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**PNO-ISC/SPEC/016**

**Requirements on Communications Providers in  
Relation to Customer Line Identification Display  
Services and Other Related Services**

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**PNO-ISC SPECIFICATION NUMBER 016  
REQUIREMENTS ON COMMUNICATIONS PROVIDERS IN  
RELATION TO CUSTOMER LINE IDENTIFICATION DISPLAY  
SERVICES AND OTHER RELATED SERVICES**

NETWORK INTEROPERABILITY CONSULTATIVE COMMITTEE

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## 0.4 HISTORY

Revision	Date of Issue	Description
Issue 1 Draft A	October 2003	First Draft Output of CCRG meeting 15 <sup>th</sup> October 2003. Based on OfTel Code of Practice for Network Operators in Relation to Customer Line Identification Display Services and Other Related Services, 3 <sup>rd</sup> Edition (November 2001)
Issue 1 Draft B	November 2003	Updated at CCRG meeting 12 <sup>th</sup> November 2003.
Issue 1 Draft C	January 2004	Modifications as a result of actions from the CCRG meeting 12 <sup>th</sup> November 2003. Definitions updated. Description of procedures related to Network Stored Presentation Numbers updated. Updated to refer to Version 2 of the CLI Guidelines document. ETSI references added.
Issue 1 Draft D	September 2004	Updated at CCRG meeting 22 <sup>nd</sup> September 2004.

## 0.5 ISSUE CONTROL

PAGE	ISSUE	DATE
All	Issue 1 Draft A	October 2003
All	Issue 1 Draft B	November 2003
All	Issue 1 Draft C	January 2004
All	Issue 1 Draft D	September 2004

## 0.6 REFERENCES

- [1] Guidelines for the provision of Calling Line Identification Facilities and other related services over Electronic Communications Networks Version 2 (11/12/2003)  
[http://www.ofcom.org.uk/licensing\\_numbering/tele\\_gen\\_auth/g\\_a\\_regime/cli/?a=87101](http://www.ofcom.org.uk/licensing_numbering/tele_gen_auth/g_a_regime/cli/?a=87101)
- [2] Communications Act 2003  
<http://www.hms0.gov.uk/acts/acts2003/20030021.htm>
- [3] Statutory Instrument 2003 No. 2426: The Privacy and Electronic Communications (EC Directive) Regulations 2003  
<http://www.hms0.gov.uk/si/si2003/20032426.htm>
- [4] Notification Under Section 48(1) of the Communications Act 2003 (Notification setting general conditions under section 45 of the Communications Act 2003) - 22 July 2003  
[http://www.ofcom.org.uk/static/archive/oftel/publications/eu\\_directives/2003/cond\\_final0703.pdf](http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/cond_final0703.pdf)
- [5] ITU-T Recommendation E.164 (05/97) The international public telecommunication numbering plan
- [6] ETSI EN 300 090 v1.2.1 (2000-12) - Integrated Services Digital Network (ISDN); Calling Line Identification Restriction (CLIR) supplementary service; Service description
- [7] ETSI ETS 300 095 (1992-01) - Integrated Services Digital Network (ISDN); Connected Line Identification Restriction (COLR) supplementary service; Service description
- [8] ETSI ETS 300 649 (1997-03) - Public Switched Telephone Network (PSTN); Calling Line Identification Restriction (CLIR) supplementary service; Service description

