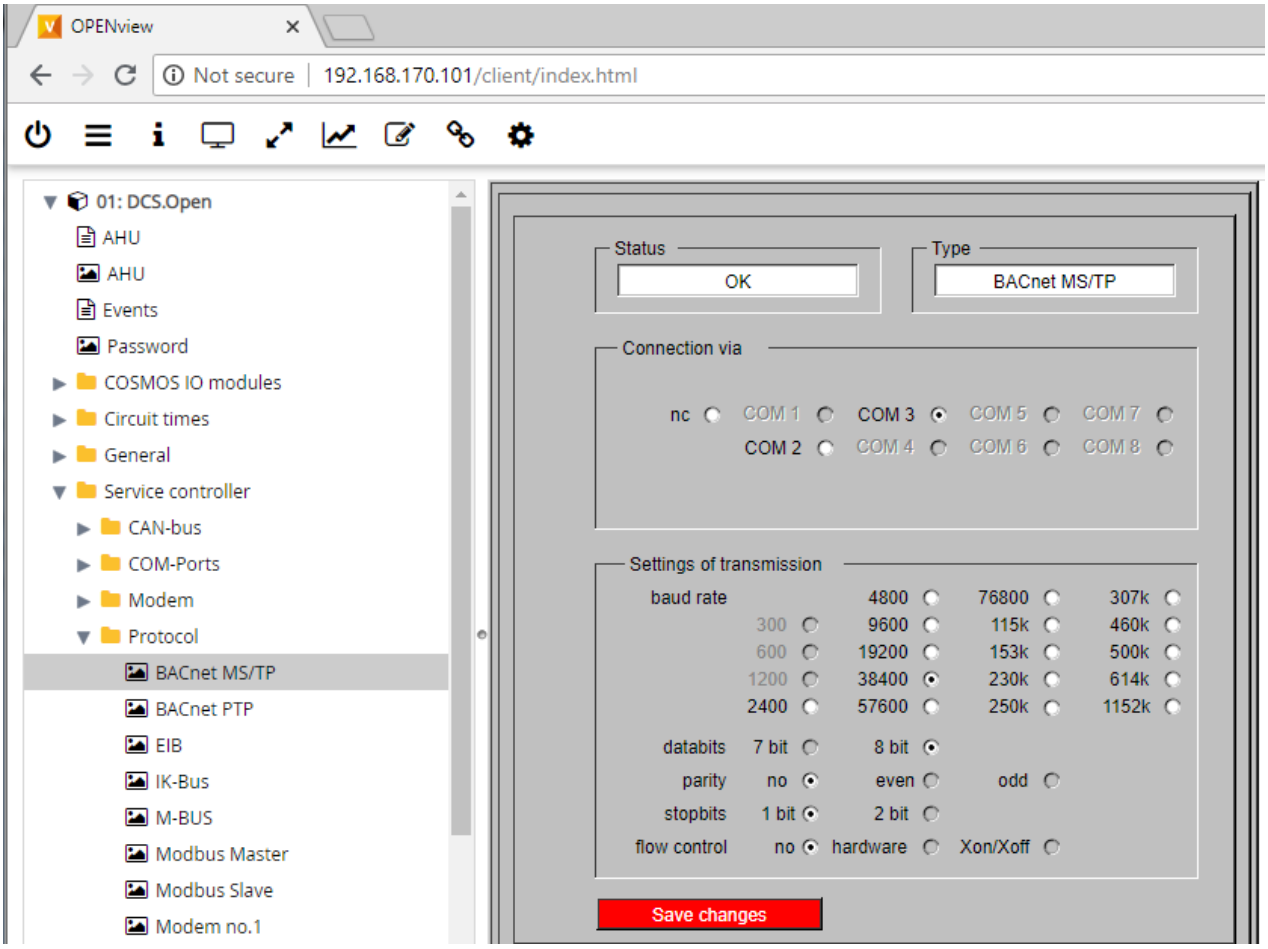
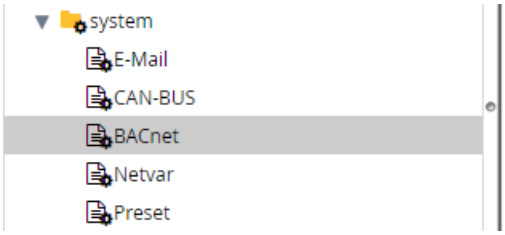
TT211101 – OPENview - BACnet MSTP Settings

