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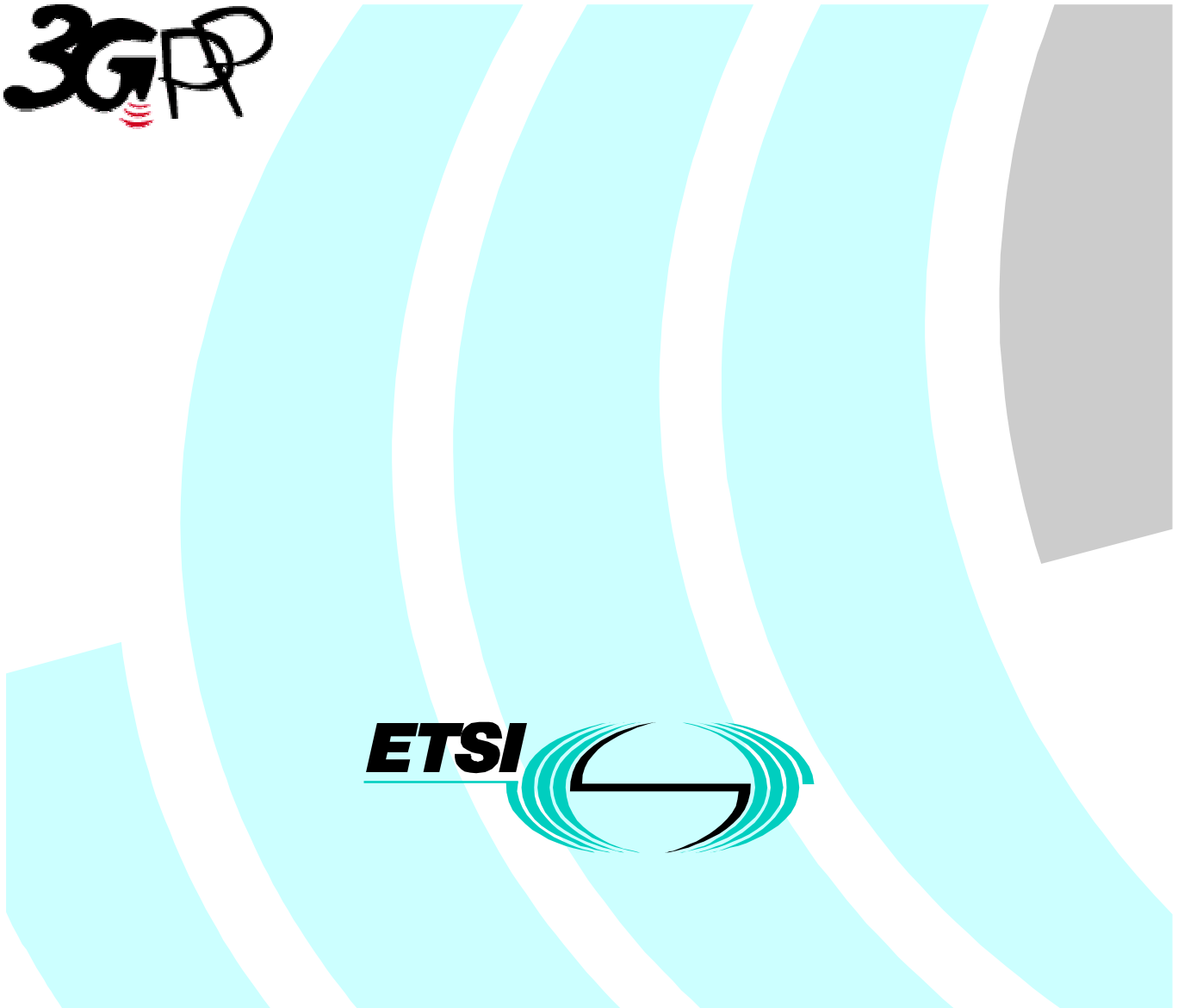
Technical Specification

Universal Mobile Telecommunications System (UMTS);
Numbering system for telecommunication IC card applications
(3GPP TS 31.110 version 3.2.0 Release 1999)



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650 Route des Lucioles
F-06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Siret N° 348 623 562 00017 - NAF 742 C
Association à but non lucratif enregistrée à la
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Foreword

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Contents

Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (3GPP).

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
  - 1 presented to TSG for information;
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- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

The present document describes the numbering system for Application IDentifiers (AID) for 3G telecommunication Integrated Circuits (IC) card applications.

The numbering system described in the present document provides a means for an application and related services offered by a provider to identify if a given card contains the elements required by its application and related services.

