

Z-Wave Long Range and its mile-long capabilities will arrive next year

Z-Wave can be a very robust automation network, free from the complications and fragility of Wi-Fi and Bluetooth. Just how robust, you ask? More than a mile long, under the right circumstances, as hardware soon to hit the market promises.

All claims of radio distances should be taken with amounts of salt unhealthy for consumption. What can be accomplished across an empty field is not the same as what can be done through buildings, interference, and scatter. But Z-Wave Long Range (or Z-Wave LR), operating “in long range mode at full power,” can hit 1.5 miles, according to the Z-Wave Alliance, presuming you’ve got the right star-shaped hub network.

By using a star network topology instead of a more traditional mesh, Z-Wave LR reduces the need for hubs and repeaters, relying instead on a central hub. It can be more reliable for larger commercial spaces, security setups, and bigger homes, and also more power efficient. Devices automatically adjust their signal strength while on Z-Wave networks, extending the battery life of a single coin cell up to 10 years—again, under best-case circumstances. If you’re really a glutton for punishment, you can fit up to 4,000 devices on a network running Z-Wave LR, because LR can co-exist on the same network as standard Z-Wave meshes.

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