



Services and Data Objects



NATIONAL SMART CARD PROJECT

Revision History

Version	Date	Author	Description of Changes
0.2	21 November 2005	Owen Mc Laughlin	Addition of 'UPRN' and 'Card Expiry Date' to CCDA Addition of T-Scheme Authentication Level service Addition of Membership Service Updating of Special Needs Tags
0.1	21 July 2005	Euan Tennant	Initial version for review.

Preface

Scope

This document is intended as a single reference for all NSCP services regardless of the card platform.

Intended Readership

Developers requiring to integrate with cards providing NSCP services.

Related Documents

- [1] NSCP National Project IFH – CCDA Approach
- [2] NSCP CCDA Applet Specification
- [3] NSCP ISO File Handler Design
- [4] NSCP New Starters – File and Data Structures
- [5] Smart Card Systems: Interoperable Citizen Services: Extended User Related Information: Part 1 – Definition of User Related Information and Implementation (CWA 13987-1)

Glossary

<i>Term</i>	<i>Definition</i>
AID	Application Identifier
CCDA	Common Cardholder Data Application
NSCP	National Smartcard Project
RFU	Reserved For Future Use
TLV	Tag, Length, Value
UCI	Universal Card Holder Information
USID	Unique Services Identifier
'XY'	Notation using the hexadecimal digits '0' to '9' and 'A' to 'F', equal to XY to the base 16

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1 NSCP Services

1.1 CCDA

Tag	Max. Length (bytes)	Data Item	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'5F20'	70	Name	ASCII	O	Y	Y
'5F2B'	4	DOB	DATE	M	Y	Y
'5F35'	1	Gender	BCD	O	Y	Y
'DF23'	8	Card Number	BCD	M	Y	Y
'DF31'	35	Title	ASCII	O	Y	Y
'DF32'	35	Forename	ASCII	M	Y	Y
'DF33'	35	Surname	ASCII	M	Y	Y
'DF39'	8	Home Tel	BCD	O	N	Y
'DF3A'	8	Mobile	BCD	O	N	Y
'DF3C'	40	Email	ASCII	O	N	Y
'DF53'	13	Initials	ASCII	O	Y	Y
'DF56'	50	House Number / Name	ASCII	O	N	Y
'DF57'	8	Postcode	ASCII	O	N	Y
'DF59'	8	Work Tel	BCD	O	N	Y
'DF5B'	1	Resident	ASCII	O	Y	Y
'DF5A'		Ethnicity		O	N	Y
'DF5C'	20	Password	ASCII	O	N	Y
'DF5D'	8	Car Reg	ASCII	O	N	Y
'DF5E'	100	Notes	ASCII	O	N	Y
'DF64'	12	Local Authority	ASCII	O	Y	Y
'DF65'	10	Concession	ASCII	O	Y	Y
'DF66'	25	Sub-dwelling	ASCII	O	N	Y
'DF67'	50	Street Name	ASCII	O	N	Y
'DF68'	35	Locality	ASCII	O	N	Y
'DF69'	20	Post Town	ASCII	O	N	Y
'DF6A'	20	County	ASCII	O	N	Y
'DF6B'	1	Address Valid	ASCII	O	N	Y
'DF6C'	8	UPRN	BCD	O	Y	Y
'DF6D'	4	Card Expiry Date	DATE	M	N	Y

The mandatory data items are the recommended minimum for local authority issued cards.

1.2 Health

Tag	Max. Length (bytes)	Data Item	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF01'	32	Allergies	ASCII	M	Y	Y
'DF02'	5	Blood Group	ASCII	M	Y	Y
'DF03'	32	Serious Illness	ASCII	M	Y	Y
'DF04'	5	NHS Number	BCD	M	Y	Y
'DF05'	32	Medical Practice	ASCII	M	Y	Y

1.3 Organ Donor

Tag	Max. Length (bytes)	Data Item	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF01'	20	Ethnic Origin	ASCII	M	Y	Y
'DF02'	3	Donate Kidney	ASCII	M	Y	Y
'DF03'	3	Donate Heart	ASCII	M	Y	Y
'DF04'	3	Donate Liver	ASCII	M	Y	Y
'DF05'	3	Donate Cornea	ASCII	M	Y	Y
'DF06'	3	Donate Lungs	ASCII	M	Y	Y
'DF07'	3	Donate Pancreas	ASCII	M	Y	Y

1.4 Leisure

Tag	Max. Length (bytes)	Data Item	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF01'	10	Site No	ASCII	M	Y	Y
'DF02'	25	Site Name	ASCII	M	Y	Y
'DF03'	25	Mgmt System	ASCII	M	Y	Y
'DF04'	9	Member Id	ASCII	M	Y	Y

1.5 Trust

Tag	Max. Length (bytes)	Data Item	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF01'	1	Authentication Level	BCD	M	Y	Y
'DF02'	4	Verified Date	DATE	M	Y	Y
'DF03'	4	Expiry Date	DATE	M	Y	Y
'DF04'	1	Age Verified	ASCII	O	Y	Y
'DF05'	1	Student	ASCII	O	Y	Y
'DF06'	4	Student Expiry Date	DATE	O	Y	Y
'DF07'	1	Special Needs Code	BCD	O	Y	Y
'DF08'	1	Mobility Code	BCD	O	Y	Y
'DF09'	4	Mobil Expiry Date	DATE	O	Y	Y
'DF0E'	1	Address Verified	ASCII	O	Y	Y

