Smart Cloud & Communications

PIC 01

PUBLICAÇÃO DE INTERFACES DE CLIENTE

SFT - Interface Digital

APÊNDICE II

Especificações e Condições Técnicas
Sinalização DSS1 - Layer 3

Versão 1.1 – outubro de 2021

Esclarecimentos à presente publicação poderão ser obtidos através do telefone nº 210007728.

Índice

1. Adaptações ao Nível 3 do DSS1

1.1 Chamada Básica

As adaptações seguintes são referentes à Recomendação Q.931 do ITU-T, depois de integradas as modificações constantes na norma ETS 300 403-1 do ETSI. As versões das normas ETSI referidas nestas especificações correspondem à s dos documentos/drafts disponibilizados em julho de 1998.

1.2 Tabela 1 - Adaptação da Recomendação Q.931 do ITU-T

Secção	Título	Comentários
3.1	Messages for circuit mode connection control	In the ONI ISDN, if the basic call control and supplementary service control needs to use the Display information element simultaneously, as described in following paragraphes, the supplementary service control has priority.
3.1.1	Alerting	Note to note 4: In the u - n direction, Progress indicator #8 shall be discarded by the network. Note to note 5: If this information element is being used for basic call control, the information that shall be displayed at the user side is the following: "A CHAMAR".
3.1.2	Call proceeding	Note to note 2: In the u - n direction, Progress indicator #8 shall be discarded by the network. Note to note 3: If this information element is being used for basic call control, the information that shall be displayed at the user side is the following: "CHAMADA EM PROGRESSO".
3.1.3	Connect	Note to note 4: In the u - n direction, Progress indicator #8 shall be discarded by the network. Note to note 5: If this information element is being used for basic call control, the information that shall be displayed at the user side is the following: "CHAMADA ESTABELECIDA". Note to note 9: In the ONI ISDN, Low layer compatibility information element shall be transported transparently and its coding shall be verified. Note to note 7: In the ONI ISDN, Date/Time information element shall always be inserted.
3.1.5	Disconnect	Note to note 2: In the u - n direction, Progress indicator #8 shall be discarded by the network. Note to note 3: If this information element is being used for basic call control, the information that shall be displayed at the user side is the cause translation, according to Anexo 2 of this document.
3.1.7	Facility	Applicable, according to list of exceptions to recommendation ETS 300196. Recommendation Q.932 shall also be considered.
3.1.6	Information	Note to note 4: The information that shall be presented to the user provided by Display information element is the cause translation, according to Anexo 2 of this document and “Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad”.
3.1.7	Notify	Note to note 2: The information that shall be presented to the user provided by Display information element is the Notification indicator information element translation, according to Anexo 3 of this document.
3.1.8	Progress	In the u - n direction, Progress indicator #8 shall be discarded by the network. Note to note 3: The information that shall be present to the user provided by Display information element is the Progress indicator information element translation, according to Anexo 4 of this document.
3.1.9	Release	Note to note 3: If this information element is being used for basic call control, the information that shall be displayed at the user side is the cause translation, according to Anexo 2 of this document.
3.1.10	Release complete	Note to note 3: If this information element is being used for basic call control, the information that shall be displayed at the user side is the cause translation, according to Anexo 2.
3.1.12	Resume acknowledge	Note to note 1: The information that shall be presented to the user provided by Display information element is the following: "CHAMADA REINICIADA".
3.1.13	Resume reject	Note to note 1: The information that shall be presented to the user provided by Display information element is the cause translation, according to Anexo 2 of this document.
3.1.14	Setup	Note to note 1: In the u - n direction, the ONI ISDNshall always recognize sending complete information element and # character.

Secção	Título	Comentários
		Note to note 5: In the u - n direction, Progress indicator #8 shall be discarded by the network. Note to note 7: In the ONI ISDN, this information element is inserted for supplementary services according to "Supplementary services – Invocation procedures in keypad mode" document, included in “Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad.” Note to note 13: In the ONI ISDN, the Called party number information element shall be sent in the n-u direction for DDI and MSN supplementary services. Note to notes 17 and 18: In the ONI ISDN, Low layer compatibility and High layer compatibility information elements shall be transported transparently and its coding shall be verified. Note to note 9: In the ONI ISDN, stimulus procedures shall be used for the operation of supplementary services (keypad mode), according to “Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad”.
3.1.15	Setup acknowledge	Note to note 3: If this information element is being used for basic call control, the information that shall be displayed at the user side is the following: "POR FAVOR MARCAR".
3.1.16	Status	Note to note 1: The information that shall be presented to the user provided by Display information element is the cause translation, according to Anexo 2.
3.1.17	Status enquiry	Note to note 1: If this information element is being used the information that shall be displayed at the user side is the following: "ACÇÃO DE MANUTENÇÃO".
3.1.18	Suspend	In the ONI ISDN, this message is only applicable for point-to-multipoint configurations
3.1.19	Suspend acknowledge	In the ONI ISDN, this message is only applicable for point-to-multipoint configurations. Note to note 1: The information that shall be presented to the user provided by Display information element is the following: "CHAMADA SUSPENSA".
3.1. 20	Suspend reject	In the ONI ISDN, this message is only applicable for point-to-multipoint configurations. Note to note 1: The information that shall be presented to the user provided by Display information element is the cause translation, according to Anexo 2
4	General message format and information elements coding	In the ONI ISDN, the information elements received with different coding from that presented in the tables of this paragraph shall not be considered valid, even the ones specified as "all other values are reserved".
4.4	Message type	Note to 3rd §: In the ONI ISDN, the coding of bit 8 shall always be 0.
4.5.1	Coding rules	Note to 3rd § of item c): In the ONI ISDN, no additional octets are defined.
4.5.1.1	Codeset 0	Applicable, according to table 4.3 in Anexo 1.
4.5.1.2	Codeset 5	Not applicable
4.5.2	Extensions of codesets	In the ONI ISDN, codeset 5, 6 and 7 shall be considered unrecognized information elements, according to the procedures of paragraph 5.8.7.1.
4.5.5	Bearer capability	Applicable, according to Anexo 1of this document. The ONI ISDN shall transport transparently the octets of Bearer capability information element received from the user. Its coding is according to this specification.
4.5.7	Call state	Applicable, according to Anexo 1of this document
4.5.8	Called party number	Applicable, according to Anexo 1. In the ONI ISDN, the Called party number information element shall be sent in the n-u direction for DDI and MSN supplementary services. Note to octet 3 (Type of number): In the n - u direction the TON subscriber number shall be used for MSN supplementary service. For DDI supplementary service, the ONI ISDN shall only send the DDI digits with the TON unknown. In the u - n direction, the ONI ISDN shall support all TON codifications according to Anexo 1. Note to octet 3 (Numbering plan identification): In the n - u direction, the ONI ISDNonly sends the coding unknown and ISDN/telephony numbering plan. In the u - n direction, the ONI ISDN shall support the coding according to Anexo 1.
4.5.10	Calling party number	Applicable, according to Anexo 1of this document. See specification of CLIP supplementary service for coding options of Type of number and Numbering plan identification.
4.5.12	Cause	Applicable, according to Anexo 1of this document. In the ***ONI*** ISDN, diagnostics may not be inserted along with cause values and if they are received the network shall not take any internal action. The meaning of cause values shall be mapped to Display information element according to the table in Anexo 2 of this document. Note to 3rd §: Cause information element may be repeated 2 times (maximum).
Secção	**Título**	**Comentários**
4.5.13	Channel identification	Applicable, according to Anexo 1of this document. Note to 4rd §: In the ONI ISDN, this information element shall have a maximum length of 5 octets.

