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**Integrated Services Digital Network (ISDN);
Public Switched Telephone Network (PSTN);
Universal Access Number (UAN) service;
Service description**

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Foreword

This European Telecommunication Standard (ETS) has been produced by the Network Aspects (NA) Technical Committee of the European Telecommunications Standards Institute (ETSI).

In analogy with CCITT Recommendation I.130 (refer to annex A), the first stage of the following three level structure is used to describe the telecommunications service as provided by European public telecommunications operators.

- Stage 1: is an overall service description, from the service subscriber's and user's stand-point;
- Stage 2: identifies the functional capabilities and information flows needed to support the service described in stage 1; and
- Stage 3: defines the signalling system protocols and switching functions needed to implement the service described in stage 1.

This ETS details the stage 1 aspects (overall service description) for the Universal Access Number (UAN) service, taking into account the various network architectures, e.g. Intelligent Network (IN).

The application of stage 2 and stage 3 may be different when the service is supported on an IN environment.

Transposition dates	
Date of adoption:	21 February 1997
Date of latest announcement of this ETS (doa):	30 June 1997
Date of latest publication of new National Standard or endorsement of this ETS (dop/e):	31 December 1997
Date of withdrawal of any conflicting National Standard (dow):	31 December 1997

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1 Scope

General

This European Telecommunication Standard (ETS) defines the stage 1 for the Universal Access Number (UAN) service. Stage 1 is an overall service description, primarily from the service subscriber's and user's point of view, but does not deal with the details of the human interface itself. This ETS includes information applicable to network operators, service providers and terminal, switch and database manufactures.

NOTE: In some fora, this service is also referred to as the "shared cost service".

This ETS specifies the requirements where the service is provided to the user via a telecommunications network that is either the pan-European Integrated Services Digital Network (ISDN) or any other Public Switched Telephone Network (PSTN) as provided by European public telecommunications operators.

The requirements different from those of the basic call where the UAN service is provided to the user via a mobile network are outside the scope of this ETS. However, if calls to the UAN service originate or terminate in a mobile network and any special procedure above those for the basic call has to be performed, this is be stated in the subclause 7.1 dealing with the interworking between ISDNs, PSTNs and mobile networks.

This ETS contains the core requirements for the UAN service which are sufficient to provide a complete service.

This ETS also documents some additional requirements which can be implemented (but do not have to be implemented).

Furthermore, additional functionalities not documented in this ETS may be implemented. The requirements of which are considered outside the scope of this ETS and consequently outside the scope of the corresponding stage 2 and stage 3 standards. This additional functionality may be on a network-wide basis, or particular to one or a group of users. Such additional functionality shall not compromise conformance to the core requirements of the service.

Charging principles are outside the scope of this ETS, unless specific service requirements are stated. These requirements deal with the allocation of certain call charges to particular users.

Interactions with services/supplementary services not listed in clauses 8 and 9 are outside the scope of this ETS.

Interactions between optional UAN service features and ISDN supplementary services are outside the scope of this ETS, unless a specific indication is given.

Definition and applicability

The UAN service allows the service subscriber having one or several installations to be reached from all or part of the network with a unique universal access number. Calls to the universal access number shall be routed to destinations defined by the service subscriber.

The UAN service is applicable to all telecommunication services using numbers conforming to the numbering plan and structure specified in CCITT Recommendation E.164 [2].

This ETS is applicable to the stage 2 and stage 3 standards for the UAN service, where the text indicates the status of a requirement (i.e. as strict command or prohibition, as authorization leaving freedom, as a capability or a possibility), this shall be reflected in the relevant stage 2 and stage 3 standards. Otherwise the status of a requirement shall be reflected in the relevant standards for the underlying protocols.

Furthermore, conformance to this ETS is either met by:

- conforming to the stage 3 standards; or
- implicitly covered by conforming to the standards for the underlying protocols;

with the field of application appropriate to the equipment being implemented. Therefore no method of testing is provided for this ETS.

