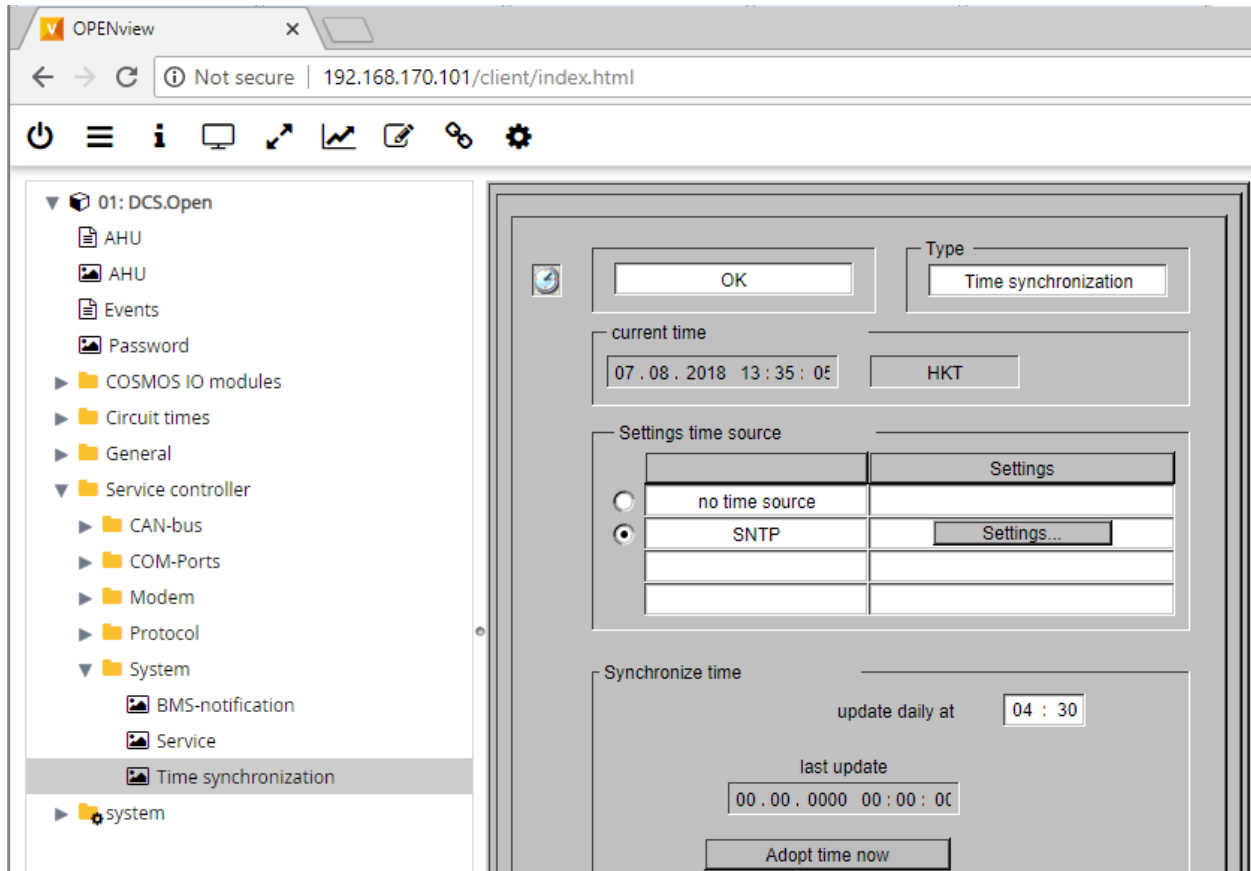
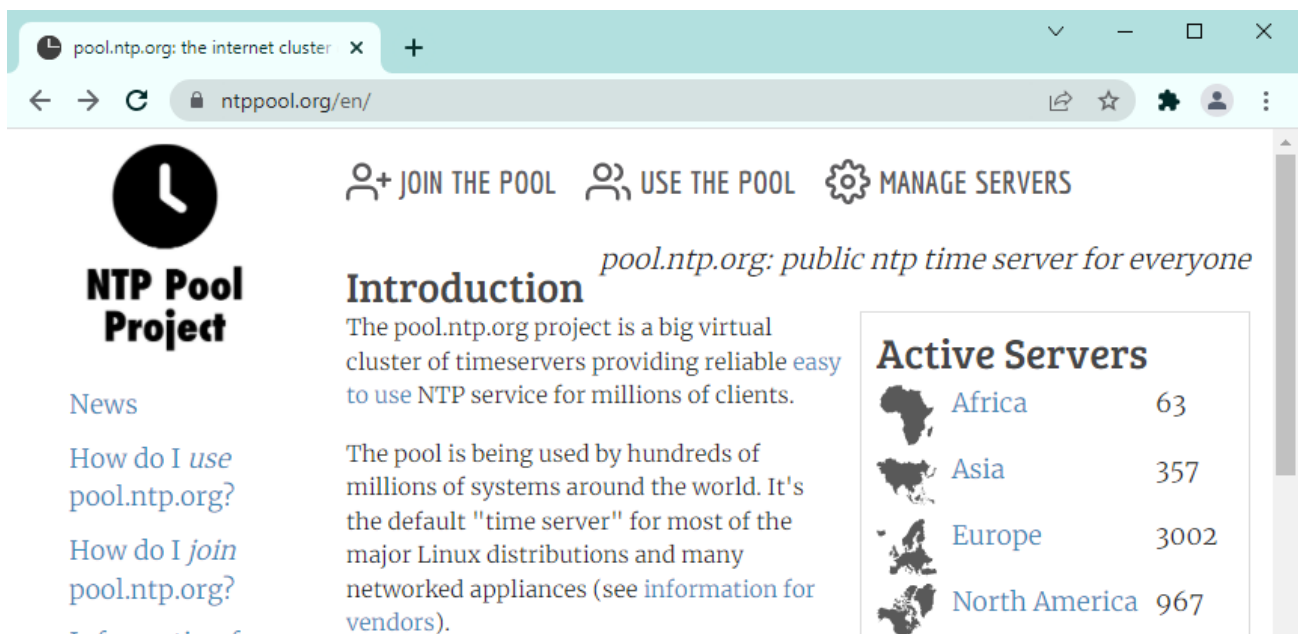


