Date: October 22, 2002

To: T10 Committee (SCSI)

From: George Penokie (IBM/Tivoli)

Subject: SAM-3 Logical Unit Names

1 Overview

There is no logical unit name object defined in SAM-3. Also, the model for W-LUNs is currently in SPC-3 and should be moved to SAM-3. This proposal requests the model for W-LUNs and the logical unit name object be defined in SAM-3 as defined in this proposal.

2 SAM-3 Addition

Add the following text into SAM-3:

2.1 Well known logical units

A well known logical unit is identical to a logical unit (see x.x.x) except as defined in this subclause.

Well known logical units are addressed using the well known logical unit addressing method of extended logical unit addressing (see x.x.x). Each well known logical unit has a well known logical unit number (W-LUN).

If a SCSI target device receives a request containing a W-LUN and that well known logical unit does not exist, a task manager shall follow the SCSI rules for selection of invalid logical units (see x.x.x).

If a well known logical unit is supported within a SCSI target device then that logical unit shall support all the commands defined for it.

Access to well known logical units shall not be affected by access controls (see SPC-3).

All well known logical units:

    a) shall not have logical unit names:
    b) shall identify themselves using the SCSI target device name(s) of the target device in which they
       are contained; and
    c) within a single target device shall have the same SCSI target device name as the target device in
       which they are contained.

A target device may have more than one SCSI target device name if the target supports multiple protocols.

The name of the well known logical unit may be determined by issuing an INQUIRY command requesting the Device Identification VPD page (see SPC-3).

All well known logical units shall support the INQUIRY command's Device Identification VPD page and, at a minimum, support the Identify Descriptor with the identifier type set to the NAA identifier (3h) or the EUI-64 identifier (2h) (see SPC-3). The contents of the IDENTIFIER field shall be equal to one of the SCSI target device's name. The returned Device Identification VPD page shall contain all the SCSI target device names and all well known logical units within a SCSI target device shall return the same list of SCSI target device names.

3 SAM-3 Additions (section 4.8)

Place a new entry into the a.b.c list of

    a)   logical unit name(s)

Add a box in figure 14 labeled 'logical unit name'

Add the following after figure 14:

A logical unit name is a name (see 3.1.68) for a logical unit that is not a well known logical unit that is world wide unique. A logical unit name shall never change and may be used to persistently identify a logical unit.

A SCSI transport protocol standard may require that a logical unit include a logical unit name if the logical unit is accessed through a SCSI domain of that SCSI transport protocol.