Standard ECMA-225
2nd Edition - June 1997

ECMA

Standardizing Information and Communication Systems

Private Integrated Services Network (PISN) - Inter-Exchange Signalling Protocol - Transit Counter Additional Network Feature

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(QSIG-TC)

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Brief History

This Standard is one of a series of ECMA Standards defining services and signalling protocols applicable to Private Integrated Services Networks (PISNs). The series uses ISDN concepts as developed by ITU-T and conforms to the framework of International Standards for Open Systems Interconnection as defined by ISO/IEC. It has been produced under ETSI work item DE/ECMA-00146.

This particular Standard specifies the signalling protocol for use at the Q reference point in support of the Transit Counter additional network feature. The protocol defined in this Standard forms part of the PSS1 protocol (informally known as QSIG).

This Standard is based upon the practical experience of ECMA member companies and the results of their active and continuous participation in the work of ISO/IEC JTC1, ITU-T, ETSI and other international and national standardization bodies. It represents a pragmatic and widely based consensus.

Compared to the 1st Edition of Standard ECMA-225 (published by ECMA in June 1995), this 2nd Edition incorporates changes in order to achieve complete alignment with International Standard ISO/IEC 15056:1997(E) published by ISO/IEC in May 1997.

Differences between this ECMA Standard and the ISO/IEC International Standard with which it is aligned are clearly identified.

Adopted as 2nd Edition of Standard ECMA-225 by the General Assembly of June 1997.

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1 Scope

This Standard specifies the signalling protocol for the support of the Transit Counter additional network feature (ANF-TC) at the Q reference point between Private Integrated Services Network Exchanges (PINXs) connected together within a Private Integrated Services Network (PISN).

ANF-TC is a feature that limits the number of Transit PINXs that a call setup request may be routed through e.g., to protect the network against indefinite looping.

The Q reference point is defined in ISO/IEC 11579-1.

Service specifications are produced in three stages and according to the method specified in ETS 300 387. This Standard contains the stage 3 specification for the Q reference point and satisfies the requirements identified by the stage 1 and stage 2 specifications in ECMA-224.

The signalling protocol for ANF-TC operates in association with the signalling protocols for basic circuit switched call control (as specified in ECMA-143) and call independent (connection oriented) signalling connections (as specified in ECMA-165).

This Standard also specifies additional signalling protocol requirements for the support of interactions at the Q reference point between ANF-TC and other supplementary services and ANFs.

This Standard is applicable to PINXs that can interconnect to form a PISN.

2 Conformance

In order to conform to this Standard, a PINX shall satisfy the requirements identified in the Protocol Implementation Conformance Statement (PICS) proforma in annex A.

Conformance to this Standard includes conforming to those clauses that specify protocol interactions between ANF-TC and other supplementary services and ANFs for which signalling protocols at the Q reference point are supported in accordance with the stage 3 standards concerned.

3 References (normative)

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

In the case of references to ECMA Standards that are aligned with ISO/IEC International Standards, the number of the appropriate ISO/IEC International Standard is given in brackets after the ECMA reference.

ECMA-142 Private Integrated Services Network - Circuit-mode 64 kbit/s Bearer Services - Service Description, Functional Capabilities and Information Flows (International Standard ISO/IEC 11574)

ECMA-143 Private Integrated Services Network - Circuit-mode Bearer Services - Inter-Exchange Signalling Procedures and Protocol (International Standard ISO/IEC 11572)

ECMA-165 Private Integrated Services Network - Generic Functional Protocol for the Support of Supplementary Services - Inter-Exchange Signalling Procedures and Protocol (International Standard ISO/IEC 11582)

ECMA-174 Private Integrated Services Network - Inter-Exchange Signalling Protocol - Call Diversion Supplementary Services (International Standard ISO/IEC 13873)

ECMA-176 Private Integrated Services Network - Inter-Exchange Signalling Protocol - Path Replacement Additional Network Feature (International Standard ISO/IEC 13874)

ECMA-178 Private Integrated Services Network - Inter-Exchange Signalling Protocol - Call Transfer Supplementary Services (International Standard ISO/IEC 13869)

ECMA-186 Private Integrated Services Network - Inter-Exchange Signalling Protocol - Call Completion Supplementary Services (International Standard ISO/IEC 13870)

