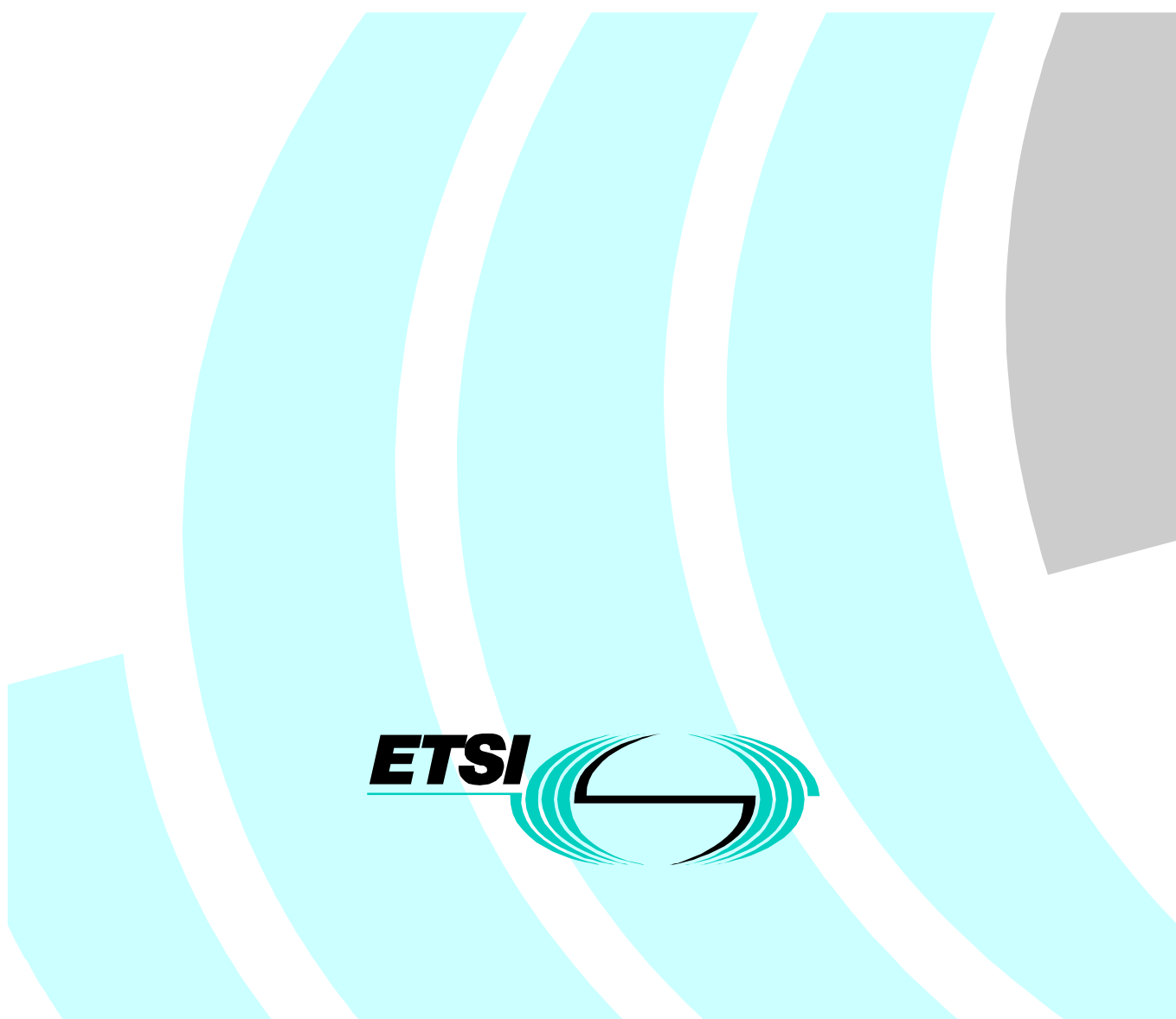


**Integrated Circuits Cards (ICC);
ETSI numbering system for telecommunication;
Application providers (AID)**



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KeywordsCard, ID

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Pursuant to the ETSI IPR Policy, no investigation, including IPR searches, has been carried out by ETSI. No guarantee can be given as to the existence of other IPRs not referenced in SR 000 314 (or the updates on the ETSI Web server) which are, or may be, or may become, essential to the present document.