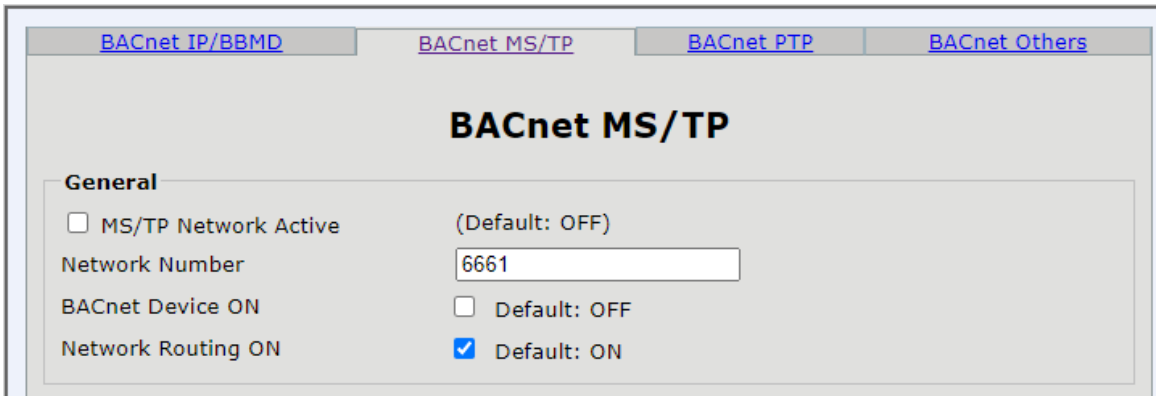
1. If this is the first time you setup BACnet MS/TP communication, please refer to TT180809 for the detail steps. First, start a browser (e.g. Chrome), connect to the controller and login as level E, and setup the BACnet MS/TP on COM3.



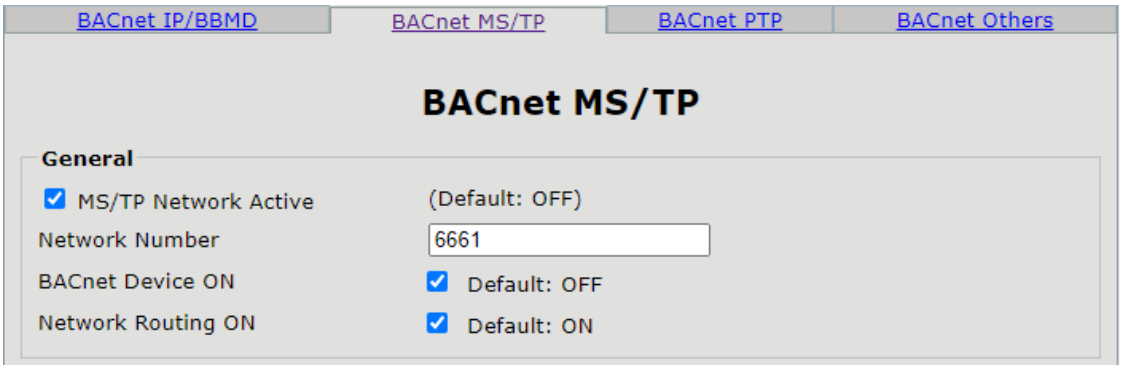
2. To access the BACnet MS/TP settings page, open the “System” folder and click on “BACnet”



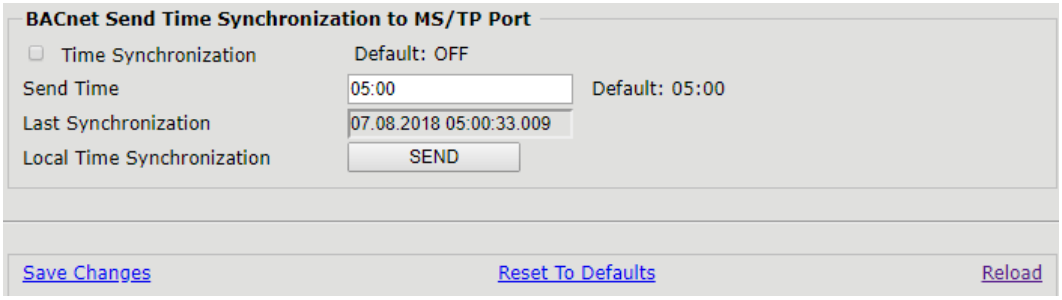
3. Click on “BACnet MS/TP” tab. You can see both “MS/TP Network Active” and “BACnet Device” are OFF by default.



