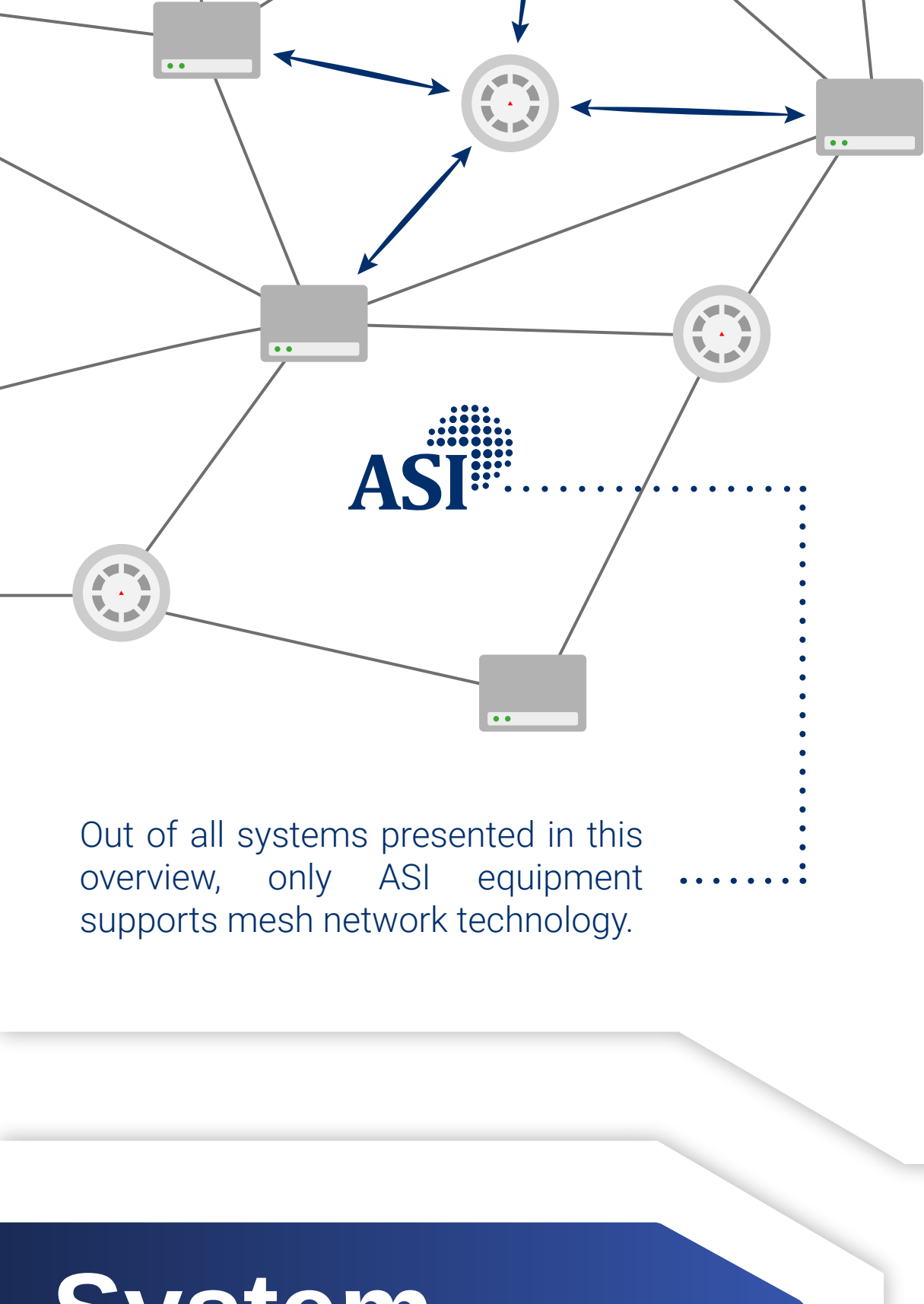


Which Wireless Alarm Is the Most Advanced?

Nowadays, many of the fire alarm manufacturers provide their own line of wireless devices in one form or another. This trend is explained by the fact that radio-frequency technologies are becoming both cheaper and more sophisticated, making wireless alarm systems a reliable and cost-effective replacement for wired counterparts.

This overview is aimed at comparing the ASI wireless system to 3 other solutions from international manufacturers and demonstrating why it is one of the best choices when it comes to wireless fire protection.