Foreword

This ETSI Guide (EG) has been produced by ETSI Technical Committee Special Mobile Group (SMG), and is now submitted for the ETSI standards Membership Approval Procedure.

The contents of the present document are subject to continuing work within SMG and may change following formal SMG approval. Should SMG modify the contents of the present document, it will be republished by ETSI with an identifying change of release date and an increase in version number.

NOTE: The present document has been prepared not only by the former ETSI TC ICC, but by ETSI STC TE9 in co-operation with ETSI STC SMG9, ETSI STC RES3/DAM and ETSI STC NA6/UCG.

1 Scope

The present document describes the numbering system for Application IDentifiers (AID) for ETSI telecommunication Integrated Circuits (IC) card applications according to ETSI documents and Application Providers (AP).

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 as well as the registration procedure.

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.
- A non-specific reference to an ETS shall also be taken to refer to later versions published as an EN with the same number.

- [1] ISO/IEC 7816-5 (1994): "Identification cards - Integrated circuit(s) cards with contacts - Part 5: Numbering system and registration procedure for application identifiers".
- [2] ITU-T Recommendation E.164: "The international public telecommunication numbering plan".
- [3] ISO/IEC 7816-4 (1995): "Information technology - Identification cards - Integrated circuit(s) cards with contacts - Part 4: Inter-industry commands for interchange".
- [4] ITU-T Recommendation E.118: "The international telecommunication charge card".
- [5] GSM 03.48: "Digital cellular telecommunications system (Phase 2+); Security Mechanisms for the SIM application toolkit; Stage 2".
- [6] GSM 11.11: "Digital cellular telecommunications system (Phase 2+); Specification of the Subscriber Identity Module - Mobile Equipment (SIM - ME) interface".
- [7] 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".
- [8] GSM 03.19: "Digital cellular telecommunications system (Phase 2+); Subscriber Identify Module Application Programming Interface (SIM API); SIM API for Java Card; Stage 2".

3 Definitions and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply (the first two from ISO/IEC 7816-5 [1]):

Application Identifier (AID): 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 [ISO/IEC 7816-5 [1]].

Application Provider (AP): entity, which provides those components of an application on a card, required to perform the respective application [ISO/IEC 7816-5 [1]].

telecommunication IC card application: application described by an ETSI document.

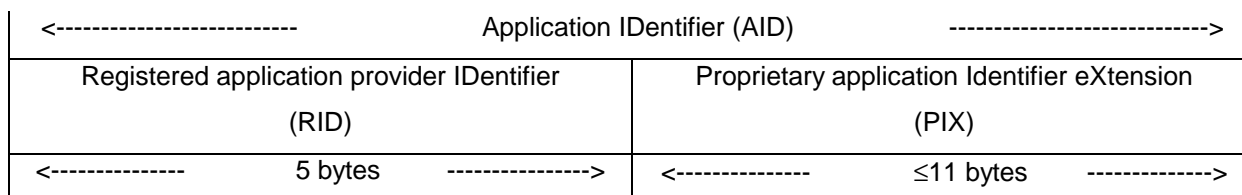
3.2 Abbreviations

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

AID	Application Identifier
AP	Application Provider
DECT	Digital Enhanced Cordless Telecommunications
GSM	Global System for Mobile communication
IC	Integrated Circuit(s)
ICC	IC Card
ID	Identifier
PIX	Proprietary application Identifier eXtension
RID	Registered application provider Identifier
TC	Technical Committee (in ETSI)
STC	Technical Sub-Committee (in ETSI)
UPT	Universal Personal Telecommunications

4 Structure of the Application Identifier (AID)

In accordance with subclause 5.2 of ISO/IEC 7816-5 [1], the AID has the following structure:



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 ETSI RID, as registered by ISO according to ISO/IEC 7816-5 [1], is 'A000000009'.