ECMA-221	Private Integrated Services Network - Inter-Exchange Signalling Protocol - Call Interception Additional Network Feature (International Standard ISO/IEC 15054)
ECMA-224	Private Integrated Services Network - Specification, Functional Model and Information Flows - Transit Counter Additional Network Feature (International Standard ISO/IEC 15055)
ISO/IEC 11579-1	Information technology - Telecommunications and information exchange between systems - Private Integrated Services Network - Part 1: Reference configuration for PISN Exchanges (PINX)
ETS 300 387	Private Telecommunication Network (PTN); Method for the specification of basic and supplementary services (1994)
ITU-T Rec. I.112	Vocabulary of terms for ISDNs (1993)
ITU-T Rec. I.210	Principles of telecommunication services supported by an ISDN and the means to describe them (1993)

4 Definitions

For the purposes of this Standard, the following definitions apply.

4.1 External definitions

This Standard uses the following terms defined in other documents:

- Basic Service (ITU-T Rec. I.210)
- Call, Basic Call (ECMA-165)
- Call Independent Signalling Connection (ECMA-165)
- CC Call (ECMA-186)
- Cooperating PINX (ECMA-176)
- Diverted-to PINX (ECMA-174)
- Diverted-to User (ECMA-174)
- Incoming Gateway PINX (ECMA-143)
- Incoming Side (ECMA-143)
- Inter-PTNX Link (ECMA-143)
- Originating PINX (ECMA-143)
- Outgoing Gateway PINX (ECMA-143)
- Outgoing Side (ECMA-143)
- Path Reservation (ECMA-186)
- Preceding PINX (ECMA-143)
- Primary PINX (ECMA-178)
- Private Integrated Services Network (PISN) (ISO/IEC 11579-1)
- Private Integrated Services Network Exchange (PINX) (ISO/IEC 11579-1)
- Requesting PINX (ECMA-176)
- Rerouteing PINX (ECMA-174)
- Secondary PINX (ECMA-178)
- Signalling (ITU-T Rec. I.112)
- Subsequent PINX (ECMA-143)

- Supplementary Service (ITU-T Rec. I.210)
- Terminating PINX (ECMA-143)
- Transit PINX (ECMA-143)

5 List of acronyms

ANF	Additional Network Feature
ANF-PR	Path Replacement Additional Network Feature
ANF-TC	Transit Counter Additional Network Feature
ISDN	Integrated Services Digital Network
PICS	Protocol Implementation Conformance Statement
PINX	Private Integrated Services Network Exchange
PISN	Private Integrated Services Network
SS-CC	Call Completion Supplementary Services
SS-CCBS	Completion of Calls to Busy Subscribers Supplementary Service
SS-CCNR	Completion of Calls on No Reply Supplementary Service
SS-CD	Call Deflection Supplementary Service
SS-CFU	Call Forwarding Unconditional Supplementary Service
SS-CFB	Call Forwarding Busy Supplementary Service
SS-CFNR	Call Forwarding No Reply Supplementary Service
SS-CT	Call Transfer Supplementary Service
SS-DIV	Diversion Supplementary Services

6 Signalling protocol for the support of ANF-TC

6.1 ANF-TC description

ANF-TC is invoked when it is desired to limit the number of Transit PINXs that a call setup request may be routed through.

ANF-TC may be used in conjunction with either a Basic call setup request or a setup request for a call independent (connection oriented) signalling connection.

Use of ANF-TC is a network option. The criteria for determining:

- when ANF-TC should be invoked;
- the number of PINXs through which a call may be routed; and,
- the means by which the feature is activated or deactivated

are network dependent and outside the scope of this Standard.

6.2 ANF-TC operational requirements

6.2.1 Requirements on the Originating PINX

Call establishment procedures for the outgoing side of an inter-PINX link and call release procedures, as specified in ECMA-143, shall apply.

If the PINX supports connection-oriented APDU transport, then the generic procedures for the call independent control (connection oriented) of supplementary services, as specified in ECMA-165 for an Originating PINX, shall apply.

6.2.2 Requirements on the Terminating PINX

Call establishment procedures for the incoming side of an inter-PINX link and call release procedures, as specified in ECMA-143, shall apply.

