Will Popp Hub work with…?

Interview with Popp's CEO

Question: The most common question is 'What devices are supported with the Hub?'

CEO: The Popp Hub supports all Z-Wave certified devices. You can find a list of all certified Z-Wave devices online at the Z-Wave Alliance website products.z-wavealliance.org. The controller software Z-Way powers the Hub. This delivers a very stable and feature-rich backend to control and manage Z-Wave devices. The Hub guarantees interoperability with all certified devices. If you find a certified device that is not supported correctly we will make it work – period.

Question: How do you define then "make it work then"?

CEO: Every Z-Wave device is included correctly in the Z-Wave network and all functions of the device are usable in the user interface or using the scripting interface.

Question: Is the Hub Z-Wave Plus compatible?

CEO: 100 % yes. The device is powered by Z-Way, the first Z-Wave plus certified controller software on the market. The hardware uses the latest Z-Wave transceiver chip from Sigma Designs supporting the fast 100KB/s communication, AES encryption, and frequency agility. This ensures both security and reliable communication.

Question: Why does the Hub support all these devices?

CEO: There are two major reasons for it.

1. The Hub supports almost 50 different Z-Wave command classes, more than most other Z-Wave gateways in the market. The Z-Way controller software development started back in 2010 and it was the first Z-Wave software ever certified by the Z-Wave alliance back in March of 2011. At this time most of the companies offering Z-Wave gateways did not even exist. This rich and long experience leads to extensive knowledge about Z-Wave and the communication patterns Z-Wave is based on.

2. The architecture makes the difference. Most contemporary Z-Wave gateways ask new devices "Who are you?" The answer may be something like "I am a switch". In this case these gateways will render UI support for a switch and everything is fine. However more than more modern Z-Wave devices offer more than one function and here this approach comes to a limit. These gateways will no longer render all support for all functions and therefore need an exception handling to add the other functions secondary to the primary device function announced in the "Who are you" answer. Z-Way goes a different way. It asks new devices "What can you do for me". The new device will now list all the functions that are implemented and Z-Way is able to render support for all of them. The result is that all primary and secondary functions are supported right out of the box and no exception handling is needed. This means that all new and unknown devices just work as long as they implement the Z-Wave protocol correctly.

Question: What is the disadvantage of the Z-Way architecture approach and how to overcome it?

CEO: Some modern and complex devices report a lot of functions. Not all of them are really needed by the individual end user but still they are all shown in the user interface. The reason is that Z-Way does not know which functions are or particular interest to a particular user. Let's take a motion detector as an example. Clearly the motion information is the most important function but some motion detectors also report a tamper alarm function. While this is not of interest to most users, security application may handle this tamper alarm the very same way as the primary motion detection function, both should trigger a system wide alarm.

When including a complex feature-rich device the number of new UI elements supporting all these functions may be overwhelming. But stay cool. All unwanted UI elements can be removed with just three mouse clicks. We believe this is the better way than removing all the functions that are usually not needed and deal with the frustration of those customers that want exactly those.

One other problem is that certain devices may report the same function in different ways (i.e. command classes). Since Z-Way does not know which of the function is the real one and which one is just a spare all possible functions are rendered as UI elements. This double function reporting is particularly true for devices with on/off sensor functions and alarm reports. As said above, unneeded or unwanted UI elements can be removed with few mouse clicks as last part of the inclusion process or using the context menu of every UI element. For certain commonly used devices Z-Way already makes a suggestion what functions to delete but users can still overwrite this suggestion during inclusion if needed.

Question: Are there exceptions to the rules, means, devices that do not work with Z-Way?

CEO: First of all we reject all responsibility to support devices that are not certified. Z-Wave is based on the clear and strict certification rules. However even the best certification process makes mistakes and as a result there are few products that have problems causing trouble with Z-Way. The website Razberry.zwave.me/index.php?id=31 shows the list of known problem childs, gives a detailed description of the problem and offers possible workarounds.

Question: Some users experience problems during inclusion. What went wrong?

CEO: The Z-Way approach to ask "What can you do for me" results in a lot of Q and A wireless traffic right after inclusion. The device does not only need to report its basic functions but also possible different sensor types and scale types. In case the wireless communication is not too stable this interview is the 'real world test'. If all of the wireless commands are exchanged well you can rest assured that the wireless connection is stable. If some commands get lost the result is an incomplete configuration. Redoing the configuration and changing the distance between new device and gateway can fix this. Please note that 'closer' is not always 'better' in the wireless world. Reflections and wireless interference may create certain dead spots even if the device is in proximity to the gateway.