

Recommendation I.256 - Charging supplementary services

The purpose of this Recommendation is to provide the stage 1 description of the technique defined in Recommendation I.130 using the means given in Recommendation I.210.

Supplementary services are described by a prose definition and description (step 1.1) and by a dynamic description (step 1.3). The application of the attribute technique, as defined in Recommendation I.140, for supplementary services is for further study.

This Recommendation describes the following charging supplementary services:

I.256.1 Credit Card Calling (CRED) (Note 1)

I.256.2 Advice Of Charge (AOC)

I.256.3 Reverse Charging (REV) (Note 1)

Note 1 - This service being identified need to be further studied and the description is not yet included.

I.256.1 Credit Card Calling

These services being identified need to be further studied and the descriptions are not yet included.

Recoup

Recoup

Recoup

6.3 Connected Line Identification Presentation

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.4 Connected Line Identification Restriction

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.5 Calling Line Identification Presentation

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.6 Calling Line Identification Restriction

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.7 Closed User Group

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.8 Conference Calling

When the user has made a conference call, the overall charge for the conference call may be included in the charge advice information element.

Charges for the use of the conference bridge: this charging information may be sent to the conference controller. However, in some networks no charging information can be given in this case, e.g. due to off-line processing of the charges.

6.9 Direct Dialling-In

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.10 Diversion services

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

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6.9 Direct Dialling-In

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.15 Call Hold Service

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.16 Advice Of Charge

Not applicable.

7. Dynamic description

The dynamic description of this service is shown in Figures 2-6/I.256.2.

FIGURE 2/I.256.2

Charging information - incremental information
during a call

FIGURE 3/I.256.2

Charging information - incremental information at call clearing

FIGURE 4/I.256.2

Charging information - cumulative information
during a call

FIGURE 5/I.256.2

Charging information - cumulative information at call clearing

FIGURE 6/I.256.2

Charging information - request for charging
information during a call

C. Charging information at call setup time

1. Definition

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. Description

2.1 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 times units per charging unit and charging units.
- usage charge element;
 - registration;
 - call attempt;
 - invocation;
 - duration;
 - volume;
 - network processing;

- billing identification;
- normal charging;
- reverse charging;
- credit card charging.

2.2 Specific terminology

Not applicable.

2.3 Qualifications on the applicability to telecommunication services

This supplementary service is applicable to all telecommunication services.

3. Procedures

3.1 Provision/withdrawal

The possibility to receive information about the charging rates is provided on subscription basis or may be generally available.

3.2 Normal procedures

3.2.1 Activation/deactivation/registration

The service is activated by the network, and no user procedures for activation/deactivation is needed. When the service is activated, it stays active for all calls.

3.2.2 Invocation and operation

The service may be requested on a per call basis or it may be active for all calls. The charging information is provided by the network during call establishment phase or at the latest at call connection. The information is transferred to the user in the charge advice information element in the call control message.

When there is a change in the charge interval during the call, the network sends information about the new charge interval. This information is sent in the charge advice information element.

3.3 Exceptional procedures

3.3.1 Activation/deactivation/registration

Not applicable.

3.3.2 Invocation and operation

If the charging information related to a call is not available, the reason should be indicated to the user.

3.4 Alternate procedures

No alternate procedures have been identified.

4. Network capabilities for charging

This Recommendation does not cover charging principles. Future Recommendations in the D-Series are expected to contain that information. It shall be possible to charge the subscriber accurately for the service.

5. Interworking requirements

This service should be supported across the internetwork interface between ISDNs.

6. Interaction with other supplementary services

6.1 Call Waiting

No impact i.e. neither supplementary service affects the operation of the other supplementary service.

6.2 Call Transfer

Original calling user: no impact.

Transferring user: charging information may be sent to the transferring user at the time he establishes the call to the transferred to party and when the resulting call is established. This is to inform the transferring user of the charges he will continue to be responsible for.

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No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.6 Calling Line Identification Restriction

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.7 Closed User Group

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.8 Conference Calling

The user should be informed about the charging rate for each leg of the conference call.

Charges for the use of the the conference bridge: this charging information may be sent to the conference controller. However, in some networks no charging information can be given in this case.

6.9 Direct Dialling-In

No impact i.e. neither supplementary service affects the operation of the other supplementary service.

6.10 Diversion services

6.10.1 Call Forwarding Busy

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.10.2 Call Forwarding No Reply

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.10.3 Call Forwarding Unconditional

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.11 Line Hunting

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.12 Three Party Service

The user should be informed about the charging rate for each leg of the call.

Charges for the use of the three-party bridge: this charging information may be sent to the conference controller. However, in some networks no charging information can be given in this case.

6.13 User-to-User Signalling

No information concerning charges for user-to-user information will be given.

6.14 Multiple Subscriber Number

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.15 Call Hold

No impact, i.e. neither supplementary service affects the operation of the other supplementary service.

6.16 Advice Of Charge

Not applicable.

7. Dynamic description

The dynamic description of this service is shown in Figures 7 and 8/I.256.2.

FIGURE 7/I.256.2

Charging information - charge interval request
at call set-up time

FIGURE 8/I.256.2

Charging information - change of charge
interval at the active phase of a call

I.256.3 Reverse charging

This service being identified needs to be further studied and the description is not yet included.