Singapore update - 2015

(26-27 May 2015 – Asia IC Card Forum @ Jeju, Korea)

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an industry partnership supported by SPRING Singapore and IDA

Some new updates

- The last AICF meeting took place on 5 Dec 2014, in Singapore
- I gave some updates at that meeting, and my slides can be downloaded from AICF website
- NEW – CEPAS 2014 edition published !
- Some ideas for SSID-PKX (to leverage on built-in drivers provided by Microsoft Windows)
- Discussion in ISO/IEC JTC1 SC37 to have biometric data formats in ASN.1

CEPAS (SS518:2014 Contactless e-Purse Application standard)

Singapore Standard SS 518 : 2006

SINGAPORE STANDARD

SS 518 : 2006

(ICS 35.240.15)

SPECIFICATION FOR

Contactless e-purse application

Published by
SPRING Singapore
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Singapore 159835
SPRING Singapore Website: www.spring.gov.sg
Standards Website: www.standards.org.sg

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Singapore Standard SS 518 : 2014

SINGAPORE STANDARDS COUNCIL

SS 518 : 2014
(ICS 35.240.15)

SINGAPORE STANDARD

Specification for contactless e-purse application

Published by
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Enabling Enterprise

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Changes not substantial

This standard is a revision of SS 518 : 2006. The changes in the revised edition include the following:

- Clearly defined the transaction amount setting in the Debit and Credit commands;
- Described the validity of random number/challenge generated for secure authentication;
- Included Credit command's logical data offset definition within the purse EF;
- Made the 4 commands, Atomic update, Reset bit, Read Binary and Get challenge essential requirements;
- Added an overview of CEPAS file structure in a new annex.

Added Royalty Free clause

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What's New

1. SS 604 : 2014
   ($22.45)
   Guidelines on nutrition and food service for older adults
2. SS 518 : 2014
   ($49.75)
   Specification for contactless e-purse application (CEPAS)

SG$49.75

Best Selling Singapore Standards (Feb 2015)

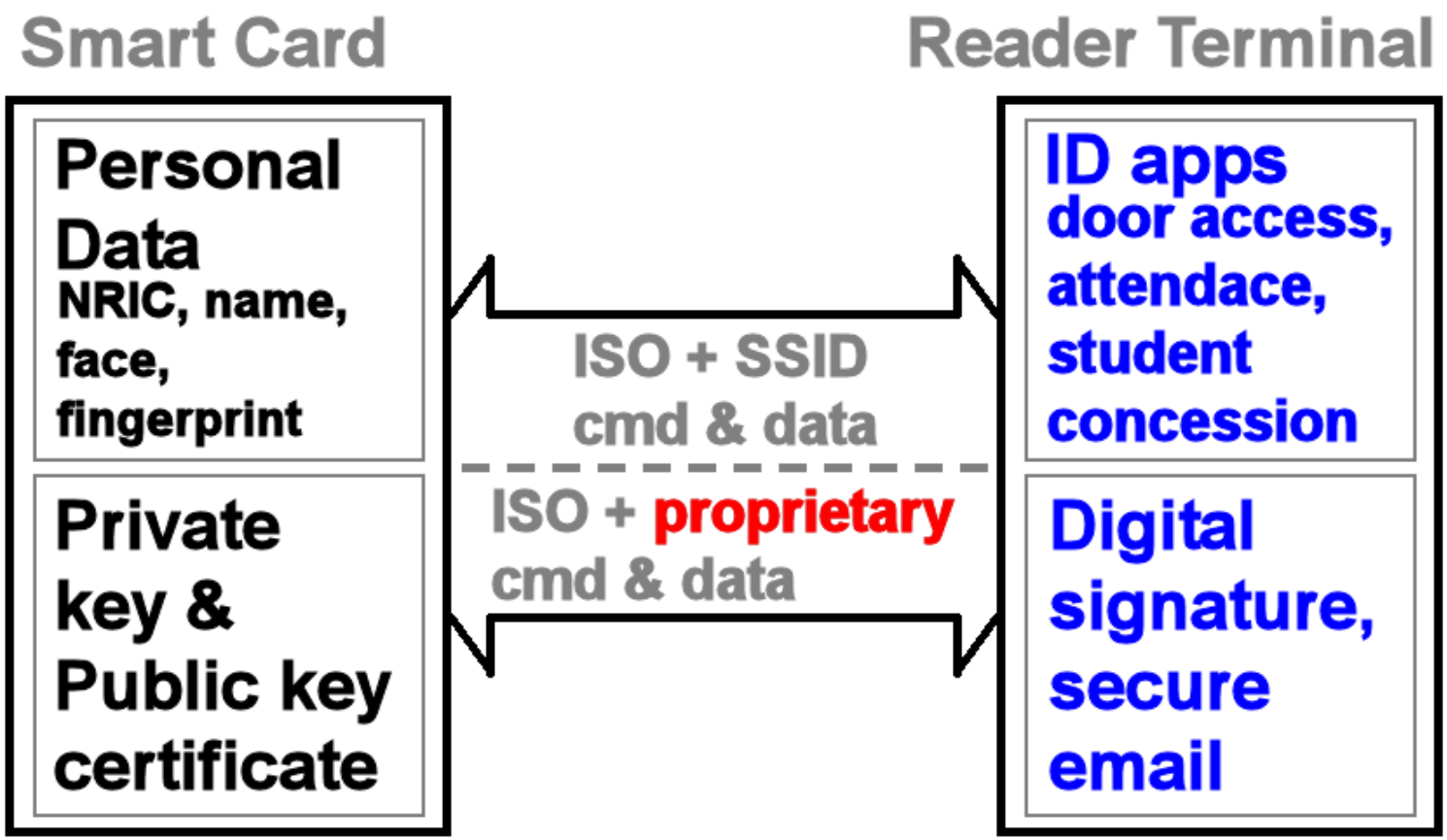
1. SS 600 : 2014
   Code of practice for bunkering
2. SS 599 : 2014
   Guide for wayfinding signage in public areas
3. SS 5 - F6 : 2014
   Methods of test for paints, varnishes and related materials - Part F6 : Determination of wet-scrub resistance