An AID is used to address an application in the card. It consists of a Registered application provider IDentifier (RID) and a Proprietary application Identifier eXtension (PIX).

The present document describes the coding of the PIX.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

[1] ISO/IEC 7816-4 (1995): "Information technology - Identification cards - Integrated circuit(s) cards with contacts - Part 4: Inter-industry commands for interchange".

[2] ISO/IEC 7816-5 (1994): "Identification cards - Integrated circuit(s) cards with contacts - Part 5: Numbering system and registration procedure for application identifiers".

[3] ITU-T Recommendation E.118: "The international telecommunication charge card".

[4] ITU-T Recommendation E.164: "Numbering plan for the ISDN era".

[5] 3GPP TS 11.11: "Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".

[6] 3GPP TS 11.14: "Specification of the SIM Application Toolkit for the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".

[7] 3GPP TS 03.19: "Subscriber Identify Module Application Programming Interface (SIM API); SIM API for Java Card; Stage 2".

[8] 3GPP TS 31.101: "UICC - Terminal interface; Physical and logical characteristics".

[9] 3GPP TS 31.102: "Characteristics of the USIM Application".

[10] 3GPP TS 31.111: "USIM Application Toolkit".

[11] 3GPP TS 03.48: "Security Mechanisms for the SIM application toolkit".

[12] ETSI TS 101 220: "Integrated Circuit Cards (ICC); ETSI numbering system for telecommunication Application providers (AID)".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Application IDentifier (AID): A data element which identifies an application in a card. An AID may contain a Registered application provider IDentifier (RID). If it contains either a RID or an issuer identification number, then this identification is unambiguous (see ISO/IEC 7816-5 [2]).

Application Provider: An entity which provides those components of an application on a card required to perform the respective application (see ISO/IEC 7816-5 [2]).

Telecommunication IC card application: An application described by a 3G document.

3.2 Abbreviations

For the purposes of the present document, the following abbreviations apply:

AID	Application IDentifier
GSM	Global System for Mobile communications
IC	Integrated Circuit(s)
ICC	IC Card
ID	IDentifier
PIX	Proprietary application Identifier eXtension
RID	Registered application provider IDentifier
TETRA	TErrestrial Trunk RAdio

4 Structure of the Application IDentifier (AID)

In accordance with ISO/IEC 7816-5 [2], the AID has the following structure:

<---------- Application IDentifier (AID) ---------->	
Registered application provider IDentifier (RID)	Proprietary application Identifier eXtension (PIX)
<---------- 5 bytes ---------->	<---------- ≤11 bytes ---------->

The AID consists of a Registered application provider IDentifier (RID) of 5 bytes and a Proprietary application Identifier eXtension (PIX) of up to 11 bytes.

4.1 Registered application provider IDentifier (RID)

The 3G RID, as registered by ISO/IEC according to ISO/IEC 7816-5 [2], is 'A000000087'.

4.2 Proprietary application Identifier eXtension (PIX)

The PIX is used at the discretion of 3G and can contain between 7 and 11 bytes of information. The PIX is coded in hexadecimal. Hexadecimal digit 1 is the most significant digit.

Digit 1-4 3G application code.

- Purpose: To be used for identification of the standardized 3G card application. Different versions of an application may have individual codings.

- Management: Assigned by ETSI Secretariat on request from the 3G technical body responsible for the document in question.

- Coding: Hexadecimal. The coding indicates the 3G document that specifies the standardized 3G card application and the 3G PIX number. The correspondence between digits 1-4 and the 3G document in question can be seen in a list maintained by the ETSI Secretariat (see Annex A). Escape value '0000' is reserved for use by the ETSI Secretariat for proprietary 3G applications.

Digits 5-8 Country code

- Purpose: To indicate the country of the application provider of the 3G standardized application.

- Coding: According to ITU Recommendation E.164 [3]. The coding is right justified and padded with 'F' on the left.

NOTE: List of actual country codes is published by ITU.

Digits 9-14 Application provider code

- Purpose: Individual code for the application provider of the 3G standardized application.

- Coding: According to ITU Recommendation E.118 [4]. Hexadecimal. The coding is right justified and padded with 'F' on the left.

Digits 15 up to 22 Application provider field. Optional. Up to 8 digits.

- Purpose: This field may, for instance, be used to indicate "local" versions, revisions, etc. of the 3G standardized application. According to ISO/IEC 7816-5 [2], if the AID is 16 bytes long, then the value 'FF' for the least significant byte (digits 21 and 22) is reserved for future use.

- Management: Application provider.