## 0.7 GLOSSARY OF TERMS

### 0.7.1 Abbreviations

CLI	Calling Line Identity
CLIP	Calling Line Identification Presentation
CLIR	Calling Line Identification Restriction
COL	Connected Line Identity
COLP	Connected Line Identification Presentation
COLR	Connected Line Identification Restriction
EC	European Commission
ETS	European Telecommunications Standard
ETSI	European Telecommunications Standards Institute
EU	European Union
ICSTIS	Independent Committee for the Supervision of Standards of Telephone Information Services
ISC	Interconnect Standards Committee
ISDN	Integrated Services Digital Network
ITU-T	International Telecommunications Union - Telecommunications Standardisation Sector
NICC	Network Interoperability Consultative Committee
NP	Network Provided
NTP	Network Termination Point
PABX	Private Automatic Branch Exchange
PBX	Private Branch Exchange
PN	Presentation Number
PNO-IG	Public Network Operators - Interest Group
PNO-ISC	Public Network Operators - Interconnect Standards Committee
PSTN	Public Switched Telephone Network
SMS	Short Message Service
UK	United Kingdom of Great Britain and Northern Ireland
UPNV	User Provided Not Verified
UPVP	User Provided Verified and Passed

### 0.7.2 Definitions

In this specification there are some terms used that do not have precise meanings in everyday use. For the interpretation of this specification they have been given the following, more precise, meanings.

In some cases, the definition has been either copied from, or based on, the definition from another source. Where this is the case, the source is referenced.

#### 0.7.2.1 Definitions specific to Calling Line Identification

##### 0.7.2.1.1 Calling Line Identification (CLI)

A number that unambiguously identifies the ingress port to a *Public Electronic Communications Network*, the calling customer's subscription to a *Public Electronic Communications Network*, or the *Network Termination Point* to which a return call can be made.

Note: The CLI may be a *Network Number* or a *Presentation Number*.

##### 0.7.2.1.2 Classification of CLI information

For display purposes *CLI* information can have one of three classifications:

###### 0.7.2.1.2.1 CLI Available

Condition in which the calling party has been given the possibility of preventing the display of *CLI* (*CLIR* service) and has chosen not to exercise this option.



#### 0.7.2.1.2.2 CLI Unavailable

Condition in which the *CLI* either does not exist or interworking has been encountered and consequently the *CLI* cannot be passed, or is withheld by the network<sup>1</sup> because:

- the originating network does not support the *CLIR* service or
- the *CLI* must not be displayed for reasons other than invocation of *CLIR*.

This classification is only applicable to the Network Number and only when a Presentation Number is provided.

#### 0.7.2.1.2.3 CLI Withheld

Condition in which the calling party has been given the possibility of preventing the display of *CLI* (*CLIR* service) and has chosen to exercise this option

#### 0.7.2.1.3 CLI display service and related services

The delivery of information to the called party that allows that party to gain access to the calling party's *CLI*.

Note: This could be in the form of information that is displayed, recorded, interpreted by a database or provided by means of an audio message or by other means.

#### 0.7.2.1.4 CLIP – Calling Line Identification Presentation

A supplementary service that provides the called party with the possibility of receiving identification of the calling party.

#### 0.7.2.1.5 CLIR – Calling Line Identification Restriction

A supplementary service that allows the calling party to prevent delivery of the *CLI* to the called party.

The CLIR service may operate in two modes, determined by a subscription option:

**Permanent Mode** in which the CLIR supplementary service is invoked automatically by the network on all calls originated by the calling party.

**Temporary Mode** which allows the calling party to indicate on a per call basis whether or not delivery of the *CLI* is allowed.

Where CLIR temporary mode is used, a 'Temporary Mode Default' is supplied as a subscription option. This is either:

**Presentation Not Restricted** in which CLIR is not invoked unless explicitly requested by the calling party

**Presentation Restricted** in which CLIR is invoked unless explicitly disabled by the calling party

Note 1: These terms are standardised in EN 300 090 [6] for ISDN and ETS 300 649 [8] for the PSTN.

Note 2: ETSI standards require that a network that supports CLIR must support at least CLIR Temporary Mode.

### 0.7.2.2 Definitions specific to Connected Line Identification

#### 0.7.2.2.1 Connected Line Identification (COL)

A number that unambiguously identifies the egress port from a *Public Electronic Communications Network*, the connected customer's subscription to a *Public Electronic Communications Network*, or the *Network Termination Point* to which a subsequent call can be made.

Note: The COL may be a *Network Number* or a *Presentation Number*.

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<sup>1</sup> This case is known in ETSI documentation as Presentation Restricted by Network.