If the PINX supports connection-oriented APDU transport, then the generic procedures for the call independent control (connection oriented) of supplementary services, as specified in ECMA-165 for a Terminating PINX, shall apply.

6.2.3 Requirements on a Transit PINX

Basic call procedures for call establishment and call clearing at a Transit PINX, as specified in ECMA-143 shall apply.

If the PINX supports connection-oriented APDU transport, then the generic procedures for the call independent control (connection oriented) of supplementary services, as specified in ECMA-165 for a Transit PINX, shall apply.

6.3 ANF-TC coding requirements

6.3.1 Transit counter information element

ANF-TC shall be encoded as a discrete information element (called Transit counter) within codeset 4 (ISO codeset), according to the rules for the general format and coding of variable length information elements defined in 14.5.1 of ECMA-143.

The Transit counter information element shall be a variable length category 1 (see 10.4.11.2 of ECMA-143) information element with the format shown in figure 1 and coded as shown in table 1.

8	7	6	5	4	3	2	1	
Transit counter								
0	0	1	1	0	0	0	1	Octet 1
Information element identifier								
Length of transit counter contents								Octet 2
1	0	0	Transit count					Octet 3
ext	Reserved		(binary value)					

Figure 1 - Transit counter information element

Table 1 - Transit counter information element

Transit count (octet 3)
A binary value (in the range 0 - 31) that indicates the number of Transit PINXs through which the SETUP request has already passed. The maximum number of Transit PINXs through which a SETUP request may pass is a network dependent value.

6.3.2 Messages

If used, the Transit counter information element shall be conveyed in a SETUP message.

One of the shift information elements (see 14.5.3 and 14.5.4 of ECMA-143) shall precede the Transit counter information element in the SETUP message.

6.4 ANF-TC signalling procedures

The signalling protocol for Transit counter functionality operates in association with the signalling protocols for basic circuit switched call control (as specified in ECMA-143) and call independent (connection oriented) signalling connections (as specified in ECMA-165).

NOTE

The actions specified in the following subclauses are applicable to both cases.

Where a reference is made to procedures specified in ECMA-143 and ECMA-165, the interpretation of such reference should be made according to whether the call concerned is a basic call or a call independent signalling connection.

6.4.1 Actions at the Originating PINX

An Originating PINX may include a Transit counter information element in the SETUP message sent across an inter-PINX link. The value of the transit count field shall be set to zero.

6.4.2 Actions at the Terminating PINX

A Terminating PINX shall ignore the Transit counter information element if it is contained in any received SETUP message.

6.4.3 Actions at a Transit PINX

6.4.3.1 Normal procedures

On receipt of a SETUP message from the Preceding PINX, the call request shall be processed according to the procedures specified in ECMA-143 and ECMA-165.

If the received SETUP message contains a Transit counter information element in which the transit count field has a value that is less than the acceptable (network dependent) limit, that information element shall be included in the SETUP message sent to the Subsequent PINX. The value of the transit count field in the outgoing Transit counter information element shall be set to one greater than the value received.

If the received SETUP message does not contain a Transit counter information element, the Transit PINX may include a Transit counter information element in the SETUP message sent to the Subsequent PINX. The value of the transit count field in this element shall be set to a value not less than 1.

6.4.3.2 Exceptional procedures

If the SETUP message received from the Preceding PINX contains a Transit counter information element in which the transit count field has a value that is greater than or equal to the acceptable (network dependent) limit of Transit PINX's through which the call may be routed, and the PINX is unable to become a Terminating or Outgoing Gateway PINX, the call shall be rejected. The acceptable limit shall not exceed 31.

6.4.4 Actions at an Incoming Gateway PINX

When routeing a call entering the PISN an Incoming Gateway PINX may include a Transit counter information element in the SETUP message sent across the inter-PINX link. The value of the transit count field shall be set to an initial value. This initial value shall be zero unless knowledge of the history of the call enables a higher value to be chosen.

6.4.5 Actions at an Outgoing Gateway PINX

An Outgoing Gateway PINX may make use of a Transit counter information element received in a SETUP message for interworking with another network that supports an equivalent feature. Otherwise an Outgoing Gateway PINX shall ignore a Transit counter information element received in a SETUP message.

