Agenda item: **8.3**

Document for: **Information**

Source: **T3**

Title: **3G TS 31.110 v1.0.0**
"Numbering system for telecommunication IC card applications"

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1 Summary

At the TSG-T#5 meeting in October, T3 proposed to submit the 3G TS 31.110 v1.0.0 "Numbering system for telecommunication IC card applications" for **information** to TSG-T by email after T3#10 in November.

This will allow TSG-T to **approve** this specification, belonging to Release 99, at TSG-T#6 meeting in December 1999.

3G TS 31.110 v1.0.0 is attached to the present document (TP-99230) and it can also be found at:
ftp://ftp.3gpp.org/Specs/Latest_drafts/

2 Quote from TSG-T#5 DRAFT Report (TP-99225)

Approval of new Work Items

TP-99184	New T3 Work Items (4)	T3
TP-99210	New Work Item USIM/UICC Database (1)	T3

WI #	T3 Doc	Title	Release	Target v3.0.0 approval
1	T3-99319	UICC Application Identifiers	R99	December 1999
2	T3-99320	Terminal tests for the UICC Interface	based on R99 core spec	June 2000
3	T3-99321	UICC Test Specification	based on R99 core spec	June 2000
4	T3-99328	USIM Application Toolkit (USAT)	R99	March 2000
5	T3-99262	UICC/USIM Database	R00	September 2000

Work Item 1: "UICC Application Identifiers"

It will be modelled after an existing ETSI guide EG 201 220. This concept was endorsed by PCG.
This work item creates a specification for the definition and administration of application identifiers for the UICC. An application Identifier consists of a RID (Registered application provider IDentifier) and a PIX (Proprietary Identifier eXtension). As endorsed by the PCG, the 3GPP has applied to ISO for an RID. The new specification will describe the coding of the PIX as well as the registration procedure in accordance with ISO/IEC 7816-5.

- Target TSG approval of v3.0.0 is 12/1999 (for information as v1,0,0 to TSG-T by e-mail in November 99
- Rapporteur: Christian Dietrich and Jean-Marc Gambin, both Schlumberger
- Supporting companies: Gemplus, Giesecke & Devrient (G&D), NTT DoCoMo, Schlumberger, Sonera.

3G TS 31.110 V1.0.0 (1999-11)

Technical Specification

3rd Generation Partnership Project; Technical Specification Group Terminals; Numbering system for telecommunication IC card applications (3G TS 31.110 version 1.0.0)

Reference
TSGT-0331110

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3GPP

Postal address

3GPP support office address
650 Route des Lucioles - Sophia Antipolis
Valbonne - FRANCE
Tel.: +33 4 92 94 42 00 Fax: +33 4 93 65 47 16

Internet
http://www.3gpp.org

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Foreword

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

References may be made to:

a) specific versions of publications (identified by date of publication, edition number, version number, etc.), in which case, subsequent revisions to the referenced document do not apply; or

b) all versions up to and including the identified version (identified by "up to and including" before the version identity); or

c) all versions subsequent to and including the identified version (identified by "onwards" following the version identity); or

d) publications without mention of a specific version, in which case 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] GSM 11.11: "Digital cellular telecommunications system (Phase 2+); Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".

[6] GSM 11.14: "Digital cellular telecommunications system (Phase 2+); Specification of the SIM Application Toolkit for the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".

[7] GSM 03.19: "Digital cellular telecommunications system (Phase 2+); Subscriber Identify Module Application Programming Interface (SIM API); SIM API for Java Card; Stage 2".

[8] 3G TS 31.101: "Technical Specification Group Terminals; UICC-Terminal, Physical and Logical Characteristics".

[9] 3G TS 31.102: "Technical Specification Group Terminals; Characteristics of the USIM Application".

[10] 3G TS 31.111: "Technical Specification Group Terminals; USIM Application Toolkit".

[11] 3G TS 31.xxx: [GSM 03.48 Transferred to 3GPP]

[12] EG 201 220: "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 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

4 Structure of the Application IDentifier (AID)

In accordance with subclause 5.2 of 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 [tbd].