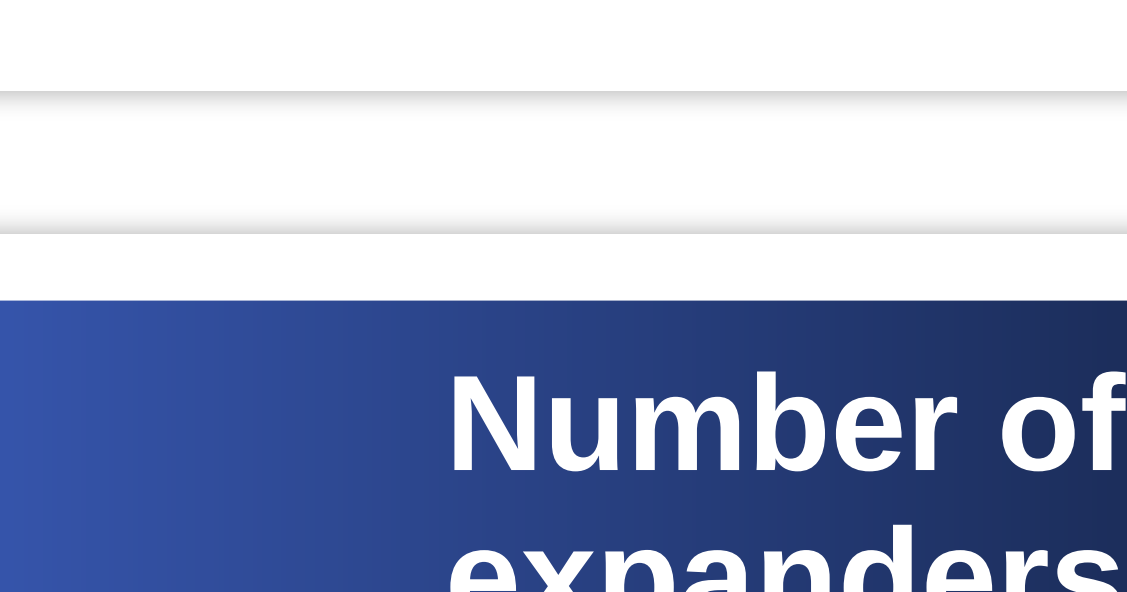


Out of all systems presented in this overview, only ASI equipment supports mesh network technology.