6.5 Protocol interactions between ANF-TC and other supplementary services and ANFs

This subclause specifies protocol interactions with other supplementary services and ANFs for which stage 3 standards had been published at the time of publication of this Standard. For interactions with supplementary services and ANFs for which stage 3 standards are published subsequent to the publication of this Standard, see those other stage 3 standards.

NOTE 1

Additional interactions that have no impact on the signalling protocol at the Q reference point can be found in the relevant stage 1 specifications.

NOTE 2

Simultaneous conveyance of a Transit counter information element and APDUs for other supplementary services or ANFs in the same message, each in accordance with the requirements of its respective stage 3 standard, does not, on its own, constitute a protocol interaction.

In each of the interactions specified in this subclause, a Transit PINX shall behave as described in 6.4.3.

6.5.1 Interaction with Calling Name Identification Presentation (SS-CNIP)

No protocol interaction.

6.5.2 Interaction with Connected Name Identification Presentation (SS-CONP)

No protocol interaction.

6.5.3 Interaction with Completion of Calls to Busy Subscribers (SS-CCBS)

An Originating PINX initiating the CC Call (with or without path reservation, see ECMA-186) may include a Transit counter information element in the SETUP message, as described in 6.4.1.

6.5.4 Interaction with Completion of Calls on No Reply (SS-CCNR)

An Originating PINX initiating the CC Call (with or without path reservation, see ECMA-186) may include a Transit counter information element in the SETUP message, as described in 6.4.1.

6.5.5 Interaction with Call Transfer (SS-CT)

When using transfer by rerouteing (see ECMA-178), a Primary PINX may include a Transit counter information element in the SETUP message sent to establish the new connection to the Secondary PINX. The transit count field of the Transit counter information element shall be set to zero.

A Secondary PINX shall ignore the Transit counter information element if it is contained in the received SETUP message.

6.5.6 Interaction with Call Forwarding Unconditional (SS-CFU)

A Rerouteing PINX (see ECMA-174) may include a Transit counter information element in the SETUP message sent to establish a new call to the Diverted-to User. The transit count field of the Transit counter information element shall be set to zero.

A Diverted-to PINX shall ignore the Transit counter information element if it is contained in the received SETUP message.

6.5.7 Interaction with Call Forwarding Busy (SS-CFB)

The protocol interactions with Call Forwarding Busy shall be as specified in 6.5.6 for interaction with SS-CFU.

6.5.8 Interaction with Call Forwarding No Reply (SS-CFNR)

The protocol interactions with Call Forwarding No Reply shall be as specified in 6.5.6 for interaction with SS-CFU.

6.5.9 Interaction with Call Deflection (SS-CD)

The protocol interactions with Call Deflection Immediate shall be as specified in 6.5.6 for interaction with SS-CFU.

The protocol interactions with Call Deflection from Alert shall be as specified in 6.5.8 for interaction with SS-CFNR.

6.5.10 Interaction with Path Replacement (ANF-PR)

A Cooperating PINX (see ECMA-176) may include a Transit counter information element in the SETUP message sent to establish a new connection to the Requesting PINX. The transit count field of the Transit counter information element shall be set to zero.

A Requesting PINX shall ignore the Transit counter information element if it is contained in the received SETUP message.

A Transit PINX involved in the new connection shall act in accordance with the procedures specified in 6.4.3 above.

A Transit PINX involved in the retained connection, that is unable to retain the old connection as far as the Subsequent PINX in the direction of the Requesting PINX, may include a Transit counter information element in the SETUP message sent to establish a new connection to the Requesting PINX. The transit count field of the Transit counter information element shall be set to not less than 1.

NOTE

There are no interactions for a Transit PINX involved in the replaced connection.

6.5.11 Interaction with Call Offer (SS-CO)

No protocol interaction.

6.5.12 Interaction with Do Not Disturb (SS-DND)

No protocol interaction.

6.5.13 Interaction with Do Not Disturb Override (SS-DNDO)

No protocol interaction.

6.5.14 Interaction with Call Intrusion (SS-CI)

No protocol interaction.

6.5.15 Interaction with Call Interception (ANF-CINT)

An Intercepting PINX (see ECMA-221) may include a Transit counter information element in the SETUP message sent to establish a new call to the new intercepted-to user. The transit count field of the Transit counter information element shall be set to zero.

6.5.16 Interaction with Recall (SS-RE)

No protocol interaction.