### 0.7.2.2.2 Classification of COL information

For display purposes COL information can have one of three classifications:

#### 0.7.2.2.2.1 COL Available

Condition in which the connected party has been given the possibility of preventing the display of COL (COLR service) and has chosen not to exercise this option

#### 0.7.2.2.2.2 COL Unavailable

Condition in which the COL does not exist or the terminating network does not support the COLR service or interworking has been encountered, and consequently the COL cannot be passed.

#### 0.7.2.2.2.3 COL Withheld

Condition in which the connected party has been given the possibility of preventing the display of COL (COLR service) and has chosen to exercise this option

### 0.7.2.2.3 COL display service and related services

The delivery of information to the calling party that allows the calling party to gain access to the COL.

Note: This could be in the form of information that is displayed, recorded, interpreted by a database or provided by other means.

#### 0.7.2.2.4 COLP – Connected Line Identification Presentation

A supplementary service that provides the calling party with the possibility of receiving identification of the connected party.

#### 0.7.2.2.5 COLR – Connected Line Identification Restriction

A supplementary service that allows the connected party to prevent delivery of the COL to the calling party. The COLR service may operate in two modes, determined by a subscription option:

**Permanent Mode** in which the COLR supplementary service is invoked automatically by the network on all *calls* received by the connected party.

**Temporary Mode** which allows the connected party to indicate on a per call basis whether or not delivery of the COL is allowed.

Where COLR temporary mode is used, a 'Temporary Mode Default' is supplied as a subscription option. This is either:

**Presentation Not Restricted** in which COLR is not invoked unless explicitly requested by the connected party

**Presentation Restricted** in which COLR is invoked unless explicitly disabled by the connected party

Note 1: These terms are standardised in ETS 300 095 [7] for ISDN.

Note 2: ETSI standards require that an ISDN that supports COLR must support at least COLR Temporary Mode.

### 0.7.2.3 General Definitions

#### 0.7.2.3.1 Call

{based on: ref: Privacy Regulations [3]}

A connection established by means of an *Electronic Communications Network* allowing two-way communication in real time.

#### 0.7.2.3.2 Communications Provider

{ref: Section 405 of the Communications Act 2003 [2]}

A person or organisation that operates an *Electronic Communications Network* or provides an *Electronic Communications Service*.

#### 0.7.2.3.3 Electronic Communications Network

{ref: Section 32 of the Communications Act 2003 [2]}

- a) a transmission system for the conveyance, by the use of electrical, magnetic or electro-magnetic energy, of signals of any description; and
- b) such of the following as are used, by the person providing the system and in association with it, for the conveyance of the signals—
  - (i) apparatus comprised in the system;
  - (ii) apparatus used for the switching or routing of the signals; and
  - (iii) software and stored data.

#### 0.7.2.3.4 Electronic Communications Service

{ref: Section 32 of the Communications Act 2003 [2]}

Any service consisting in, or having as its principal feature, the conveyance by means of an *Electronic Communications Network* of signals, except in so far as it is a content service.

#### 0.7.2.3.5 End-User (of a Public Electronic Communications Service)

{ref: Section 151 of the Communications Act 2003 [2]}

- (a) a person who, otherwise than as a *Communications Provider* is a customer of the provider of that service;
- (b) a person who makes use of the service otherwise than as a *Communications Provider*; or
- (c) a person who may be authorised, by a person falling within paragraph (a), so to make use of the service.

#### 0.7.2.3.6 Indirect Access Network / Carrier Pre-Select Network

A network that provides *Public Electronic Communication Service* to an *end-user* via the switched access network of another *Communications Provider*.

#### 0.7.2.3.7 Network Number

The digits that comprise a unique E.164 [5] number that unambiguously identifies either:

- the fixed access ingress to, or egress from, a *Public Electronic Communications Network*, i.e. the *Network Termination Point (NTP)*; or
- a subscriber or terminal/telephone that has non-fixed access to a *Public Electronic Communications Network*, i.e. the line identity that has been allocated to an individual subscription or terminal/telephone with a non-fixed access to the *Public Electronic Communications Network*.

