Minutes
T11.3 FC-NVME-3 ad hoc work group regular meeting
05 Apr, 2022 – 10:30AM-12:00PM CST
New Orleans, LA, USA

The FC-NVME-3 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at New Orleans, LA on 05 Apr, 2022, hosted by Broadcom. Attendance was 12 people from 7 organizations and is tabulated at the end of this document.

Roger Hathorn (IBM) (rathorn@us.ibm.com) took minutes. Please report any corrections by email at fc_protocol@standards.incits.org

1 Opening Remarks

Introductions
Chairperson Craig Carlson (Marvell) opened the regular meeting on Wednesday, 05 Apr, 2022 at 11:03 AM PDT and led a round of introductions and thanked the host (FCIA) for organizing this week’s events.

2 Meeting Policy

2.1 Attendance and Membership
The chair explained that attendance is recorded electronically at https://standards.incits.org/apps/org/workgroup/t11, and explained the procedure. Attendance at this meeting does not count toward attendance at the plenaries of T11 and its task groups (i.e., being here will not get you out or keep you out of membership jeopardy).
The chair stated that all persons present are considered members of this meeting and may vote on questions, limited to one vote per company present. He advised that although T11 does not limit participation in the activities of its work groups to representatives of T11 member organizations, it requires nonmembers to identify themselves as such. Nonmembers that expect they may participate in the activities of T11 regularly were encouraged to become members.

2.2 Code of Conduct
2.3 Call for Patents

The chair indicated that among the rules and policies under which this working group operates are the ANSI intellectual property policies as specified in pages 1-3 of http://www.incits.org/pat_slides.pdf. He displayed these pages without comment or explanation, and directed that questions about the policy should be referred to the questioner’s legal counsel or the ANSI General Counsel.

2.4 Antitrust

The chair indicated that among the rules and policies under which this working group operates are the INCITS Antitrust Guidelines. Any member of the meeting is responsible for objecting if he believes discussion in the meeting violates those guidelines. As examples, there should never be discussion of the following topics at any INCITS or INCITS subgroup meeting:

- Any company's prices or pricing policies;
- Specific R&D, sales and marketing plans;
- Any company's confidential product, product development or production strategies;
- Whether certain suppliers or customers will be served;
- Prices paid to input sources; or
- Complaints about individual firms or other actions that might tend to hinder a competitor in any market.

If such discussion is not immediately terminated, it is the chairperson’s responsibility to terminate the meeting. The INCITS Antitrust Guidelines are available at http://www.incits.org/inatrust.htm

3.0 Administrivia

3.1 Approval of Agenda

An agenda for the FC-NVME ad hoc work group regular meeting 05 Apr, 2022 was posted as T11/2022-00132-v000.

Motion: Howard Johnson (Broadcom) moved and Mike Blair (Cisco) seconded to accept T11/2022-00132-v000 as the agenda for this regular meeting.

Approved by acclamation.

3.2 Approval of Minutes

The minutes for the previous meeting of Feb 8, 2022 were presented by the chair.
Motion: Howard Johnson (Broadcom) moved and Mike Blair (Cisco) seconded to accept T11/2022-00052-v000 as the minutes for the prior meeting.

Approved by acclamation.

4.0 Review of Action Items

Action items carried forward from prior meetings:
AI-2022-1: Dave Peterson and Craig Carlson to review the use of NVMeoFC term within FC-NVM Me-3 – Complete

New action items from this meeting:
AI-2022-2: Chair to forward updated project proposal T11/2022-00085-v001 to T11.3 for further processing.
AI-2022-3: Group to review usage of the platform object in terms of specific FC-4 content and determine if a definition for NVMe content is worthwhile.

Completed action items from prior meetings:
None

5. Old business

5.1 ULP Name Mapping for NVMe
T11/2022-00028-v002 Harsha (Cisco)

Harsha presented updated text describing a ULP Name Object for NVMe that contains the NQNs that are associated with the NVMe Port. (The name was changed to “FC-4 Name” but, based on discussions, the name will be changed back to “ULP Name” as it applies to the ULP instances above the FC-4 layer).

In addition, updates to Annex C were proposed to describe when ULP names would be registered, including Subsystem names for targets.

6. Scheduled business
None

7. Unscheduled business

7.1 FC-NVM Me-3 Project Proposal Update
T11/2022-00085-v000 Peterson (Broadcom)

Due to a vote last time to not address retry from non-zero offsets, the project scope has changed and an update to the scope of the project was requested by INCITS. The scope was modified to center on accommodations of changes to NVM Express specifications (Dif, metadata, etc).
Motion: Dave Peterson moved and Patty Driever seconded to forward the revised proposal T11/2022-00085-v000 as modified to T11.3 for further processing. Motion passed by acclamation.

7.2 Platform Object
T11/2022-00112-v000 Peterson (Broadcom)

Dave presented the FC-GS platform object which has FCP-4 specific data for FCP, etc. There is a lot of LUN specific data in the FCP definition that doesn’t seem to be useful at the platform level. Reducing the scope of the definition was discussed. The group needs to determine if it is worthwhile to define content for the FC-NVMe FC-4.

8 Project Schedule

A project schedule was discussed, and dates remain TBD. It is anticipated to be approximately a two year project.

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Expected Date</th>
</tr>
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<tbody>
<tr>
<td>Last technical input</td>
<td>TBD</td>
</tr>
<tr>
<td>T11 RFC</td>
<td>TBD</td>
</tr>
<tr>
<td>Forward to INCITS</td>
<td>TBD</td>
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</tbody>
</table>

9 Review of Action Items

See 4.0, Review of Action Items.

10 Meeting Schedule

The chair requested 2 hours at the T11 plenary week for FC-NVMe-3 in Duluth, MN June, 2022.

11 Attendance Check and Adjournment

The following is the recorded attendance for this meeting.

<table>
<thead>
<tr>
<th>Company</th>
<th>Name</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broadcom Inc</td>
<td>Howard Johnson</td>
<td>Member</td>
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<tr>
<td>Broadcom Inc</td>
<td>David Peterson</td>
<td>Member</td>
</tr>
<tr>
<td>Broadcom Inc</td>
<td>James Smart</td>
<td>Member</td>
</tr>
<tr>
<td>Cisco Systems Inc</td>
<td>Harsha Bharadwaj</td>
<td>Member</td>
</tr>
<tr>
<td>Cisco Systems Inc</td>
<td>Mike Blair</td>
<td>Member</td>
</tr>
</tbody>
</table>
Cisco Systems Inc | Edward Mazurek | Member
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Hewlett Packard Enterprise | Barry Maskas | Member
IBM Corporation | Patty Driever | Member
IBM Corporation | Roger Hathorn | Member
Marvell Semiconductor Inc | Craig Carlson | Group Chair
NetApp Inc | Frederick Knight | Member
Viavi Solutions Inc | Jason Rusch | Member

David Peterson (Broadcom) moved and Party Driever (IBM) seconded to adjourn. Approved by acclamation.

The regular meeting was adjourned at 11:46PM CST on 05 Apr, 2022.