2 Normative references

This ETS incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to, or revisions of any of these publications apply to this ETS only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

[1] ETS 300 345 (1994): "Integrated Services Digital Network (ISDN); Interworking between public ISDNs and private ISDNs for the provision of telecommunication services: General aspects".

[2] CCITT Recommendation E.164 (1991): "Numbering plan for the ISDN era".

3 Definitions

For the purposes of this ETS, the following definitions apply:

alternative destination: A destination defined in a service subscriber's profiles that may be:

- a) a customer installation; or optionally
- b) a predefined recorded announcement provided by the network; or optionally
- c) a customized recorded announcement provided by the network.

calling user: Entity which originates a call to the UAN service.

catchment area: The area from which the service subscriber has agreed to receive universal access number calls.

core service feature: Particular service feature fundamental to the telecommunication service, i.e. in the absence of this service feature, the telecommunication service does not make sense as a commercial offering to the service subscriber.

customer: The service subscriber.

destination user: Entity to which universal access number calls are directed.

destination: An installation corresponding to a number conforming to the number plan and structure specified in CCITT Recommendation E.164 [2].

network operator: Entity which provides the network operating elements and resources for the actual execution of the UAN service.

non-running record: A record containing service subscriber profile parameters currently not in operation.

optional service feature: Service feature added to core feature to optionally enhance a service offering.

routing area: An area from which calls using a given universal access number are routed to one destination or to a set of destinations according to other optional service features as defined by the service subscriber in the running record. A routing area may coincide or may be a subset of the catchment area.

running record: A record containing the service subscriber profile parameters used by the service and currently in operation.

service feature: Specific aspect of a telecommunication service that can also be used in conjunction with other telecommunication services or service features as part of a commercial offering. It is either a core part of a telecommunication service or an optional part offered as an enhancement to a telecommunication service.

service provider: Entity which offers the UAN services for subscription. The network operator may be the service provider.

service subscriber profile: Service subscriber related data needed by the UAN service in order to handle calls.

service subscriber: Entity which subscribes to the UAN service.

service: That which is offered by a service provider to its customers in order to satisfy a telecommunication requirement.

universal access number call: A call placed to a universal access number.

universal access number: Set of digits constituted of two parts and forming the national part of a CCITT Recommendation E.164 [2] number. The first part is a set of digits identifying the UAN service and forming the national destination code part. The second part is a set of digits assigned by the service provider to a service subscriber at subscription identifying the specific service subscriber and forming this subscriber number part.

4 Abbreviations

For the purposes of this ETS, the following abbreviations apply:

ADR	Alternative Destination Routing
CCBS	Completion of Calls to Busy Subscriber
CCNR	Completion of Calls on No Reply
CD	Call Distribution
CPM	Customer Profile Management
CRA	Customized Recorded Announcements
FAC	Flexible Allocation of call Charges
ISDN	Integrated Services Digital Network
LIM	call Limiter
LOG	call Logging
ODC	Origin Dependent Control
ODR	Origin Dependent Routing
OUP	Originating User Prompter
PCI	Presentation of Charging Information
PSTN	Public Switched Telephone Network
QUE	call Queuing
STAT	Statistical information
TDC	Time Dependent Control
TDR	Time Dependent Routing
UAN	Universal Access Number

5 Description

5.1 Core requirements

The UAN service allows the service subscriber having one or several installations to be reached from all or part of the network with a unique universal access number. Calls to the universal access number shall be routed to destinations defined by the service subscriber.

5.2 Optional requirements

5.2.1 General

The optional requirements contain functionalities additional to the core requirements, that customize the service according to specific service subscriber's needs. These additional parts may be offered either to all the service provider's customers, or to a group or even to a single customer.

Some possible optional service features are listed hereafter, but the service provider may offer other additional service features.

In particular the service subscriber may have incoming calls routed to his destination(s) or rejected based on routing features which may include:

- origin dependent routing;
- time dependent routing (time of day/day of week/date);
- call distribution;
- type of service request (based on e.g. the bearer capability);
- calling line identity.