Note 1: Network Number is also known as administration number, electric number, or network provided billing number.

Note 2: A Network Number may be *network provided (NP)* or *user provided verified and passed (UPVP)*.

Note 3: The use of one number to identify both ingress and egress points is permitted by this definition, but only where both points are owned by one *Communications Provider*, or where agreement for its use is reached between the *Communications Providers* involved.

Note 4: Where the ingress or egress port consists of multiline access, e.g. a PBX group, a single Network Number may apply to the whole group.

#### 0.7.2.3.8 Network Provided (NP) number

A CLI or COL that is stored in the *Public Electronic Communications Network*.

Note 1: A Network Provided number may also be referred to as a default number.

Note 2: A Network Provided number may be a *Network Number* or a *Presentation Number*.

#### 0.7.2.3.9 Network Termination Point (NTP)

{ref: General Conditions of Entitlement [4]}

The physical point at which a *Subscriber* is provided with access to a *Public Electronic Communications Network* and, where it concerns *Electronic Communications Networks* involving switching or routing, that physical point is identified by means of a specific network address, which may be linked to the telephone number or name of a *Subscriber*. A *Network Termination Point* provided at a fixed position on served premises shall be within an item of *Network Termination and Testing Apparatus*.

#### 0.7.2.3.10 Network Termination and Testing Apparatus

{ref: General Conditions of Entitlement [4]}

An item of apparatus comprised in an *Electronic Communications Network* installed in a fixed position on served premises which enables:

- (a) Approved apparatus to be readily connected to, and disconnected from, the network;
- (b) the conveyance of signals between such approved apparatus and the network; and
- (c) the due functioning of the network to be tested,

but the only other functions of which, if any, are:

- (i) to supply energy between such approved apparatus and the network;
- (ii) to protect the safety or security of the operation of the network; or
- (iii) to enable other operations exclusively related to the running of the network to be performed or the due functioning of any system to which the network is or is to be connected to be tested (separately or together with the network).

#### 0.7.2.3.11 Originating Network

The *Public Electronic Communications Network* to which the customer who originates the *call* is directly connected.

#### 0.7.2.3.12 Presentation Number (PN)

A number nominated or provided by a *subscriber* that may be used to make a return or subsequent *call*.

Note 1: Presentation Number (when available) is used in preference to the *Network Number* of the calling or connected party. This is important where the Network Number is not suitable for display, e.g. where PABXs have segregated incoming and outgoing lines.

Note 2: Presentation Number is also known as diallable number.

Note 3: A Presentation Number may be *network provided (NP)*, *user provided, verified and passed (UPVP)* or *user provided not verified (UPNV)*.

Note 4: A Presentation Number may be Type 1, 2, 3, 4 or 5. See reference [1].

#### 0.7.2.3.13 Public Electronic Communications Network

{ref: Section 151 of the Communications Act 2003 [2]}

An *Electronic Communications Network* provided wholly or mainly for the purpose of making *Electronic Communications Services* available to members of the public.

#### **0.7.2.3.14 Public Electronic Communications Service**

{ref: Section 151 of the Communications Act 2003 [2]}

Any *Electronic Communications Service* that is provided so as to be available for use by members of the public.

#### **0.7.2.3.15 Receiving Network**

The *Public Electronic Communications Network* in receipt of a *call* across any interconnect. The receiving network is also a *transit network* or a *terminating network* for that *call*.

#### **0.7.2.3.16 Special Arrangement**

An agreement between a *subscriber* and a *Communications Provider* whereby the *subscriber* undertakes to provide for display only authentic calling/connected party numbers which are not screened by the *Public Electronic Communications Network*.

#### **0.7.2.3.17 Standard CLI blocking prefix**

The prefix generally used (currently '141') to invoke the *CLIR* service where it is provisioned in *Temporary Mode* with default 'presentation not restricted'.