Secção	Título	Comentários
4.5.17	High Layer compatibility	Applicable, according to Anexo 1of this document.
4.5.18	Keypad facility	In the ONI ISDN, only characteres 0 through 9, * and # shall be allowed in this information element according to "Supplementary services – Invocation procedures in keypad mode" document, included in “Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad.”
4.5.19	Low layer compatibility	Applicable, according to Anexo 1of this document.
4.5.20	Network-specific facilities	Not applicable
4.5.22	Notification indicator	Applicable, according to Anexo 1of this document. Note to octet 3: The information that shall be presented to the user provided by Display information element is the Notification indicator information element translation, according to Anexo 3 of this document.
4.5.23	Progress indicator	Applicable, according to Anexo 1of this document. Note to octet 4: The information that shall be present to the user provided by Display information element is the Progress indicator information element translation, according to Anexo 4 of this document
4.5.24	Restart indicator	Applicable according to Anexo 1 of this document.
5	Circuit-switched call control Procedures	In the ONI ISDN, functional procedures and also stimulus procedures for the peration of supplementary services (keypad mode) shall be supported. The Keypad mode shall be according to "Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad”. In this document it is also specified the use of Display information element in keypad mode.
5.1.1	Call request	In the u - n direction, the ONI ISDN shall always recognize sending complete information element and # character.
5.1.3	Overlap sending	Note to last §: In the u - n direction, the ONI ISDN shall always recognize sending complete information element and # character.
5.2	Call establishment at the destination interface	Note to 2nd paragraph: In the ONI ISDN, permanent logical links (layer 2) will be available at subscription request in point-to-point configurations.
5.2.1	Incoming call	Note to 5th §: The ONI ISDN shall always send sending complete information element.
5.5.1	Sending restart	Note to note: Channels that were not indicated in the Restart acknowledge message shall be considered out of service.
5.6.1	Call suspension	In the ONI ISDN, Call identity information element shall have a maximum lenght of 10 octets.
5.6.2	Call suspended	In the ONI ISDN, Call identity information element shall have a maximum lenght of 10 octets.
5.6.5	Call resume errors	Applicable. Note to 1st §: In the ONI ISDN, suspend and resume procedures shall be supported generally in point-to- multipoint configuration.
5.8.4	Message type or message sequence errors	Note to 1st paragraph: The ONI ISDN shall distinguish between messages not implemented and messages incompatible with call state in order to send Status message with cause #97 and #101 respectively.
Secção	**Título**	**Comentários**
5.8.5.1	Information elements out of sequence	Note to note: In the ONI ISDN, in n - direction, information elements shall be sent in ascending order according to their coding. In u - n direction, information elements shall be received in any order.
5.8.5.2	Duplicate information elements	In the ONI ISDN, the following information elements may be repeated: Cause Progress indicator
5.8.7.1	Unrecognized information element	An unrecognized information element is: 1) An information element not identified in ETSI recommendations. 2) An information element not identified in ONI specification, even it is defined internationally. 3) An information element not defined for the message, even it is defined in the recommendation.
5.8.7.2	Non-mandatory information element content errors	Note to 1st paragraph: In the ONI ISDN, when a message is received which has one or more non-mandatory information elements with invalid content, a Status message shall be returned containing the cause #100. This Status message shall also include the call state of the network after the state transition caused by the received message. Note to 2nd paragraph: In the ONI ISDN, access information elements (user-user, high-layer compatibility, low-layer compatibility and subadress) with a length

Secção	Título	Comentários
		exceeding the maximum length shall not be, truncated and processed, this is, shall be discarded.
5.8.8	Data link reset	Note to item c): In the ONI ISDN, if the call is in the active phase, a Status enquiry message shall be sent by the network.
5.8.11	Receiving a status message	Note to 1st §: In the ONI ISDN, only case a) will be implemented. The ONI ISDN shall send a Release complete message with cause #101 - item a.2). Note to 4th §: In the ONI ISDN, if a Status message is received indicating a compatible call state but containing one of the causes #96, #97, #98, #99, #100 ou #101, the network shall not take any action.
9.1	Timers in the network side	Note to Table 9.1: In the ONI ISDN, the timers values have the following deviations: T301 - 3 min. T302 - 10 sec. T309 - 90 sec. T310 - 30 sec. T317 - 90 sec.
ANNEX I	Low layer information coding principles	Low Layer Compability information element shall be transported transparently and its coding shall be verified.
ANNEX J	Low layer compatibility	Low Layer Compability information element shall be transported negotiation transparently and its coding shall be verified.
APPENDIX 1	Usage of cause values	Informative