As a subscription feature, the service subscriber can access for control purposes, with some restrictions, the network to modify his service profile.

As a service provider option the service subscriber may obtain reports containing statistical information on incoming universal access number traffic to his destinations, which may include itemized billing.

The service provider may offer other additional service features.

5.2.2 Origin Dependent Control (ODC)

This feature enables the service subscriber to select the origination from which the service may be used. Such selection may be based for instance:

- on the geographical area the call originates from;
- on the calling line identity, using a screening black list (calls are rejected when calling line identity is found in the screening list);
- on the calling line identity, using a screening white list (calls are rejected when calling line identity is not found in the screening list).

5.2.3 Origin Dependent Routing (ODR)

This feature enables the service subscriber to split the service catchment area into different routing areas, and to specify the routing destination(s) for each of the routing areas. The routing areas may be specified by the service subscriber.

5.2.4 Time Dependent Control (TDC)

This feature enables the service subscriber user to specify time intervals (e.g., time of the day, day of the week, specific dates), that can be used to modify the handling of the call according to the point in time when the call is placed. The time interval shall be specified by the service subscriber.

NOTE: Handling of the call may for instance include acceptance or rejection of calls, percentage of call distribution, number of calls to be queued, number of simultaneous calls before call limitation.

5.2.5 Time Dependent Routing (TDR)

This feature enables the service subscriber to specify the routing destination(s) according to a selected time interval. At a given point in time, an originated call shall be routed to the destination as defined for the time interval in which the given point in time matches.

NOTE: The time interval may for instance take into account day of year, day of week, time of day.

5.2.6 Call Distribution (CD)

This feature enables the service subscriber to specify distribution mechanisms for universal access number calls to be shared between different destinations.

NOTE: Distribution mechanisms may be, for example:

- managed according to the availability of destination users to be able to accept the calls;
- circular: the calls are routed to the different destinations with a uniform load;
- percentage based: the calls are routed to the different destinations according to a percentage.

5.2.7 Call Limiter (LIM)

This feature enables the service subscriber to specify the maximum number of simultaneous calls to a given installation. Alternative action shall be taken on calls exceeding the call limit, e.g. rejection.

NOTE: This limiter may be set to limit traffic to a given destination.

5.2.8 Alternative Destination Routing (ADR) on busy/no reply

This feature enables a service subscriber to re-route to an alternative destination universal access number calls meeting busy condition or no positive response at the scheduled destination.

This feature may also apply to universal access number calls rejected by the call limiter feature.

5.2.9 Customer Profile Management (CPM)

This feature enables the service subscriber to customize one or several handling profiles (universal access number non-running records) currently not in operation, and to control which record is running or not running.

If the service provider does not permit the subscriber to own several profiles, i.e. does not implement non-running records, this feature shall allow the service subscriber to modify the profile when in operation.

This feature may also permit the modification of service parameters. Parameters that can be modified may be:

- catchment area;
- routing areas;
- calling line identity;
- time intervals;
- destinations;
- alternative destinations;
- type of service request;
- call distribution;
- call re-routing busy/no reply;
- call limiter;
- call queuing;
- call logging;
- originating user prompter.

The service subscriber's access to the customer profile management shall require an authentication procedure. Customization may require additional authentication procedures.

5.2.10 Presentation of Charging Information (PCI)

This feature enables the calling user to get an indication (e.g. an announcement) about the charges or the tariff of the call currently placed, as part of the service invoked.

5.2.11 Call Queuing (QUE)

This feature enables a service subscriber to place universal access number calls meeting a busy condition at the scheduled destination in a queue and to connect them as soon as a free condition is detected.

NOTE 1: This requires the call queuing service feature to be made aware of the status of the destination users by the relevant destination networks.

The maximum number of universal access number calls that can be placed in a queue may be limited and shall be agreed between the service subscriber and the contracting service provider. The number of calls that can be placed in a queue may be time-dependent.