Mesh network

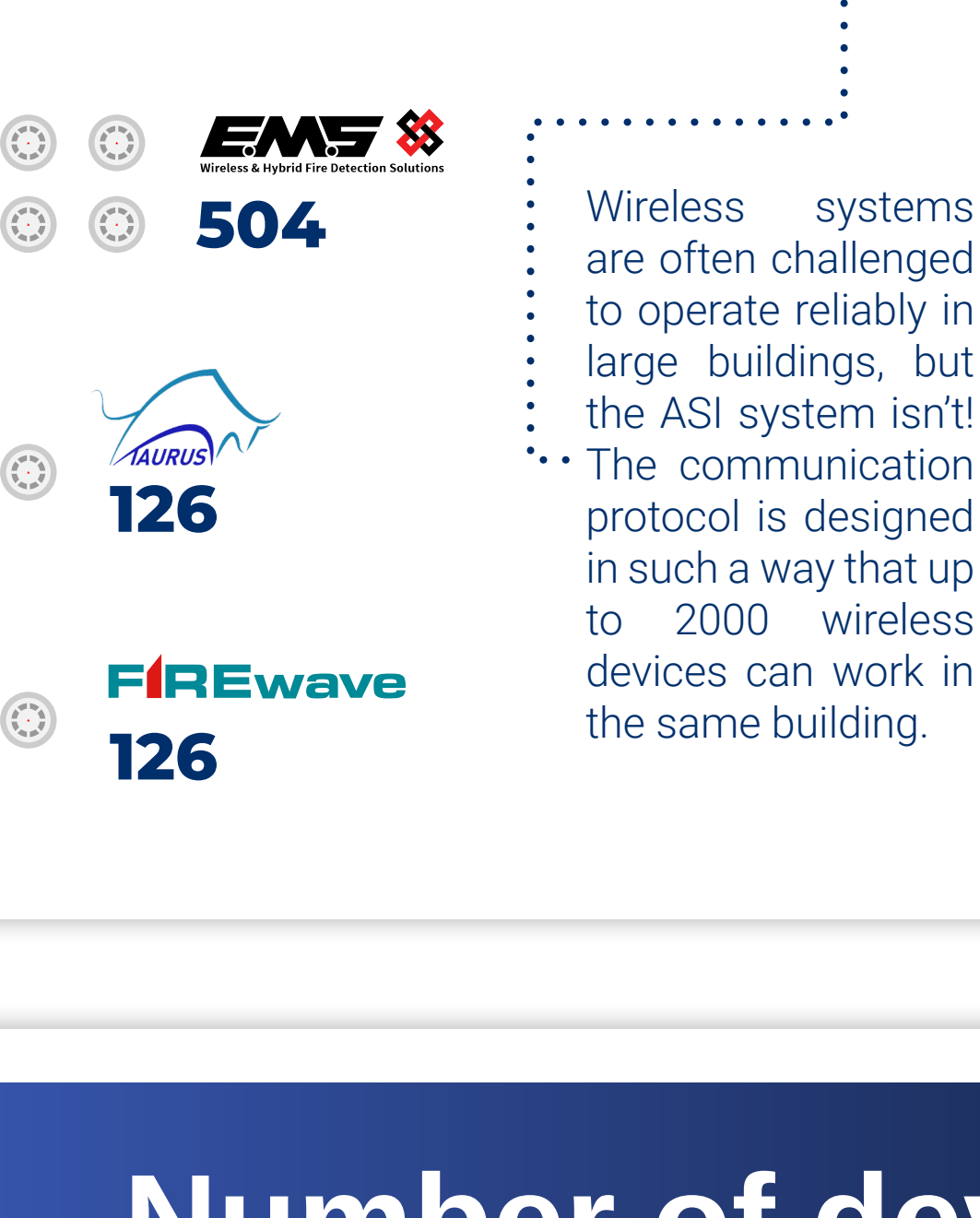
In a mesh network, devices are not tied to a specific expander and can dynamically find pathways to the central translator. This substantially enhances the design and installation process since there's no need to manually configure the network topology.

Systems with no mesh network support can be sometimes tricky to install - you may need to relink devices a couple of times before you find the expander with the strongest connection.



System capacity

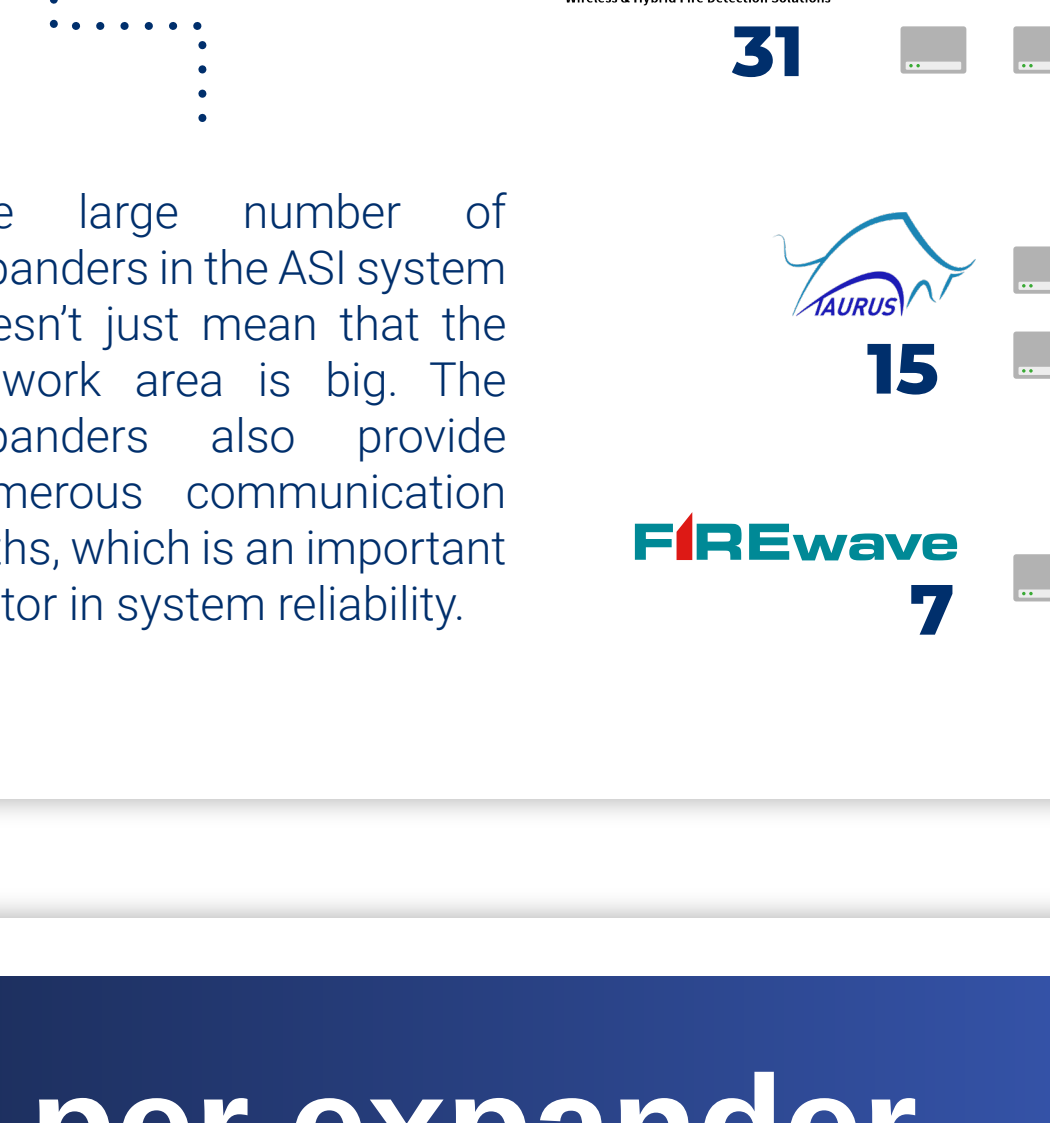
Systems with large capacity allow you to build one big wireless system that will cover your whole building. Otherwise you will need to install several translators each controlling its own separate network.