#### **0.7.2.3.18 Standard CLI unblocking prefix**

The prefix generally used (currently '1470') to prevent invocation of the *CLIR* service where it is provisioned in *Temporary Mode* with default 'presentation restricted'.

#### **0.7.2.3.19 Subscriber**

{based on: ref: Privacy Regulations [3]}

Any person, company or cooperative that comprises a legal entity, that is party to a contract with a provider of *Public Electronic Communications Services* for the supply of such services.

#### **0.7.2.3.20 Terminating Network**

The *Public Electronic Communications Network* to which the customer who receives a *call* is directly connected.

#### **0.7.2.3.21 Transit Network**

A *Public Electronic Communications Network* through which a *call* passes, but which is neither the *originating network* nor the *terminating network* for that *call*.

#### **0.7.2.3.22 User Provided, Not Verified (UPNV) number**

A CLI or COL supplied by a calling party or connected party, that has not been subjected to screening or editing by the network.

Note 1: A UPNV number may only be a *Presentation Number*.

#### **0.7.2.3.23 User Provided, Verified and Passed (UPVP) number**

A CLI or COL whose most significant part is network provided and whose least significant part is supplied by a calling party or connected party, that has been successfully checked by the network for length and range.

Note 1: A user provided, verified and passed number may be a *Network Number* or a *Presentation Number*.

## 0.8 SCOPE

This specification governs the responsibilities of Communications Providers in relation to customer line identity information in connection with the provision of display or related services. In particular it covers their responsibilities in relation to the origination of customer line identity information, the transmission across networks of such information, and the delivery to an access of customer line identity information, including the details concerning the status of that information. In this context, the term customer line identification information includes both calling line identification information and connected line identification information.

All calls originating or terminating within the UK are covered. However, transit calls that neither originate nor terminate in the UK are not covered. Neither are SMS or services such as e-mail or instant messaging.

The operation of this specification does not affect the ability of networks (both public and private) to use customer line identity information for network and/or account management purposes and, in co-operation with the relevant authorities, for emergency calls and the tracing of malicious calls and similar activities. However, the privileged access that Communications Providers have to customers' CLIs, whether or not CLI Restriction has been invoked, may only be used where the use of this information is essential to the provision of a telecommunications service. Such access should be restricted to those staff to whom it is essential for any of the above purposes. Communications Providers will respect the privacy of calling customers who have invoked CLIR by not exploiting their CLIs for telemarketing or any commercial purpose other than billing.

**END OF PNO-ISC/SPEC/016§0**

# 1 INTRODUCTION

## 1.1 General

The Guidelines for the provision of Calling Line Identification Facilities and other related services over Electronic Communications Networks (reference [1]) outline the requirements on UK Communications Providers for the provision of features that utilise customer line identification information. The provision of such features, including the ETSI CLIP and COLP services, requires that there is end-to-end availability and control of this information, and that this information is generated in a consistent way. Unless this is achieved these services cannot be provided efficiently as the status of the message (e.g. the validity of the numbers displayed) cannot be guaranteed by the provider of the display service. Therefore, consistency is required between the point where the information is generated and the point where the information is displayed.

Where interconnection between two or more Communications Providers occurs, some way of ensuring that all providers adhere to the same rules is required if customers of display and other related services are to have confidence in such a service.

## 1.2 The cardinal principles for the use of Customer Line Identities

The cardinal principles for the use of Customer Line Identities are:

- Privacy: Customers who wish to withhold their calling/connected line identity should always be able to do so and be confident that their wishes will be respected by all parties in a call;
- Authenticity: The calling/connected line identity should always represent the correct identity of the customer or the number to which it is desired that return or subsequent calls be made;
- Integrity: The calling/connected line identity and its associated privacy marking should be respected and maintained by all Communications Providers in the call connection.

## 1.3 Objectives of this Specification

Taking into account the foregoing background, this specification is designed to achieve a number of objectives:

- to establish a consistent set of 'rules' for customer line identities to enable the support of display services across boundaries between Communications Providers;
- to ensure that the requirements of The Privacy and Electronic Communications (EC Directive) Regulations 2003 (reference [3]) are met;
- to be flexible so that any set of rules could evolve in an efficient manner to reflect changing technological and other developments.

