INTERNATIONAL TELECOMMUNICATION UNION

CCITT

THE INTERNATIONAL
TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE

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SERIES E: OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

Operation, numbering, routing and mobile service – International operation – General provisions concerning Administrations

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Automated international telephone credit card system

Reedition of CCITT Recommendation E.118 published in the Blue Book, Fascicle II.2 (1988)

NOTES

1 CCITT Recommendation E.118 was published in Fascicle II.2 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Recommendation E.118

AUTOMATED INTERNATIONAL TELEPHONE CREDIT CARD SYSTEM

Preamble

The Automated International Telephone Credit Card System and its use throughout the world will provide advantages, conveniences and economic benefits to both users and Administrations.

This is based on a recognition of:

1) the need by Administrations for a reduction in the requirement for operator assistance, adequate security against fraudulent use and facilitated billing procedures, when telephone calls are made at public facilities;

2) the current and anticipated capabilities of credit cards which could provide increased security and new or enhanced services to users;

3) the growing use of more sophisticated credit cards for a variety of services and transactions.

As a result, Administrations are encouraged to prepare for, and introduce, automated international telephone credit card system using the guidance provided in this Recommendation.

The use of the pre-paid or debit card in the national network is a national matter and is not covered by this Recommendation.

Sections 1 through 6 of this Recommendation deal with major attributes of the automated credit card system which may be used by an Administration to establish its own system. Section 7 deals particularly with conditions necessary for international compatibility.

1 Types of credit cards which may be used

1.1 The types of cards which may be used are differentiated in two ways: the organization which issues them and the technology used.

1.2 The automated telephone credit card issued by Administrations and credit cards issued by banks, commercial credit card companies and other organizations can be used so far as the Administration concerned permits such use.

1.3 The IC type card (a card containing a microprocessor and memory in an IC chip) and cards using the magnetic stripe technology may be used if they are equipped with the necessary characteristics for the system.

2 Service agreements to be concluded between the Administrations and credit card issuers (other Administrations, credit card companies, banks, etc.)

The Administration concludes the necessary agreements with credit card issuers (other Administrations, credit card companies, banks, etc.) in order that cards issued by those bodies can be used in the Administration's Automated Telephone Credit Card System. The following are the principal items to be covered in the agreement:

a) payment of the telephone charge to the Administration by credit card issuers;

b) service charges (commission) due to credit card issuers;

c) responsibility on fraudulent use of cards and uncollectibles;

d) exchange of information among Administrations and credit card issuers;

e) validation procedures.

3 Specifications of cards

3.1 *International standards*

For maximum flexibility, convenience of use and economic benefits, the IC and magnetic stripe cards to be issued by Administrations should conform to the relevant ISO standards concerning materials, recording techniques, physical dimensions and the type and format of embossed information.

These are:

ISO/7810 Identification cards – Physical characteristics

ISO/7811/1 Identification cards – Recording technique – Part 1: Embossing

ISO/7811/2 Identification cards – Recording technique – Part 2: Magnetic stripe

ISO/7811/3 Identification cards – Recording technique – Part 3: Location of embossed characters on ID-1 cards

ISO/7811/4 Identification cards – Recording technique – Part 4: Location of read-only magnetic tracks – Tracks 1 and 2

ISO/7811/5 Identification cards – Recording technique – Part 5: Location of read-write magnetic track – Track 3

ISO/7813 Identification cards – Financial transaction cards

Note – The standard for the IC card is to be established by ISO TC 97/SC 17/WG 4.

3.2 *Numbering system*

The numbering of the card to be issued by Administrations shall be as follows based on ISO/7812 (Identification card-numbering system and registration procedure for issuer identifiers).

The maximum length of the visible card number (primary account number) should be 19 characters and is composed of the following sub-parts (see Figure 1/E.118):

– major industry identifier (MII),

– country code,

– issuer identifier number,

– individual account identification number,

– check digit. In addition to the check digit, Administrations may incorporate another validation check device in some location on the card which could be changed when new cards are issued.

Note – Major industry and issuer identifier numbers of the form 66xxxx have already been assigned to some Administrations as a transitional measure. Credit cards of this type are also fully compatible with ISO standards.