2. Anexo 1

2.1 Codificação dos Elementos de Informação

Tabela 1 - Adaptações da norma Q.931 do ITU-T

Secção	Título	Comentários
Table 4.6	Bearer capability information element	User information layer 1 protocol (octect 5) As seguintes codificações não são aplicáveis: Bits 54321 01000CCITT standardized rate adaptation V.120 O octeto 5b para adaptação do ritmo V.120 não é aplicável.

3. Anexo 2

3.1 Tradução das causas para ONI ISDN (para o elemento de informação DISPLAY)

1 – NORMAL EVENT

Cause #1	Unallocated (unassigned) number	"Número não atribuído"
Cause #2	No route to specified transit network	“Rede de trânsito não atingida”
Cause #3	No route to destination	“Sem rota para o destino”
Cause #6	Channel unacceptable	"Canal inaceitável"
Cause #7	Call awarded and being delivered in an established channel	"Chamada em canal já atribuído"
Cause #16	Normal call clearing	"Chamada desligada"
Cause #17	User busy	"Destino ocupado"
Cause #18	No user responding	"Destino não respondeu"
Cause #19	No answer from user (user alerted)	"Destino não atende"
Cause #20	Subscriber absent	“Destino ausente”
Cause #21	Call rejected	"Chamada rejeitada"
Cause #22	Number changed	"Número mudado"
Cause #26	Non-selected user clearing	"Assinante não selecionado"
Cause #27	Destination out of order	"Destino fora de serviço"
Cause #28	Invalid number format (address incomplete)	"Número inválido ou incompleto"
Cause #29	Facility rejected	"Facilidade rejeitada"
Cause #30	Response to STATUS ENQUIRY	"Resposta a manutenção"
Cause #31	Normal, unspecified	"Chamada desligada"

2 – RESOURCE UNAVAILABLE

Cause #34	No circuit/channel available	"Canais indisponíveis"
Cause #38	Network out of order	"Rede fora de serviço"
Cause #41	Temporary failure	"Falha temporária"
Cause #42	Switching equipment congestion	"Congestionamento"
Cause #43	Access information discarded	"Informação opcional retirada"
Cause #44	Requested circuit/channel not available	"Canal indisponível"
Cause #46	Precedence call blocked	"Chamada com precedência bloqueada"
Cause #47	Resource unavailable, unspecified	"Recursos indisponíveis"

3 – SERVICE OR OPTION NOT AVAILABLE

Cause #49	Quality of service unavailable	"Qualidade indisponível"
Cause #50	Requested facility not subscribed	"Facilidade não subscrita"
Cause #53	Outgoing calls barred within CUG	Chamada de saída barradas"
Cause #55	Incoming calls barred within CUG	"Chamadas de entrada barradas"
Cause #57	Bearer capability not authorized	"Serviço não autorizado"
Cause #58	Bearer capability not presently available	"Serviço indisponível"
Cause #62	Inconsistency in designated outgoing access information and subscriber class	"Acesso de saída inconsistente com classe"
Cause #63	Service or option not available, unspecified	"Serviço indisponível"

4 – SERVICE OR OPTION NOT IMPLEMENTED

Cause #65	Bearer capability not implemented	"Serviço não implementado"
Cause #66	Channel type not implemented	"Recurso solicitado não implementado"
Cause #69	Requested facility not implemented	"Facilidade não implementada"
Cause #70	Only restricted digital information bearer capability is available	"Só é possível chamada RDIS"
Cause #79	Service or option not implemented, unspecified	"Serviço não implementado"
Cause #65	Bearer capability not implemented	"Serviço não implementado"
Cause #66	Channel type not implemented	"Recurso solicitado não implementado"
Cause #69	Requested facility not implemented	"Facilidade não implementada"
Cause #70	Only restricted digital information bearer capability is available	"Só é possível chamada RDIS"
Cause #79	Service or option not implemented, unspecified	"Serviço não implementado"

5 – INVALID MESSAGE

Cause #81	Invalid call reference value	"Erro de sinalização"
Cause #82	Identified channel does not exist	"Canal inexistente"
Cause #83	A suspended call exists, but this call identity does not	"Identificação não reconhecida"
Cause #84	Call identity in use	"Identificação em uso"
Cause #85	No call suspended	"Não existe chamada suspensa"
Cause #86	Call having the requested call identity has been cleared	"Chamada desligada no destino"
Cause #87	User not member of CUG	"Não pertence a grupo fechado"
Cause #88	Incompatible destination	"Destino incompatível"
Cause #90	Non-existent CUG	"Grupo fechado inexistente"
Cause #91	Invalid transit network selection	"Rede de trânsito inválida"
Cause #95	Invalid message, unspecified	"Mensagem errada"

6 – PROTOCOL ERROR

Cause #96	Mandatory information element is missing	"Falta elemento de informação"
Cause #97	Message type non-existent or not implemented	"Tipo de mensagem desconhecido"
Cause #98	Message not compatible with call state or message type non-existent or not implemented	"Mensagem fora de estado/desconhecida"
Cause #99	Information element /parameter non-existent or not implemented	"Elemento de informação desconhecido"
Cause #100	Invalid information element contents	"Conteúdo inválido de elemento de inf."
Cause #101	Message not compatible with call state	"Mensagem fora de estado"
Cause #102	Recovery on timer expiry	"Temporização excedida"
Cause #111	Protocol error, unspecified	"Erro de sinalização"