The calling user shall be given an indication (e.g. an announcement) that his universal access number call is in a queue.

Queuing mechanisms may be deployed by any network. The management of such mechanisms is purely a network operator/service provider matter and outside the scope of this ETS.

NOTE 2: During a certain period not all networks may support all mechanisms.

5.2.12 Call Logging (LOG)

This feature enables the service subscriber to obtain from the service provider detailed information on calls and/or call attempts placed to the serviced.

The information to be provided may be one or a combination of the following:

- calling party number;
- called user number;
- time and date;
- charge;
- call result (connected, busy, barred, not answered, etc.);
- any service specific information.

5.2.13 Statistical information (STAT)

This feature permits the service subscriber to obtain, from the service provider, statistical information on universal access number calls.

Such information may be for example daily traffic curve, traffic analysis per routing area, performance evaluation.

5.2.14 Originating User Prompter (OUP)

This feature enables to prompt the calling user to enter information that can be used by the service to continue the processing of the call.

5.2.15 Customized Recorded Announcements (CRA)

This feature enables the subscriber to specify customized terminating announcements to be played to the calling user. Such announcements may be provided by the service provider or remote recorded by the service subscriber.

5.2.16 Flexible Allocation of call Charges (FAC)

This feature enables the subscriber to specify the part of the call charges applying to the calling user and/or the service subscriber, e.g. free of charge, regular charging, split charging, premium rate charging. The charging mechanism shall be selected at subscription time.

6 Procedures

6.1 Provision and withdrawal

The UAN service shall be provided by prior arrangement with the service provider.

On subscription to the UAN service, a universal access number shall be allocated.

Provision may also be dependent on a bilateral arrangement between service providers when universal access number calls are to be routed outside the originating service providers network.

Two methods of service provision are envisaged for provision of an internetwork UAN service. Two service providers may be involved in the provisioning on a internetwork UAN service, the service provider in the network of the origin of the universal access number call (service provider A) and the service provider in the network where the calls terminate (service provider B):

- **method 1:**
 - the internetwork UAN service is provided on the basis of a bilateral arrangement between service provider A and B. The service subscriber contracts with service provider B. On behalf of its customer the service provider B forwards the order to the service provider A who is responsible for the establishment of the universal access number;
- **method 2:**
 - the service subscriber has a contract or contracts with the service provider A. Service provider A is then responsible for routing the universal access number call to an ordinary CCITT Recommendation E.164 [2] number and for the call logging and subsequent billing of the service subscriber;
 - with this method the service subscriber may require access to a service centre in the originating service provider's area, in order to modify his call handling profile.

The UAN service shall be withdrawn by the service provider upon service subscriber's request or for service provider reasons.

Calling user:

The UAN service shall be made available to all users without prior arrangement.

6.2 Normal procedures

6.2.1 Registration and erasure

6.2.1.1 Core requirements

Following the arrangement between the service provider and the subscriber, the service provider shall register the service subscriber's profile in the network (running record). This profile shall be made of two sets of parameters:

- parameters under the exclusive responsibility of the service provider (e.g. the UAN);
- parameters that can be modified by both the service provider and the service subscriber.

Record consistency shall be checked by the service provider at registration.

6.2.1.2 Optional requirements

The service provider and the authorized service subscribers may register and modify non-running records that represent alternative action programs, thus allowing the service subscriber to activate any one record from the registered ones against his universal access number. Only one running record shall be active at one time for a given universal access number. The maximum number of records that a service subscriber may have stored against his universal access number is limited and subject to the arrangement. If the service provider implements non-running records, the service subscriber may not modify the running record in real time.

If the service provider does not implement non-running records, the service subscriber may modify in real time the running record.

Record consistency shall be checked by the service provider at modification.

The service subscriber's access to register or modify records shall be subject to:

- a previous agreement with the service provider;
- a check on the authorization by means of an authorization procedure (possible mechanisms may include the identification of the authorized installation/terminal and/or passwords).

