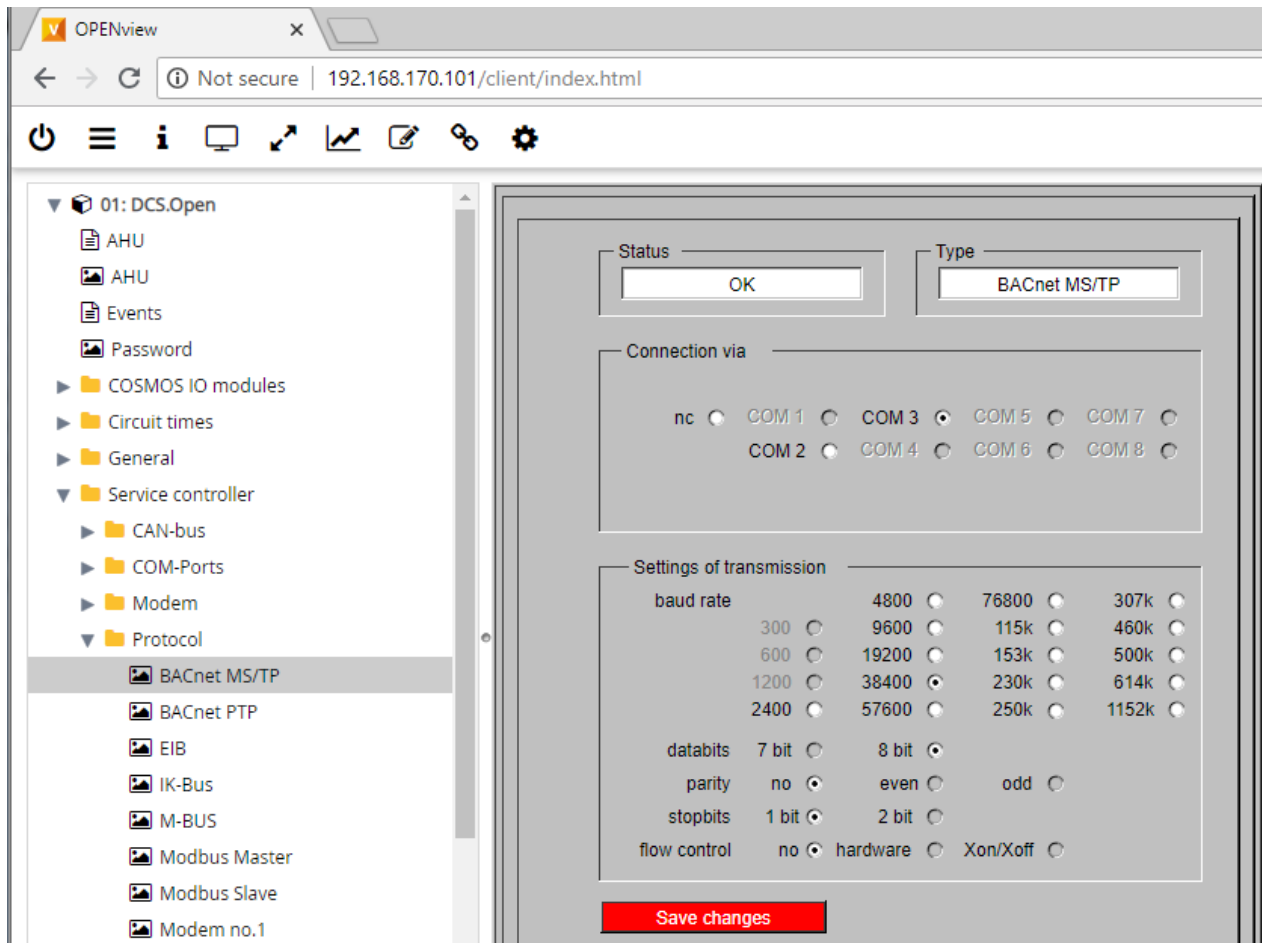
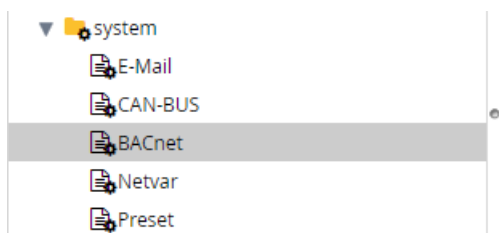


