

IP500 organization

The IP500 Alliance is an open and international association. It has been formed by OEMs and system manufacturers to establish a standardized and reliable open meshed wireless sensor and actuator network - mainly for large commercial and enterprise building and process automation applications. By this definition, the IP500 Alliance is fully driven by OEMs, their applications and market segments to enable business opportunities in large projects, due to the common wireless platform for sensor devices. It provides with approved suppliers a 100% fully interoperable and compatible second source at the IC, NWL and application level.

The IP500 membership is driven by industry leaders from across the entire spectrum of leading product and system solution for Access Control, Fire & Smoke Detection, Escape route systems, Intrusion Detection, Lighting & Climate Control, Messaging & Localization and many other solutions. Since May 2010 IP500 is an association under German law with Headquarter in Berlin.

For further information or to become a member please contact us.

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IP500

Wireless-Network

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IP500 – the rising open standard for wireless smart devices in building automation

Applications

- Access Control, Locks
- Fire & Smoke Detection
- Escape route systems
- Intrusion Detection
- Lighting & Climate Control
- Messaging & Localization
- And more...

Features

- Open non-proprietary solution, 2nd source will be available
- Interoperable
- BACnet /IP
- IPv6 ready (Internet of Things)
- Ultra-Low Power
- Powered by Battery, Energy Harvesting or AC/Mains
- Compliant with EN-Security & Safety Regulations
- Backwards compatible



IP500
Wireless Network

About IP500

The IP500 Alliance is promoting the new rising standard for wireless smart devices for building automation applications. By OEMs of the relevant products used in building automation applications (like access control, fire and smoke, intrusion, climate and security solutions, etc) are able to interconnect their products via a fully interoperable wireless mesh network.



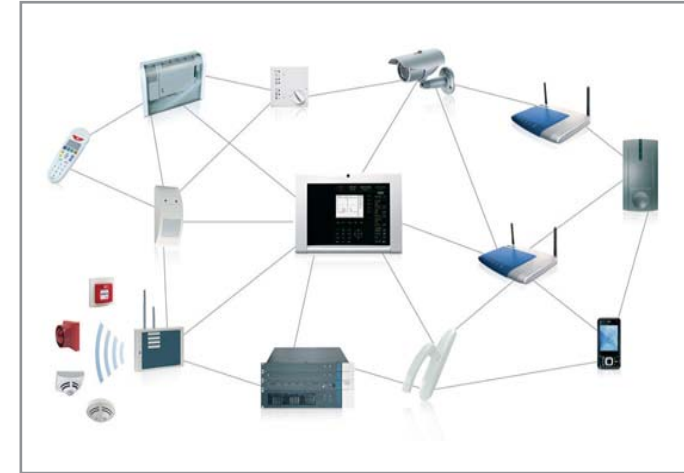
The IPv6 based IP500 solution support also common protocol standards (like BACnet) and addresses the most critical needs of OEMs - ultra low power and longest battery life time, backwards compatibility with installed base or compliancy with EN regulations for building automation applications and more.

Protocol stack architecture overview

Layer	Protocol	Reason
Application	BACnet .. and more	<ul style="list-style-type: none"> Existing, accepted building automation standard Trained installation personal available Complementary wired products available Tool chains and support available Suitable for low-power-devices
Network	IPv6	<ul style="list-style-type: none"> Easy to install Save for future installations Defined interface to IPv4 Use existing Ethernet cabling Availability of existing IT-personal for rollout and maintenance
Adaptation	6LoWPAN	<ul style="list-style-type: none"> Compress IPv6 headers
Data link	IEEE 802.15.4 - 2006 sub 1 GHz	<ul style="list-style-type: none"> Long range Low power Secure Hardware available from multiple vendors

Mesh network technology

Graphic: Mesh net IP500 Devices



The mesh network technology allows smart devices to be mobile, and to achieve a reliable message delivery in a wireless mesh network.

Statements of OEMs

Helmut Adamski, CEO of Swissphone: The IP500 standard solution will allow us to enable business opportunities in real project, where interoperate of various smart devices is key. Until today, OEMs are struggling with their own proprietary low power network solution on one side, and on the other side currently available standard solutions are not providing the right performance. Due to the IP based connectivity approach and the second source strategy of the IP500 Alliance, OEMs will have more freedom and opportunities their business approach.