It may also be subject to:

- a restriction on the set of parameters that may be registered/modified (the list of such parameters shall be a service providers choice);
- a restriction on the range of values to be given to parameters.

The registration of records shall also be possible through service provider action.

The service subscriber shall, either directly or through service provider action, erase non-running records.

6.2.2 Activation and deactivation

6.2.2.1 Core requirement

The service subscriber's profile shall be initially activated by the service provider.

From the calling user's point of view, the service may be active or not, depending on the routing program contained in the running record.

6.2.2.2 Optional requirements

The service subscriber can indicate which of the profiles is to be used for control of the UAN service. When the service subscriber indicates that a profile is to be used for control of the UAN service, this shall replace any profile currently in use. The service subscriber can, either directly or by service provider action, activate or deactivate a record.

6.2.3 Invocation and operation

6.2.3.1 Core requirements

The service shall be invoked automatically by the network when a calling user originates a call using the universal access number.

Destination user:

Incoming calls shall be presented as ordinary calls.

Network operations:

The network shall perform the following operations:

- identifying the service request;
- handling the universal access number call according to the running record of the service subscriber, i.e. translating the universal access number into the actual called user number;
- routing the call to the appropriate destination;
- indicating to the calling user the success or failure of the request;
- charging the calling user for the call, and optional creating a record for billing purposes of the universal access number subscriber.

In carrying out the routing of a universal access number call, the network may utilize a number of techniques such as call distribution, time dependent control (see subclause 5.2). The management and utilization of these mechanisms is purely a network matter and is outside the scope of this ETS.

6.2.3.2 Optional requirements

Handling of the universal access number call may take into account the possible optional features listed in subclause 5.2, e.g. restriction to calls from certain geographical areas and/or within certain time intervals.

When the user places a universal access number call outside a specified time interval in which a universal access number call can be made, or from any location which is not included in the specified range of allowed origins from which a universal access number call can be made, the call shall be rejected and the user shall be given an appropriate indication.

Calling user:

The calling user may receive an indication (e.g. an announcement) about the tariff of the call currently placed.

The calling user may be prompted to enter additional information, which is needed by the network to complete the call.

If the prompts are voice messages, the user may change the voice message language to another one.

Destination user:

As an option, incoming calls may have an indication that they are via the UAN service and as a further option the destination user may receive the called universal access number.

Network operations:

In addition to the operations mentioned in subclause 6.2.3.1 the network may also perform the following operations:

- identifying the service request in addition according to the type of service request (e.g. based on bearer capabilities);
- collecting information provided by the calling user by means of call prompting;
- informing the calling party about the charges for the call (e.g. by an appropriate announcement);
- collecting and recording information for statistics as defined in the running record of the customer.

6.2.4 Interrogation

6.2.4.1 Core requirements

Not applicable.

6.2.4.2 Optional requirements

The service subscriber can interrogate the network by means of an appropriate control procedure.

Access for interrogation shall require an authentication procedure. Possible mechanisms may include the identification of the authorized installation/terminal and/or passwords.

The network, following a positive validation of the subscriber's access, shall provide the required information on parameter values of the subscriber profile. If the service provider implements non-running records, the information shall be provided for both the running and the non-running records.

6.3 Exceptional procedures

6.3.1 Registration and erasure

6.3.1.1 Core requirements

Not applicable.

6.3.1.2 Optional requirements

Not applicable.

6.3.2 Activation and deactivation

6.3.2.1 Core requirements

Not applicable.

6.3.2.2 Optional requirements

Universal access number calls can be routed to any installation in the network. If the destination user is not willing to receive the calls for the subscriber of the universal access number on his access, he can access the network in order to permanently deactivate the record against his access.

6.3.3 Invocation and operation

6.3.3.1 Core requirements

In case of failure, the calling user shall receive an indication from the network.

6.3.3.2 Optional requirements

Not applicable.

6.3.4 Interrogation

6.3.4.1 Core requirements

Not applicable.

6.3.4.2 Optional requirements

Not applicable.