## TT211101 – OPENview - BACnet MSTP Settings

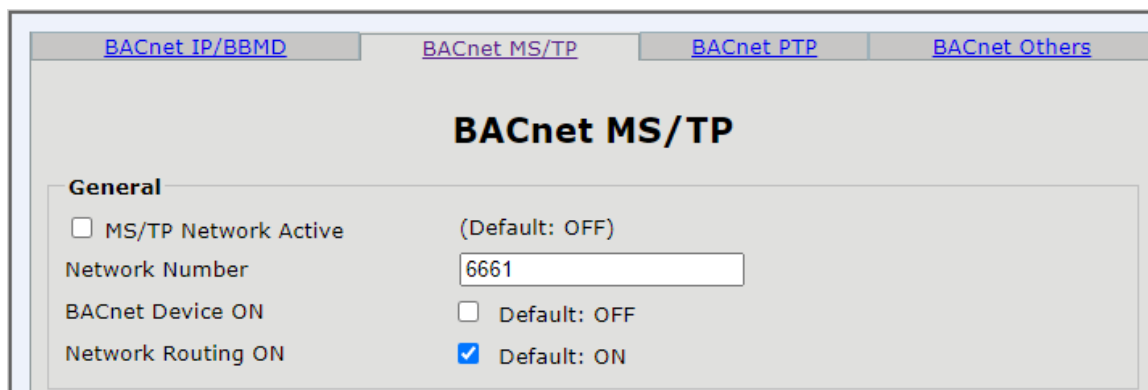
1. If this is the first time you setup BACnet MS/TP communication, please refer to TT180809 for the detail steps. First, start a browser (e.g. Chrome), connect to the controller and login as level E, and setup the BACnet MS/TP on COM3.



2. To access the BACnet MS/TP settings page, open the "System" folder and click on "BACnet"



3. Click on "BACnet MS/TP" tab. You can see both "MS/TP Network Active" and "BACnet Device" are OFF by default.



4. Tick both options to enable BACnet MS/TP communication.

[BACnet IP/BBMD](#)
[BACnet MS/TP](#)
[BACnet PTP](#)
[BACnet Others](#)

## BACnet MS/TP

**General**

☒ MS/TP Network Active (Default: OFF)

Network Number

BACnet Device ON ☒ Default: OFF

Network Routing ON ☒ Default: ON

5. Click the “Save Changes” button at the bottom, and restart the BACnet process.

**BACnet Send Time Synchronization to MS/TP Port**

☐ Time Synchronization Default: OFF

Send Time  Default: 05:00

Last Synchronization

Local Time Synchronization

[Save Changes](#)
[Reset To Defaults](#)
[Reload](#)

6. Now the COM3 LED on the controller should start flashing. Wait for a while, and click the “Reload” button and you will see the MS/TP bus details like below at the bottom.

[Save Changes](#)
[Reset To Defaults](#)
[Reload](#)

**MS/TP Bus Statistics**

Timestamp	<input type="text" value="08.08.2018 10:29:55"/>	
Baud Rate	<input type="text" value="38400"/>	(8N1)
MS/TP Quality	<input type="text" value="100"/>	Value: 0..100
Device Counter	<input type="text" value="2"/>	
Frame Counter	<input type="text" value="17132"/>	
Frames Sent	<input type="text" value="9180"/>	
Frames Received	<input type="text" value="7952"/>	
Frame Error	<input type="text" value="1"/>	
Poll For Master	<input type="text" value="99"/>	
Unwanted Frames	<input type="text" value="0"/>	
Lost Token	<input type="text" value="0"/>	
Vendor Proprietary Frames	<input type="text" value="0"/>	
Request Queue Load	<input type="text" value="0/1"/>	Value: 0..100 / 0..100 (max)
Request Queue Lost	<input type="text" value="0"/>	

**MS/TP List Of Device**

Detection	MAC	ID	Name	Vendor	Version	Max Master	Max Info Frames	Max APDU Length Accepted	Max Segments Accepted	Add On
08.08.2018 10:29:55	1C:11:11:11:11:11	170101	COSMOS	142:DEOS	1.052.3	127	50	480	16	-
08.08.2018 10:29:55	1C:11:11:11:11:11	91	SRU01	142:DEOS	1.06	127	1	480	-1	-

7. If everything works OK, then you can follow TT180812 to export the BACnet EDE file, and then use it to import the BACnet objects into FUP for BACnet integration. Please refer to TT180813 for details.