Wireless systems are often challenged to operate reliably in large buildings, but the ASI system isn't! The communication protocol is designed in such a way that up to 2000 wireless devices can work in the same building.

Number of expanders

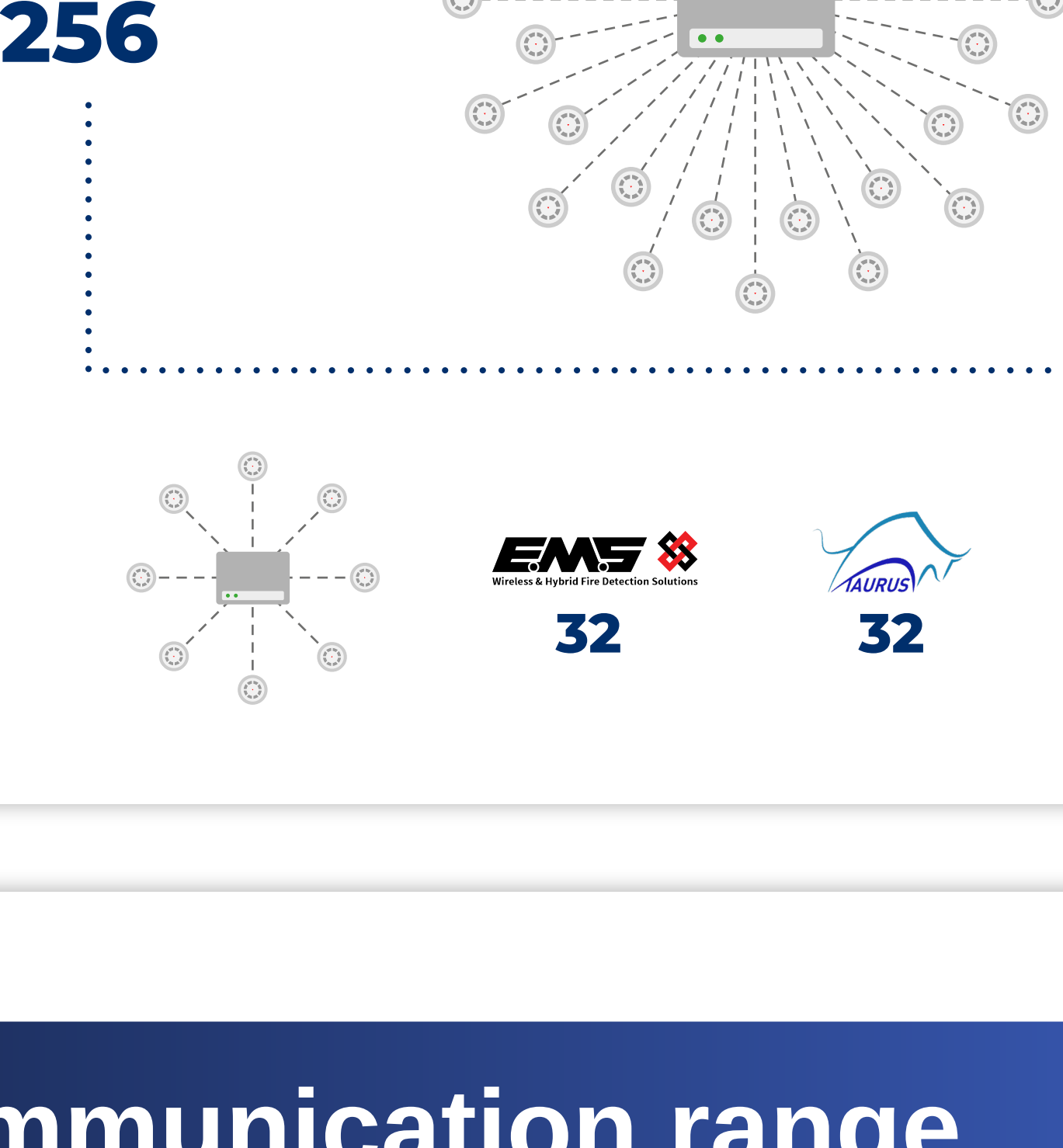
Expanders and similar devices act as communication nodes in a wireless network. The more nodes the network has, the bigger the area it's able to cover.



