PC/SC Workgroup

MEETING MINUTES

for March 2, 2010, The Westin Hotel, San Francisco

MEMBERS PRESENT

NAME	COMPANY	EMAIL ADDRESS
Michael Hutchinson	Gemalto	michael.hutchinson@gemalto.com
Abu Ismail	NXP Semiconductor	abu.ismail@nxp.com
Marc Jacquinot	Omnikey/HID Global	mjacquinot@hidglobal.com
Calai Bhoopathi	SCM Microsystems	calaib@scmmicro.com
Harm Braams	Vasco Data Security	hbraams@vasco.com
Uli Dreifuerst	PC/SC Administration	admin@pcscworkgroup.com

MINUTES

The meeting began at 6:30 pm.

1. Administrative

1.1. Financial Report

Current account balance and income from membership fees and test card sales was briefly discussed. A detailed report for the 4th quarter 2009 has been posted at the website.

1.2. New Membership Level

A new membership level for individuals (non-corporations) will be added to the new bylaws by our legal advisor. The group also briefly discussed combining the business and the associate membership level into one membership level with voting rights. Since its inception in 1996, several of the founding members have left and others have joined the Workgroup and became actively involved in the specification definition process.

2. Function Extensions, Proposal for Part 10

Proposal from Gemalto from Oct. 2009

The group reviewed and accepted the final comments to Gemalto's proposal regarding TLV coded function extensions. Michael Hutchinson from Gemalto will send out the final proposal to the Workgroup Administration for formatting and distribution to the group for approval.

Action Items:

1. Administration to send out PC/SC specification Word document to Michael Hutchinson
2. Michael Hutchinson to update and return
3. Administration to distribute to Workgroup for final review and approval, and publish

Date: Mid-March

3. Universal PC/SC Peripheral Command Structure

Proposal from Vasco Data Security from Feb. 2010

Several initiatives have started regarding communication with the reader, as readers are becoming more and more intelligent. One proposal from Gemalto asked to re-open a CCID Subcommittee to include a new command set (email from 2/18/2010)).

Harm Braams provided an overview of several possible solutions using SCardCommand and SCardTransmit (see email from 2/26/2010). The concept introduces the term PPDU to differentiate between the "Peripheral Protocol Data Unit" and the APDU which is regulated by ISO 7816 (chip cards). PPDUs use the same structure as ADPUs but may use class bytes that are not accepted by chip cards and as such do not fall under ISO 7816.

Commands can be differentiated at two levels, in the application and in the device. In many current implementations, the reader detects which type of card is inserted and determines the commands specific to that card.

The group discussed the pros and cons of the various solutions. Some of the drawbacks are:

- Money, time or resources required
- Control of subsystems, problem with wrappers, libraries
- New driver required (big hassle)
- Change to Resource Manager required

The group finally selected the following two transfer methods:

- SCardControl(3500, PPDU)
- SCardTransmit(Raw, PPDU) - per the NXP/HID proposal, see below.

The command number 3500 is preferred because it is already supported by the Microsoft driver. The PC/SC Header FF C2 is used in the escape sequence of SCardControl. The class byte FF is not accepted by any chip card and in combination with C2 indicates a PC/SC command to the reader. The commands following FF C2 will not contain any vendor-specific codes; they have the option to use codes other than FF C2.

All Workgroup members, especially reader manufacturers, are asked to inform the Workgroup administration as soon as possible if they are aware of any conflicts of the proposed PC/SC header FF C2 with existing implementations.

The group further discussed the term PPDU. A PPDU is not an APDU, however, the term APDU is currently used within the PC/SC specs. The group decided to put the Universal PPDU in a separate Part 11 of the PC/SC Specifications.

The term APDU will remain in existing part 3 for now, and will be changed to PPDU in the next release. New commands will be placed in a separate section.

Action Items:

1. Michael Hutchinson to discuss this proposal with Jean Lusetti and get back to the group
2. Workgroup Members to respond to Administration if they are aware of a conflict
3. Administration to verify support from Microsoft
4. Workgroup members to respond if this proposal should become new Part 11 of the specs
5. Administration to prepare Part 11 draft
6. Members to review and complement command tables with meaningful numbers

Date: Between mid-March to end of April

4. Handling of Multiple Contactless Cards

Amended proposal from HID Omnikey and NXP Semiconductors from Feb. 2010

The group accepted the proposal. It will be added as a supplement to Part 3.

Action Items:

1. Administration to provide PC/SC Specification template to NXP
2. NXP to put amendment in the template
3. Administration to post draft on website

Date: Mid-March

5. Part 10, Chapter 2.2, SCARD_SUCCESS

The proposal from Torsten Maykranz of SCM Microsystems was accepted and will be added to Part 10, Chapter 2.2.

Action Item:

Torsten Maykranz to update Part 10 and submit to Administration

Administration to reformat and publish

Date: Mid-March

6. Update Specification to Reflect Current Standards

Proposal submitted by Harm Braams, Vasco Data Security

The list of references will be added in a separate document as an addendum to the PC/SC Specification. It will include a disclaimer that portions of the specification were written at a time when earlier releases of standards were valid and that they will be updated as new releases of the specifications will become available.

Action Item:

Administration to edit and publish

Date: End of March

7. IFDtest2

The IFDtest2 provided by Microsoft is currently the de-facto PC/SC compliance test tool. It covers the core PC/SC functionality but leaves out any of the more recent features such as extended APDUs, secure PIN entry features, non-7816 cards, as well as the universal reader commands proposed in item 3.

The workgroup will ask Microsoft if they have plans to extend the functionality of their current IFDtest2 test tool. If Microsoft has no plans to include newer PC/SC features, the workgroup has the option to build IFDtest3 and either hand it over to Microsoft or perform its own testing.

Action Item:

Administration to follow-up with Microsoft

Members to determine option for IFDtest3

Date: March, April

8. Other Business

No other topics were discussed.

The next Member Forum will be held during the Cartes show in Paris, December 7-9 2010. Date and location will be mailed when it becomes available.

The meeting adjourned at 11:00 pm.

Members: Please review the Meeting Minutes, and inform the Workgroup Administration of any inaccuracies within 10 days of receiving them. When no inaccuracies are found, the Minutes will be viewed as having been accepted by the membership.

Uli Dreifuerst

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