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AP IX-99-E  
Contents of Recommendation Q.86

CHARGING SUPPLEMENTARY SERVICES

1. Credit card calling services (under study)
2. Advice of charge service (AOC)
3. Reverse charging (under study)

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Recommendation Q.86

CHARGING SUPPLEMENTARY SERVICES

1. Credit card calling service  
Under study.
2. Advice of Charge supplementary service (AOC)

Advice of charge is a service allowing the user paying for a call to be informed of usage-based charging information. This service is not meant to replace the charge meeting inside the network which is considered to be the correct one in all cases.

This service may include one or more of the following cases:

- A) charging information at the end of a call;
- B) charging information during a call;
- C) charging information at call setup time.

2.1 General

2.1.1 Charging information at the end of the call

The possibility for a user to receive charging information for a call when the call is released.

2.1.2 Charging information during a call

AP IX-99-E

The possibility for a user to receive charging information for a call during the active phase of the call.

2.1.3 Charging information at call setup time

The possibility for a user to receive information about the charging rates at call setup time and possible change of charging rates during the call.

2.2 Description

2.2.1 Charging information at the end of a call

2.2.1.1 General description

This case of the supplementary service provides the user with charging information for a call when the call is released. The charging information may consist of a number of information units such as:

- case of Advice of Charge
  - charging at the end of a call
- type of charging
  - free of charge
  - charged amount information
    - used number of charging units
    - used duration
    - used volume
    - used number of times (Note)
  - charging rate information
    - price per time unit and time units
    - price per volume unit and volume units
    - price per number of times unit and number of times unit
    - duration per charging unit and charging units
    - volume per charging unit and charging units
    - number of time units per charging unit and charging

units

Note - Number of times should be used, e.g. to charge a certain number of supplementary service invocations.

- usage charge element
  - registration
  - call attempt
  - invocation
  - duration
  - volume
  - network processing
- billing identification
  - normal charging
  - reverse charging
  - credit card charging

The selection of these values are a national matter.

#### 2.2.1.2 Specific terminology

Not applicable.

#### 2.2.1.3 Qualifications on the applicability to telecommunication services

This supplementary service is applicable to all telecommunication services.

### 2.2.2 Charging information during a call

#### 2.2.2.1 General description

This case of the supplementary service provides the user with information that may be either incremental or cumulative and will be sent automatically or on request.

The charging information may consist of a number of information units such as:

- case of Advice of Charge (AOC)
  - incremental charging during a call, or
  - cumulative charging during a call
- type of charging

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AP IX-99-E

- free of charge
- charged amount information
  - used number of charging units
  - used duration
  - used volume
  - used number of times (Note)
- charging rate information
  - price per time unit and time units
  - price per volume unit and volume units
  - price per number of times unit and number of times unit
  - duration per charging unit and charging units
  - volume per charging unit and charging units
  - number of time units per charging unit and charging

units

Note - Number of times should be used, e.g. to charge a certain number of supplementary service invocations.

- usage charge element
  - registration
  - call attempt
  - invocation
  - duration
  - volume
  - network processing
- billing identification
  - normal charging
  - reverse charging
  - credit card charging

2.2.2.2 Specific terminology

Not applicable.

2.2.2.3 Applicability to telecommunication services

This supplementary service is applicable to all telecommunication services.

2.2.3 Charging information at call setup time

2.2.3.1 General description

This case of the supplementary service provides the user with the possibility to receive information about the charging rates at call establishment. In addition, the user will be informed if a change in charging rates takes place during the call. The charging information may consist of a number of information units such as:

- case of Advice of Charge
    - charging rate information
  - type of charging
    - free of charge
    - charging rate information
      - price per time unit and time units
      - price per volume unit and volume units
      - price per number of times unit and number of times unit
      - duration per charging unit and charging units
      - volume per charging unit and charging units
      - number of time units per charging unit and charging units
- units
- usage charge element
    - registration
    - call attempt
    - invocation
    - duration

- volume
- network processing
- billing identification
- normal charging
- reverse charging
- credit card charging

2.2.3.2 Specific terminology

Not applicable.

2.2.3.3 Applicability to telecommunication services

This supplementary service is applicable to all telecommunication services.

2.3. Derivation of a functional model

The model used for illustrating the Advice of Charge (AOC) supplementary service is given in Figure 2-1/Q.86 below.

1) Scenario - Charging information provided from the local exchange

2) Scenario - Charging information provided from a transit exchange

3) Scenario - Charging information provided from a charging center via the local exchange

- 4)                    Scenario - Charging information provided from a charging centre via the transit exchange

FIGURE 2-1/Q.86

Model for the Advice of Charge supplementary service

2.4            Information flow diagrams

This Recommendation does not describe which information is to be provided in each case because it is considered to be a network dependent matter whether the information is provided, e.g. as charging units or as currency units.

It is assumed that the coding of the Charge Advice Information (CAI) is done in such a way that whenever this information is received by a user, the content shall be self explaining.

2.4.1        Information flows for charging at the end of a call



FIGURE 2-2/Q.86 (1 of 2)

Advice of charge, functions and information flows  
Transfer of charging information