SSID-PKX
What is it?

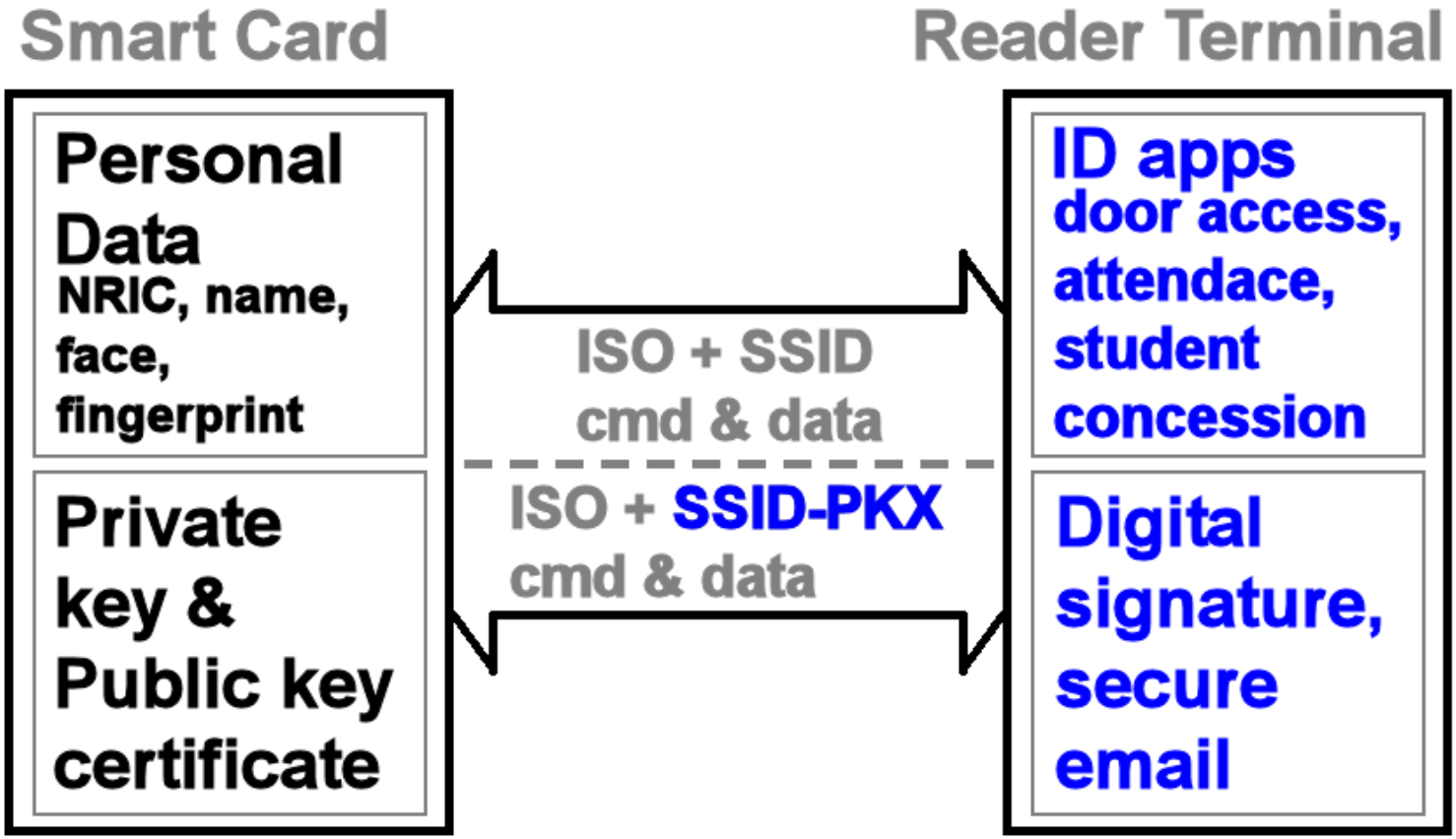
Purpose

- SS 529 : 2006 SSID provides a standard for personal data on a smart card (or device)
- But it does not cover private key, public key certificate, and other cryptographic operations that are required for applications such as digital signature, secure email, and other strong authentication needs

Problem to solve



Where SSID-PKX applies



Architecture – software interface

Microsoft Smart Card MiniDriver Specification (Vista, Win7)

Smart card vendors can write card minidrivers to present a consistent interface to their smart card type to the Microsoft Smart Card Base Cryptographic Service Provider (CSP) or Crypto Next Generation (CNG) Key Storage Provider (KSP) and to the Smart Card Management Interface. These card minidrivers plug in to Windows operating system code. The functionality in a card minidriver is narrowly scoped and carefully defined so that the card-dependent code is simple to implement and easy to verify functionally.

This specification provides implementation guidelines for Base CSP and KSP card minidrivers.

New observation

- Microsoft publishes a GIDS specifications for smart cards, and provides a built-in minidriver for GIDS cards
- This means no need to download and install minidrivers from different smart card companies
- GIDS provides capability to perform PKI operations !

Minidriver for GIDS

Discovery Process

Beginning with Windows 7, smart card minidrivers that are logo-certified through the Windows Logo Program (WLP) are automatically downloaded and installed by the Windows Plug and Play components. Windows 7 also introduces a class minidriver for PIV-compatible cards and cards that support the GIDS card edge.