4.2 Proprietary application Identifier eXtension (PIX)

The PIX is used at the discretion of ETSI 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	ETSI application code
Purpose:	To be used for identification of the standardized ETSI card application (e.g. GSM, DECT, UPT, pre-paid application). Different versions of an application may have individual codings.
Management:	Assigned by ETSI on request from the ETSI technical body responsible for the document in question.
Coding:	Hexadecimal. The coding indicates the ETSI document that specifies the standardized ETSI card application and the ETSI PIX number. The correspondence between digits 1-4 and the ETSI 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 ETSI applications.

Digits 5-8	Country code
Purpose:	To indicate the country of the application provider of the ETSI standardized application.
Management:	Assigned by ETSI.
Coding:	According to ITU Recommendation E.164 [2]. 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 ETSI standardized application.
Management:	Assigned by ETSI.
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 ETSI standardized application. According to ISO/IEC 7816-5 [1] 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.

5 Use of the Application Identifier (AID)

The use of the AID is specified in ISO/IEC 7816-4 [3] and ISO/IEC 7816-5 [1].

6 Application and registration procedures

An Application Provider (AP) wishing to get an ETSI PIX number assigned to it, should send its request for such a number to the ETSI Secretariat using the form in annex A, together with a non-refundable registration fee. Method of payment to be determined by the ETSI Secretariat.

Registration forms are also available, on request, from the ETSI Secretariat.

6.1 Criteria for approval and rejection of requests

6.1.1 Criteria for approval of a request for an ETSI PIX number

Requests for an ETSI PIX number should meet all the following criteria:

- a) the applicant should be a provider of telecommunication IC card applications following the specifications laid down in ETSI documents;
- b) the applicant has given a statement that the application conforms to the ETSI document referred to by the application code;
- c) the ETSI PIX number should be used within a year from time of registration (in accordance with ISO practice).

6.1.2 Criteria for rejection of a request for an ETSI PIX number

A request for an ETSI PIX number should be rejected if any of the following conditions exist:

- a) the applicant is not an Application Provider (AP) as defined in subclause 3.1;
- b) the applicant has requested a specific number or the reservation in the register of a specific number or has made a request which is outside the scope of the present document.

6.2 Responsibilities of applicants

The responsibilities of applicants are:

- a) to comply fully with the numbering system and the procedures for requesting ETSI PIX numbers as contained in the present document;
- b) to forward to the ETSI Secretariat a completed registration form (see annex A), together with a statement that the application conforms to the ETSI document referred to by the application code and the requisite fee;

NOTE: The registration fee is not refundable.

- c) to retain the completed registration form containing the ETSI PIX number assigned to the applicant by the ETSI Secretariat;
- d) to provide applications using the ETSI PIX number assigned to the applicant by the ETSI Secretariat within a reasonable time frame;
- e) to inform the ETSI Secretariat of any modification to the data related to the assigned ETSI PIX number;
- f) to take responsibility for the interoperability of all of the applicant's devices using the registered application provider code within the application described in the ETSI document related to the application code chosen;
- g) to register separately for each application if more than one ETSI PIX number is required.

