Enabling SPaT Messaging via net-SNMP

ASC/3, Cobalt Touch and ASC/3-LX Software

Date: 10 November 2016

Document Number: AN2165

Purpose of Document

This document explains how to configure a controller to use signal phase and timing (SPaT) data on the ASC/3 software platform. The instructions included here apply to software for an ASC/3 NEMA or Rackmount controller, the Cobalt Touch software on a Cobalt NEMA or Rackmount controller, and the ASC/3-LX software on a 2070C controller.

Introduction

In a connected vehicle (CV) environment, a controller interacts with roadside equipment (RSUs[1]) and connected vehicles via SPaT messages. Because SPaT messaging is NOT enabled by default, you must enable SPaT messaging to use a controller in a CV environment. In this document, the recommended procedure given to enable SPaT messaging adds SNMP[2] commands with a Windows application called Net-SNMP. To make the process as simple as possible, Econolite has created a preconfigured Windows batch script to enable SPaT.

> **Note**: After SPaT is enabled on the device, it will always be enabled unless it is explicitly disabled. This setting is stored in the controller database (DB) or configuration (CFG) file. Thus, if the file is moved to another controller, SPaT will also be enabled on that controller.

Necessary Hardware and Software

- Windows PC, XP or newer
- Econolite-EnableSPaT.zip package, available from Econolite Support
- Econolite controller running ASC/3, Cobalt Touch or ASC/3-LX software
- Ethernet connection between Windows PC and controller

[1] RSU = Roadside Unit
[2] SNMP = Simple Network Management Protocol

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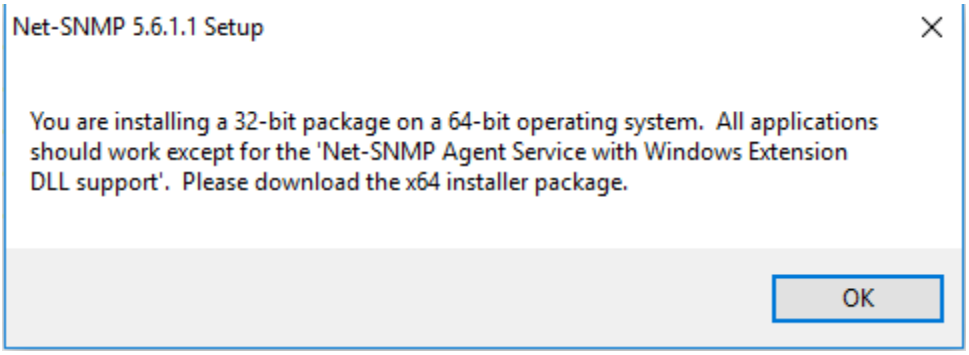
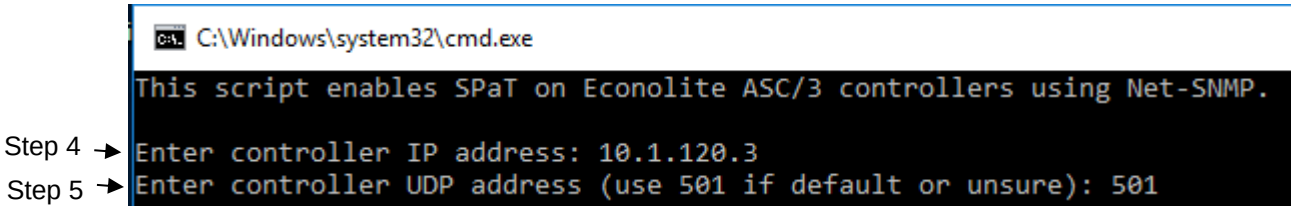
Procedure

1. Run the Net-SNMP 5.6.1.1 installer included with the Econolite- EnableSPaT ZIP archive (net-snmp-5.6.1.1-1.x86.exe).

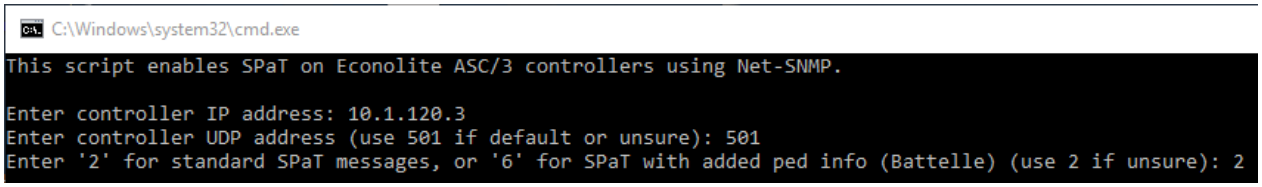
   Note: If the message below shows during installation, click [OK]; it will not affect performance.



