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Ticket: <https://help.aeotec.com/helpdesk/tickets/1467676>

On Wed, 2 Mar at 2:11 PM , Katmandodo <katmandodo@yahoo.com> wrote:

I have the US version of the ZWA-023 smart plug. This is not a big deal, but I would like to understand how the clock command class is supposed to work. Attached are three screen shots (Edit: deleted for length since solution/problem is shown later in this chain).

The first message is the device reporting the Clock REPORT (obviously off). The second is Openhab responding with the SET correct time and the third is Openhab sending a GET (acknowledged, by the device, but no updated REPORT). Not shown is that about an hour later the device sends another report, but not reflecting the SET from the hour before. What seems odd is the device sends the report on endpoint 1, but the CLOCK class is only in the root endpoint 0. Also since the report is sent on endpoint 1, Openhab messages (SET and GET) are also sent on endpoint 1, but are ignored.

Using the PC controller I was able to send a Clock SET and a GET on endpoint 0 that was accepted. I was thinking this could be an Openhab configuration issue, but the device sends the REPORT on endpoint 1, so Openhab just responds in kind.

Also related is my METER reading (watt) can only be read from the Endpoint 1 channel. The endpoint 0 METER reading is always NULL. (edit: I later discovered I can get an Endpoint 0 reading if I use OH "REFRESH", but the parameter 23 defined timing REPORTS are only on Endpoint 1

Is there a way to get the device to send the CLOCK report on endpoint 0 using the PC Controller or some other setting? Is this related to the fact that MULTI channel is used? I saw this in the documentation, but do not understand

4.26.1 Multi Channel Considerations Multi Channel End Points SHOULD NOT support the Clock Command Class.

From OH, the firmware version is running firmware V1.03 (application 1, subapp 3) which should be the latest version. I'll look into the Clock CC a bit deeper tonight to see if we can resolve this one. Clock should be reporting without multichannel which seems to be wrong here.

----- (Later....)

Ok i apologize for this one, i didn't receive a response but never got one, but i did test a bit further to try to understand what was happening in your ZSniffer.

For this case, all Clock commands should be issued on Endpoint 0 (parent Node), it should not be initiated on Endpoint 1 or 2

For instance:

1. I send CLOCK SET to endpoint 0, endpoint 1, endpoint 2

- (all 3 ACK because it received the command for each)

2. I send CLOCK GET to endpoint 0, endpoint 1, endpoint 2

- endpoint 0 responds
- endpoint 1 does not respond at all (but the command is received)
- endpoint 2 does not respond at all (but the command is received)

So in this case any CLOCK SET, or CLOCK GET should always be sent to the parent device. The command should not be encapsulated in a multichannel command.

You could potentially perform a Clock Get or Set in Multichannel Encap to Endpoint 0 but utilizing this command won't work at all.

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Cheers,
Chris Cheng
Field Application Engineer
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Chris-
Ok, continuing to peel the onion.

Based on your latest data, I believe my problem is how Openhabian includes/configures the device. I excluded the device, performed a factory reset and it is still behaving the same. Openhab seems to tell the device to send messages as multichannel from Endpoint 1. As in my very first email, I do not get Root messages for Watts (as well as the Clock). However, I can't yet locate the issue. In the OpenHab generated XML I get this;

```
<entry>
<commandClass>COMMAND_CLASS_MULTI_CHANNEL</commandClass>
<COMMAND_CLASS_MULTI_CHANNEL>
<version>2</version>
<instances>1</instances>
<control>>false</control>
<versionSupported>4</versionSupported>
<useDestEndpointAsSource>>false</useDestEndpointAsSource>
<endpointsAreTheSameDeviceClass>>false</endpointsAreTheSameDeviceClass>
</COMMAND_CLASS_MULTI_CHANNEL>
</entry>
```

I do not know if the last two lines make sense to you, but some multichannel devices have "true" for "endpoints are the same device class". The devices with "true" seem to report on Root as well as endpoints 1 (&2- if applicable)

Anyway, I wanted to ask if there is a way using the PC controller and Multichannel "set" commands to force the device to respond on the Root and not use the Multichannel?

Bob

I think i figured out where the issue lies here.

I removed normal Group 1 Lifeline association, and performed Multichannel Group Association to Node ID 01 endpoint 01. It is sending via endpoint 1 because it is being told to send to NodeID01 endpoint 01.

Not sure if this is an implementation issue, but i'll ask our team about it. Definitely i think this is due to the mulichannel association to Node ID 01 endpoint 1.

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If you re-assigned it like this:

Multichannel Association SET
Node ID 01
Endpoint 00

Then this should be the same as setting:

Group Association SET
Node ID 01

if you are able to do this in OpenHAB, i think this should allow your Clock CC to report on a non-endpoint channel.

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Cheers,
Chris Cheng
Field Application Engineer
Aeotec Inc.
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Definitely using PC Controller will allow you to re-assign it. This is my recommendation:

1. Unassign Multichannel Group Association (using Multichannel Group Association Remove" - Group 1 Endpoint 1
2. Use "Group Association" - "Group Association SET" to set Group 1 to Node ID 01

Definitely no need to change codes if you can find an easier method to sort it out. If you're using a Z-Stick, pretty much just unplugging it, and performing an unpair and pair on the Smart Switch 7 will assign it with Group Association without endpoints.

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Cheers,
Chris Cheng
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This is what I did and both Clock and watt reports are now on Root/ Endpoint 0

Bob