The large number of expanders in the ASI system doesn't just mean that the network area is big. The expanders also provide numerous communication paths, which is an important factor in system reliability.

Number of devices per expander

While installing a wireless fire alarm you may face a situation where you need to link a detector to a specific expander, because it provides the strongest connection. But that expander may have already reached its limit on linked devices. This limit is an important factor in the flexibility and configurability of the system.

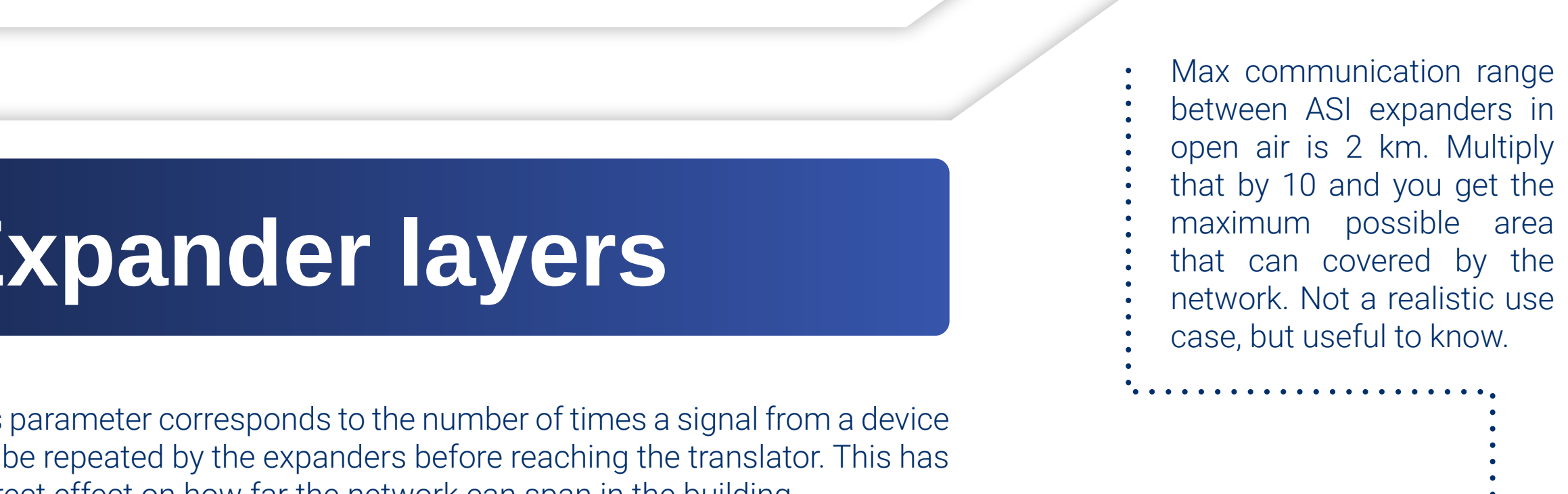


The feature also means that the ASI system is well-suited for buildings with large open spaces with many detectors.

