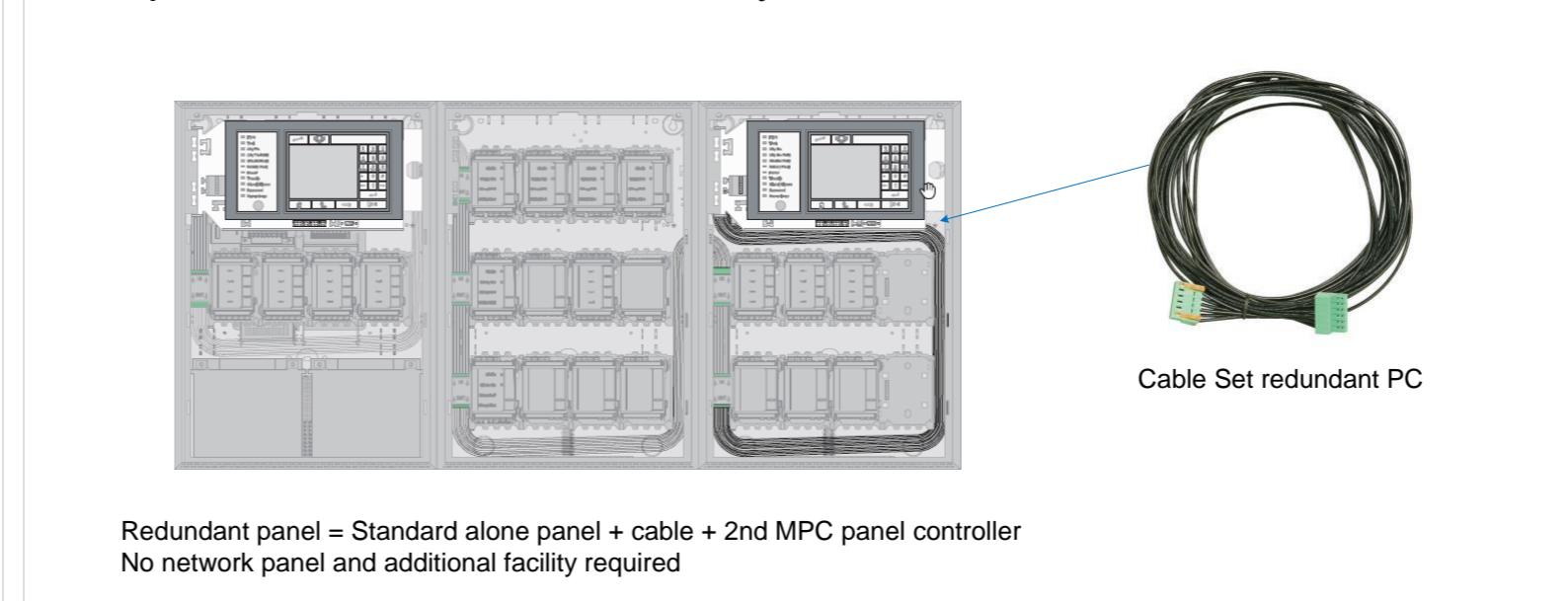
Cloud Based Remote Services



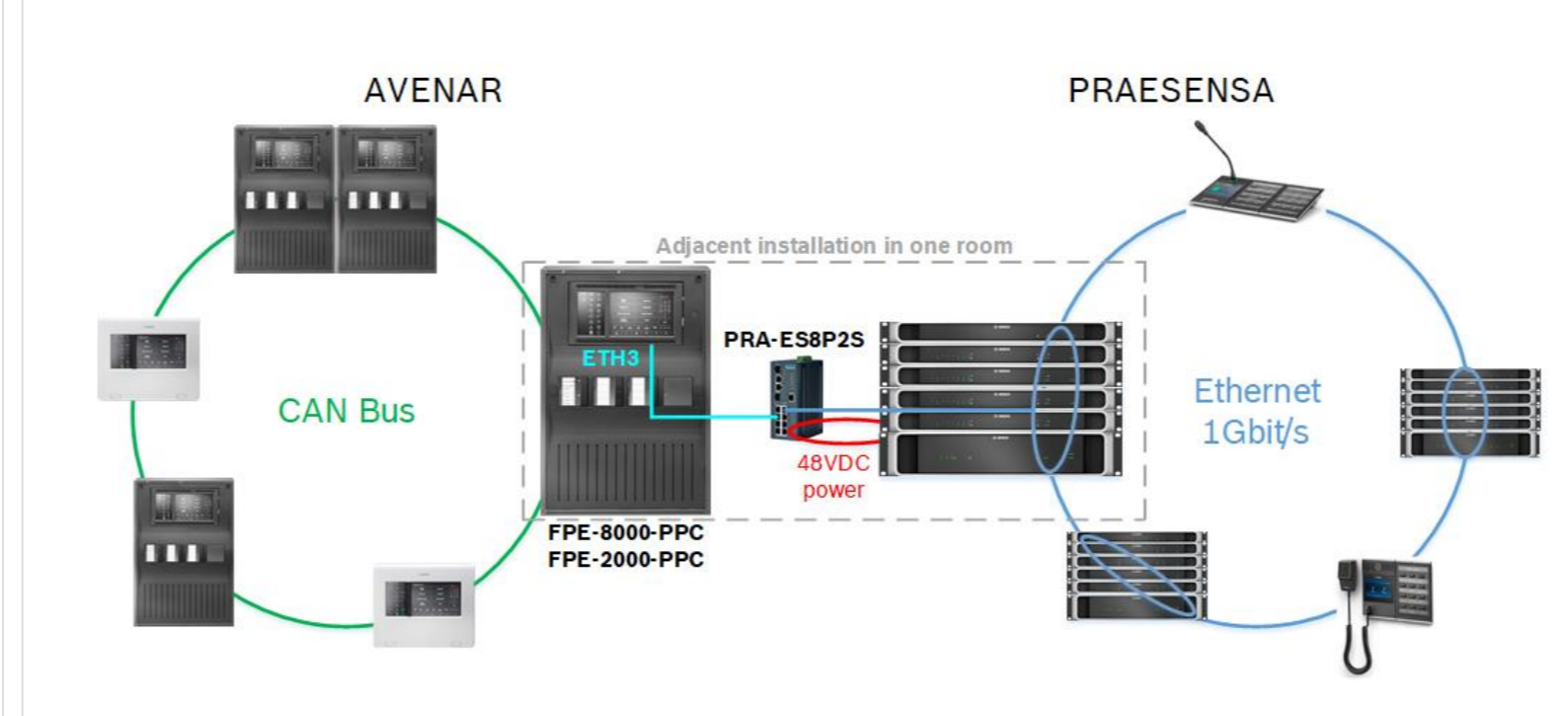
Integration with Bosch Building Integration System BIS