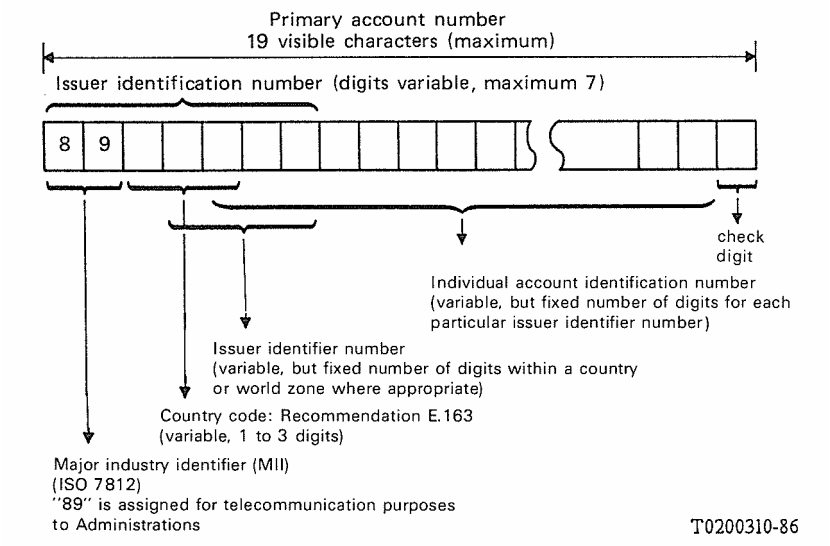

FIGURE 1/E.118

Credit card numbering system

3.3 *Issuer identifier number assignment and registration procedure*

a) The assignment of specific issuer identifier numbers should be the responsibility of a country or group of countries as appropriate.

b) These issuer identifier numbers are normally used to distinguish among multiple issuers within a country. However, these numbers may also be used to distinguish individual countries sharing the same country code (as defined in Recommendation E.163) or, if appropriate, to distinguish both countries and issuers.

c) A central registration authority should be established within ITU for the registration and/or cancellation of issuer identifier numbers for telecommunication Administrations. An illustrative registration form is contained in Figure 2/E.118.

d) The ITU should inform its members and coordinate registration information with the ISO as appropriate.

4 Functions of the system

In addition to the card, equipment to be used in the automated credit card system will include a terminal and may also involve supplementary processors, switching and other network components.

Equipment used in this system involves both memory and processing, either completely at the terminal itself, partly at the terminal and partly at another location, or completely at another location.

The major functions of the system are as follows:

4.1 *Card acceptance and reading*

The system should be able to accept, read and, if required, write information on one or more types of cards (IC, magnetic stripe, etc.) intended for use in the system.

4.2 *Card and user validation*

The system should be able to determine whether a card or billing number is valid and ideally whether the user is the actual owner of the card or billing number.

4.3 *Acceptance of other information*

The system should be able to accept other discretionary information supplied by the user or the card including for example call destination, other options and personal identification, etc. over and above the ISO Standard visible 19 characters.

4.4 *Information transfer*

The system should accept user information for immediate or later transfer to other system equipment, perhaps in a different order from which the information was input.

4.5 *Call records*

The system should record accurate and complete call data (including validation indication) required for billing and administrative purposes. A means for protecting and transferring these records to other administrative areas for further processing is also required.

4.6 *User feedback*

The system should, to the extent feasible, provide enough guidance and error feedback to the user via the terminal, thereby making the system easier and more convenient to use.

4.7 *Information security*

The system should, to the extent feasible, protect user information from disclosure to unauthorized parties.

4.8 *Maintenance*

The system should be practical to maintain and repair. This might involve self-diagnostics, automatic trouble reporting and remote software modifications.

4.9 *Card release*

The card should be released upon call completion or at some earlier point in the process.

5 Basic procedures for use of the card

5.1 *Validation of the card and identification of the card holder*

A user presents the card to the terminal for automatic validation of the card. The user may also present personal identification information, for example, PIN (Personal Identification Number), so that the system or the card can verify it and confirm the authorized use of the card.

5.2 *Call request*

After validation of the card and identification of the card holder, the user enters the desired number and other information if required.

5.3 *Call requests at terminals other than the fully automated telephone*

To increase the usefulness of the credit card, it is desirable to be able to use the card at telephones not associated with the automated system. This requires the user to enter billing and identification information (which may or may not necessarily include personal identification information) by other means such as by voice to an operator, manually entering the digits, or using a portable signalling unit. This information is then validated before the call is allowed to proceed. Some Administrations already have such capabilities. When automated international credit cards are used in a non-automated environment with the assistance of an operator, Recommendation E.116 will apply.

6 Operational procedures for charging, billing and collection of the charge[1)]

6.1 *Timing of calls and handling of call records*

The chargeable duration or the chargeable number of units of calls may be measured by timing devices either at the terminal or at another location.

The chargeable duration or the chargeable number of units of a call together with other records of the call described in § 6.2 should be transferred to the management system such as the Billing and Collection Centre for further processing of such data.

6.2 *Billing information*

Information required for billing might include the following:

a) the card number[2)]

b) chargeable duration or chargeable number of units,

c) calling and called numbers, including country codes when appropriate,

d) time of day (hour and minutes), date (day, month, year),

e) validation indicator,

f) other information.

6.3 *Billing and collection of the telephone charge*

To collect the charges of calls made by credit card holders, the bills and/or billing information are sent to the credit card issuers (including foreign Administrations) according to the service agreement described in § 2. However, the provision of billing information to the card issuers is subject to national regulations.