- Coding: Hexadecimal.

Digits 1 to 14 are assigned and registered by the ETSI Secretariat upon request by the responsible 3GPP Working Group.

5 Use of the Application IDentifier (AID)

The use of the AID is specified in ISO/IEC 7816-4 [1] and ISO/IEC 7816-5 [2].

Annex A (normative): Allocated 3GPP PIX numbers

Table A.1: Allocated 3GPP PIX numbers

3G Application Identifiers				
Application	**AID**			**3G document** (note 2)
	RID (note 1)	**3G App Code**	**PIX**	
3G UICC	'A000000087'	'1001'	See annex B for further coding details	3G TS 31.101 [8]
3G USIM	'A000000087'	'1002'	See annex B for further coding details	3G TS 31.102 [9]
3G USIM toolkit	'A000000087'	'1003'	See annex C for further coding details	3G TS 31.111 [10]

NOTE 1: The 3GPP RID, as registered by ISO/IEC according to ISO/IEC 7816-5 [2], is 'A000000087'.
NOTE 2: It is the responsibility of the 3GPP technical body, in charge of the application standardization, to inform the ETSI Secretariat when the respective 3G document is withdrawn or renumbered.

Annex B (normative): Coding of the PIX for 3G UICC and USIM Applications

The following codings apply for the structure of the PIX when the application is a 3G telecommunication Integrated Circuits (IC) card application.

Digit 1-4 3G application code.

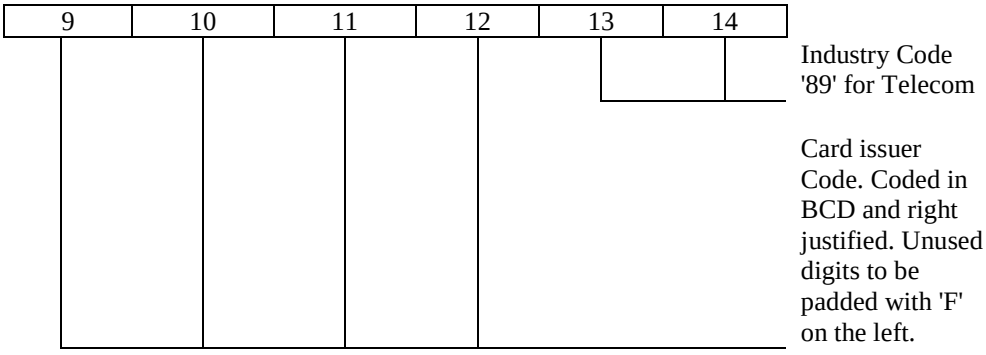
Coding: As specified in clause 4.2 of this document, and as shown in Annex A.

Digits 5-8 Country code.

Coding: As specified in clause 4.2 of this document.

Digits 9-14 Application provider code.

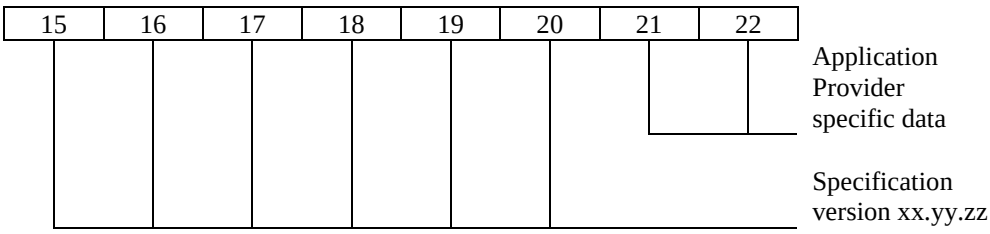
Coding: As defined below.



Card issuer code and Industry code are coded in line with ITU-T recommendation E.118 [3].

Digits 15 up to 22 Application provider field. 8 digits.

- Coding: Digit 15 to 20, coded in BCD, refer to the specification version xx.yy.zz.
  - Digit 21 to 22 are coded in hexadecimal.
  - The application provider field format is as defined below:



- Application Provider specific data: For application administration purposes.

Annex C (normative): Coding of the PIX for 3G USIM Toolkit applications

The following codings apply for the structure of the PIX when the application is a 3G USIM Toolkit Application.

