FAQs about the Willabay Design EDMS system.

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This document covers answers to a number of questions regarding the Willabay Design EDMS and its EDA product.

1. If the EDMS is deployed in a multi-family building, does the system require internet access in every unit in a building?

   Response: No. The common equipment (two small boxes) needs to be connected to the internet access equipment, typically a router. This can be anywhere in the building within radio range of all of the units. The other units just have their assigned temperature/humidity sensors.

2. What maintenance has to be done in each unit for the sensors?

   Response: Nothing other than an occasional battery change. These are special 3.6 v lithium AA batteries (for the T and TH sensors) that have to be ordered. The newer THX sensor uses standard 1.5 volt lithium batteries. A property manager or other local contact may want to keep a stock of batteries available. These batteries will last at least two years. Allied Electronics is our usual supplier for the 3.6 volt batteries.

3. What support does the owner of the unit with the common equipment have to provide in order to keep this system operating?

   Response: The only thing that is necessary is to insure that their router is up and running and the equipment is powered up and accessible. Willabay Design provides instructions on how to access the internals of the Tibbo and EDS devices using an internet browser. We can also set up remote access if desired. This is no different than any other web based monitoring device, thermostat, or web cam. All of the configuration data is in protected memory that will survive a power outage.

4. What if the power goes out for the whole building or complex?

   Response: As soon as the power is restored, the equipment will establish a connection with the router after it has recovered. In the event that there was a long power outage and the unit temperatures are below the set low temperature threshold for the EDA, the unit will report all of the out of range sensors on one email report. The system cannot be overloaded.

5. How do the property owners know when it needs a new battery?

   Response: The EDA device in the common area sends an email to a designated address or set of addresses when any of the sensor batteries are. The status that is reported from the remote portal will also show low battery or even a lost sensor if the battery is completely dead.

It has been our experience that an EDS sensor may in fact detect a low battery situation but the device will soon be unable to support the power requirement to maintain a good connection to its host controller. As such, the sensor may soon lose touch with its controller and the EDA will declare it lost.

6. How can Willabay Design support a remote portal without any fees?

   Response: There are no extra charges for our hosting service to support the software and database access that is needed for such a system. Our business plan is to have customers just pay for the up-front license fee for the EDA software itself. We also do not expect a lot of customers in the near term when we are offering a low introductory price for the EDA software. This policy is similar to some equipment vendors who market web based thermostats.

7. Are there any other systems available that can do this without a monthly fee?

   Response: We are not aware of any totally free monitoring service suppliers other than some of the vendors who sell equipment such as internet based thermostats. La Crosse Technology does offer a system with a very low yearly fee per sensor. However, their system does not cover a large network of devices for one customer.

8. Where can a residential property owner place the temperature (or temperature/humidity) sensor?

   Response: Anywhere in their residence other than over the fireplace or near an outside door or window. Its best in an inside room near the thermostat. The 3 inch square sensor can sit on a shelf. The only constraint is that it has to be within radio range of the controller which may be in another unit or other location in the building. A sensor can even be placed in an adjacent building if it is within range of the MN Controller or a MN Repeater that is assigned to the system.

9. Can an owner have a sensor installed in the furnace room or multiple rooms?

   Response: While an extra sensor can be installed in the furnace room, the inside temperature of some of these rooms such as a furnace room may not be heated. Temperatures can easily drop below freezing in the winter. As long as the EDA can support the total number of required sensors, extra sensors can be assigned anywhere.

10. Does this work in a house?

    Response: This is very applicable to large homes or even a home with an outside garage or other building that needs to be monitored. However, unless they intend to monitor many locations inside the home, single family homeowners may find it less expensive to purchase a system designed for a single location. Property owners who rent homes may be interested in the EDMS system for vacant rentals. All that is needed at leach location is internet access.

11. Can this be used in a Greenhouse or Grow Room?

Response: The EDMS system can easily be placed in a common area of a network of greenhouse buildings or rooms. In fact, the humidity sensing capability was designed for this application. The only restriction is that the current line of EDS Meshnet sensors has to be placed in a dry location (away from sprinklers, etc). It may be possible to adapt this system to other EDS controller and sensor designs that support waterproof sensors. With the introduction of the EDS THX sensor (model 2040), owners have the option to monitor wet locations using the THX sensor's external 1-wire probes.

12. Suppose that the Tibbo Device that is used for the Willabay Design EDA device fails after a few years. Do customers need to buy a new system?