## 1.4 Purpose of this Specification

The purpose of this specification is to define a mutually agreed set of rules to satisfy 1.3 above.

## 1.5 Application of this Specification

This specification is intended to be suitable for incorporation into interconnection agreements between Communications Providers. However, nothing in this specification absolves a Communications Provider from operating according to any other legal instrument (including European regulations) which is applicable. Where a UK or EU regulation conflicts with this specification, the UK or EU regulation shall take precedence.

**END OF PNO-ISC/SPEC/016§1**





## 2 RULES OF THE CODE RELATING TO CALLING LINE IDENTIFICATION

The following rules apply equally to 'Network Numbers' and 'Presentation Numbers'.

### 2.1 Classification of CLI information

For CLI display purposes, CLI information shall have one of three classifications (for definitions see 0.7.2):

'CLI Available'

'CLI Unavailable'

'CLI Withheld'.

The Network Number may be classified as 'CLI Available', 'CLI Unavailable' or 'CLI Withheld', and Presentation Number may be classified as 'CLI Available' or 'CLI Withheld'.

The classification of the CLI information shall be determined by the originating network for calls originating in the UK. The classification determined by the originating network shall be maintained for calls originating outside the UK.

### 2.2 Responsibilities of the Originating Network

#### 2.2.1 Classification of CLI information

It is the responsibility of the Originating Network to ensure that CLI information is correctly classified. The rules for classifying the CLI information depend on the availability of the CLIR service.

For calls where CLIR Temporary mode is provisioned with the Temporary Mode Default set to 'presentation not restricted' then it shall be possible for the CLIR service to be invoked by the caller dialling the standard CLI blocking prefix before their required number, or by some other means (see Rule CLI-2).

For calls where CLIR Temporary mode is provisioned with the Temporary Mode Default set to 'presentation restricted' then it shall be possible for the CLIR service to be overridden by the caller dialling the standard CLI unblocking prefix before their required number, or by some other means (see Rule CLI-3).

The rules below describe how the originating network classifies the CLI information. These rules give rise to the following combinations of classifications:

Table 2.1

	Network Number	Presentation Number
CLIR not invoked, PN not available	'CLI Available'	Not applicable
CLIR not invoked, PN available	'CLI Available' Note 1	'CLI Available'
	'CLI Unavailable' Notes 1 and 2	'CLI Available'
CLIR invoked, PN available	'CLI Withheld'	'CLI Withheld'
CLIR invoked, PN not available	'CLI Withheld'	Not applicable

Note 1: The choice between 'CLI available' and 'CLI unavailable' for the Network Number when a Presentation Number exists, is a customer subscription option. The 'CLI unavailable' option is to allow for the case where the calling customer does not wish his Network Number to be displayed and the terminating network does not support Presentation Number.

Note 2: As an interim measure some networks may use 'CLI withheld' instead of 'CLI unavailable'.

#### 2.2.2 Conditions to be met by Presentation Number

Although a Presentation Number will not identify a call's point of ingress/egress to a public network it may well carry more useful information. The requirements of a Presentation Number are that it has to be:

- a diallable number;

- allocated to the caller or if allocated to a third party, only used with their permission;
- not be a number that generates an excessive call charge (e.g. a premium rate number appearing on the ICSTIS list 'Premium Rate Dialling Codes and Charges');

Alternatively, it may be a number that has been received from the public network and passed back to the public network unchanged.

