

To: T10 Technical Committee  
 From: Jim Hatfield, Seagate (James.C.Hatfield@seagate.com),  
 Date: Sept. 4, 2007  
 Subject: SPC-4 Update to SECURITY PROTOCOL IN

### **Revision History**

Revision 0 (August 30, 2007) First revision  
 Revision 1 (Sept. 4, 2007) Changes to Table x1 and descriptions of the fields shown in Table x1.

### **Related Documents**

SCSI Primary Commands-4 (SPC-4), revision 11

### **Overview**

The SECURITY PROTOCOL IN command uses Protocol ID= 00h for the host to request certain information from the device about its security capabilities. This proposal adds the capability for the device server to return protocol specific information for an individual Protocol ID. This is very useful when a device server supports multiple security protocols.

### **Suggested Changes**

#### **6.29.2.2 CDB description**

When the SECURITY PROTOCOL field is set to 00h in a SECURITY PROTOCOL IN command, the SECURITY PROTOCOL SPECIFIC field (see table 195) contains a single numeric value as defined in 3.5.

**Table 195 — SECURITY PROTOCOL SPECIFIC field for SECURITY PROTOCOL IN protocol 00h**

<b>SP_Specific</b>	<b>Description</b>	<b>Support</b>	<b>Reference</b>
0000h	Supported security protocol list	Mandatory	6.29.2.3
0001h	Certificate data	Mandatory	6.29.2.4
0002h- <a href="#">8000h</a>	Reserved		
<a href="#">8001h-80FFh</a>	<a href="#">Security properties for a specific security protocol</a>	Security protocol specific	6.29.2.5
<a href="#">8100h-FFFFh</a>	Reserved		
<a href="#">0002h-FFFFh</a>	<b>Reserved</b>		

All other CDB fields for SECURITY PROTOCOL IN command shall meet the requirements stated in 6.29.1.

Each time a SECURITY PROTOCOL IN command with the SECURITY PROTOCOL field set to 00h is received, the device server shall transfer the data defined 6.29.2 starting with byte 0.

### 6.29.2.5 Security Properties for a specific Security Protocol

When SECURITY PROTOCOL is set to 00h, the SECURITY PROTOCOL SPECIFIC field is set to a value in the range of 8001h – 80FFh, and the device server supports the security protocol specified by the least significant byte of the SECURITY PROTOCOL SPECIFIC value then the returned parameter data shall have the format shown in Table x1. If the value in the SECURITY PROTOCOL SPECIFIC field is unsupported the command shall be terminated with CHECK CONDITION status, the sense key set to ILLEGAL REQUEST, and the additional sense code set to INVALID FIELD IN CDB.

Table x1 – SECURITY PROTOCOL IN parameter data for SECURITY PROTOCOL=00, SECURITY PROTOCOL SPECIFIC = 80xxh

Bit	7	6	5	4	3	2	1	0
Byte								
0	Reserved							
1								
2	ADDITIONAL LENGTH (m-3)							
3								
4	SECURITY PROPERTIES							
m								
m+1	Pad bytes (optional)							
n								

The ADDITIONAL LENGTH field indicates the total length, in bytes, of the security properties data that follows.

The contents of the SECURITY PROPERTIES field depend on the protocol specified by the least significant byte of the SECURITY PROTOCOL SPECIFIC field (see table 193). The contents are defined by the related reference in table 194.

The total data length shall conform to the ALLOCATION LENGTH field requirements (see 6.29.1). Pad bytes may be appended to meet this length. Pad bytes shall have a value of 00h.