7 – INTERWORKING

Cause #127	Interworking, unspecified	"Chamada não RDIS ponto-a ponto"

4. Anexo 3

4.1 Tabeça de tradução do “Notification Indicator" para a especificação ONI ISDN (para o elemento de informação DISPLAY)

Notification Description	Notification Description meaning	Notification Description Translation
1 0 0 0 0 0 0 0	User suspended	“Chamada suspensa”
1 0 0 0 0 0 0 1	User resumed	“Chamada reiniciada”
1 0 0 0 0 0 1 0	Bearer service change	“Serviço de suporte alterado”
1 1 0 0 0 0 0	Call is a waiting call	“Chamada em espera”
1 1 0 0 0 0 1 0	Conference established	“Conferência estabelecida”
1 1 0 0 0 0 1 1	Conference disconnected	“Conferência desligada”
1 1 0 0 0 1 0 0	Other party added	“Outro conferente adicionado”
1 1 0 0 0 1 0 1	Isolated	“Isolado”
1 1 0 0 0 1 1 0	Reattached	“Ligado de novo”
1 1 0 0 0 1 1 1	Other party isolated	“Outro conferente isolado”
1 1 0 0 1 0 0 0	Other party reattached	“Outro conferente de volta”
1 1 0 0 1 0 0 1	Other party split	“Outro conferente separado”
1 1 0 0 1 0 1 0	Other party disconnected	“Outro conferente desligado”
1 1 1 0 1 0 0 0	Diversion activated	“Divergência ativada”
1 1 1 1 1 0 0 1	Remote hold	“Remoto suspenso”
1 1 1 1 1 0 1 0	Remote retrieval	“Remoto ligado de novo”
1 1 1 1 1 0 1 1	Call is diverting	“Chamada divergindo”

Outras notificações serão traduzidas posteriormente no sentido de serem adaptadas aos requisitos ETSI dos restantes serviços suplementares.

5. Anexo 4

5.1 Tabela de tradução do "Progress Indicator” para a rede ONI ISDN (para o elemento de informação DISPLAY)

Progress Description	Progress Description meaning	Progress Description Translation
0000001	Call is not end-to-end ISDN; further call progress information may be available in-band	"Chamada não RDIS Ponto-a-Ponto"
0000010	Destination address is non ISDN	"Endereço de destino não é RDIS"
0000011	Origination address is non ISDN	"Endereço de origem não é RDIS"
0000100	Call has returned to the ISDN	"Chamada retornou à RDIS"
0000101	Interworking has occurred and has resulted in a telecommunication service change	“Mudança de serviço”
0001000	In-band information or an appropriate pattern is now available	"Informação em banda disponível"

6. Anexo 5

6.1 Tabela 1 - Adaptações à Recomendação ETS 300 122

(KEYPAD)

Secção	Título	Comentários
5.1	Support of various generic protocols	The ONI ISDN shall support the keypad and the functional generic protocols for the control of supplementary services. The operation of supplementary services in Keypad mode shall be according to the document “Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad"
5.2	Support of various generic protocols	Note to 3rd §: In the ONI ISDN, the functional protocol shall be used for the supplementary service indication or notification in the n - u direction (i.e. at the remote user interface). However, the keypad protocol shall be used if the remote user subscribed it.
5.3	Arrangements by which coexistence of protocols	Note to 1st §: In the ONI ISDN, the functional and keypad protocol shall be supported on point-to-point and point- to-multipoint configurations. Note to 3rd §: In the ONI ISDN, the functional protocol shall be used for the supplementary service indication or notification in the n - u direction (i.e. at the remote user interface). However, the keypad protocol shall be used if the remote user subscribed it.

6.2 Tabela 2 - Adaptações à Recomendação ETS 300 196

(FUNCTIONAL)

Secção	Título	Comentários
5	Coexistence with other supplementary service protocols	In the ONI ISDN the keypad protocol as well as the Functional protocol are supported for all Supplementary Services that may be activated by Subscriber Control Input The keypad protocol for these Supplementary Services is described in the document "Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad".
5.2	Coexistence of generic protocols	Note to the 4th §: The indication/notification to the remote user is done using the functional protocol, as default, or by subscription, using the keypad protocol.
5.3	Arrangements by which coexistence of protocols may be supported by network a	Note to the 1st §: In the ONI ISDN both the keypad and functional protocol are supported for the supplementary services referred in item 5, for point-to- point and point-to-multipoint configurations. Note to the 3rd §: The indication/notification to the remote user is done using the functional protocol, as default, or by subscription, using the keypad protocol.
8.3.1.1.2	Exceptional procedures	Note to the 1st §: The second option shall be implemented.
10.2.2.1.1	General	Note to the 4th §: The Network verifies that the specific supplementary service data are accomplished before accepting the registration.
10.2.4.1.1	General	Note: The Network verifies that the specific supplementary service data are accomplished before accepting the registration.

6.3 Tabela 3 - Adaptações à Recomendação ETS 300 062

(DDI)

Secção	Título	Comentários
5	Description	In the ONI ISDN the network shall only send the DDI digits.
6.1	Provision and withdrawal	In the ONI ISDN the network shall only send the DDI digits.
8.13	Multiple Subscriber Number	Note 1: In the ONI ISDN the DDI and the MSN are mutually exclusive. DDI is only applicable in point-to-point configurations and MSN is only applicable in point-to-multipoint configurations.

6.4 Tabela 4 - Adaptações à Recomendação ETS 300 064

(DDI)

Secção	Título	Comentários
3	Definitions	The DDI number is part of the numbering plan.
5	Description	In the ONI ISDN the network shall only send the DDI digits.
6.1	Provision and withdrawal	In the ONI ISDN, the DDI and the MSN are mutually exclusive. DDI is only applicable in point-to-point configurations and MSN is only applicable in point-to-multipoint configurations.
6.3	Requirements on the destination network side	In the ONI ISDN the network shall only send the DDI digits.