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 subclause 6.3). 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.
Management:	Assigned by ETSI Secretariat.
Coding:	According to ITU Recommendation E.164 [4]. 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.
Management:	Assigned by ETSI Secretariat.
Coding:	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:	The use of this field is entirely up to the application provider. It may, for instance, be used to indicate "local" versions, revisions, etc. of the 3G standardized application. According to ISO/IEC 7816-5 [2] subclause 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 3G 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:
Allocated 3G PIX numbers

Table A.1: Allocated ETSI PIX numbers

The table below is shown for information. The original table can be found in EG 201 220 [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 EG 201 220 [12] for further coding details	GSM 11.11 [5]
GSM SIM toolkit	'A000000009'	'0002'	See EG 201 220 [12] for further coding details	GSM 11.14 [6]
GSM SIM API for Java™ Card	'A000000009'	'0003'	See EG 201 220 [12] for further coding details	GSM 03.19 [7]
NOTE 1: The ETSI RID, as registered by ISO/IEC according to ISO/IEC 7816-5 [2], is 'A000000009'.				

Table A.2: Allocated 3G PIX numbers

3G Application Identifiers				
Application	**AID**			**3G document** (note 2)
	RID (note 1)	**3G App Code**	**PIX**	
3G UICC	[TBD]	'1001'	See annex B for further coding details	3G TS 31.101 [8]
3G USIM	[TBD]	'1002'	See annex B for further coding details	3G TS 31.102 [9]
3G USIM toolkit	[TBD]	'1003'	See annex B for further coding details	3G TS 31.111 [10]
NOTE 1: The 3G RID, as registered by ISO/IEC according to ISO/IEC 7816-5 [2], is [TBD]. NOTE 2: It is the responsibility of the 3G 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 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**

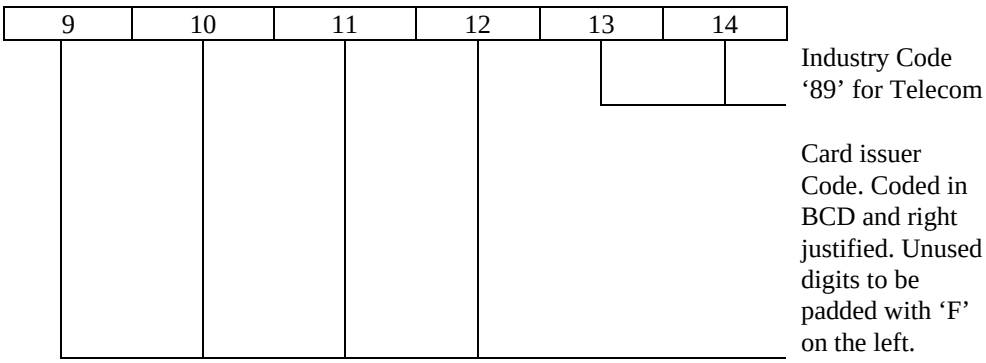
Coding: As specified in clause 4.2 of this document, and as shown in table A.2.

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.

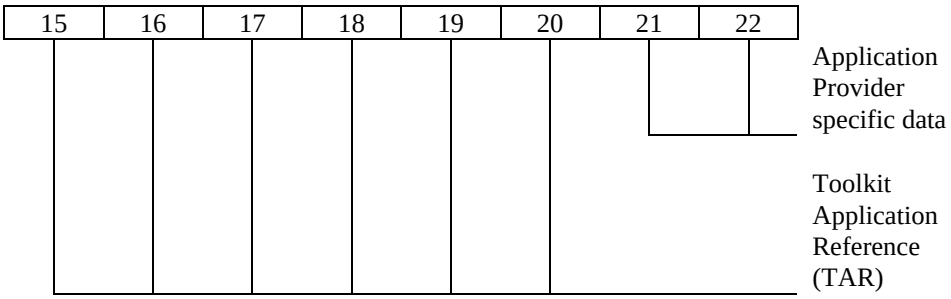


Card issuer code and Industry code are coded in line with ITU-T recommendation E.118 [3].

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

Digits 15 to 22 are used only if the 3G application code is '1003' (i.e. UICC Toolkit application)

Coding: Hexadecimal. If the application is a UICC Toolkit application (as defined in 3G TS 31.111 [10]), the coding is as defined below.



Toolkit Application Reference as specified in 3G TS 31.xxx [TBD transfered GSM 03.48] [11], is managed by the application provider
Application Provider specific data: For application administration purposes.

History

Document history		
V0.0.1	November 1999	First Draft presented at 3G TSG-T3 (USIM) Meeting #10
V1.0.0	November 1999	T3 #10 agreed to present v1.0.0 for information to TSG-T (identical to v0.0.1)