



BACnet Troubleshooting and Engineering Escalation Procedure

Applies to:	BACnet
Pre-Requisites:	<p>To begin troubleshooting BACnet, be sure to have the latest version of Wireshark.</p> <ol style="list-style-type: none">1. Have any points been successfully read, or has every attempt failed?2. What have you already tried regarding BACnet network numbers? -1/0?3. Include the steps you took in the attempt.
Objective:	This technical note is providing the steps to perform and troubleshoot the BACnet procedure.

Performing the Procedure

Wireshark Log Collection

1. Make sure you have the latest version of Wireshark.
2. Perform the Wireshark capture on the same controller configured as the test URI in MapSense.
3. Run Chipkin from the same machine as above.
4. Close Chipkin before starting Active Control.

Start Active Control after starting the capture (and record times of everything). It is needed to be able to correlate what is seen in the log with the Chipkin scan, Active Control startup, point test in MapSense, etc. When capturing the Wireshark log, do not filter it in any way. The onsite Panduit services engineer can do that if they have the network diagram, and pre-filtering it could eliminate useful information.

Actions (with recorded times):

1. Start capture.
2. Start Chipkin.
3. Run autodetect.
4. Find and read point value.
5. Close Chipkin.
6. Start Active Control.
7. Test point from MapSense.
8. Try BACnet networks of -1 and 0
9. Stop capture.

While testing the point in MapSense, look for traffic like:

(Controller -> broadcast) WHO-IS <instance number>

(Device -> Controller) I-AM <instance number>

(Controller -> Device) Read-property <instance-number>

(Device -> Controller) Complex-ack

Wireshark will let you look at the BACnet details. Look for BACnet network number in the WHO-IS and I-AM packets. Compare the network number with the network number (in both packets) used by the Chipkin scan.

This may give you the answer without further help. Either way, include these details in the report.

Information Delivery

When you deliver this, please **do not** leave it in a single compressed file. That is difficult and inefficient to access. Leave everything exploded on the shared drive.