6.5 Tabela 5 - Adaptações à Recomendação ETS 300 050

(MSN)

Secção	Título	Comentários
5	Description	The Called Party Number will ways be sent to the served user. The number of digits sent to the served user shall be administrable. If the served user wants to have a general number that all compatible terminals will respond, then that number shall be programmed in all those terminals. In this case de terminals shall have stored more than one number.
6.1	Provision and withdrawal	The maximum number of MSNs in a point-to-multipoint configuration will be 8.
12	Interaction with other supplementary services	It will be possible to define a service profile per each MSN.

6.6 Tabela 6 - Adaptações à Recomendação ETS 300 052

(MSN)

Secção	Título	Comentários
6.2	Requirements on the originating network side	It will be possible to define a service profile per each MSN.
9.2.1	Normal operation	The Called Party Number will ways be sent to the served user. The number of digits sent to the served user shall be administrable. If the served user wants to have a general number that all compatible terminals will respond, then that number shall be programmed in all those terminals. In this case de terminals shall have stored more than one number. Note: The type of number will be coded as "subscriber number" or “unknown”.
9.3.1	Normal operation	Note to note: The ONI ISDN will support all the options described in this paragraph.

6.7 Tabela 7 - Adaptações à Recomendação ETS 300 053

(TP)

Secção	Título	Comentários
1	Scope	This service is only applicable in point-to-multipoint configurations.
6.1	Provision and withdrawal	This service is always provided.
6.2.3	Invocation and operation	The Call Identity will have a maximum length of 8 characters.
8.1.2	Charging information during the call	In the ONI ISDN the Charging information can be given at call suspension, at call resume and at resume attempt (as described in the 3rd paragraph).
8.1.3	Charging information at the end of the call	In the ONI ISDN the Charging information can be given at resume attempt.

6.8 Tabela 8 - Adaptações à Recomendação ETS 300 055

(TP)

Secção	Título	Comentários
1	Scope	This service is only applicable in point-to-multipoint configurations.
9	Signalling Procedures at coincident S and T reference point	The ONI ISDN will send notifications to the remote user.

6.9 Tabela 9 - Adaptações à Recomendação ETS 300 059

(SUB)

Secção	Título	Comentários
8.12	Malicious call identification	The "Calling Subaddress Information" (if provided by the calling user) will be registered when the MCID is activated.

6.10 Tabela 11 - Adaptações à Recomendação ETS 300 089

(CLIP)

Secção	Título	Comentários
5.	Description	In the ONI ISDN, the verification of the calling number at the calling side will be done as follows: ▪ The network will check if the number has the length and the coding correct and if it is within the range specified for the interface. ▪ In the case of positive checking the network will pass the number, coding the screening indicator as "user provided, verified and passed". ▪ In the case of negative checking the network will send the default calling number, coding the screening indicator as "network provided".
6.2.3.1	Calling User Side	In the ONI ISDN, in the case of the calling user not being an ISDN user, but being connected to a Digital Exchange, its number should be transferred to the called user, with the indication of "presentation allowed". Besides, in the case that the analog subscriber wants it should be possible to restrict the number presentation on a permanent basis
7.1	Interworking with non-ISDN`s	In the ONI ISDN, in the case of the calling user not being an ISDN user, but being connected to a Digital Exchange, its number should be transferred to the Called user with the indication of "presentation allowed". Besides, in the case that the analog subscriber wants, it should be possible to restrict the number presentation on a permanent basis.
8.5.2	Calling Line Identification Restriction	In the ONI ISDN there will exist the override category.
Annex A	Two calling party number delivery option	The ONI ISDN will allow the selection of the calling party to generate/display.

6.11 Tabela 12 – Adaptações à Recomendação ETS 300 092

(CLIP)

Secção	Título	Comentários
5	Description	In the network-to-user direction of the destination network, the Calling party number shall be coded as follows: Local Calls: Type of number: Subscriber number Numbering plan. id.: ISDN/Telephony numbering plan E164/E163 Number digits: <subscriber number> National Calls: Type of number: unknown Numbering plan id.: unknown Number digits: <esc code1+national number> International Calls: Type of number: unknown Numbering plan id.: unknown Number digits: <esc code2+international number> Esc code 1 = 0 Esc code2 = 00 The esc codes shall be administrable.
6.2	Requirements on the originating network side	In the ONI ISDN no "special arrangement" will exist.
9.3.1	Normal Procedures	Note to the first Note: This situation can occur in some interworking scenarios. Note to Note 7 of Table 1: In the ONI ISDN the coding of the Numbering Plan Identifier as "unknown" can occur in some interworking situations.
9.4	Actions at the originating local exchange with a special arrangement	In the ONI ISDN no "special arrangement" will exist. The Calling Party Number, when user provided and the generation of two Calling Party numbers, does not apply, shall be screened.

Secção	Título	Comentários
11	Interaction with other networks	The first option is applied. In the case of the calling user not being an ISDN user, but being connected to a Digital Exchange, its number should be transferred to the Called user with the indication of "presentation allowed". Besides, in the case that the analog subscriber wants, it should be possible to restrict the number presentation on a permanent basis.
Annex B	Two Calling party number information elements delivery option	The ONI ISDN will allow the selection of the calling party to generate/display.

6.12 Tabela 13 – Adaptações à Recomendação ETS 300 090

(CLIR)

Secção	Título	Comentários
6.1	Provision and withdrawal	In the ONI ISDN all the subscription options of table 1 will be provided.
6.2	Normal Procedures	In the ONI ISDN the override category will exist.
7	Intercommunication considerations	The Originating Exchange will send all the information identifying the calling user, independently of the value of the "presentation indicator".
8.5.1	Calling line identification presentation	The CLIP service takes precedence over the CLIR when the called user has "override category".