It is further required that the originating Communications Provider providing a Type 1 Presentation Number service has the following responsibilities:

- (a) to correctly datafill a Type 1 Presentation Number
- (b) to obtain the following written confirmation from the Presentation Number applicant prior to provision of a Type 1 Presentation Number:
  - (i) confirmation that the number requested for use as a presentation number (PN) is allocated to the applicant, or company the applicant is representing, and that he does not require the permission of anyone else in relation to that number, or
  - (ii) confirmation that where the requested PN is not allocated to the applicant, or company the applicant is representing, that written consent from the allocated owner for its use as a PN has been obtained and that this consent has not been withdrawn, and
  - (iii) confirmation that the requested PN is a number that is allocated to an actual customer, is in use, and that calls to that number will be connected to a terminal capable of receiving calls, and
  - (iv) acknowledgement that the order will be processed based upon the information supplied by the applicant and
  - (v) agreement that the originating Communications Provider will be informed forthwith if any of the information stated above ceases to be correct, and
  - (vi) acknowledgement of the right of the originating Communications Provider to suspend/withdraw the use of the 'Presentation Number service' if it is subsequently found that the information supplied was, or has become, inaccurate, or the PN is being misused, and
  - (vii) confirmation of the applicant's understanding that the PN must not be a number that connects to a revenue sharing number that generates an excessive or unexpected call charge.

### 2.2.3 Rules relating to the CLIR service

It is a requirement contained within both reference [1] and reference [3] that all networks shall support the CLIR service.

In the exceptional case of a legacy network not supporting the CLIR service, see Annex A.

**Rule CLI-1** CLI information shall be classified as follows:

- If CLIR has been invoked, then all CLI information shall be classified as 'CLI withheld';
- If CLIR has not been invoked, and a Presentation Number is not supplied, then the CLI information shall be classified as 'CLI available'.
- If CLIR has not been invoked, and a Presentation Number is supplied then the Presentation Number shall be classified as 'CLI available' and the Network Number shall be classified either 'CLI available' or 'CLI unavailable'. The choice of whether the Network Number is classified 'CLI available' or 'CLI unavailable' in this case is network or customer specific.

Note: As an interim measure some networks may use 'CLI withheld'.

**Rule CLI-2** Where the originating network does not support invocation of the CLIR supplementary service in the temporary mode with default value 'presentation not restricted' via means of the standard CLI blocking prefix, then dialling the standard CLI blocking prefix shall preferably result in a message (uncharged) which tells the customer what prefix to dial (or other action to take) in order to invoke CLIR. Alternatively dialling the standard CLI blocking prefix shall cause the call to fail (e.g. number unobtainable tone).

- Rule CLI-3 Where the originating network does not support overriding of the CLIR supplementary service in the temporary mode with default value 'presentation restricted' via means of the standard CLI unblocking prefix, then dialling the standard CLI unblocking prefix shall preferably result in a message (uncharged) which tells the customer what prefix to dial (or other action to take) in order to not invoke CLIR. Alternatively dialling the standard CLI unblocking prefix shall cause the call to fail (e.g. number unobtainable tone).
- Rule CLI-4 When no Presentation Number exists, the originating network shall not use the classification of 'CLI unavailable' for a Network Number.

#### 2.2.4 Verification of CLI information supplied by the calling customer

CLI information may be supplied by the calling customer, e.g. from ISDN originating lines. The Originating Network has a responsibility to verify that CLI information supplied by the calling customer is valid for the particular calling customer. How this responsibility is discharged depends on whether a 'Special Arrangement' to forward user provided information without verification applies.

##### 2.2.4.1 'Special Arrangement' does not apply

- Rule CLI-5 Where a 'Special Arrangement' does not apply, the Originating Network shall ensure on a call by call basis that CLI information either wholly or partly supplied by the calling customer's equipment is valid for the particular calling customer. Where the CLI information supplied by the calling customer is found to be invalid, the Originating Network shall supply alternative information in accordance with the rules of this specification.

##### 2.2.4.2 'Special Arrangement' applies

- Rule CLI-6 Where a 'Special Arrangement' applies, the customer shall enter into an explicit agreement to ensure that the information he supplies is valid. The Originating Network's responsibility to ensure the validity of the information is discharged by means of this explicit agreement, and the Originating Network need not perform any call by call verification upon the CLI information supplied by the customer's equipment.