Communication range

Big communication range in open air is an indicator of how stable the connections in the system are going to be in buildings.

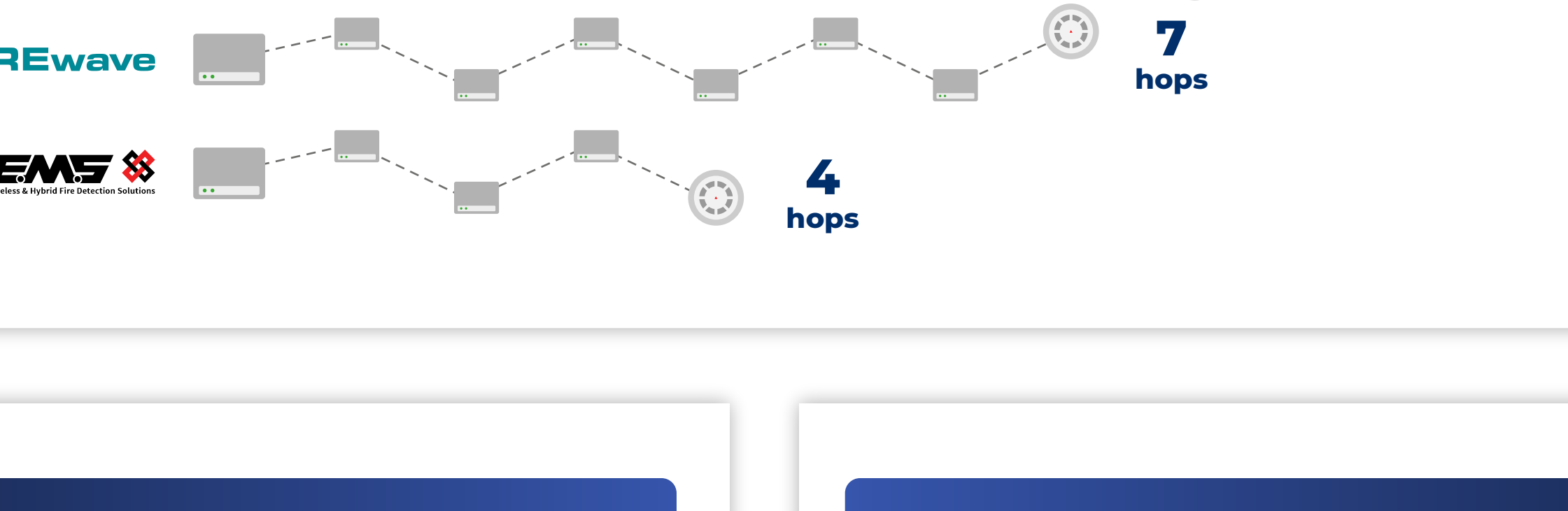
The ASI system has the best communication range on the market - 1.2 km. Connections between expanders are even stronger, and the distances can reach up to 2 km.