1.6 Sure Start

Tag	Max. Length (bytes)	Data Label	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF01'	4	Expiry Date	DATE	M	Y	Y
'DF02'	2	Child ID1	BCD	M	Y	Y
'DF03'	70	Child Name1	ASCII	M	Y	Y
'DF04'	2	Child ID2	BCD	O	Y	Y
'DF05'	70	Child Name2	ASCII	O	Y	Y
'DF06'	2	Child ID3	BCD	O	Y	Y
'DF07'	70	Child Name3	ASCII	O	Y	Y
'DF08'	2	Child ID4	BCD	O	Y	Y
'DF09'	70	Child Name4	ASCII	O	Y	Y
'DF0A'	2	Child ID5	BCD	O	Y	Y
'DF0B'	70	Child Name5	ASCII	O	Y	Y
'DF0C'	4	Child DOB1	DATE	M	Y	Y
'DF0D'	4	Child DOB2	DATE	O	Y	Y
'DF0E'	4	Child DOB3	DATE	O	Y	Y
'DF0F'	4	Child DOB4	DATE	O	Y	Y
'DF10'	4	Child DOB5	DATE	O	Y	Y

1.7 Special Needs

Tag	Max. Length (bytes)	Data Label	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF50'	1	Symbols	BINARY	O	Y	Y
'DF51'	1	Character Size	BINARY	O	Y	Y
'DF52'	1	Screen Colour	BINARY	O	Y	Y
'DF53'	1	Colour Avoidance	BINARY	O	Y	Y
'DF54'	1	Position of Screen	BINARY	O	Y	Y
'DF55'	1	Speech Output	BINARY	O	Y	Y
'DF56'	1	Sound Amplification	BINARY	O	Y	Y
'DF57'	1	High Frequency Amplification	BINARY	O	Y	Y
'DF58'	1	Low Frequency Amplification	BINARY	O	Y	Y
'DF59'	2	Input Requirements	BINARY	O	Y	Y
'DF5E'	2	Keyboard Characteristics	BINARY	O	Y	Y
'DF5F'	1	SMS Communication	BINARY	O	Y	Y
'DF6B'	1	Non-Keyboard Input Requirements	BINARY	O	Y	Y
'DF5A'	2	Touch Screen	BINARY	O	Y	Y
'DF5B'	8	Position of Input Device	BINARY	O	Y	Y
'DF5C'	2	Time-outs	BINARY	O	Y	Y
'DF2D'	8	Language Preferences	ASCII	O	Y	Y
'DF5D'	1	Interface Complexity Level	BINARY	O	Y	Y
'DF61'	1	Screen Reader	BINARY	O	Y	Y
'DF62'	1	Links	BINARY	O	Y	Y
'DF63'	1	Speech Rate	BINARY	O	Y	Y
'DF64'	1	Screen Enhancement Software	BINARY	O	Y	Y
'DF65'	1	Font	BINARY	O	Y	Y
'DF66'	1	Icons	BINARY	O	Y	Y
'DF67'	1	Mouse Buttons	BINARY	O	Y	Y
'DF68'	1	Pointer Characteristics	BINARY	O	Y	Y
'DF69'	1	On-screen Keyboard	BINARY	O	Y	Y
'DF6A'	1	Numeric, Time and Date Presentation	BINARY	O	Y	Y
'DF6C'	1	ALT Text	BINARY	O	Y	Y
'DF6D'	1	Speech Output of non-alphanumeric characters	BINARY	O	Y	Y
'DF6F'	1	Braille Display	BINARY	O	Y	Y
'DF70'	1	Captions	BINARY	O	Y	Y
'DF71'	1	Audio Description	BINARY	O	Y	Y
'DF72'	1	Clean Audio	BINARY	O	Y	Y
'DF73'	1	Menu Selection Mode	BINARY	O	Y	Y

'DF74'	1	Scrolling Mode	BINARY	O	Y	Y
'DF76'	1	Animation	BINARY	O	Y	Y
'DF77'	1	Biometric Characteristics	BINARY	O	Y	Y
'DF6E'	1	Visible Output of Audible Promptings	BINARY	O	Y	Y
'DF7A'	1	Duration of Visible Signal	BINARY	O	Y	Y
'DF78'	1	Pre-stored Message	BINARY	O	Y	Y
'DF79'	N	Variable Message	ASCII	O	Y	Y

1.8 T-Scheme Authentication Level

Tag	Max. Length (bytes)	Data Item	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF01'	1	Level	BCD	M	Y	Y
'DF02'	4	Verified Date	DATE	M	Y	Y
'DF03'	4	Expiry Date	DATE	M	Y	Y

1.9 Membership

Tag	Max. Length (bytes)	Data Item	Data Format	Mandatory / Optional	Mifare™ 4K	Javacard
'50'	16	Service Label	ASCII	M	Y	N
'DF01'	24	Library Number	ASCII	O	Y	Y
'DF02'	24	Leisure Number	ASCII	O	Y	Y
'DF03'	24	Access Number	ASCII	O	Y	Y

1.10 UCI

Constructed using tags defined in related document [5].

1.11 Data Format Encoding

Data Format	Value	Definition
ASCII	'00'	Text data coded using ASCII codes.
BCD	'01'	Standard unsigned BCD encoded number. The most significant byte shall be encountered first in the data stream, also known as "big endian".
DATE	'02'	Unsigned BCD encoded as YYYYMMDD.

Data Format	Value	Definition
BINARY	'04'	Binary coded data.

1.12 Unique Service Identifiers

USID	Service
0001	CCDA
0002	Health
0003	Organ Donor
0004	Leisure
0005	Trust
0006	Sure Start
0007	Special Needs
0008	T-Scheme Authentication Level
0009	Membership

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