

# **Minutes**

## **T11.3 FC-NVME-3 ad hoc work group regular meeting**

### **14 June, 2022 – 10:30AM-11:30PM CST**

### **Duluth, MN USA**

The FC-NVME-3 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at Duluth, MN on 14 June, 2022, hosted by Marvell. Attendance was 10 people from 7 organizations and is tabulated at the end of this document.

Roger Hathorn (IBM) (rhathorn@us.ibm.com) took minutes. Please report any corrections by email at [fc\\_protocol@standards.incits.org](mailto:fc_protocol@standards.incits.org)

## **1 Opening Remarks**

### ***Introductions***

Chairperson Craig Carlson (Marvell) opened the regular meeting on Wednesday, 14 June, 2022 at 09:30AM CST and led a round of introductions and thanked the host (Marvell) 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***

The chair displayed the INCITS Code of Conduct policy:

[https://standards.incits.org/apps/group\\_public/download.php/124850/INCITS-CodeOfConduct.pdf](https://standards.incits.org/apps/group_public/download.php/124850/INCITS-CodeOfConduct.pdf).

## **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](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 14 June, 2022 was posted as T11/2022-00203-v000.

*Motion: Howard Johnson (Broadcom) moved and Mike Blair (Cisco) seconded to accept T11/2022-00203-v000 as the agenda for this regular meeting.*

Approved by acclamation.

### **3.2 Approval of Minutes**

The minutes for the previous meeting of April 5, 2022 were presented by the chair.

*Motion: Howard Johnson (Broadcom) moved and Patty Driever (IBM) seconded to accept T11/2022-00056-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-2022-2:** Chair to forward updated project proposal T11/2022-00085-v001 to T11.3 for further processing – completed. Approved by INCITS.

**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

### **New action items from this meeting:**

None

### **Completed action items from prior meetings:**

**AI-2022-1:** Dave Peterson and Craig Carlson to review the use of NVMeoFC term within FC-NVMe-3 – Complete

None

## **5. Old business**

### **5.1 ULP Name Mapping for NVMe T11/2022-00028-v004 Harsha (Cisco)**

In April, 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.

This group has deferred further discussion until after discussions take place in FC-GS-9 regarding the definition of a ULP Name.

### **5.2 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 had an action item to determine if it is worthwhile to define content for the FC-NVMe FC-4.

There were no proposals brought forward to define any content for FC-NVMe specific data. There will be further work in FC-GS-9 to better represent multiple FC-4s including FC-NVMe as a possible registered type (see FC-GS-9 Figure 8).

## 6. Scheduled business

None

## 7. Unscheduled business

None

## 8 Project Schedule

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

Milestone	Expected Date
Last technical input	Dec 2023
T11 RFC	Apr 2024
Forward to INCITS	TBD

## 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 Chicago, IL Aug, 2022.

## 11 Attendance Check and Adjournment

The following is the recorded attendance for this meeting.

Company 	Name	Role
Broadcom Inc	Howard Johnson	Member
Broadcom Inc	David Peterson	Member
Cisco Systems Inc	Harsha Bharadwaj	Member
Cisco Systems Inc	Edward Mazurek	Member
Dell Inc	David Brown	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 10:10AM CST on 14 June, 2022.