

To: T10 Technical Committee
From: Bob Sheffield (Robert.L.Sheffield@intel.com)
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Subject: 07-167r0: SAS-2: Add SNTT timer to SP_27:SAS_Settings

Revision history

Revision 0 (3 April 2007) First revision

Related documents

SAS-2-r09 - Serial Attached SCSI - 2 (SAS-2) revision 09

Overview

In SNW-1 and SNW-2, the SP10: SAS_AwaitALIGN state initializes and starts the SNTT timer to control the duration of the SNTT phase. SP27:SAS_Settings was added to the corresponding SNTT phase of SNW-3, and is also governed by the SNTT timer, however the corresponding text to specify initialization and starting of the timer is missing. This proposal provides the needed text.

Suggested changes

Modify subclause 6.8.4.10, as follows:

6.8.4.10 SP27:SAS_Settings state

6.8.4.10.1 State description

This state transmits and receives phy capabilities bits.

Upon entry to this state, the phy shall:

- a) [initialize and start the SNTT timer](#);
- b) set the Common Supported Settings state machine variable to indicate that there are no supported settings bits in common; and
- c) send Transmit Settings Bits message to the SP transmitter.

If a Settings Bits Detected message is received with the argument of parity good, then this state shall set the Common Supported Settings state machine variable to reflect the bits from bit 8 through bit 13 that are set to one in both the transmitted and received phy configuration bits.

This state waits for the SNTT timer to expire.

6.8.4.10.2 Transition SP27:SAS_Settings to SP0:OOB_COMINIT

This transition shall occur after receiving a COMINIT Detected message.

Before the transition, this state shall set the ResetStatus state machine variable to UNKNOWN.

6.8.4.10.3 Transition SP27:SAS_Settings to SP1:OOB_AwaitCOMX

This transition shall occur after the SNTT timer expires if:

- a) a Settings Bits Detected message is received with an argument of parity bad; or
- b) no common supported settings exist after the Common Supported Settings state machine variable is set as a result of receiving a Settings Bits Detected message.

6.8.4.10.4 Transition SP27:SAS_Settings to SP8:SAS_Start

This transition shall occur if:

- a) the SNTT timer expires; and
- b) a Settings Bits Detected message is not received during this state.

Before the transition, this state shall:

- a) if a Settings Bits Detected message is received with an argument of parity bad, set the ResetStatus state machine variable to PHY_RESET_PROBLEM; or
- b) if no common supported settings exist after the Common Supported Settings state machine variable is set, set the ResetStatus state machine variable to UNSUPPORTED_PHY_ATTACHED.

6.8.4.10.5 Transition SP27:SAS_Settings to SP28:SAS_TrainSetup

This transition shall occur:

- a) after the SNTT timer expires; and
- b) if Common Supported Settings state machine variable indicates at least one supported settings bit in common.