Expander layers

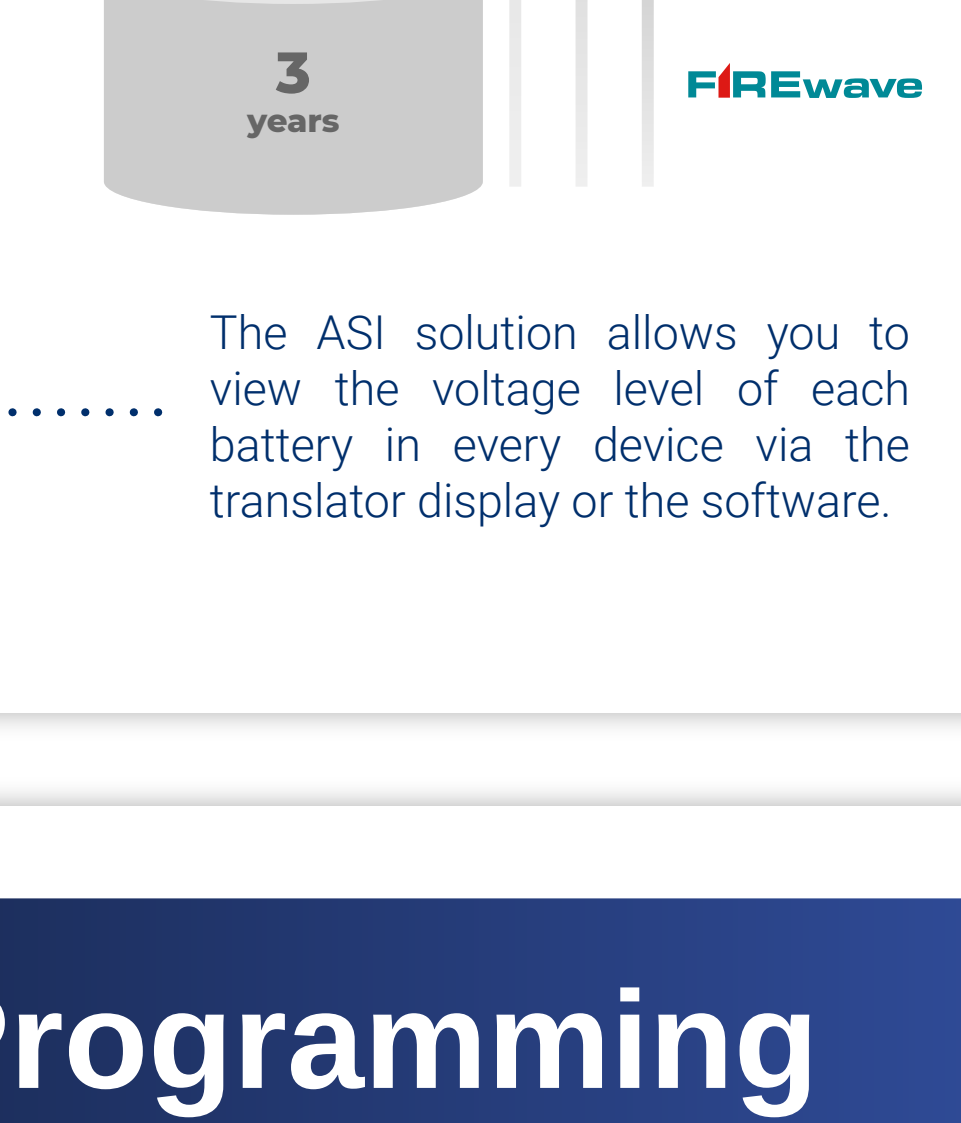
This parameter corresponds to the number of times a signal from a device can be repeated by the expanders before reaching the translator. This has a direct effect on how far the network can span in the building.

Max communication range between ASI expanders in open air is 2 km. Multiply that by 10 and you get the maximum possible area that can be covered by the network. Not a realistic use case, but useful to know.