TT220401 – OPENview - Time Synchronization 2

1. In TT180807, we show you how to synchronize the OPEN controller clock with your PC clock using SNTP (or NTP).



2. In this document, we will show you other ways to synchronize the OPEN controller clock. First, if your controller has Internet access, then we can synchronize it with Internet NTP server.



3. First make sure you've set the IP address, subnet mask, and gateway address for your controller correctly for Internet access in FUP, similar to below.

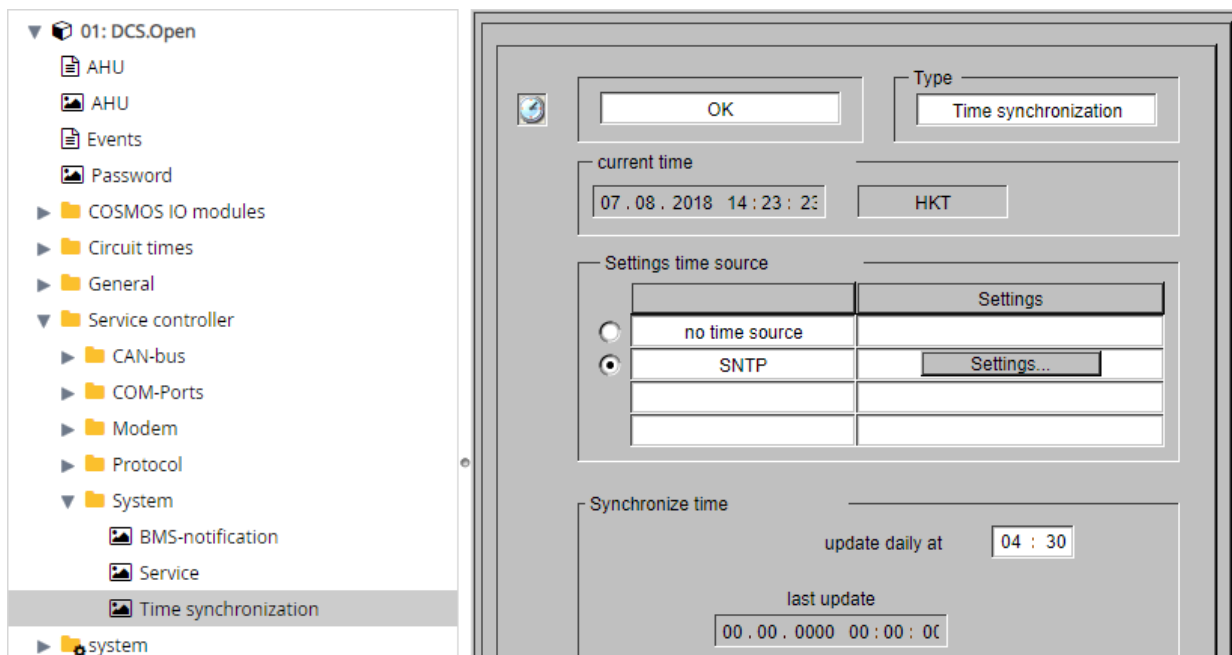
Controller program	Info	Controller ...	IP-address	Subnet mask	Gateway
DEMOKK	OPEN 600 EMS	1.062a	192.168.170.108	255.255.0.0	192.168.170.2

4. To check the IP address of the NTP server, you can use “ping” command in “Command Prompt” on your PC. Type “ping pool.ntp.org” and you should see the IP address.