If the calls are made with a credit card issued by the Administrations operating the system, the bill will go directly into the Administration's customer billing system.

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1) Tariff and accounting principles are contained in the appropriate "D" series Recommendations.

2) The PIN (or secret code) should not be provided, nor should it appear in the billing information.

7 Use of the card in countries other than the country of origin[3)]

7.1 *Reasons for such use*

For maximum convenience, advantage, security and economic benefits in terms of customer satisfaction, operating expense reduction and utilization of the international network, Administrations should admit and encourage the use of foreign cards to the greatest extent feasible.

7.2 *Bilateral service agreements*

Administrations, in order to admit the use of foreign cards with their system, should negotiate bilateral agreements with foreign Administrations (or card issuing bodies) as outlined in § 2.

Administrations wishing to conclude service agreements with foreign card issuers, should carefully select the foreign cards to be used in their system to ensure, among other things, that:

a) there is technical compatibility,

b) card validation and user verification will not be a problem,

c) there will be no problem in the collection of the telephone charge,

d) appropriate procedures are available for lost or stolen cards,

e) cards causing problems will not be honoured.

7.3 *Information to foreign card issuers and customer instruction*

Administrations should keep foreign Administrations or credit card company correspondents fully informed of operating conditions, requirements, restrictions, problems etc. in order that the foreign card issuing body can provide cardholders with customer instructional information to minimize confusion, encourage usage and assist users of cards in other countries.

7.4 *Allowable calls*

For reasons outlined in § 7.1, no limitation should be set on the destination of calls to be made using foreign cards. For example, calls to third countries, calls within a country or calls back to the card issuing country should be permitted.

7.5 *Billing and collection of charges from foreign card issuers*

The Series D Recommendations will cover billing and collection of charges, and until new Recommendations are developed or existing Recommendations are modified, bilateral service agreements between Administrations should apply.

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3) Tariff and accounting principles are contained in the appropriate "D" series Recommendations.

Registration form
to be returned to:

GENERAL SECRETARIAT
OF THE INTERNATIONAL
TELECOMMUNICATION UNION

PLACE DES NATIONS
1211 GENÈVE 20
SUISSE

Registration for issuer identification number for the international telephone credit card system issued by the telecommunications Administrations [a)]

This registration is submitted in accordance with International Standard ISO 7812. *Identification cards – Numbering system and registration procedure for issuer identifiers.*

A. TO BE COMPLETED BY APPLICANT (Card issuer)

Name or organization		
Address to be registered (maximum two lines, 30 characters per line)		
Principal contact in organization		
Telephone number +	Telex number	Telefax number + GR . . .
Address for correspondence		
Effective date of usage or cancellation		
Date	Signature	

B. TO BE COMPLETED BY THE TELECOMMUNICATIONS ADMINISTRATION [a)] OR DULY AUTHORIZED COORDINATING ORGANIZATION

1) Major industry identifier (MII): 89

2) Country code (CC): _____
(according to CCITT Recommendation E.163, Annex A)

3) Action requested (check appropriate box)
Registration ☐ or Cancellation ☐

4) Issuer identifier number: _____
(according to CCITT Recommendation E.118)

[a)] and/or Recognized Private Operating Agency (RPOA).

FIGURE 2/E.118

Illustrative registration form

C. TO BE COMPLETED BY THE APPROVING ORGANIZATION

Name of approving organization	
Date	Signature

D. TO BE COMPLETED BY ITU (CENTRAL REGISTRATION AUTHORITY)

Issuer identification number registered or cancelled 8 9 ☐ ☐ ☐ ☐ ☐ ☐	
Date	Signature

FIGURE 2/E.118 *(end)*

Illustrative registration form

ITU-T E-SERIES RECOMMENDATIONS

OVERALL NETWORK OPERATION, TELEPHONE SERVICE, SERVICE OPERATION AND HUMAN FACTORS

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Field data collection and evaluation on the performance of equipment, networks and services	E.880–E.899

For further details, please refer to ITU-T List of Recommendations.

ITU-T RECOMMENDATIONS SERIES

Series A	Organization of the work of the ITU-T
Series B	Means of expression: definitions, symbols, classification
Series C	General telecommunication statistics
Series D	General tariff principles
Series E	**Overall network operation, telephone service, service operation and human factors**
Series F	Non-telephone telecommunication services
Series G	Transmission systems and media, digital systems and networks
Series H	Audiovisual and multimedia systems
Series I	Integrated services digital network
Series J	Transmission of television, sound programme and other multimedia signals
Series K	Protection against interference
Series L	Construction, installation and protection of cables and other elements of outside plant
Series M	TMN and network maintenance: international transmission systems, telephone circuits, telegraphy, facsimile and leased circuits
Series N	Maintenance: international sound programme and television transmission circuits
Series O	Specifications of measuring equipment
Series P	Telephone transmission quality, telephone installations, local line networks
Series Q	Switching and signalling
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