6.13 Tabela 14 – Adaptações à Recomendação ETS 300 093

(CLIR)

Secção	Título	Comentários
11	Interaction with other networks	The Originating exchange will send all the information identifying the calling user, independently of the value of the "presentation indicator".

6.14 Tabela 15 –Adaptações à Recomendação ETS 300 094

(COLP)

Secção	Título	Comentários
8.5.4	Connected Line Identification Restriction	In the ONI ISDNthere will exist the override category.
8.9	Direct Dialing In	In the ONI ISDN no "special arrangement" will exist.
8.10	Diversion services	In the ONI ISDN there will exist the override category.
8.13	Multiple Subscriber Number	In the ONI ISDN no "special arrangement" will exist.

6.15 Tabela 16 – Adaptações à Recomendação ETS 300 097

(COLP)

Secção	Título	Comentários
5	Description	In the network-to-user direction of the originating network, the Connected party number shall be coded as follows: Local Calls: Type of number: Subscriber number Numbering plan. id.: ISDN/Telephony numbering plan E164/E163 Number digits: <subscriber number> National Calls: Type of number: unknown Numbering plan id.: unknown Number digits: <esc code1+national number> International Calls: Type of number: unknown Numbering plan id.: unknown Number digits: <esc code2+international number> Esc code 1 = 0 Esc code2 = 00 The esc codes shall be administrable.
6.3	Requirements on the destination network side	In the ONI ISDN no "special arrangement" will exist.

Secção	Título	Comentários
9.4	Actions at the destination local exchange with a special arrangement	In the ONI ISDN no "special arrangement" will exist. The Connected arty Number shall be screened.
11	Interaction with other networks	The Destination Exchange will send always all the information identifying the called user, independently of the value of the "presentation indicator".

6.16 Tabela 17 – Adaptações à Recomendação ETS 300 095

(COLR)

Secção	Título	Comentários
6.1	Provision and withdrawal	In the ONI ISDN all the subscription options of table 1 will be provided.
6.2	Normal Procedures	In the ONI ISDN the override category will exist.
7	Intercommunication	In the ONI ISDN, the Destination considerations Exchange will send all the information identifying the called user, independently of the value of the "presentation indicator".
8.5.1	Calling line identification presentation	The COLP service takes precedence over the COLR when the calling user has the "override category".

6.17 Tabela 18 – Adaptações à Recomendação ETS 300 098

(COLR)

Secção	Título	Comentários
11	Interaction with other networks	The Destination Exchange will send all the information identifying the called user, independently of the value of the "presentation indicator".

6.18 Tabela 19 – Adaptações à Recomendação ETS 300 128

(MCID)

Secção	Título	Comentários
5	Description	The calling party subaddress (if provided by the calling user) will be registered. Note to the last §: Applicable.
6.1	Provision and withdrawal	The following options are provided for the subscription of MCID: a) Manual invocation per call. b) Automatic invocation for calls not answered. c) Automatic invocation only during certain periods of the day (e.g. night hours).
6.2.3	Invocation and operation	Note to the 6th §: The two options shall apply. Note to the Note: The MCID can be invocated within a certain period after calling user has released the call, but never after the release by the "served user". That period of time shall be administrable.
7.2	Interworking with Private ISDNs	In The ONI ISDN no "special arrangement" will exist.
8.14	Sub-addressing	In the ONI ISDN the Calling Party Subaddress (if provided by the calling user, will be registered).

6.19 Tabela 20 – Adaptações à Recomendação ETS 300 130

(MCID)

Secção	Título	Comentários
6.1	Provision and withdrawal	The followinnng options are provided for the subscription of MCID: a) Manual invocation per call. b) Automatic invocation for calls not answered. c) Automatic invocation only during certain periods of the day (e.g. night hours).
9.2.1	Normal Operation	The ONI ISDN will support besides the functional mode, the keypad mode according to “Especificações e Condições Técnicas para a Ativação de Funcionalidades por Keypad”.

6.20 Tabela 21 – Adaptações à Recomendação ETS 300 056

(CW)

Secção	Título	Comentários
3	Definitions	The T2 timer shall be administrable. As a default, its value shall be equal to the T301 timer of basic call control.
6.1	Provision and withdrawal	The CW shall be provided on a subscription basis and also generally available. Note to Table 1: The options shall be administrable. Note to Table 2: The options shall be administrable. Note to the last §: The T2 timer shall be administrable. As a default, its value shall be equal to the T301 timer of basic call control.
6.2.3.1	Interface resources in use	Note to the 2nd §: In the ONI ISDN an indication of call waiting will be given.
8.10.2	Call forwarding busy	When the served user has an incoming call waiting, and no channels available, a NDUB condition shall result.

6.21 Tabela 22 – Adaptações à Recomendação ETS 300 058

(CW)

Secção	Título	Comentários
6.1	Provision and withdrawal	The CW shall be administrable on a subscription basis and also generally available.
9.5.1.1	Network determined user busy	Note to 1§ and 2§: The T-CW timer shall be administrable. As a default, its value shall be equal to the T301 timer of basic call control. Note to the last §: A notification indicator will be sent to the calling user.
10.1	Service user is on a private ISDN	Note to the Note: The ONI ISDN will support the sending of the notification to the remote user.
10.2	Calling user is on a private ISDN	The ONI ISDN will include a Notification Indicator I.E. in the alerting message.
13	Parameter values	Note to the last §: The T-CW timer shall be administrable. As a default, its value shall be equal to the T301 timer of basic call control.

6.22 Tabela 23 - Adaptações à Recomendação ETS 300 139

(HOLD)

Secção	Título	Comentários
6.1	Provision and withdrawal	In the case of subscription of the CW and 3PTY supplementary services, the HOLD Supplementary Service will be given together.
6.2.3.1	Hold request	Note to the 1st §: The call can be put in hold in the (N10) active state or in call delivered state (N4). Note to the Note: The ONI ISDN will support the sending of a notification to the remote user, according to the § 7 of the recommendation ETS 300196.
6.2.3.2	Retrieve request	Note to the Note: The ONI ISDN will support the sending of a notification to the remote user, according to the § 7 of the recommendation ETS 300196.