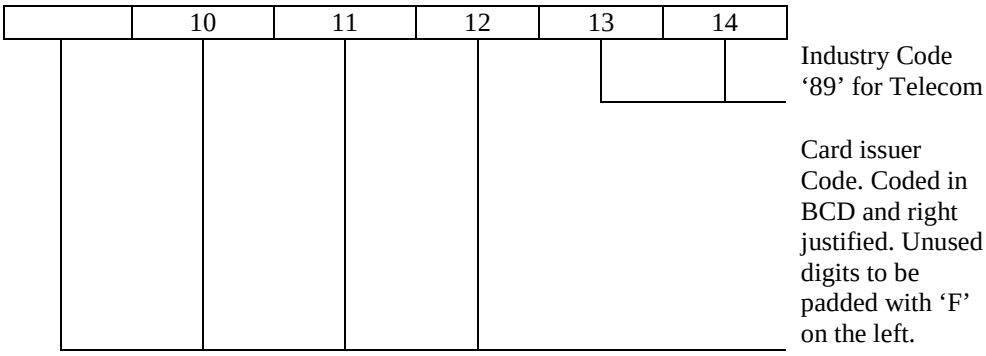
- Digit 1-4: 3G application code.
- Coding: As specified in clause 4.2 of this document, and as shown in Annex A.

Digits 5-8: Country code.

- Coding: As specified in clause 4.2 of this document.

Digits 9-14: Application provider code.

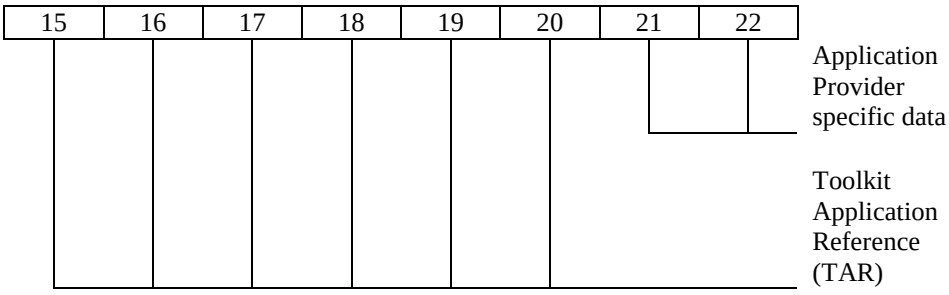
- Coding: As defined below.



Card issuer code and Industry code are coded in line with ITU-T recommendation E.118 [3].

Digits 15 up to 22: Application provider field. 8 digits.

- Coding: Hexadecimal, as defined below.



- Toolkit Application Reference as specified in GSM 03.48 [11], is managed by the application provider (i.e. operator in that case) except for TAR values beginning with hexadecimal value 'B' (most significant bits of digit 15) which are reserved for future use by the 3GPP and the TAR value '000000' which is reserved for the card manager (see GSM 03.48 [11]).
- Application Provider specific data: For application administration purposes.

Annex D (informative): Allocated ETSI PIX numbers

Table D.1: Allocated ETSI PIX numbers

Table D.1 below is shown for information. The original table can be found in ETSI TS 101 220 [12].

ETSI Application Identifiers				
Application	**AID**			**ETSI document**
	RID (note 1)	**ETSI App Code**	**PIX**	
Reserved	'A000000009'	'0000'	Reserved for ETSI	
GSM	'A000000009'	'0001'	See ETSI TS 101 220 [12] for further coding details	GSM 11.11 [5]
GSM SIM toolkit	'A000000009'	'0002'	See ETSI TS 101 220 [12] for further coding details	GSM 11.14 [6]
GSM SIM API for Java™ Card	'A000000009'	'0003'	See ETSI TS 101 220 [12] for further coding details	GSM 03.19 [7]
TETRA	'A000000009'	'0004'	See ETSI TS 101 220 [12] for further coding details	ETS 300 812
NOTE 1: The ETSI RID, as registered by ISO/IEC according to ISO/IEC 7816-5 [2], is 'A000000009'.				

Annex E (informative): Change history

The table below indicates all change requests that have been incorporated into the present document since it was initially approved by 3GPP TSG-T.

Change history								
Date	**TSG #**	**TSG Doc.**	**CR**	**Rev**	**Cat**	**Subject/Comment**	**Old**	**New**
1999-12	TP-06	TP-99579				Draft specification approved at TSG-T #-6, Dec 1999	2.0.0	3.0.0
2000-04	TP-07	TP-000015	001	3	B	Addition of USIM version coding	3.0.0	3.1.0
		TP-000015	002	2	B	Clarification of management of country codes and card issuer identifiers		
2000-10	TP-09	TP-000153	003	1	F	Reservation of TAR values	3.1.0	3.2.0

History

Document history		
V3.0.0	January 2000	Publication
V3.1.0	April 2000	Publication
V3.2.0	October 2000	Publication