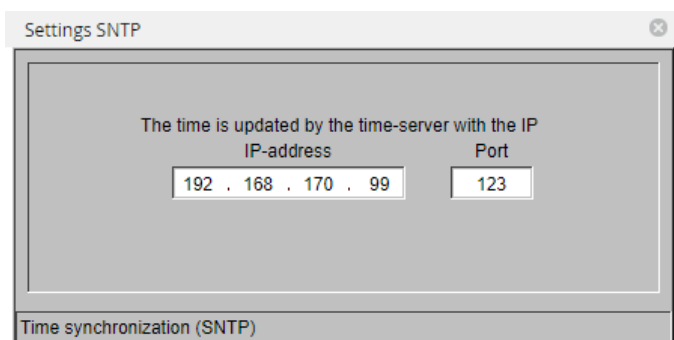
```
C:\Users\pkwong>ping pool.ntp.org

Pinging pool.ntp.org [162.159.200.123] with 32 bytes of data:
Reply from 162.159.200.123: bytes=32 time=2ms TTL=56
Reply from 162.159.200.123: bytes=32 time=3ms TTL=56
Reply from 162.159.200.123: bytes=32 time=2ms TTL=56
Reply from 162.159.200.123: bytes=32 time=3ms TTL=56
```

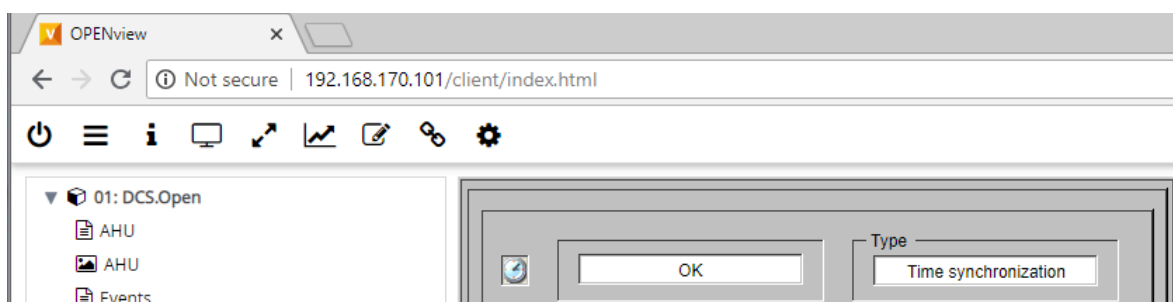
5. Now we setup the controller to synchronize the clock using SNTP. Use Chrome to connect to the controller, click “Service Controller”, “System”, “Time Synchronization”. Select “SNTP” and click “Settings”



