To: T10 Technical Committee  
From: Rob Elliott, HP (elliott@hp.com) 
Date: 17 August 2005  
Subject: 05-301r0 SAM-4 iSCSI allows portal group tag of zero

Revision history
Revision 0 (17 August 2005) First revision

Related documents
sam4r02 - SCSI Architecture Model - 4 revision 2
draft-ietf-ips-iscsi-14.pdf (28 June 2002) - iSCSI Internet draft
draft-ietf-ips-iscsi-15.pdf (5 August 2002) - iSCSI Internet draft
rfc3720 - iSCSI final published revision

Overview
Prior to draft 15, iSCSI required the portal group tag to be 1..65,535. In draft 15, iSCSI changed to allow the portal group tag to be zero. The names and identifiers annex in SAM-n was never updated to reflect this change - it still includes a footnote stating that the portal group tag is a non-zero value.

SAM-4 needs to remove “non-zero” to comply with the published revision of iSCSI.

Suggested changes

Annex A
(informative)

Identifiers and names for objects

A.2 Identifiers and names

Table 1 — A.3 - Object identifier format for each SCSI transport protocol [just the iSCSI column]

<table>
<thead>
<tr>
<th>Object</th>
<th>iSCSI €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiator port</td>
<td>iSCSI name f</td>
</tr>
<tr>
<td>Target port</td>
<td>iSCSI name f</td>
</tr>
<tr>
<td>Logical unit</td>
<td>as specified in this standard (see 4.9)</td>
</tr>
</tbody>
</table>

\[d\] Required to be worldwide unique and recommend to be EUI-64 concatenated with an 8 byte extension.

\[e\] iSCSI identifiers are concatenated strings containing no null characters except after the last string in the concatenation.

\[f\] The iSCSI name **portion of the string** is a worldwide unique UTF-8 string no more than 223 bytes long, not including null character termination if any.

\[g\] The Initiator Session Identifier (ISID) **portion of the string** is a UTF-8 encoded hexadecimal representation of a non-zero six byte integer/binary value. The ISID is represented in **This portion of the string contains** no more than 12 bytes, not including null character termination if any.

\[h\] The Target Portal Group Tag (TPGT) **portion of the string** is a UTF-8 encoded hexadecimal representation of a non-zero two byte integer/binary value. The TPGT is represented in **This portion of the string contains** no more than 4 bytes, not including null character termination if any.
Table 2 — A.5 — Object name format for each SCSI transport protocol [just the iSCSI column]

<table>
<thead>
<tr>
<th>Object</th>
<th>( \text{iSCSI} )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiator device</td>
<td>SCSI name string format</td>
</tr>
<tr>
<td>Target device</td>
<td>SCSI name string format</td>
</tr>
<tr>
<td>Initiator port</td>
<td>( \text{iSCSI name} \ ^n \</td>
</tr>
<tr>
<td>Target port</td>
<td>( \text{iSCSI name} \ ^n \</td>
</tr>
</tbody>
</table>

1 In addition to the name formats shown in this table, any SCSI transport protocol may support the SCSI name string format (see SPC-3).

m iSCSI identifiers are concatenated strings containing no null characters except after the last string in the concatenation.

n The iSCSI name portion of the string is a worldwide unique UTF-8 string no more than 223 bytes long, not including null character termination if any.

o Required to be worldwide unique and recommend to be EUI-64 concatenated with an 8 byte extension.

p The Initiator Session Identifier (ISID) portion of the string is a UTF-8 encoded hexadecimal representation of a non-zero six byte integer binary value. The ISID is represented in This portion of the string contains no more than 12 bytes, not including null character termination if any.

q The Target Portal Group Tag (TPGT) portion of the string is a UTF-8 encoded hexadecimal representation of a non-zero two byte integer binary value. The TPGT is represented in This portion of the string contains no more than 4 bytes, not including null character termination if any.

r See IEEE Std P1212 for more information on the Discovery ID.