To: T10 Technical Committee
From: Rob Elliott, HP (elliott@hp.com)
Date: 6 May 2004
Subject: 04-154r0 FCP-3 Incorrect Logical Unit Number for task management

Revision history
Revision 0 (6 May 2004) First revision

Related documents
fcp3r03a - Fibre Channel Protocol - 3 revision 3a
sam3r13 - SCSI Architecture Mode - 3 revision 13
sas1r04 - Serial Attached SCSI 1.1 revision 4
04-112r0 - FCP-3: Task Mangement Function to Unknown LUN (George Penokie)

Overview
SAM-3 defines a service response for task management functions addressed to an incorrect LUN (a LUN whose peripheral qualifier is not 000b):

> **INCORRECT LOGICAL UNIT NUMBER:** An optional task manager response indicating that the function requested processing for an incorrect logical unit number.

FCP-3 should add support for this, using the same response code value 9h used by SAS. This does leave a gap of 3 reserved values not used by FCP-3.

Suggested changes

4.9 Task management [as changed by 04-112r0]

An application client requests a task management function to control explicitly the execution of one or more FCP I/O Operations. See 9.1.2.4.

Some SCSI task management functions are mapped into FC-FS link services and others are mapped into control bits in the FCP_CMND IU. Task management functions that use the FCP_CMND IU are transmitted as the first IU in a new Exchange. A task management function that uses the FCP_CMND IU ends with an FCP_RSP IU that indicates the completion status of the function. The FCP_CDB field in FCP_CMND IUs that perform task management functions is ignored. The mappings are explained in table 3.

If the addressed logical unit is not supported or is not available (e.g., not connected or not configured) the FCP_CMND IU ends with an FCP_RSP IU completion status of Task Management function complete or Task Management function incorrect logical unit number (see table 24).

9.4.15 FCP_RSP_INFO

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The valid RSP_CODE values are specified in table 24.

The completion status of the task management function is indicated by the RSP_CODE. If the Exchange is aborted before the FCP_RSP IU is returned, the completion status is unknown. If the RSP_CODE indicates "Task Management function failed", the state of the target is unknown. Values 04h and 05h are not valid responses to SCSI commands.

Table 1 — RSP_CODE definitions

RSP_CODE definition	Value
Task Management function complete	00h
FCP_DATA length different than FCP_BURST_LEN	01h
FCP_CMND fields invalid	02h
FCP_DATA Parameter mismatch with FCP_DATA_RO	03h
Task Management function rejected	04h
Task Management function failed	05h
Task Management function incorrect logical unit number	09h
Reserved	06h - 08h 0Ah - FFh