Response: The Tibbo devices that are used for the EDA are standard devices that can easily be replaced and the firmware and EDA application can easily be re-installed in a new device. If the hardware fails within or beyond its warranty period, and the same device model is still available, then we can re-register your software license with the new device. There would not be a new license fee. The device would need to be configured using available online instructions. A new type of Tibbo device requires a new license. The same is true for a new software upgrade with new features. If a customer wants to retain the same Customer Code and System Number, Willabay Design support would have to be notified to allow the registration of a replacement hardware device with the existing license but this process is very simple.

13. Who supports the common hardware for these EDA sites?

Response: There is no necessary maintenance on the hardware after the system is configured. The worst case scenario is that a device has to be replaced. This requires a new setup. If the failed hardware is the EDS controller, the existing sensors have to be re-joined to the new controller. This process is well documented in the EDS manuals and the system setup is documented on our website. Willabay Design or a person/contractor familiar with our product can easily set up a new replacement device.

14. What happens if the required Tibbo or EDS hardware is discontinued?

Response: Both Tibbo and EDS tend to keep their product lines active for many years. We do not anticipate a problem with availability. However, if a device is eventually discontinued, a customer will be able to use various other Tibbo devices as a substitute. Of course, Tibbo and EDS have to remain in business. The overall network of EDA devices at different locations will still operate the same way, even with different Tibbo controller types for the EDA in various locations.

15. Is there an available log of past sensor readings and is this customer data private?

Response: At the present time, Willabay Design does not support any past history log of the environmental data that is reported to our servers. The only data that is kept in the system's remote portal database is the last available reading from each sensor.

As a side note to this question, the EDS Meshnet controller does allow for a means to remotely access the controller from anywhere using standard port forwarding techniques and a subscription to a dynamic name server service such as DynDns. This requires some setup steps at the router. The Meshnet controller does support a graphical display that can be used to monitor the device periodically. Further information on this feature is available in the EDS manuals on their website.

16. Is there a way to set separate temperature or humidity thresholds for each unit or location that is monitored?

Response: At the present time, this is not possible. The product was designed for applications that have the same environmental sensor range expectations for all sensors on the same EDA. If multiple EDAs are used in the same system, each EDA can utilize its own threshold assignments.

There is a separate set of low and high temperature thresholds for the 1-wire probes that are attached to an EDS THX (2040) sensor. As an example, all of the standard T and TH sensors can have a high temperature threshold of 90 degrees while all of the probes on all of the THX sensors can have a high temperature threshold of 120 degrees.

17. How does this work without full time, expert support or a dedicated administrator?

Response: There is very little to maintain. It's all in the user manuals and installation guides.

18. Why is there no support for Wi-Fi on the EDA?

Response: The EDA is not the device that manages the data collection. The EDA functions perfectly well sitting right next to a router thus there is no need for a separate wireless link between the EDA and a router. The EDS MN system itself is wireless but the wireless frequencies are not the same as those used in a WiFi network. If EDS were to introduce a Wi-Fi based controller, much like their OW-SERVER product, it would work perfectly well with this EDMS system. At the present time, Willabay Design does not envision a need for Wi-Fi in this product.

19. Who has access to a given customer's sensor data on the remote portal?

Response: The forms and scripts that are used to access a given database require prior knowledge of what Customer Code and System Number is assigned to a particular customer. Someone without the required access codes cannot get at the information. This is a security aspect that we are very concerned about. In addition, the database does not contain specific address related information which would allow an outside observer to identify what location is being monitored.

Willabay Design expects that users of the EDMS system would provide their own links to the Willabay Design site in order to access their own data. This is very easy to support.

20. Can an outside party monitor the wireless connection between the EDS MN Controller and the sensors and thus be able to gain access to the sensor's data? How about hackers getting into the EDA controller.

    Response: It is not possible for anyone to hack into the internal wireless network to capture the sensor data. This is a proprietary network arrangement. Each Tibbo device is capable of having a private password to protect its application code. The device cannot be uploaded without knowledge of this password. Since the EDA does not have its own Wi-Fi capability, one cannot access the device itself unless the device that is trying to access the device is internal to the customer's network and inside the router's firewall.

21. Is there available information on the hardware and Tibbo or EDS features?

    Response: Both companies provide complete information about their products online and this information is available to anyone. You do not need to buy something to get access to this documentation.

    Tibbo: http://www.tibbo.com   Check the products section under controllers to find the DS1101 documentation. The TPP2 is part of their TPS system.

    EDS: http://www.embeddeddatasystems.com   Check the wireless Meshnet section.