2. Record your target controller IP address and UDP port parameters. These are necessary to enable SPaT.
3. Double-click on enableSPaT.bat to run the application. This opens a Windows command prompt window.
4. Enter the controller IP address.
5. Enter the controller UDP port.



6. To enable standard SPaT messages, enter a ‘2’ at the prompt.
   OR
   For the added Battelle pedestrian safety messages, enter a ‘6’ at the prompt.



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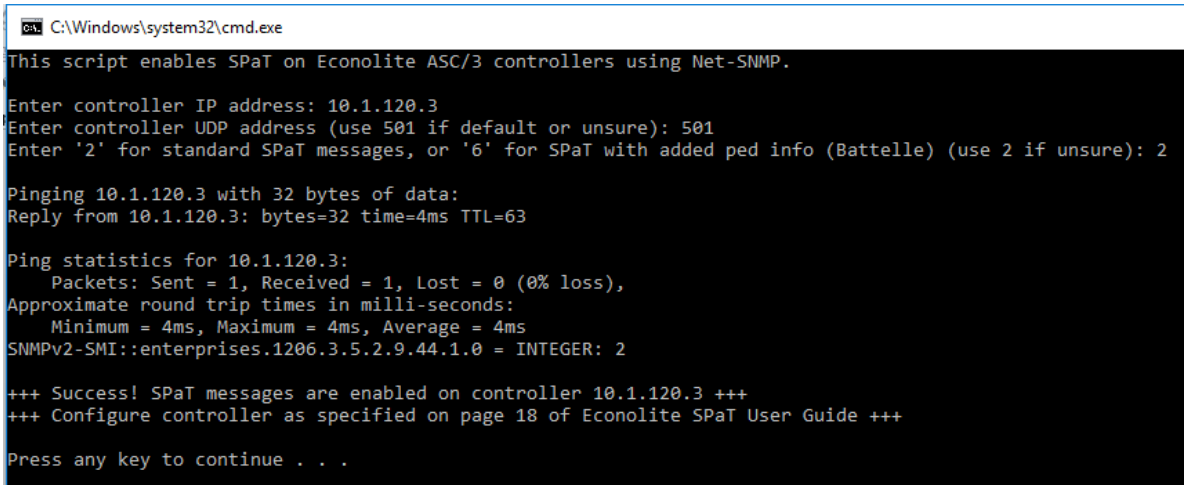
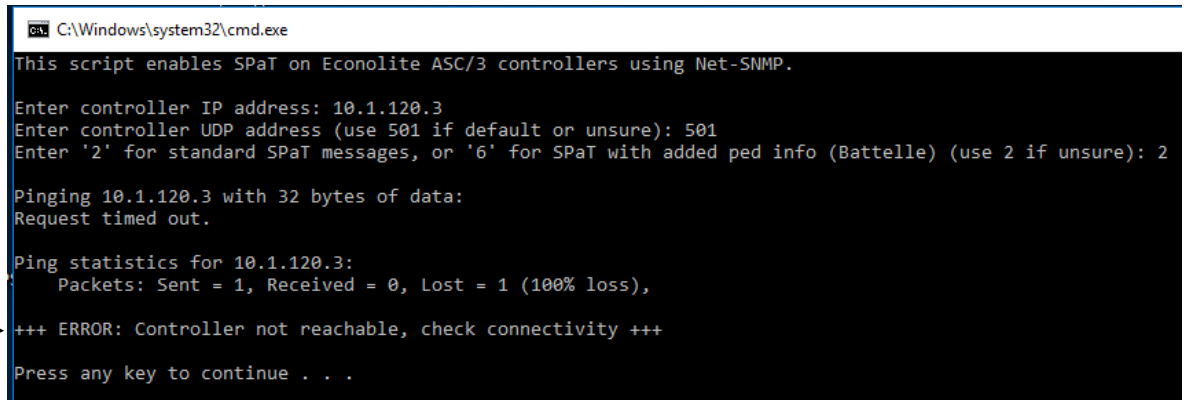
7. The script attempts to ping the controller to make sure there is connectivity.
8. The script runs a command that uses Net-SNMP to enable SPaT messaging on the controller.
9. There are two possible outputs:
    - If the operation is a success, you see this output:

Success →



    - If the operation failed, you see the output below. Make sure your computer is connected to the controller.

Failed →



10. Press [Enter] or close the window to terminate the script.

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