

Quick selection of ePassports and eVisas for Type A and B ISO/IEC 14443 chips

Scope:

This article proposes a method for quick selection of ePassports and eVisas for ISO/IEC 14443 contactless smart cards.

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.

Basics:

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.

Herewith it is proposed to use the same mechanism for identification of ePassport and eVisa chips and allocate a new application class tag for contactless PICC's that support the AFI coding of ISO/IEC 14443-3.

The coding of AFI is specified in ISO/IEC 14443-3.

AFI coding:

A proposal for eGovernment coding is the following:

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

AFI Most significant Half byte	AFI Least significant Half byte	Meaning	Example / Note
'9'	'0'	EGovernment	Including all subgroups of '9'
'9'	'1'	ePassport	
'9'	'2'	eVisa	
'9'	'3'	ePassport and eVisa	Multiapplication in one chip

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