7 Interworking requirements

7.1 Interworking with ISDNs, PSTNs, and mobile networks

PSTNs and mobile networks shall give an indication of the area calls to the UAN service are originating from, if support of origin dependant features between the networks is required and is subject to bilateral agreement between the network operators.

7.2 Interworking with private networks

The UAN service shall be supported in a co-operative manner across the internetwork interface (i.e. public and private).

If the UAN service is provided by an ISDN, then interworking with private ISDNs shall include the requirements given in ETS 300 345 [1].

7.3 Cooperation between network operators and service providers

Provision of the UAN service requires prior bilateral arrangements between the involved parties, e.g. between the network operators in two countries for an international service.

8 Interaction with ISDN supplementary services

8.1 Advice of charge services

8.1.1 Charging information at call set-up time

Calling user:

No impact i.e. neither service shall affect the operation of the other service.

NOTE: Advice of charge - at call set up supplementary service operates independent from the presentation of charging information optional feature.

Called user:

Advice of charge information shall not be sent to the called user.

8.1.2 Charging information during the call

Calling user:

No impact i.e. neither service shall affect the operation of the other service.

Called user:

Advice of charge information shall not be sent to the called user.

8.1.3 Charging information at the end of the call

Calling user:

No impact i.e. neither service shall affect the operation of the other service.

Called user:

Advice of charge information shall not be send to the called user.

8.1.4 Charging information on request

Calling user:

No impact i.e. neither service shall affect the operation of the other service.

Called user:

Advice of charge information shall not be send to the called user.

8.2 Call waiting

No impact i.e. neither service shall affect the operation of the other service.

8.3 Call hold

No impact i.e. neither service shall affect the operation of the other service.

8.4 Explicit call transfer

If a universal access number call is transferred due to the call transfer supplementary service in operation at the destination user's access arrangement, the calling user should not receive information that the call has been transferred, nor shall the calling user receive the transferred-to number.

8.5 Number identification services

8.5.1 Calling line identification presentation

No impact i.e. neither service shall affect the operation of the other service.

8.5.2 Calling line identification restriction

During the call:

No impact i.e. neither service shall affect the operation of the other service.

After the call:

When the calling line identification restriction supplementary service has been activated and statistical reports are to be provided, then the calling line identity shall not be contained in the statistical reports.

8.5.3 Connected line identification presentation

Called user:

The connected line identity shall not be given to the calling user.

Universal access number:

The universal access number shall be given to the calling user.

8.5.4 Connected line identification restriction

Called user:

No impact i.e. neither service shall affect the operation of the other service.

Universal access number:

It shall not be possible to restrict the presentation of the universal access number to the calling user.

8.6 Closed user group

No impact i.e. neither service shall affect the operation of the other service.

8.7 Call completion services

8.7.1 Completion of calls to busy subscriber

No impact i.e. neither service shall affect the operation of the other service.

If one or several of the following optional service features: Call Distribution (CD); call Limiter (LIM); or call Queuing (QUE), is active on a universal access number call, then a request for the Completion of Calls to Busy Subscriber (CCBS) supplementary service shall not be possible.

NOTE 1: Since a universal access number is used for the request for the CCBS supplementary service and the CCBS call, the CCBS call may be routed to a destination different from the original one.

NOTE 2: During an interim period some networks may not support the CCBS supplementary service on a call to a universal access number.

8.7.2 Completion of calls on no reply

According to a service subscriber's option, the completion of calls on no reply request against a universal access number shall either:

- not be possible; or
- be supported.

If one or several of the following optional service features Call Distribution (CD), Alternative Destination Routing (ADR) on busy/no reply is active on a universal access number call, then a request for the completion of calls on no reply supplementary service shall not be possible.

NOTE 1: Since a universal access number is used for the request for the Completion of Calls on No Reply (CCNR) supplementary service and the CCNR call, the CCNR call may be routed to a destination different from the original one.

NOTE 2: During an interim period some networks may not support the completion of calls on no reply supplementary service on a call to a universal access number.