6.3 Responsibilities of the ETSI Secretariat

The responsibilities of the ETSI Secretariat are:

- a) to fully comply with the numbering system and procedures for requesting ETSI PIX numbers in the present document;
- b) to provide ETSI application code on request to the ETSI technical body responsible for the ETSI document in question;
- c) to maintain a register of allocated ETSI application codes and associated ETSI documents;
- d) to process requests for ETSI PIX numbers within 30 days of receipt of a request;
- e) to ensure that clause A.1 of the registration form has been filled in correctly;
- f) where requests fulfil the criteria set down in subclause 6.1.1, to notify applicant, in writing, within 30 days of receipt of the request, as to the number assignment, returning the completed registration form containing the number assignment to the applicant informing it of the requirement to retain the completed registration form as a permanent record;
- g) to reject requests for a specific number and for reservation of a specific number or any request outside the scope of the present document;
- h) where a request is rejected, to advise the applicant, in writing, within 30 days of receipt of the request, that the request has been rejected, informing the applicant of the reason(s) for the rejection;
- i) to maintain the register of ETSI PIX numbers (see subclause 6.4) including its recoverability;
- j) to retain as a permanent record copies of all requests submitted to it, along with the disposition of each request;
- k) to maintain the list of correspondence between the ETSI PIX number and the document that specifies the standardized ETSI card application (see subclause 6.4) including its recoverability;
- l) to respond to general enquiries covering the present document;
- m) to prevent unauthorized use of ETSI AID and/or registered application code and/or ETSI application provider IDs if misuse is brought to the attention of the ETSI Secretariat.

6.4 The register of ETSI PIX numbers

The ETSI Secretariat maintains a database of information taken directly from the registration form.

The register of ETSI PIX numbers contains the following information:

- a) name of organization;
- b) information as indicated on the registration form;
- c) ETSI PIX number(s) assigned to the Application Provider (AP) by the ETSI Secretariat.

NOTE: A copy of each request received is maintained on file by the ETSI Secretariat.

Annex A (informative): Request registration form for an ETSI PIX number

Request form to be filled in and addressed to:

ETSI Secretariat

Postal address:
06921 Sophia Antipolis Cedex - FRANCE

Tel.: +33 4 92 94 42 00

Fax: +33 4 93 65 47 16

Internet: secretariat@etsi.fr

This request is submitted in accordance with EG 201 220, i.e. the present document.

A.1 To be completed by the requesting organization

Name of organization:	
Address of organization:	
Principal contact in organization:	
Telephone number:	Fax number:
Address for correspondence/billing:	
European VAT Id:	
Country, if not identical with country in address field:	
Number and title of the ETSI document to which the telecommunication IC card application in question complies:	
ETSI card application code to which the telecommunication IC card application in question complies:	
Date:	Signature:

A.2 To be completed by the ETSI Secretariat

ETSI PIX number:	
Date:	Signature:

Annex B (informative): Allocated ETSI PIX number

Table B.1: Allocation of ETSI PIX

Application	AID			ETSI document (note 2)
	RID (note 1)	ETSI App Code	PIX	
GSM	'A000000009'	'0001'	See annex C for further coding details	GSM 11.11 [6]
GSM SIM toolkit	'A000000009'	'0002'	See annex C for further coding details	GSM 11.14 [7]
GSM SIM API for Java™ Card	'A000000009'	'0003'	See annex D for further coding details	GSM 03.19 [8]
	'A000000009'			
	'A000000009'			
	'A000000009'			
	'A000000009'			
	'A000000009'			
	'A000000009'			
	'A000000009'			

NOTE 1: The ETSI RID, as registered by ISO according to ISO/IEC 7816-5 [1], is 'A000000009'.

NOTE 2: It is the responsibility of the ETSI technical body, in charge of the application standardization, to inform the ETSI Secretariat when the respective ETSI document is withdrawn or renumbered.

AID Application IDentifier
PIX Proprietary application Identifier eXtension
RID Registered application provider IDentifier

Annex C (normative): Coding of the PIX for GSM and SIM Toolkit Applications

The following codings apply for the structure of the PIX when the application is either:

- the GSM application (i.e. ETSI application code = '0001' - as shown in table B.1); or
- a GSM SIM Toolkit application (i.e. ETSI application code = '0002' as shown in table B.1):

Digit 1-4 ETSI application code

Coding: '0001' or '0002' as specified in clause 4.2 of this document

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.

9	10	11	12	13	14

Industry Code
'89' for Telecom

Card issuer
Code. Coded in
BCD and right
justified. Unused
digits to be
padded with 'F'
on the left.