6.5.17 Interaction with Advice of Charge (SS-AOC)

No protocol interaction.

6.5.18 Interaction with Cordless Terminal Location Registration (SS-CTLR)

No protocol interaction.

6.5.19 Interaction with Cordless Terminal Mobility Incoming Call (ANF-CTMI)

No protocol interaction.

Difference from ISO/IEC 15056
Subclauses 6.5.18 and 6.5.19 do not exist in the ISO/IEC International Standard.
End of Difference

Annex A

(normative)

Protocol Implementation Conformance Statement (PICS) proforma

A.1 Introduction

The supplier of a protocol implementation which is claimed to conform to this Standard shall complete the following Protocol Implementation Conformance Statement (PICS) proforma.

A completed PICS proforma is the PICS for the implementation in question. The PICS is a statement of which capabilities and options of the protocol have been implemented. The PICS can have a number of uses, including use:

- by the protocol implementor, as a check list to reduce the risk of failure to conform to the Standard through oversight;
- by the supplier and acquirer, or potential acquirer, of the implementation, as a detailed indication of the capabilities of the implementation, stated relative to the common basis for understanding provided by the Standard's PICS proforma;
- by the user or potential user of the implementation, as a basis for initially checking the possibility of interworking with another implementation - while interworking can never be guaranteed, failure to inter-work can often be predicted from incompatible PICSs;
- by a protocol tester, as the basis for selecting appropriate tests against which to assess the claim for conformance of the implementation.

A.2 Instructions for completing the PICS proforma

A.2.1 General structure of the PICS proforma

The PICS proforma is a fixed format questionnaire divided into sub-clauses each containing a group of individual items. Each item is identified by an item number, the name of the item (question to be answered), and the reference(s) to the clause(s) that specifies (specify) the item(s) in the main body of this Standard.

The "Status" column indicates whether an item is applicable and if so whether support is mandatory or optional. The following terms are used:

m	mandatory (the capability is required for conformance to the protocol);
o	optional (the capability is not required for conformance to the protocol, but if the capability is implemented it is required to conform to the protocol specifications);
o.<n>	optional, but support of at least one of the group of options labelled by the same numeral <n> is required;
x	prohibited;
c.<cond>	conditional requirement, depending on support for the item or items listed in condition <cond>;
<item>:m	simple conditional requirement, the capability being mandatory if item number <item> is supported, otherwise not applicable;
<item>:o	simple conditional requirement, the capability being optional if item number <item> is supported, otherwise not applicable.

Answers to the questionnaire items are to be provided either in the "Support" column, by simply marking an answer to indicate a restricted choice (Yes or No), or in the "Not Applicable" column (N/A).

A.2.2 Additional Information

Items of Additional Information allow a supplier to provide further information intended to assist the interpretation of the PICS. It is not intended or expected that a large quantity will be supplied, and a PICS can be considered complete without any such information. Examples might be an outline of the ways in which a (single) implementation can be set up to operate in a variety of environments and configurations.

References to items of Additional Information may be entered next to any answer in the questionnaire, and may be included in items of Exception information.

A.2.3 Exception Information

It may occasionally happen that a supplier will wish to answer an item with mandatory or prohibited status (after any conditions have been applied) in a way that conflicts with the indicated requirement. No pre-printed answer will be found in the Support column for this. Instead, the supplier is required to write into the support column an x.<i> reference to an item of Exception Information, and to provide the appropriate rationale in the Exception item itself.

An implementation for which an Exception item is required in this way does not conform to this Standard. A possible reason for the situation described above is that a defect in the Standard has been reported, a correction for which is expected to change the requirement not met by the implementation.

A.3 PICS Proforma for ECMA-225

A.3.1 Implementation identification

Supplier	
Contact point for queries about the PICS	
Implementation name(s) and version(s)	
Other information necessary for full identification, e.g. name(s) and version(s) for machines and/or operating systems; system name(s)	

Only the first three items are required for all implementations; other information may be completed as appropriate in meeting the requirement for full identification.

The terms Name and Version should be interpreted appropriately to correspond with a suppliers terminology (e.g. Type, Series, Model).

