

Minutes

T11.3 FC-RDMA ad hoc work group regular meeting

7 Feb 2023 – 9:00AM-10:00AM MDT

Tucson, AZ

The FC-RDMA ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting in Tucson, AZ on 7 Feb 2023, hosted by FCIA. Attendance was 11 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

1 Opening Remarks

Introductions

Chairperson Craig Carlson (Marvell) opened the regular meeting on 7 Feb 2023 at 09:05 AM MDT and led a round of introductions and thanked the host (FCIA) for providing the meeting facilities.

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 indicated that among the rules and policies under which this working group operates is the INCITS Code of Conduct policy:
https://standards.incits.org/apps/group_public/download.php/124850/INCITS-CodeOfConduct.pdf.

2.3 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 Administrivia

3.1 Approval of Agenda

An agenda for the FC-RDMA ad hoc work group regular meeting 7 Feb 2023 was posted as T11/2023-00065-v000.

Motion: David Peterson (Broadcom) moved and Patty Driever (IBM) seconded to accept T11/2023-00065-v000 as the agenda for this regular meeting.

Approved by acclamation.

3.2 Review of Minutes

Motion: David Peterson (Broadcom) moved and Patty Driever (IBM) seconded to accept the following document as the official minutes for the previous regular meeting
Approved by acclamation.

T11-2022-00391-v000.pdf
FC-RDMA Dec 6, 2022 Ad-hoc Meeting Minutes

4 Review of Old Action Items

Action items carried forward from prior meetings:

AI 2022-3: Dave Peterson (Broadcom) to post a draft a copy of T11/2022-00374-v000 as initial draft of FC-RDMA. - Complete

New action items from this meeting:

AI 2023-1: Dave Peterson (Broadcom) to post an update to T11/2023-00042-v000 to fix the provided links to tutorials.

Completed action items from prior meetings:

2021-1: David Peterson to forward project proposal for FC-RDMA name change to T11 for further processing. – Closed

2022-2: Dave to put together an RDMA tutorial, or find an existing one, including terminology for those not familiar with RDMA protocol

- Complete in Dec, 2022 but deferred to Feb. '23

5. Old business

5.1 FC-RDMA Draft Standard Development T11/2023-00043-v000 Peterson (Broadcom)

These charts outline the scope of work for the development of the standard.

Some updates were made – added information on connections, verbs, use of WWPN for connection endpoint identifier.

Some additions and discussions.

How to create and QPs – use RDMA-LS IUs.

Suggestion to terminate received BTH?MAD then send RDMA_LS(s).

Some write and read flow examples were presented as possible mappings. Need to understand better the mapping of RDMA layer to FC data IU transmissions (e.g., don't want an 8K operation to break up into 2K IUs as that will introduce additional latency.)

5.2 Base Draft

T11/2022-00374-v000 Peterson (Broadcom)

David produced a base spec with an outline and basic boilerplate content.

This was not discussed at this meeting.

6. Scheduled business

None

7. Unscheduled business

7.1 RDMA 101 – Round 2 – a tutorial T11/2023-00042-v000 Peterson (Broadcom)

Dave updated his tutorial on RDMA Basics, Fundamentals and presented it in the meeting. It contains some links for further detailed educational materials that are available to learn more.

8 Project Schedule

A project schedule was discussed, and results follow.

Milestone	Expected Date
Last technical input	TBD
T11 RFC	TBD
Forward to INCITS	TBD

9 Review of Action Items

See 4, Review of Action Items.

10 Meeting Schedule

The chair will request 2 hours at the T11 plenary week for FC-RDMA in Coeur D'Alene, ID.

No interim conference calls will be scheduled.

11 Attendance Check and Adjournment

Company 	Name	Role
Broadcom Inc	Howard Johnson	Member
Broadcom Inc	David Peterson	Member
Cisco Systems Inc	Harsha Bharadwaj	Member
Cisco Systems Inc	Mike Blair	Member
Dell Inc	David Brown	Member
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

Motion:

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

The regular meeting was adjourned at 10:42AM PDT on 7 Feb 2023.