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**To:** T10 CAP Working Group  
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**Date:** 03 July 2003

**Subject:** SAM-3, two new transport protocol services

## **Introduction**

This proposal creates two new protocol services: Terminate Command and Terminate Data Transfer. Each of these have a service request and a corresponding service confirmation. Terminate Command provides a mechanism for an application client to terminate commands that have been sent to a SCSI initiator port, and Terminate Data Transfer provides a mechanism for a logical unit to terminate requests that have been sent to SCSI target ports. Without the Terminate Command service, it is possible that commands could remain in a SCSI initiator port after a target device had been reset. Without the Terminate Data Transfer service, it is possible that requests for a logical unit could remain in a SCSI target port after that logical unit was reset as the result of a hard reset received on another SCSI target port. This proposal is based on SAM-3r06.

1) Add the following clause in 5.4 SCSI transport protocol services in support of Execute Command:

### **0.0.1 Terminate Command protocol service**

This service allows an application client to specify that one or more Execute Command SCSI transport protocol services be terminated by a SCSI initiator port.

#### **Request:**

##### **Terminate Command (IN (Nexus ))**

Argument description:

**Nexus:** an I\_T nexus, an I\_T\_L nexus, or an I\_T\_L\_Q nexus (see 4.12).

The SCSI initiator port shall terminate all protocol service requests for the specified nexus (e.g., if an I\_T\_L nexus is specified, then the SCSI initiator port shall terminate all Execute Command SCSI transport service requests for the specified logical unit). After a Terminate Command protocol service request has been specified, Command Complete Received transport protocol service confirmations may not be received for tasks affected by the Terminate Command request.

**Confirmation:****Command Terminated (IN (Nexus ))**

Argument description:

**Nexus:** an I\_T nexus, an I\_T\_L nexus, or an I\_T\_L\_Q nexus (see 4.12).

This confirmation is returned in response to a Terminate Command request whether or not the specified nexus existed in the SCSI initiator port when the request was received.

2) Add the following clause at the end of 5.4.3:

**0.0.1.1 Terminate Data Transfer delivery service**

This service allows a device server to specify that one or more data-in or data-out data transfer service requests be terminated by a SCSI target port.

**Request:****Terminate Data Transfer (IN (Nexus ))**

Argument description:

**Nexus:** an I\_T nexus, an I\_T\_L nexus, or an I\_T\_L\_Q nexus (see 4.12).

The SCSI target port shall terminate all transfer service requests for the specified nexus (e.g., if an I\_T\_L nexus is specified, then the SCSI target port shall terminate all transfer service requests from the logical unit for the specified SCSI initiator port). After a Terminate Data Transfer protocol service request has been specified, Data-In Delivered or Data-Out Received transport protocol service confirmations may not be received for tasks affected by the Terminate Data Transfer request.

**Confirmation:****Data Transfer Terminated (IN (Nexus ))**

Argument description:

**Nexus:** an I\_T nexus, an I\_T\_L nexus, or an I\_T\_L\_Q nexus (see 4.12).

This confirmation is returned in response to a Terminate Data Transfer request whether or not the specified nexus existed in the SCSI target port when the request was received.

3) Add a new item in clause 5.7.1 Mechanisms that cause tasks to be aborted in the bulleted list following, "The following events cause a task or several tasks to be aborted:"

x) receipt of a Command Terminated protocol service response;