8. If you can't get it working, then first of all, check the hardware and wiring between the controller COM 3 port and the BACnet MS/TP devices.
9. If the hardware and wiring are correct, then check the COM3 settings in the controller (see the picture in step 1 above), e.g. the baud rate.
10. If both are correct, then we will look at the BACnet MS/TP settings one by one. First is the "MAC Address". The default MAC address for our controller is 1.

**MS/TP BACnet Settings**

Max Master	<input type="text" value="8"/>	Default: 8
Max Info Frames	<input type="text" value="50"/>	Default: 50
MAC Address	<input type="text" value="1"/>	

11. All BACnet devices on the same MS/TP bus must have a unique MAC address. If some other BACnet device (e.g. SRU) has the same MAC address of 1, then the communication will be failed. So, if we use 1 as the MAC address of the OPEN controller, the other BACnet devices should start from 2, 3, and so on.
12. The next setting is "Max Master" which is 8 by default. This works fine if you have a small system with a few devices that all has MAC address less than or equal to 8.

**MS/TP BACnet Settings**

Max Master	<input type="text" value="8"/>	Default: 8
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13. However, if you set the MAC address of a BACnet device to 91 (like below), then you will not be able to communicate with this device with "Max Master" setting of 8.

**MS/TP List Of Device**

Detection	MAC	ID	Name	Vendor	Version	Max Master	Max Info Frames	Max APDU Length Accepted	Max Segments Accepted	Add On
08.08.2018 10	1	170101	COSMOS	142:DEOS	1.052.3	127	50	480	16	-
08.08.2018 10	91	91	SRU01	142:DEOS	1.06	127	1	480	1	-

14. To allow the communication with device of MAC address higher than 8, you can change the settings to maximum of 127 (remember to save and restart BACnet process). Please note that the higher the "Max Master" setting, the performance will become slower, so try to keep it as low as possible.

**MS/TP BACnet Settings**

Max Master	<input type="text" value="127"/>	Default: 8
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15. For example, if you have a system with 10 SRU (or other BACnet MS/TP device), then set the MAC address of the SRU from 2 to 11, and set the "Max Master" settings for ALL devices to 15. This allows you to add a few more SRU in the future.

**MS/TP BACnet Settings**

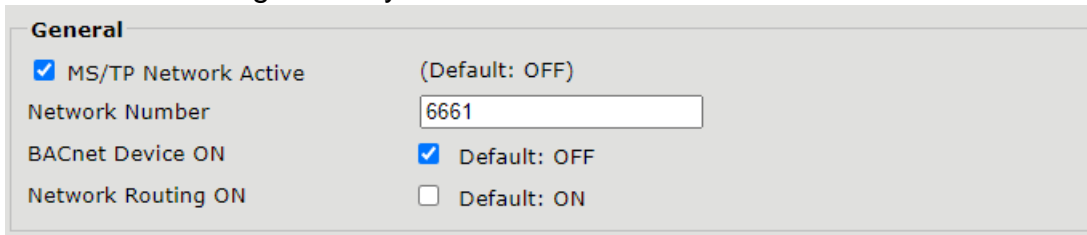
Max Master	<input type="text" value="15"/>	Default: 8
Max Info Frames	<input type="text" value="50"/>	Default: 50
MAC Address	<input type="text" value="1"/>	

16. Sometimes it's better to set the MAC address of the OPEN controller to be the last one, like below. Please contact DEOS Support if you've problems with the communication.

**MS/TP BACnet Settings**

Max Master	<input type="text" value="15"/>	Default: 8
Max Info Frames	<input type="text" value="50"/>	Default: 50
MAC Address	<input type="text" value="15"/>	

17. If you use the OPEN controller as a BACnet gateway and already mapped all the necessary BACnet objects in FUP, then you may want to disable the “Network Routing ON” option after the commissioning of the system.



General	
<input checked="" type="checkbox"/> MS/TP Network Active	(Default: OFF)
Network Number	6661
BACnet Device ON	<input checked="" type="checkbox"/> Default: OFF
Network Routing ON	<input type="checkbox"/> Default: ON

18. This will block the routing of BACnet MS/TP to BACnet IP. By doing this the BACnet communication will be more stable (and more security) because no other BACnet device on the BACnet IP network can access these MS/TP devices anymore.