To: T10 Technical Committee
From: Rob Elliott, HP (elliott@hp.com)
Date: 9 May 2007
Subject: 07-216r1 SPC-4 NAA Locally Assigned designator format

Revision history
Revision 0 (2 May 2007) First revision (offshoot of 06-476r1)
Revision 1 (9 May 2007) Incorporated comments from May 2007 CAP WG

Related documents
spc4r10 - SCSI Primary Commands - 4 (SPC-4) revision 10
06-476r1 - SAS-2 SPC-4 DISCOVER response Attached Device Name for SATA (Rob Elliott, HP)
06-476r2 - SAS-2 WWN-based Attached Device Name for SATA (Rob Elliott, HP)
07-217r0 - SAS-2 Hash-based Attached Device Name for SATA (Rob Elliott, HP)
T11/fc-fs2-r1.01 - Fibre Channel Framing and Signaling - 2 (FC-FS-2) revision 1.01

Overview
The SAS-2 proposal 07-217 hashes fields from ATA IDENTIFY DEVICE data to create an NAA Locally
Assigned (3h) identifier for an ATA device, for use as a target device name.

SPC-4 currently only defines three NAA designator formats (a subset of those defined in FC-FS):

   a) IEEE Extended (NAA=2h);
   b) IEEE Registered (NAA=5h);
   c) and IEEE Registered Extended (NAA=6h).

The Locally Assigned (NAA=3h) format needs to be added. These values are only worldwide unique with the
domain in which they are being used.

Suggested changes to SPC-4

7.6.3.6 NAA designator format

7.6.3.6.1 NAA identifier basic format

If the designator type is 3h (i.e., NAA identifier), the DESIGNATOR field has the format shown in table 339. This
format is compatible with the Name_Identifier format defined in FC-FS.

The Name Address Authority (NAA) field (see table 340) defines the format of the NAA specific data in the
designator.

Table 340 — Name Address Authority (NAA) field

Code	Description	Reference
2h	IEEE Extended	7.6.3.6.3
3h	Locally Assigned	7.6.3.6.new
5h	IEEE Registered	7.6.3.6.3
6h	IEEE Registered Extended	7.6.3.6.4
0h - 1hAll others	Reserved	
3h - 4h	Reserved	
7h - Fh	Reserved	

7.6.3.6.new NAA Locally Assigned designator format

If NAA is 3h (i.e., Locally Assigned), the eight byte fixed length DESIGNATOR field shall have the format shown in table 341. The CODE SET field shall be set to 1h (i.e., binary) and the DESIGNATOR LENGTH field shall be set to 08h.

Table 341 — NAA Locally Assigned DESIGNATOR field format

Byte\Bit	7	6	5	4	3	2	1	0
0	NAA (3h)							
1	LOCALLY ADMINISTERED VALUE							
7								

The LOCALLY ADMINISTERED VALUE field contains a 60-bit value that is assigned by an administrator to be unique within the set of SCSI domains that are accessible by a common instance of an administrative tool or tools.