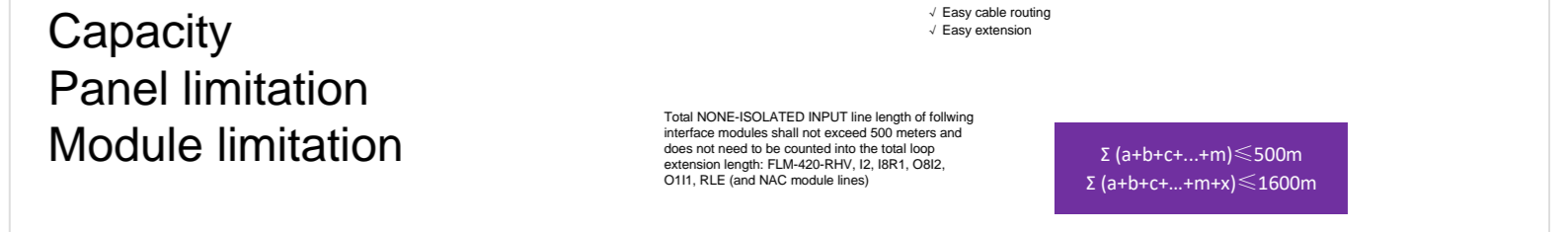
Redundancy panel elements and setup



Integration with Voice Alarm Systems SMART SAFETY LINK



Extension



Capacity Panel limitation Module limitation

