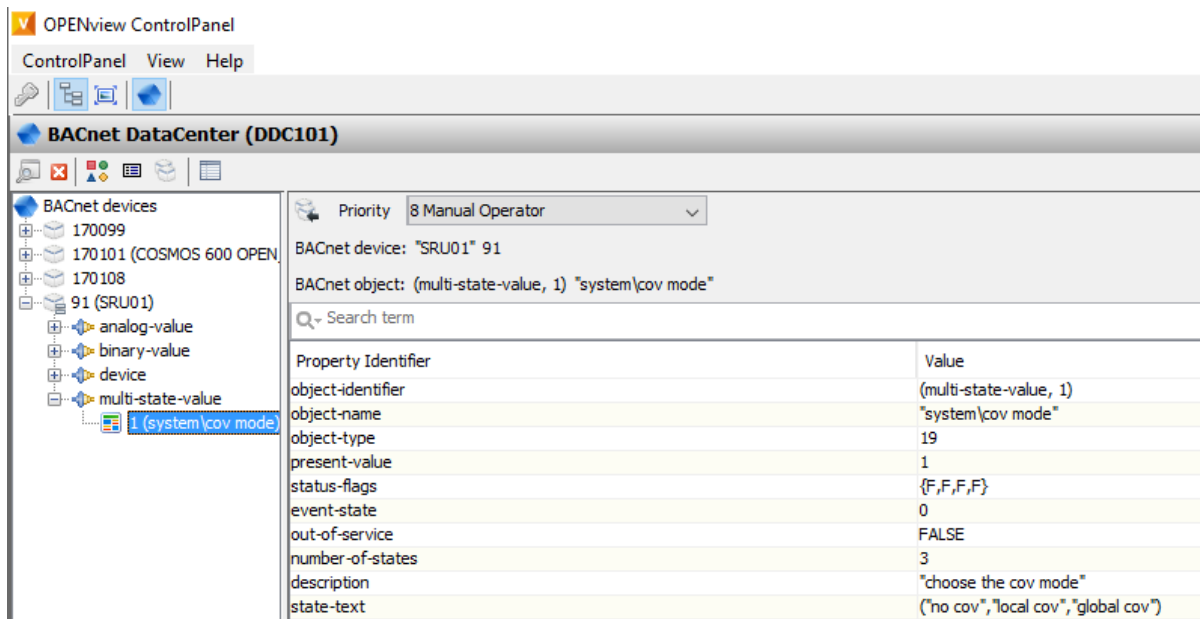# TT180813 - FUP - BACnet COV Mode

1. For BACnet device that support Data Sharing-COV-B (DS-COV-B), we can use COVRP to read the BACnet objects and improve the performance, like below

object name	object identifier	property name	property value	var-type	read/write	read cycle (s)	write cycle (s)
UO0 Digital	Binary Value,15	present_value	BACNET.F:I02	BIT	COVRPWP	120	0
UI0 Digital	Binary Value,16	present_value	BACNET.F:I01	BIT	COVRP	120	0
UO7 Analog	Analog Value,7	present_value	BACNET.F:I04	FL	COVRPWP	120	0
UI7 Analog	Analog Value,9	present_value	BACNET.F:I03	FL	COVRP	120	0

2. Instead of reading the data quickly, we can now read it slower (e.g. 120s), because the BACnet object is subscribed and it will be updated automatically when it's change of value (COV)
3. For some BACnet MS/TP device, it may only support Data Sharing-COV-Unsolicited-B (DS-COVU-B), e.g. SRU. In the case, the device will send broadcast message to all BACnet devices when the value is changed (no subscription required). We can set it in FUP like below

UO0 Digital	Binary Value,15	present_value	BACNET.F:I02	BIT	RPWP	120	0
UI0 Digital	Binary Value,16	present_value	BACNET.F:I01	BIT	RP	120	0
UO7 Analog	Analog Value,7	present_value	BACNET.F:I04	FL	RPWP	120	0
UI7 Analog	Analog Value,9	present_value	BACNET.F:I03	FL	RP	120	0

4. Because in both cases, the OPEN controller will get the new data once the value is changed, so we can set the read cycle even longer (e.g. 600s), and we can reduce the MS/TP traffic
5. To enable COV in the BACnet device, we can use OPENview BACnet Datacenter. Start OPENview Control Panel, login the controller, and click on the ◆ icon. For example, in SRU, look for the Multi-State-Value (MSV) object called "system\cov mode"
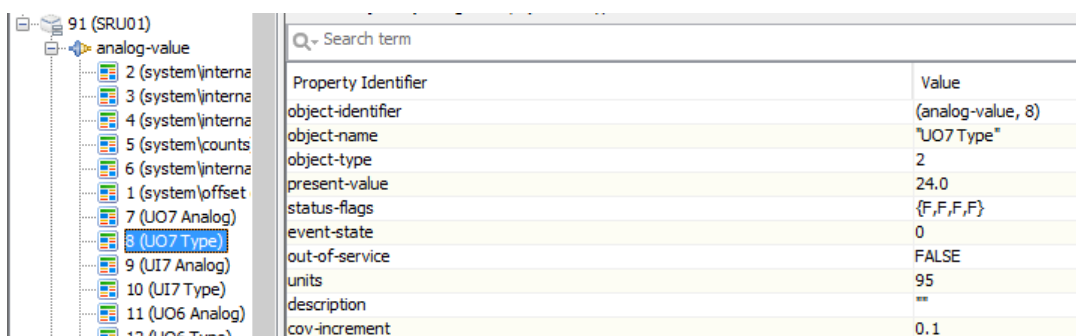
6. Change the "present-value" to 2 (local cov), and it will start broadcast the value when COV
7. You can also adjust the COV incremental value for each analog point