8.8 Conference services

8.8.1 Conference call, add-on

No impact i.e. neither service shall affect the operation of the other service.

8.8.2 Meet-me conference

No impact i.e. neither service shall affect the operation of the other service.

8.9 Direct dialling in

No impact i.e. neither service shall affect the operation of the other service.

8.10 Diversion services

8.10.1 Call forwarding unconditional

Forwarding to a universal access number:

The number of diversions of the call shall not be lost after having been subjected to UAN service.

Forwarding of a universal access number call:

According to a service provider option, calls which are subject to the UAN service, i.e. "universal access number calls", shall be forwarded in one of the following ways:

- universal access number calls which are allocated to a user shall override the call forwarding unconditional supplementary service, if activated. Such calls shall be subject to other mechanisms for allocating the call to another user. The procedures for this are outside the scope of this ETS;
- universal access number calls which are allocated to a user shall be subject to the call forwarding unconditional supplementary service if it has been activated by that user. If a universal access number call is forwarded, the calling user shall not receive information that the call has been forwarded, nor shall the calling user receive the forwarded-to number.

8.10.2 Call forwarding busy

Forwarding to a universal access number:

The number of diversions of the call shall not be lost after having been subjected to the UAN service.

Forwarding of a universal access number call:

According to a service provider option, calls which are subject to the UAN service, i.e. "universal access number calls", shall be forwarded in one of the following ways:

- universal access number calls which are allocated to a user shall override the call forwarding busy supplementary service, if activated. Such calls shall be subject to other mechanisms for allocating the call to another user. The procedures for this are outside the scope of this ETS; or
- universal access number calls which are allocated to a user shall be subject to the call forwarding busy supplementary service if it has been activated by that user. If a universal access number call is forwarded, the calling user shall not receive information that the call has been forwarded, nor shall the calling user receive the forwarded-to number.

8.10.3 Call forwarding no reply

Forwarding to a universal access number:

The number of diversions of the call shall not be lost after having been subjected to UAN service.

Forwarding of a universal access number call:

According to a service provider option, calls which are subject to UAN service, i.e. "universal access number calls", shall be forwarded in one of the following ways:

- universal access number calls which are allocated to a user shall override the call forwarding no reply supplementary service, if activated. Such calls shall be subject to other mechanisms for allocating the call to another user. The procedures for this are outside the scope of this ETS;
- universal access number calls which are allocated to a user shall be subject to the call forwarding no reply supplementary service if it has been activated by that user. If a universal access number call is forwarded, the calling user shall not receive information that the call has been forwarded, nor shall the calling user receive the forwarded-to number.

8.10.4 Call deflection

Deflecting to a universal access number:

The number of diversions of the call shall not be lost after having been subjected to UAN service.

Deflecting of a universal access number call:

According to a service provider option, calls which are subject to the UAN service, i.e. "universal access number calls", shall be forwarded in one of the following ways:

- universal access number calls which are allocated to a user shall override the call deflection supplementary service and shall not be deflected; or
- universal access number calls which are allocated to a user shall be subject to the call deflection supplementary service. If a universal access number call is deflected, the calling user shall not receive information that the call has been forwarded, nor shall the calling user receive the forwarded-to number.

The number of diversions of the call should not be lost after having been treated by the UAN service.

8.10.5 Selective call forwarding

Forwarding to a universal access number:

The number of diversions of the call shall not be lost after having been subjected to UAN service.

Forwarding of a universal access number call:

According to a service provider option, calls which are subject to the UAN service, i.e. "universal access number calls", shall be forwarded in one of the following ways:

- universal access number calls which are allocated to a user shall override the selective call forwarding supplementary service, if activated. Such calls shall be subject to other mechanisms for allocating the call to another user. The procedures for this are outside the scope of this ETS;
- universal access number calls which are allocated to a user shall be subject to the selective call forwarding supplementary service if it has been activated by that user. If a universal access number call is forwarded, the calling user shall not receive information that the call has been forwarded, nor shall the calling user receive the forwarded-to number.