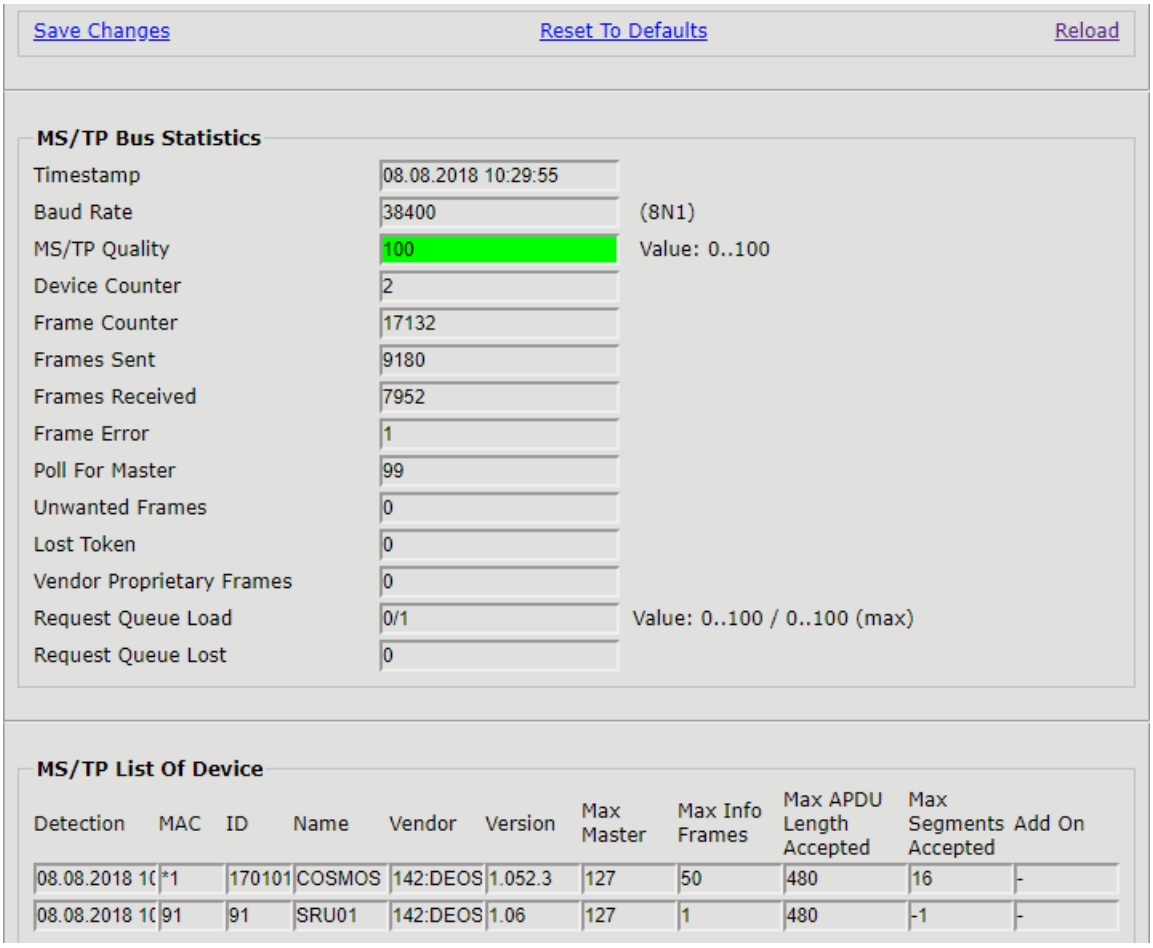
4. Tick both options to enable BACnet MS/TP communication.



