Checking the OpenLCB Simple Node Information Protocol Standard

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1 Introduction

This note documents the procedure for checking an OpenLCB implementation against the Simple Node Information Protocol Standard.

The checks are traceable to specific sections of the Standard.

The checking assumes that the Device Being Checked (DBC) is being exercised by other nodes on the message network, e.g. is responding to enquiries from other parts of the message network.

2 Simple Node Information Protocol Procedure

Select "SNIP Checking" in the program, then select each section below in turn. Follow the prompts for when to reset/restart the node and when to check outputs against the node documentation.

A node which does not self-identify in PIP that it supports the Simple Node Information Protocol should be considered to have passed these checks. [1]

2.1 SNIP reply checking

This section checks the format of the reply message in Sections 4.2 and 5.1 of the Standard.

It does this by issuing a Simple Node Information Request message, accumulating the reply(s), and then checking:

1. The message indicates its source is the DBC.

[1] Using the -p option or setting the checkpip default value False will skip this check.

2. The message indicates its destination is the checking node.
3. The version byte at the start of the first section is either 1 or 4.
4. The version byte at the start of the second section is either 1 or 2.
5. There are exactly six zero bytes.
6. Each of the six defined strings is no longer than its defined maximum length.
7. There are no data byte(s) after the sixth zero byte.