

To: INCITS T10 Committee  
From: Paul Entzel, Quantum  
Date: 20 February 2006  
Document: T10/06-108r0  
Subject: SPC-4: Add security protocol and additional sense for tape encryption

## 1 Revision History

Revision 0:  
Posted to the T10 web site on 20 February 2006.

## 2 General

### 3 Changes to SPC-4

All references are to SPC-4 revision 3.

#### 3.1 Changes to SECURITY PROTOCOL IN command

Modify table 173 as shown:

Code	Description	Reference
00h	Security protocol information	6.28.2
01h-06h	Defined by TCG	3.1.121
07h-1Fh	Reserved	
20h-27h	Restricted	SSC-3
28h-EFh	Reserved	
F0h-FFh	Vendor Specific	

#### 3.2 Changes to SECURITY PROTOCOL OUT command

Modify table 178 as shown:

Code	Description	Reference
00h	Reserved	
01h-06h	Defined by TCG	3.1.121
07h-1Fh	Reserved	
20h-27h	Restricted	SSC-3
28h-EFh	Reserved	
F0h-FFh	Vendor Specific	

### 3.3 Changes to Sense key and sense code definitions

Add the following additional sense code definitions to table 28 and table D.2. The codes chosen are only suggestions, the editor may chose codes that are deemed more appropriate. The ASC code of 74h is new.

ASC	ASCQ	D T L P W R O M A E B K V F	Description
26h	10h	T	DATA DECRYPTION KEY FAIL LIMIT REACHED
26h	11h	T	INCOMPLETE KEY-ASSOCIATED DATA SET
26h	12h	T	VENDOR SPECIFIC KEY REFERENCE NOT FOUND
2Ah	11h	T	DATA ENCRYPTION PARAMETERS CHANGED BY ANOTHER INITIATOR
2Ah	12h	T	DATA ENCRYPTION PARAMETERS CHANGED BY VENDOR SPECIFIC EVENT
2Ah	13h	T	DATA ENCRYPTION KEY INSTANCE COUNTER HAS CHANGED
74h	00h	T	ERROR DECRYPTING DATA
74h	01h	T	UNABLE TO DECRYPT DATA
74h	02h	T	UNENCRYPTED DATA ENCOUNTERED WHILE DECRYPTING
74h	03h	T	INCORRECT DATA ENCRYPTION KEY
74h	04h	T	DATA AUTHENTICATION FAILED