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

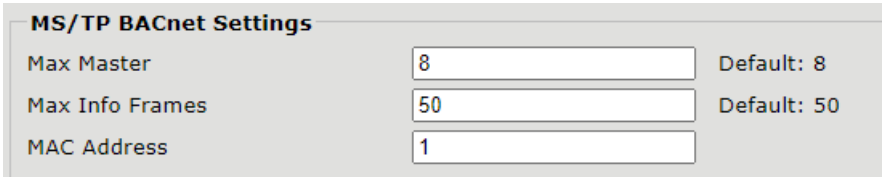


6. Now the COM3 LED on the controller should start flashing. Wait for a while, and click the “Reload” button and you will see the MS/TP bus details like below at the bottom.



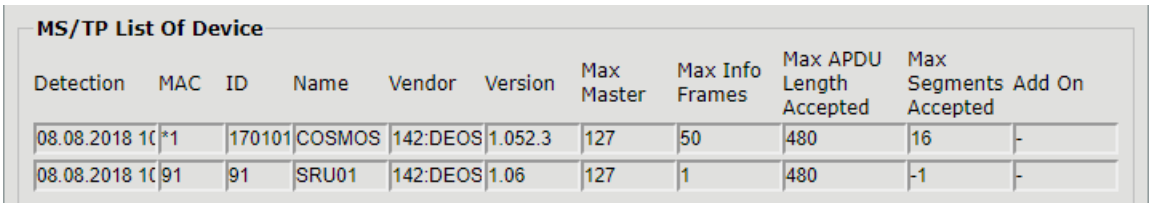
7. If everything works OK, then you can follow TT180812 to export the BACnet EDE file, and then use it to import the BACnet objects into FUP for BACnet integration. Please refer to TT180813 for details.

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.



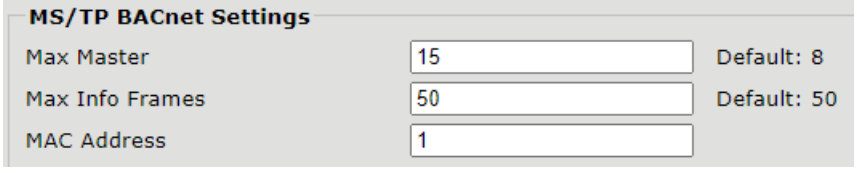
11. All BACnet devices on the same MS/TP bus must have a unique MAC address. If some other BACnet device (e.g. SRU) has the same MAC address of 1, then the communication will be failed. So, if we use 1 as the MAC address of the OPEN controller, the other BACnet devices should start from 2, 3, and so 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.

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.

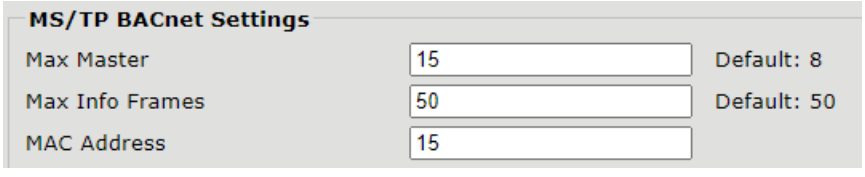


14. To allow the communication with device of MAC address higher than 8, you can change the settings to maximum of 127 (remember to save and restart BACnet process). Please note that the higher the "Max Master" setting, the performance will become slower, so try to keep it as low as possible.

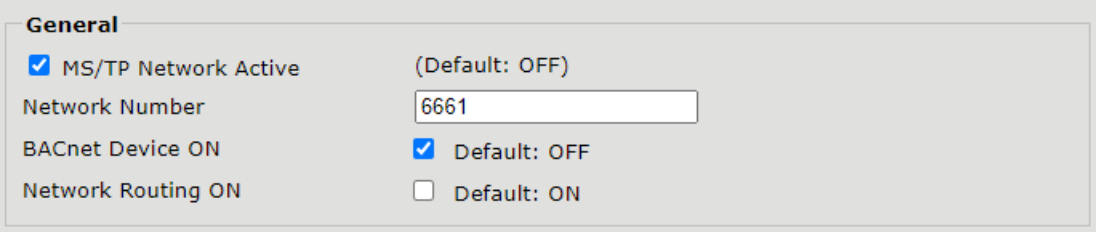
15. For example, if you have a system with 10 SRU (or other BACnet MS/TP device), then set the MAC address of the SRU from 2 to 11, and set the "Max Master" settings for ALL devices to 15. This allows you to add a few more SRU in the future.



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.



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.



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.