A.3.2 Protocol summary

Protocol version	1.0
Addenda implemented (if applicable)	
Amendments implemented	
Have any exception items been required (see A.2.3)?	No [ ] Yes [ ] (The answer Yes means that the implementation does not conform to this Standard)

Date of statement	

A.3.3 General

Item	Question/feature	Reference	Status	N/A	Support
A1	Behaviour as an Originating PINX for ANF-TC in association with basic circuit switched call control (ECMA-143)	6.2.1, 6.4.1	o.1		Yes [ ] No [ ]
A2	Behaviour as an Originating PINX for ANF-TC in association with call independent signalling connections (ECMA-165)	6.2.1, 6.4.1	o.1		Yes [ ] No [ ]
A3	Behaviour as a Terminating PINX for ANF-TC in association with basic circuit switched call control (ECMA-143)	6.2.2, 6.4.2	o.1		Yes [ ] No [ ]
A4	Behaviour as a Terminating PINX for ANF-TC in association with call independent signalling connections (ECMA-165)	6.2.2, 6.4.2	o.1		Yes [ ] No [ ]
A5	Behaviour as a Transit PINX for ANF-TC in association with basic circuit switched call control (ECMA-143)	6.2.3, 6.4.3	o.1		Yes [ ] No [ ]
A6	Behaviour as a Transit PINX for ANF-TC in association with call independent signalling connections (ECMA-165)	6.2.3, 6.4.3	o.1		Yes [ ] No [ ]
A7	Behaviour as an Incoming Gateway PINX for ANF-TC in association with basic circuit switched call control (ECMA-143)	6.4.4	o.1		Yes [ ] No [ ]
A8	Behaviour as an Incoming Gateway PINX for ANF-TC in association with call independent signalling connections (ECMA-165)	6.4.4	o.1		Yes [ ] No [ ]
A9	Behaviour as an Outgoing Gateway PINX for ANF-TC in association with basic circuit switched call control (ECMA-143)	6.4.5	o.1		Yes [ ] No [ ]
A10	Behaviour as an Outgoing Gateway PINX for ANF-TC in association with call independent signalling connections (ECMA-165)	6.4.5	o.1		Yes [ ] No [ ]

A.3.4 Protocol interactions with SS-CC

Item	Question/feature	Reference	Status	N/A	Support
B1	Support of SS-CCBS		o		Yes [ ] No [ ]
B2	Support of SS-CCNR		o		Yes [ ] No [ ]
B3	Interactions with SS-CCBS	6.5.3	c.1	[ ]	m: Yes [ ]
B4	Interactions with SS-CCNR	6.5.4	c.2	[ ]	m: Yes [ ]

c.1: if B1 and A1 then m, else N/A
c.2: if B2 and A1 then m, else N/A

A.3.5 Protocol interactions with SS-CT

Item	Question/feature	Reference	Status	N/A	Support
C1	Support of SS-CT by rerouteing		o		Yes [ ] No [ ]
C2	Interactions with SS-CT	6.5.5	C1:m	[ ]	m: Yes [ ]

A.3.6 Protocol interactions with SS-DIV

Item	Question/feature	Reference	Status	N/A	Support
D1	Support of SS-CFU		o		Yes [ ] No [ ]
D2	Support of SS-CFB		o		Yes [ ] No [ ]
D3	Support of SS-CFNR		o		Yes [ ] No [ ]
D4	Support of SS-CD		o		Yes [ ] No [ ]
D5	Interactions with SS-CFU	6.5.6	D1:m	[ ]	m: Yes [ ]
D6	Interactions with SS-CFB	6.5.7	D2:m	[ ]	m: Yes [ ]
D7	Interactions with SS-CFNR	6.5.8	D3:m	[ ]	m: Yes [ ]
D8	Interactions with SS-CD	6.5.9	D4:m	[ ]	m: Yes [ ]

A.3.7 Protocol interactions with ANF-PR

Item	Question/feature	Reference	Status	N/A	Support
E1	Support of ANF-PR		o		Yes [ ] No [ ]
E2	Interactions with ANF-PR	6.5.10	E1:m	[ ]	m: Yes [ ]

A.3.8 Protocol interactions with ANF-CINT

Item	Question/feature	Reference	Status	N/A	Support
F1	Support of ANF-CINT		o		Yes [ ] No [ ]
F2	Interactions with ANF-CINT	6.5.15	F1:m	[ ]	m: Yes [ ]

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