Card issuer code and Industry code are coded in line with ITU-T Recommendation E.118.

Digits 15 up to 22 Application provider field. 8 digits

Digits 15 to 22 shall be used only if the ETSI application code is '0002' (i.e. GSM SIM toolkit)

Coding: Hexadecimal. If the application is a SIM Toolkit application (as defined in GSM 11.14 [7]), the coding is as defined below.

15	16	17	18	19	20	21	22

Application
Provider
specific data

Toolkit
Application
Reference
(TAR)

- Toolkit Application Reference as specified in GSM 03.48 [5], is managed by the application provider
- Application Provider specific data: For application administration purposes.

Annex D (normative): Coding of the PIX for SIM Toolkit API Packages

The following coding apply for the structure of the PIX when the application is a SIM Toolkit API package (i.e. ETSI application code = '0003'- as defined in table B.1):

Digit 1-4 **ETSI application code**

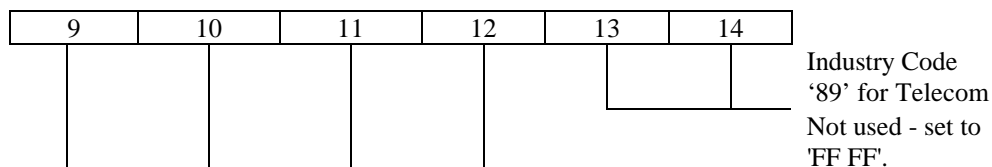
Coding: '0003' as specified in clause 4.2 of this document

Digits 5-8 **Not used**

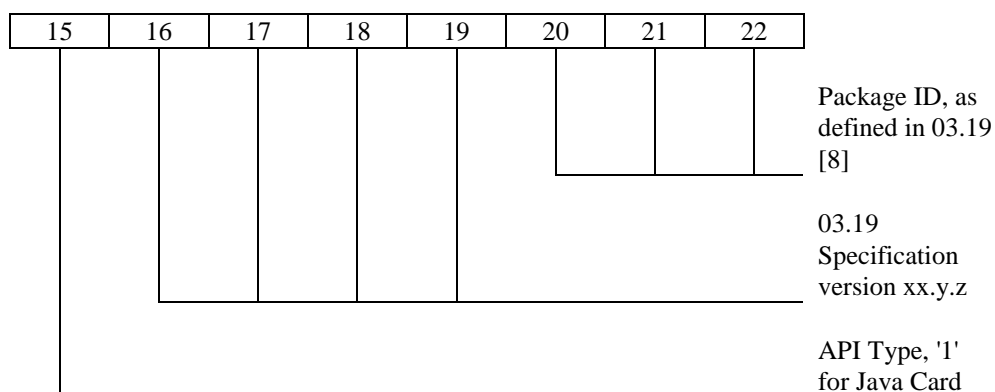
Coding: set to 'FF FF'

Digits 9-14 **Industry code**

Coding: As defined below.



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



Annex E (informative): Change history

This annex lists all change requests approved for this document since ETSI TC SMG took responsibility of it following the closure of ETSI TC ICC.

SMG#	SMG tdoc	SMG9 tdoc	VERS	CR	RV	PH	CAT	SUBJECT	Resulting Version
s27	98-0673	98p371	1.2.1				B	Addition of Normative Annex C, introducing AID coding for GSM and Toolkit applications	1.3.0
s29	P-99-415	9-99-186	1.3.0				B	Addition of Normative Annex D, introducing AID coding for SIM Toolkit packages	1.4.0

History

Document history		
V1.1.1	July 1997	Publication as TR 101 220 (withdrawn in the meantime)
V1.2.1	October 1997	Membership Approval Procedure MV 9751: 1997-10-21 to 1997-12-19
V1.2.1	December 1997	Publication
V1.4.0	September 1999	Membership Approval Procedure MV 9947: 1999-09-21 to 1999-11-19