When a smart card is inserted into the reader, Windows performs the following discovery processes:

- Smart Card Plug and Play Process:

  This process requests and download a logo-certified minidriver from Windows Update through Plug and Play.

- Winscard Discovery Process:

  This process associates a compatible smart card with a PIV- or GIDS-compatible class minidriver.

- Windows Smart Card Class Minidriver Discovery Process:

  This process associates an installed minidriver with a smart card.

The following table lists the AID values that the different discovery processes use.

GIDS v2.0 from Microsoft

Generic Identity Device Specification

GIDS v2.0

Version 2.0

October 19, 2012

Abstract

This document specifies the profile (card edge and the data model) that can be supported by a physical identity device such as a smart card that fully complies with ISO/IEC 7816.

References and resources discussed here are listed at the end of this paper.

The current version of this paper is maintained on the Web at:
Generic Identity Device Specification

For feedback or questions, send an e-mail to:
gids@microsoft.com

Microsoft

So what's next for SSID-PKX ?

- Call for industry meeting to survey adoption and readiness of GIDS v2
- Evaluate the quality of GIDS and see if it matches the needs of SSID-PKX

ISO/IEC JTC1 SC37 Plenary

- I attended the recent SC37 “Biometrics” meeting in Toledo, Spain (19-20 Jan 2015)
- There was a discussion on using ASN.1 for “Generation 3” of biometrics data format (ISO 19794 series)
- Gen1 (2005) uses binary encoding, Gen2 (2011) introduces XML, now Gen3 discussion
- If you are interested in this new standards development, please contact your national standard body

End of Country Update
Thank you
Q&A