Battery life

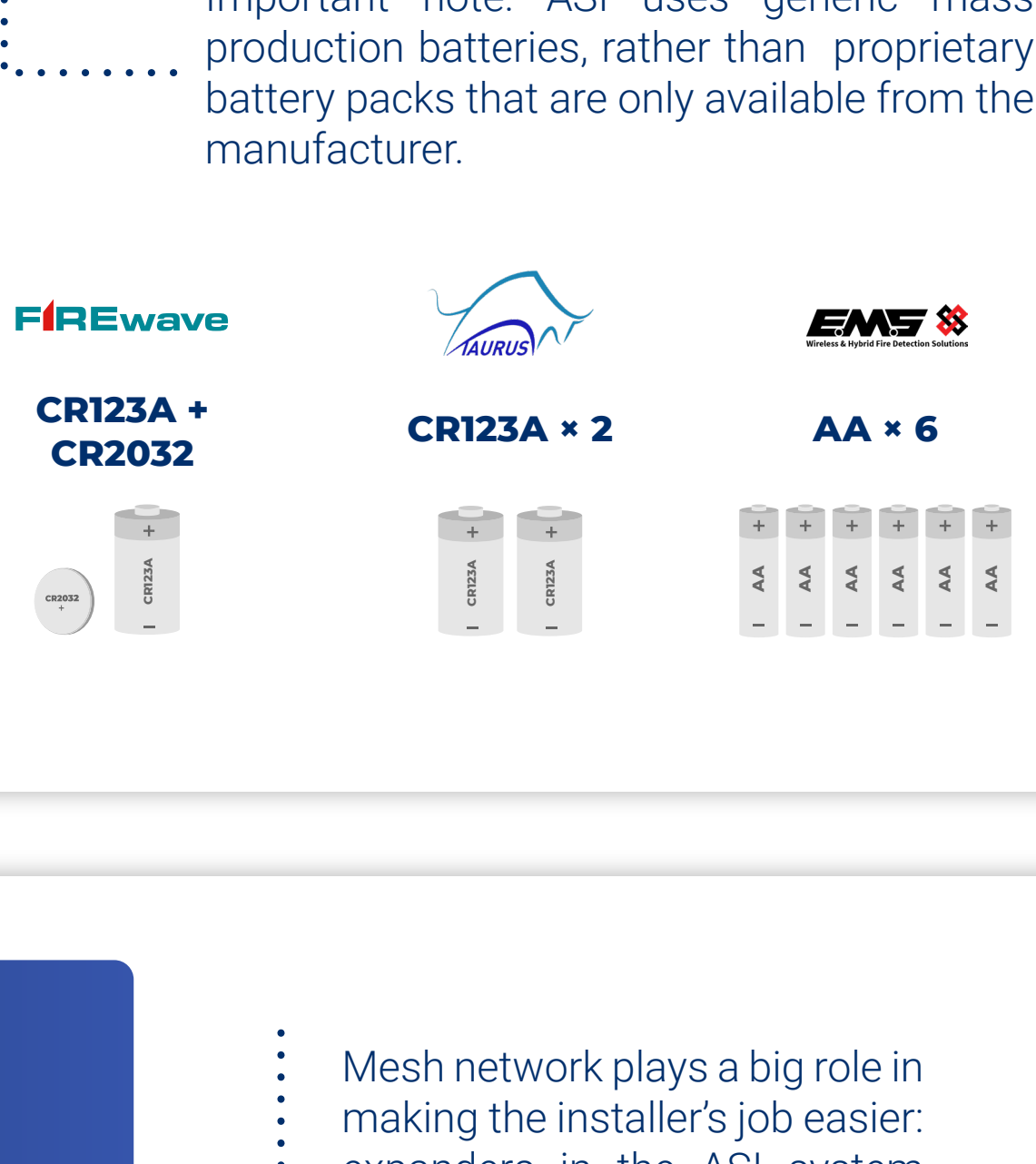
Long battery life reduces the expenses required for system maintenance and makes a wireless alarm a cost-effective fire protection solution.



The ASI solution allows you to view the voltage level of each battery in every device via the translator display or the software.

Battery type

Maintenance costs greatly depend on the number and the type of batteries used in the devices.



Important note: ASI uses generic mass production batteries, rather than proprietary battery packs that are only available from the manufacturer.

Programming

When it comes to programming, each wireless system has its own caveats, but they can be rated based on complexity of the most repeated tasks during set up: linking devices and expanders to the network.

Mesh network plays a major role in making the installer's job easier: expanders in the ASI system are programmed just like other devices, and the system automatically arranges them in a network.

	ASI	AURUS	EMS	FIREwave
Detectors	One-button linking	One-button linking	One-button linking	Multi-step process
Expanders	One-button linking	Linking + setting up topology	Linking + setting up topology	Linking + setting up topology

Product range

Before choosing a wireless alarm for your project, it's important to study the product range of the system, to make sure it meets all project requirements.

	Smoke sensor	Smoke sensor + sounder	Smoke sensor + voice alarm & VAD	Heat sensor	Heat sensor + sounder	Multi-criteria sensor	Call point	Sounder	Sounder base	Input module	Output module
ASI											
AURUS											
EMS											
FIREwave											

Final notes

The wireless system from ASI provides highly advanced technical specifications in terms of communication range and power consumption. Support for mesh network technology also puts the system a step ahead of some of its competitors. In addition, it also has a versatile product range, incorporating a wireless model for all essential types of detectors. This makes ASI one of the top choices out of all wireless systems in the fire alarm market.

Clarifications

Information on communication range, battery life and battery type is provided for optical smoke detectors. Specifications can differ across the product range, e.g. sounders may use a different type of power supply.

References

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