8.10.6 Call forwarding unconditional to a service centre

Forwarding to a universal access number:

The number of diversions of the call shall not be lost after having been subjected to UAN service.

Forwarding of a universal access number call:

According to a service provider option, calls which are subject to the UAN service, i.e. "universal access number calls", shall be forwarded in one of the following ways:

- universal access number calls which are allocated to a user shall override the call forwarding unconditional to a service centre supplementary service, if activated. Such calls shall be subject to other mechanisms for allocating the call to another user. The procedures for this are outside the scope of this ETS;
- universal access number calls which are allocated to a user shall be subject to the call forwarding unconditional to a service centre supplementary service if it has been activated by that user. If a universal access number call is forwarded, the calling user shall not receive information that the call has been forwarded, nor shall the calling user receive the forwarded-to number.

8.11 Freephone

If a user's access arrangement is the destination for both freephone and universal access number calls, either in the same network or in different networks, then queuing and call distribution mechanisms interact. The processing of multiple queues and call distribution mechanisms, the order and priorities assigned, are outside the scope of this ETS.

8.12 Malicious call identification

In addition to the number of the user to whom the universal access number call is presented, the universal access number shall be registered.

8.13 Multiple subscriber number

No impact i.e. neither service shall affect the operation of the other service.

8.14 Sub-addressing

No impact i.e. neither service shall affect the operation of the other service.

8.15 Terminal portability

No impact i.e. neither service shall affect the operation of the other service.

8.16 Three party service

No impact i.e. neither service shall affect the operation of the other service.

8.17 User-to-user signalling

No impact i.e. neither service shall affect the operation of the other service.

8.18 In-call modification

No impact i.e. neither service shall affect the operation of the other service.

8.19 Hunting service

8.19.1 Line hunting

No impact i.e. neither service shall affect the operation of the other service.

8.19.2 Trunk hunting

No impact i.e. neither service shall affect the operation of the other service.

8.20 Support of private numbering plans

No impact i.e. neither service shall affect the operation of the other service.

8.21 Call barring services

8.21.1 Fixed outgoing call barring

No impact i.e. neither service shall affect the operation of the other service.

8.21.2 User controlled outgoing call barring

No impact i.e. neither service shall affect the operation of the other service.

8.22 Remote control service

No impact i.e. neither service shall affect the operation of the other service.

8.23 Reverse charging

8.23.1 Reverse charging at call set up time

A request for reverse charging at call set-up time on a universal access number call shall be rejected with an appropriate indication.

8.23.2 Unconditional reverse charging

Reverse charging unconditional shall not apply to a universal access number call.

9 Interaction with other services

9.1 Universal access number

If a user's access arrangement is the destination for more than one universal access number, either in the same network or in different networks, then queuing and call distribution mechanisms interact. The processing of multiple queues and call distribution mechanisms, the order and priorities assigned, are outside the scope of this ETS.

9.2 Card calling services

9.2.1 Charge card calling

Calling the UAN service by using the charge card calling service:

No impact i.e. neither service shall affect the operation of the other service.

Invoking the charge card calling service by making a universal access number call:

Not applicable.

9.2.2 Virtual card calling

Calling the UAN service by using the virtual card calling service:

No impact i.e. neither service shall affect the operation of the other service.

Accessing the virtual card calling service by making a universal access number call:

Not applicable.

9.3 Premium rate

If a user's access arrangement is the destination for both premium rate and universal access number calls, either in the same network or in different networks, then queuing and call distribution mechanisms interact. The processing of multiple queues and call distribution mechanisms, the order and priorities assigned, are outside the scope of this ETS.

9.4 Televoting

Not applicable.

Annex A (informative): The three level structure

The three level structure used to describe the telecommunications services as provided by European public telecommunications operators is defined in analogy with CCITT Recommendation I.130 (1988): "Method for the characterization of telecommunication services supported by an ISDN and network capabilities of an ISDN".

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