6.23 Tabela 24 - Adaptações à Recomendação ETS 300 141

(HOLD)

Secção	Título	Comentários
6.1	Provision and withdrawal	In the case of subscription of the CW and 3PTY Supplementary Services, the HOLD Supplementary Service will be given together.
9	Signalling procedures at the S and T reference point	In the ONI ISDN the HOLD can be invoked in the Active State (N10) or in the Call Delivered State (N4).
9.2.1	Normal operation	Note to the Note: The ONI ISDN will support the sending of a notification to the remote user according to the § 7 of the recommendation ETS 300196.
9.4.1	Normal operation	Note to the Note: The ONI ISDN will support the sending of a notification to the remote user according to the § 7 of the recommendation ETS 300196.

6.24 Tabela 25 - Adaptações à Recomendação ETS 300 136

(CUG)

Secção	Título	Comentários
6.1	Provision and withdrawal	In the ONI ISDN all the subscription options of Tables 1A and 1B will be implemented.

6.25 Tabela 26 - Adaptações à Recomendação ETS 300 138

(CUG)

Secção	Título	Comentários
5	Description	The CUG shall be associated, on a subscription basis, to the following options: ▪ a single bearer service or teleservice ▪ a set of bearer services (e.g. speech and 3,1 kHz audio) or teleservices ▪ combinations of bearer services with teleservices according to the table included in annex 1. The number of digits for the CUG index will be 2. The maximum number of CUGs allocated to an individual subscriber will be 100.
6.1	Provision and withdrawal	In the ONI ISDN all the subscription options of Tables 1 and 2 will be implemented.

6.26 Tabela 27 - Adaptações à Recomendação ETS 300 183

(CONF)

Secção	Título	Comentários
5	Description	It will be possible to invoke the CONF supplementary service from an existing active call.
6.1	Provision and Withdrawal	The maximum number of conferees allowed in a conference will be 8.
6.2.3.5	Notification of participants	The ONI ISDN will support the transfer of notifications.
8.1.1	AOC, charging information at Call Setup Time	The ONI ISDN will support the sending of the charging rate for the use of the Conference bridge to the Conference controller.

6.27 Tabela 28 - Adaptações à Recomendação ETS 300 185

(CONF)

Secção	Título	Comentários
5	Description	Note to the 1st §: The CONF can be invoked from the idle state, and also from the active state.

6.28 Tabela 32 - Adaptações à Recomendação ETS 300 182

(AOC)

Secção	Título	Comentários
6.1	Provision and Withdrawal	The two subscription options of Table 1 will be supported.
7.1	General	In the ONI ISDNit will be possible to administer the type of charging information to send to the user. Information like units, currency and rate shall apply.
9.2.1.1	Normal operation	Note to the 5th Â§: The type of charging information will be AOCSCurrencyInfoList.
9.2.2.1	Normal operation	In the case a) the type of charging information will be AOCSCurrencyInfoList. In the case b) the type of charging information will be AOCDChargingUnitInfo by default and AOCDCurrencyInfo by administration.
9.2.3.1	Normal operation	The type of charging information will be AOCDChargingUnitInfo or AOCEChargingUnitInfo, by default and

Secção	Título	Comentários
		AOCDCurrencyInfov or AOCECurrencyInfo by administration.
9.2.3.2	Exceptional procedures	Note to 3th Â§: For the AOC-D the type of charging information will be AOCDChargingUnitInfo by default and AOCDCurrencyInfo by administration. Note to 4th Â§: For the AOC-D the type of charging information will be AOCEChargingUnitInfo by default and AOCECurrencyInfo by administration.
9.2.4.1	Normal operation	Note to 5th §: the type of charging information will be AOCEChargingUnitInfo by default and AOCECurrencyInfo by administration.

6.29 Tabela 36 - Adaptações à Recomendação ETS 300 207

(Call Diversion)

Secção	Título	Comentários
5	Description	The Call Diversion supplementary services shall be associated, on a subscription basis, in terms of a forwarded-to-number as well as a type of call diversion, to the following options: ▪ a single bearer service or teleservice ▪ a set of bearer services (e.g. speech and 3,1 kHz audio) or teleservices ▪ combinations of bearer services with teleservices according to the table included in annex 1. Note to the 3rd §: In the ONI ISDN there will be a subscription option to allow the forwarding user to receive an indication that the call forwarding service is activated each time an outgoing call is made.
6.1	Provision and Withdrawal	Note to table 1: All the subscription options of table 1 are provided and can be subscribed on a per basic service basis. Note to table 2: In the ONI ISDN the options concerning the following: i) Clear the call ii) No action iii) Clear the call. The maximum number of diverted connections is 5. The CFNR timer shall have the default value of 25s and shall be administrable. Partial rerouting is applicable.
7.2.1	Coding of the Notification indicator information element	The values of the Notification indicator IE should be mapped to the Display IE as follows: Call is diverting - "Chamada reencaminhada" Diversion activated - "Reencaminhamento ativo"
9.2	Invocation and operation	In the ONI ISDNa notification of forwarded call will be sent to the calling user, served user (depending on the subscription) and to the forwarded-to user.
9.2.4.4.1	Normal operation	Note to 2nd §: The CFNR timer shall have the default value of 25s and shall be administrable. Note to the 9th and 10th §: The network option is "Clear the call on invocation".
9.2.4.5.1	Normal operation	Note to the 9th §: In the ONI ISDN the option is the second one.
10.5.1	Normal procedure	Note to the 9th §: In the ONI ISDN the option is the second one.

