ERRATA

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FOR

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E R R A T A

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1. Introduction

This document describes errata and clarifications for the TCG Storage Opal SSC: Test Cases Specification version 2.00 revision 1.00 as published. The information in this document is likely – but not certain – to be incorporated into a future version of the specification. Suggested fixes proposed in this document may be modified before being published in a later TCG Specification. Therefore, the contents of this document are not normative and only become normative when included in an updated version of the published specification. Note that since the errata in this document are non-normative, the patent licensing rights granted by Section 16.4 of the Bylaws do not apply.

2. Clarifications

2.1   Clarification 1

Section 6 says,

> "For every test case in this specification that specifies an error status code response, session abort SHALL be an acceptable response. In the case of session abort, the SD sending a CloseSession response SHALL be acceptable."

For the following sections, the CloseSession method is an acceptable alternative as an Expected Response as follows:

1. In Section 6.6, as an alternative to Expected Response list item 2.

2. In Section 6.10, as an alternative to Expected Response list item 2.

3. In Section 6.14, as an alternative to Expected Response list item 2.

4. In Section 6.15, as an alternative to Expected Response list item 2.

3. Errata

3.1 Errata 1

In Section 4.4, the informative text under "Notes" should read:

The values in the Properties method response reported in this section are examples based on minimum requirements.

3.2 Errata 2

In Section 4.6, the text under "Prerequisites" should be as follows:

1) Locking SP is in the Manufactured-Inactive state.

2) The Activate method is implemented

3.3 Errata 3

In Section 4.9, list item 2 in the numbered list under "Test Sequence – Opal SSC 2.00 and 2.01" should be as follows:

2) Set method on the ReadLocked and WriteLocked columns of the Locking_Range8 Locking object with a value of FALSE

3.4 Errata 4

In Section 4.12, the numbered list under "Test Sequence" should be as follows:

1) Invoke StartSession method with SPID = Locking SP UID and HostSigningAuthority = Admin1 authority UID

2) For Opal SSC 1.00 Invoke Set method on the BooleanExpr column of the ACE_MBRControl_Set_Done ACE object to include the UIDs of the User1 and User4 Authority objects

3) For Opal SSC 2.00 or 2.01 Invoke Set method on the BooleanExpr column of the ACE_MBRControl_Set_DoneToDOR ACE object to include the UIDs of the User1 and User8 Authority objects

4) Invoke Get method on the Rows column of the MBR Table Descriptor Object

5) For Opal SSC 1.00 Invoke Set method to change the RangeLength column of Locking_Range4 to the LBA size of the MBR Table Descriptor Object + 10 LBAs

   Note: Calculate the LBA size by dividing the value obtained in step 4 by the size of the LBA in bytes obtained through the discovery mechanisms of the underlying interface protocol.

6) For Opal SSC 2.00 or 2.01 Invoke Set method to change the RangeLength column of Locking_Range8 to the LBA size of the MBR Table Descriptor Object + 10 LBAs or an appropriate value adhering to the Range Alignment requirements

   Note: Calculate the LBA size by dividing the value obtained in step 4 by the size of the LBA in bytes obtained through the discovery mechanisms of the underlying interface protocol.

7) For Opal SSC 1.00 Write 1s over the entire Locking_Range4

8) For Opal SSC 2.00 or 2.01 Write 1s over the entire Locking_Range8

9) For Opal SSC 1.00 Invoke Set method to write the entire MBR table with the MAGIC_PATTERN

10) For Opal SSC 2.00 or 2.01 Invoke Set method to write the entire MBR table with the MAGIC_PATTERN while adhering to the MandatoryWriteGranularity requirements

11) Invoke Set method on the Enable column of the MBRControl table with a value of TRUE

12) CLOSE_SESSION

13) Power cycle the SD

14) For Opal SSC 1.00 Write the MAGIC_PATTERN over the entire Locking_Range4

15) For Opal SSC 2.00 or 2.01 Write the MAGIC_PATTERN over the entire Locking_Range8

16) Read from LBA 0 to the size of the MBR Table

17) For Opal SSC 1.00 Read 10 LBAs starting immediately following the end of the MBR

18) For Opal SSC 2.00 or 2.01 Read 10 LBAs or an appropriate value adhering to the Range Alignment requirements, starting immediately following the end of the MBR Shadow

3.5   Errata 5

In Section 4.12, the numbered list under "Expected Response" should be as follows:

1) Steps #1-13 SUCCEED

2) Steps #14-15 return Data Protection Error

3) The value returned from the Read command in step #16 matches the MAGIC_PATTERN

4) The value returned from the Read command in steps #17-18 = 0s

3.6   Errata 6

In Section 4.13, the numbered list under "Test Sequence" should be as follows:

1) For Opal SSC 1.00 Invoke StartSession method with SPID = Locking SP UID and HostSigningAuthority = User4 authority UID

2) For Opal SSC 2.00 or 2.01 Invoke StartSession method with SPID = Locking SP UID and HostSigningAuthority = User8 authority UID

3) For Opal SSC 1.00 Invoke Set method on the ReadLocked and WriteLocked columns of the Locking_Range4 Locking object with a value of FALSE

4) For Opal SSC 2.00 or 2.01 Invoke Set method on the ReadLocked and WriteLocked columns of the Locking_Range8 Locking object with a value of FALSE