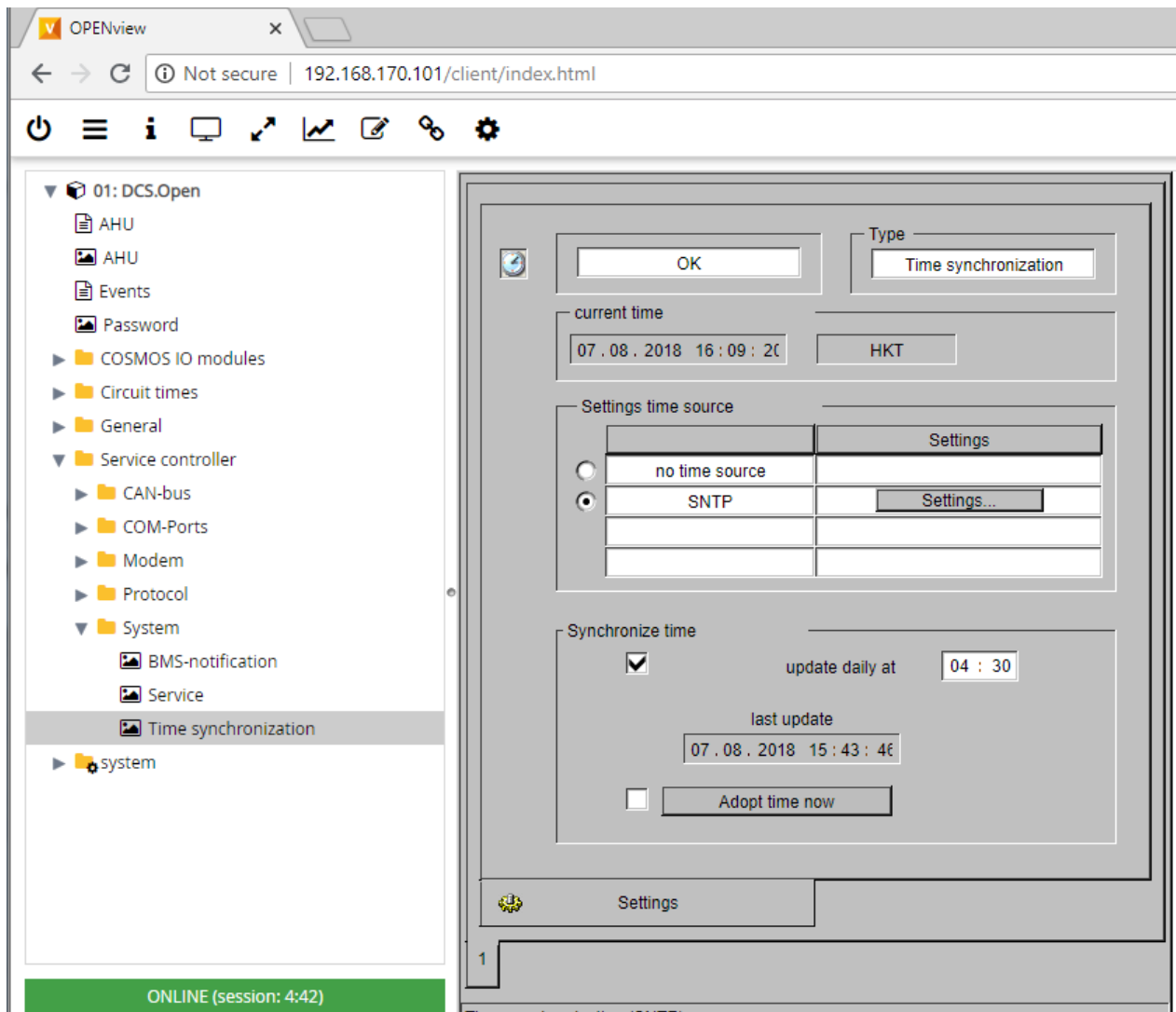
6. Type IP address of the Internet NTP server, and change the port to “123”. Remember to press “Enter” for each number. Close the window.



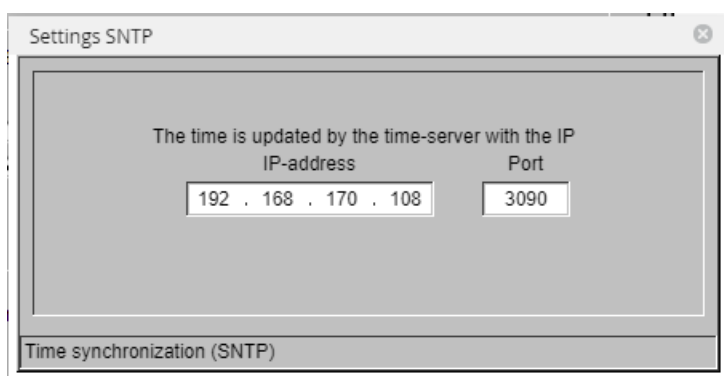
7. If the status shows OK, then we’ve finished the setup.



8. Tick the checkbox for “Update Daily” and it will automatically synchronize the clock at 04:30 (configurable). If you want to synchronize now, click the “Adopt Time Now” button. The “Current Time” will now change, and the “Last Update” will show the last update date/time



9. If you have multiple controllers on-stie, but you don't have OPENweb PC, and also don't have Internet access for the controllers, then you can use one of the controllers as NTP server, and the other controllers can synchronize the clock with this “master” clock controller
10. In the below example, we use the controller with IP address “192.168.170.108” as the “master clock” and the other controller can synchronize the clock with it. The settings are basically the same as before, just no need to change the port to “123” and keep the default port “3090” unchanged.



11. There is nothing to set in the “master” clock controller. Once you change the clock in this controller, the other controller will synchronize with it everyday at the specific time.