

## Quick selection of ePassports and eVisas

(Revision 3.0, this document replaces WG8 N 990 R1)

### Scope:

This article proposes a method for quick selection of ePassports and eVisas compliant to ISO/IEC 14443.

### Background:

Annex K, ICAO Requirements for ePassports interoperability specification lists a number of identified issues that are out for comments. Issue – K.06 deals with distinguishing between ePassports and eVisas.

ICAO ePassport meeting 2004-06-18 in London came up with the following resolution:

Type A and Type B ePassports shall use a similar/the same coding for the eGovernment application. ePassport and eVisa applications shall be allocated with dedicated AFI codes.

For Type A chips: the AFI code shall be retrieved in the Historical bytes of the ATS

For Type B chips: the AFI code shall be retrieved during the REQB/WUPB command sequence.

### AFI coding:

WG8 had allocated the AFI 'E' at its meeting held in Sydney 2004-10-12/15.

Amendment to ISO/IEC 14443-3 Table 12 – AFI coding

AFI Most significant Half byte	AFI Least significant Half byte	Meaning	Example / Note
'E'	'0'	EGovernment	Including all subgroups of 'E'
'E'	'1'	ePassport	
'E'	'2'	eVisa	

In the case of eGovernment PICC's the Least significant Half byte is standardised and not for proprietary use!

### Type A chips:

The basic ISO/IEC 14443 type A initialisation, anticollision and selection procedure is shown in figure 1. The RATS command sequence provides compatibility with ISO/IEC 7816 via the ability of the PICC to respond with Historical bytes defined in ISO/IEC 7816-4.

Type A chips may respond with AFI codes of ISO/IEC 14443-3 by including them in the historical bytes according to ISO/IEC 7816-4.

#### ISO/IEC 7816-4 requirements

WG4 had allocated the tag '49' at its meeting held in London on 2004-09-29 to 10-1.

Tag '49' shall be a variable length tag because multi-application card shall return all its applications in tag '49'. If all the historical bytes do not fit in ATS length, the ATS will be truncated to its maximum length and the information may be retrieved by an application command such as GET DATA.

AFI codes may be encoded via COMPACT-TLV data objects with compact header '9' followed by length indicator n.

Examples for valid Historical byte strings:

'8091E1' indicates a ePassport application on the chip

'8091E2' indicates a eVisa application on the chip

'8092E1E2' indicates multiapplication of ePassport and eVisa on one chip

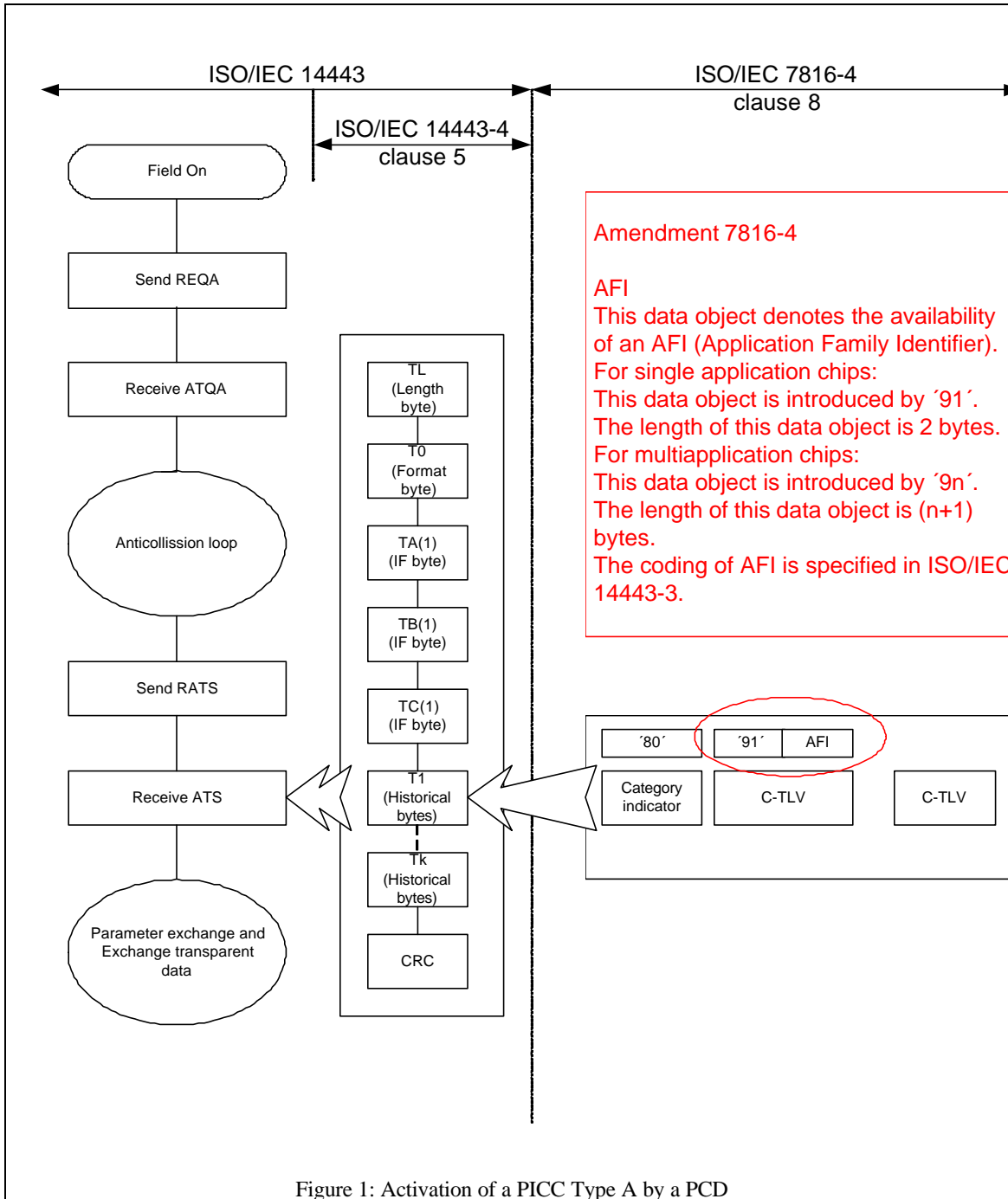


Figure 1: Activation of a PICC Type A by a PCD

### Type B chips

should answer according ISO/IEC 14443-3, subclause 7.9.3.1

- to REQB('E1') with ATQB('E0' or 'E1')
- to REQB('E2') with ATQB('E0' or 'E1')
- to REQB('E0') with ATQB('E0' or 'E1' or 'E2')

The 4<sup>th</sup> byte of application data will indicate the number of applications in the chip.  
 The PCD should not rely on the multi-application chip answer.

The mechanism for quick selection is the REQB(AFI), whatever the ATQB answer is.

***Application example:***

\* A passport reader terminal can request all available contactless chips's and immediately check if the selected PICC holds the one and only ePassport application, or if it holds an eVisa or any other application.