5) Invoke Set method on the Done column of the MBRControl table with a value of TRUE

6) CLOSE_SESSION

7) For Opal SSC 1.00 Read the entire Locking_Range4

8) For Opal SSC 2.00 or 2.01 Read the entire Locking_Range8

3.7   Errata 7

In Section 4.13, the numbered list under "Expected Response" should be as follows:

1) Steps #1-8 SUCCEED

2) The value returned from the Read command in step #8 = 1s

3.8   Errata 8

In Section 5.7, the numbered list under "Test Sequence" should be as follows:

1) Invoke StartSession method with SPID = Locking SP UID

2) Invoke Get method on the LockingInfo Table's MaxRanges Column

3) Invoke Next method on the Locking Table with an empty parameter list

4) Invoke Next method on the Locking Table with the Where parameter set to the first UID from the list of UIDs returned in step #3, and the Count parameter set to 1

5) CLOSE_SESSION

3.9   Errata 9

In Section 5.7, the numbered list under "Expected Response" should be as follows:

1) Steps #1-5 SUCCEED

2) Step #3

   a) returns a list of UIDs where the number of values = the MaxRanges value + 1, and

   b) the first four bytes of each UID returned are 0x00000802

3) Step #4 returns a list that contains only the UID that was second in the list of UIDs returned in Step #3

3.10 Errata 10

In Section 5.12, the numbered list under "Test Sequence" should be as follows:

1) Invoke StartSession method with SPID = Locking SP UID and HostSigningAuthority = Admin1 authority UID

2) Send a subpacket that contains a StartTransaction token with a status code of 0x00

3) Invoke Set method on the Enabled Column of User1 Authority with a value of TRUE

4) Issue Protocol Stack Reset command

5) Invoke StartSession method with SPID = Locking SP UID and HostSigningAuthority = Admin1 authority UID

6) Invoke Get method to retrieve the value of the Enabled Column of User1 Authority

7) CLOSE_SESSION

3.11 Errata 11

In Section 5.12, the numbered list under "Expected Response" should be as follows:

1) Steps #1-7 SUCCEED

2) The Get method in step #6 returns a value of FALSE

3.12 Errata 12

In Section 5.15, the numbered list under "Test Sequence" should be as follows:

1) Invoke StartSession method with SPID = Locking SP UID and HostSigningAuthority = Admin1 authority UID

2) Send a subpacket that contains a StartTransaction token with a status code of 0x00

3) Change Admin1 PIN to a random value.

   Note: for Opal SSC 2.00 and 2.01 the Random method can be used to generate new PIN column value

4) CLOSE_SESSION

5) Invoke StartSession method with SPID = Locking SP UID, HostSigningAuthority = Admin1 authority UID, and HostChallenge = the original C_PIN_Admin1 PIN column value

6) CLOSE_SESSION

3.13 Errata 13

In Section 5.15, the numbered list under "Expected Response" should be as follows:

1) Steps #1-6 SUCCEED

3.14 Errata 14

In Section 5.17, the numbered list under "Prerequisites" should be as follows:

1) Admin1 is enabled

3.15 Errata 15

In Section 5.17, the numbered list under "Test Sequence" should be as follows:

1) Invoke StartSession method with SPID = Locking SP UID and HostSigningAuthority = Admin1 authority UID

2) Invoke a 32 byte Set method on the CommonName column of the Admin1 authority object using the MAGIC_PATTERN

3) Invoke a 32 byte Set method on the CommonName column of Locking_Range7 using the MAGIC_PATTERN

4) Invoke Get method on the CommonName column of the Admin1 authority object

5) Invoke Get method on the CommonName column of Locking_Range7

6) CLOSE_SESSION

3.16 Errata 16

In Section 6.6, the numbered list under "Expected Response" should be as follows:

1) Step #1 SUCCEEDS

2) Step #3-5 SUCCEED

3) IF-RECV in step #2 has a ComPacket header value of "All Response(s) returned - no further data", (See [1])

4) Step #4 Get method on the Enabled Column of the User1 Authority returns TRUE

3.17 Errata 17

In Section 6.9, the numbered list under "Expected Response" should be as follows:

1) One of the following responses is generated:

   a. IF-RECV in step #1 has a ComPacket header value of "All Response(s) returned - no further data", (See [1])

   b. The Properties method in step #1 returns INVALID_PARAMETER

3.18 Errata 18

In Section 6.11, the numbered list under "Expected Response" should be as follows:

1) Step #1 SUCCEEDS

2) The Get method in step #2 Set returns a status code of NOT_AUTHORIZED

3) Step #3 SUCCEEDS

3.19 Errata 19

In Section 6.14, the numbered list under "Expected Response" should be as follows:

1) Steps #1-2 SUCCEED

2) The IF-SEND in step #3 fails with a result of "Invalid Transfer Length parameter on IF-SEND"

3) The StartSession method in step #4 results in a SyncSession method with a status code of NO_SESSIONS_AVAILABLE or SP_BUSY

3.20 Errata 20

In Section 6.22, the numbered list under "Expected Response" should be as follows:

1) The StartSession method in step #1 results in a SyncSession method with a status code of NOT_AUTHORIZED