



To: INCITS Technical Committee T10  
From: Fred Knight, Network Appliance  
Email: knight@netapp.com  
Date: 17 November 2008  
Subject: SAM-5 - Correct redundant Command State Transition text

**1) *Revision history***

Revision 0 (17 November 2008)

Remove redundant text (which is incorrect) from inside a figure, and use just the detailed text already in the document.

**2) *Related documents***

SAM5r0 – SCSI Architecture Model 5

**3) *Overview***

Figure 44 contains text that is inconsistent with text already in the body of the document. The text in the figure should be removed.

Existing text is shown in **BLACK**, deleted text is shown in **RED**, comments in **BLUE**.

**Proposal:**

**8.8 Command state transitions**

This subclause describes command state transitions, actions and associated triggering events as they appear to an application client. The logical unit response to events affecting multiple commands (e.g., a CLEAR TASK SET) may be different from the response to an event affecting a single command. To the application client, the collective behavior appears as a series of state changes occurring to individual commands. The command state diagram of figure 44 shows the behavior of a single command in response to an external event.

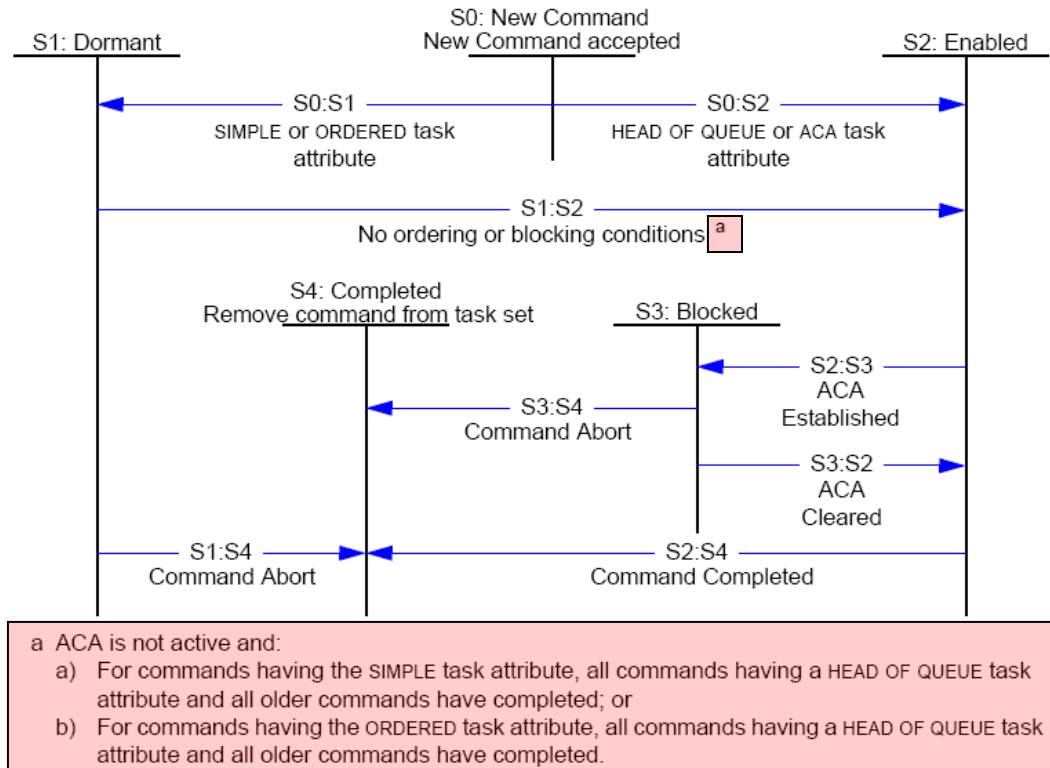


Figure 44 — Command states

Editor's note: remove the red text in the above figure.

**Transition S0:S1:** If a newly accepted command has the SIMPLE or ORDERED task attribute, it shall transition to the dormant command state.

**Transition S0:S2:** If a newly accepted command has the HEAD OF QUEUE or ACA task attribute, it shall transition to the enabled command state.

**Transition S1:S2:** The task attribute of a dormant command shall affect the transition to the enabled command state as follows:

- a dormant command having the SIMPLE task attribute shall enter the enabled command state when all commands having a HEAD OF QUEUE task attribute and **older commands having an ORDERED task attribute (see 8.4) have completed**; or
- a dormant command having the ORDERED task attribute shall enter the enabled command state when all commands having a HEAD OF QUEUE task attribute and all older commands (see 8.4) have completed.

If the TST field in the Control mode page (see SPC-4) contains 000b, then the transition from dormant command to enabled command shall not occur while an ACA is in effect for any I\_T nexus (see 5.9.3 and 5.9.4). If the TST field contains 001b, then dormant commands from the faulted I\_T nexus shall not transition to the enabled command state while an ACA is in effect for that I\_T nexus (see 5.9.3).

**Transition S2:S3:** The establishment of an ACA condition (see 8.4) shall cause zero or more enabled commands to enter the blocked command state as described in 5.9.2.

**Transition S3:S2:** When an ACA condition is cleared (see 8.4), commands that entered the blocked command state when the ACA condition was established (see 5.9.2) shall re-enter the enabled command state.

**Transition S2:S4:** A command that has completed (see 8.4) or aborted (see 8.4 and 5.6) shall enter the completed command state. This is the only state transition out of S2:Enabled that applies to commands having an ACA task attribute.

**Transitions S1:S4, S3:S4:** A command abort event (see 8.4 and 5.6) shall cause the command to unconditionally enter the completed command state.