6.30 Tabela 38 - Adaptações à Recomendação ETS 300 188

(3PTY)

Secção	Título	Comentários
6.2.3.4	Information provided to participants	Note to note: The ONI ISDNwill send the notification to the remote user.

6.31 Tabela 39 - Adaptações à Recomendação ETS 300 284

(User-to-User Signalling)

Secção	Título	Comentários
5	Description	Note to Note: The UUI has a maximum length of 128 octets.
6.1	Provision and withdrawal	In the ONI ISDN the UUS 1, 2 and 3 services can be subscribed individually or in any combination.
6.3.3	Invocation and operation	Note to the 2rd §: Under congestion conditions the network will reject services 2 and 3. Note to the 3th §: In this situation the user receives a STATUS message with cause #43.
7	Intercommunication considerations	Note to the Note: The ONI ISDN will provide this interworking.
8.10.1	Call forwarding unconditional	Note to the Note: The UUI and/or the UUS requests will be forwarded.
8.10.3	Call forwarding no reply	Note to the Note: The UUI and/or the UUS requests will be forwarded
8.10.4	Call deflection	Note to the Note: The UUI and/or the UUS requests will be forwarded.
Annex A	Interaction between User-to-user signalling and Call diversion services	Note to the Note of Table A.1: The UUI and/or the UUS requests will be forwarded.

6.32 Tabela 40 - Adaptações à Recomendação ETS 300 286

(User-to-User Signalling)

Secção	Título	Comentários
5	Description	Note to Note: The UUI has a maximum length of 128 octets.
6.1	Provision and withdrawal	Note to the 1st §: The UUS 1, 2 and 3 services can be subscribed individually or in any combination.
9.1.2.2.1	Normal operation	Note to the 8th §: In these conditions the network shall send the UUI to the calling user in a PROGRESS message. Note to the last §: In case when the DISCONNECT message is not acknowledged, the UUI shall be repeated in the RELEASE message.
9.2.2.1	Normal operation	The UUI can be received by the called user in the active phase of the call.
9.2.2.2	Exceptional	The UUI can be received by the called Procedures user in the active phase of the call.

7. Modo pacote

ADAPTAÇÕES AO SUPORTE DE MODO PACOTE NO EQUIPAMENTO TERMINAL NA RDIS

7.1 Tabela 1 – Adaptações à norma ETS 300 007 Support of packet-mode terminal equipment by an ISDN

Secção	Título	Comentários
4.2.2.2.1	Service limitations	D-channel access will be supported on Basic Rate and Primary Rate Accesses.

8. Classes de Serviço RDIS

Este documento descreve a especificação das classes de serviço a atribuir a assinantes RDIS.

Cada uma das classes de serviço enumerada na tabela em anexo pode ser atribuída a um dado assinante RDIS.

A tabela é constituída por duas colunas. Na primeira encontra-se o nome da classe de serviço, e na segunda a associação dos vários conjuntos de BC's e HLC's que são utilizados para filtrar as várias chamadas.

A cada classe de serviço está associada um conjunto de BC's e HLC's que permitem ao comutador autorizar a realização de uma dada chamada de entrada ou saída. O critério é baseado na comparação do BC e do HLC existente no SETUP de cada chamada com os existentes na tabela.

Estas classes de serviço serão também utilizadas para a associação de serviços básicos de telecomunicações a serviços suplementares. Por exemplo, se a um assinante for atribuída a classe de serviço R, e ativar o CF com um terminal que envie o BC= Speech e sem HLC, todas as chamadas recebidas cujo SETUP tiver uma associação de BC e HLC igual à s existentes na tabela para a classe de serviço R, serão reencaminhadas.

Classes de Serviço	Chamadas a validar
A	BC=Speech HLC=_
B	BC=3.1 KHz Audio HLC=_
C	BC=7 KHz Audio HLC=_
D	BC=U.D.I. HLC=_
E	BC=Speech HLC=Telephony
F	BC=7 KHz Audio HLC=Telephony
G	BC=U.D.I. HLC=Fax G4
H	BC=3.1 KHz Audio HLC=Fax G2/3
I	BC=U.D.I. HLC=Videotex
J	BC=U.D.I. HLC=Teletex
K	BC=U.D.I. HLC=Audiovisual
L	BC=Speech HLC=_ / BC=Speech HLC=Telephony
M	BC=7 KHz Audio HLC=_ / BC=7 KHz Audio HLC=Telephony
N	BC=U.D.I. HLC=_ / BC=U.D.I. HLC=Audiovisual
O	BC=U.D.I. HLC=_ / BC=U.D.I. HLC=Qualquer diferente de Audiovisual, Fax G4, Fax G2/3
P	BC=U.D.I. HLC=_ / BC=U.D.I. HLC=Fax G4 / BC=3.1 KHz Audio HLC=_ / BC=3.1 KHz Audio HLC=Fax G2/3
Q	BC=U.D.I. HLC=_ / BC=U.D.I. HLC=Qualquer excepto Audiovisual / BC=3.1 KHz Audio HLC=_ / BC=3.1 KHz Audio HLC=Fax G2/3
R	BC=Speech HLC=_ / BC=Speech HLC=Telephony / BC=3.1 Khz Audio HLC=_ / BC=3.1 Khz Audio HLC=Telephony / BC=7 Khz Audio HLC=_ / BC=7 Khz Audio HLC=Telephony
S	BC=Speech HLC=_ / BC=Speech HLC=Telephony / BC=7 Khz Audio HLC=_ / BC=7 Khz Audio HLC=Telephony / BC=U.D.I. HLC=_ / BC=U.D.I. HLC=Audiovisual
T	BC=Speech HLC=_ / BC=Speech HLC= Telephony / BC=7 Khz Audio HLC=_ / BC=7 Khz Audio HLC= Telephony / BC=U.D.I. HLC=_ / BC=U.D.I. HLC= Audiovisual / BC=3.1 Khz Audio HLC=_ / BC=3.1 Khz Audio HLC= Telephony