### 2.3 Responsibilities of the Terminating Network

It is the responsibility of the Terminating Network to ensure that the classification of calls is respected in the delivery of that call to the final destination. The following rules shall apply:

- Rule CLI-7 A Terminating Network that supports a CLIP service and/or related services shall ensure that CLI information shall be available at the called customer's access only if it is classified as 'CLI available'. In addition, any other service that allows the called party to call back or gain access to the calling line identification shall similarly be available only in relation to CLI information with the 'CLI available' classification.
- Rule CLI-8 Where the Terminating Network supports a CLIP service the information delivered to the called customer's access must adhere to the following:

Table 2.2

Indicator at interconnect	Information at access (Note 1)
'CLI Withheld'	Withheld indicator, no CLI information
'CLI Unavailable'	Unavailable indicator, no CLI information (Note 2)
'CLI Available'	CLI information

Note 1: This specification does not determine how the indicators should be displayed.

Note 2: The indicator for 'unavailable' might be an empty data set. The crucial factor is that it can be distinguished in some way from the 'withheld' indicator.

- Rule CLI-9 Where the Terminating Network is not capable of supporting CLIP or related services no action is required on the basis of the call classification.

Rule CLI-10 Where a Terminating Network offers a service which screens 'anonymous' calls to its customers, this service shall not operate in such a way as to have anti-competitive effects (e.g. by rejecting all calls where the CLI information is classified as 'CLI unavailable'). This does not preclude the offering of other services which treat calls where the CLI information is classified as 'CLI unavailable' on a legitimate, differentiated services, basis (e.g. where the called customer is part of a closed user group).

Rule CLI-11 Where a terminating network offers a service which stores a CLI for subsequent retrieval by the called customer (e.g. by dialling 1471), that customer must also be provided with a simple means (e.g. by dialling 1475) of deleting the received CLI from the network store.

## 2.4 Responsibilities of Transit Networks

Rule CLI-12 A Transit Network shall ensure that the caller's CLI information and classification do not alter from the point of entry to the point of exit except where such alterations conform to Rule CLI-13, are part of a service offered by the Transit Network and are explicitly requested by the calling party (e.g. Intelligent Network service).

## 2.5 Responsibilities of Networks providing additional services

A network that is not the originating network can also offer a CLIR service, or other CLI-related services, if it wishes. The method by which these services are offered is up to the network providing additional services. A network offering such services takes on the responsibilities of an Originating Network in respect of the authenticity and classification of the CLI information, if its customers activate this service. Such a scenario could apply where an intermediate network forwards a personal number on a charge card call or indirect access call.

Rule CLI-13 A network offering additional CLIR services, or other CLI related services, must ensure that CLI information on calls where its customers have activated these services is authentic, and correctly classified according to the Rules for Originating Networks, upon handover to another Communications Provider.

A network providing additional services supplying CLI must offer per call blocking, or obey the per call blocking instructions received from the originating network before it can send forward a CLI. Equally, a network providing additional services which changes a 'CLI unavailable' classification to 'CLI available' can only do so if it offers the caller a per call blocking code and meets the other requirements for Originating Networks.

## 2.6 Interworking with networks not covered by this specification

### 2.6.1 Calls received from networks not covered by this specification

Where there are reasonable grounds for believing that received CLI information may not be authentic, the interworking network may remove CLI information. Otherwise, the following rule applies:

Rule CLI-14 On calls received from networks not covered by this specification (e.g. international calls) the CLI information shall be classified by the receiving network as follows:

- (a) if an explicit indication is received that the calling party has invoked CLIR, and therefore wishes that his CLI should not be made available at the called customer's access, then the CLI information shall be classified as 'CLI withheld';
- (b) if an explicit indication is received that the originating network has restricted the CLI on behalf of the calling party, and that his CLI should not be made available at the called customer's access, then the CLI information shall be classified as 'CLI unavailable';
- (c) otherwise, if CLI information is available, then it shall be classified as 'CLI available'.

### 2.6.2 Calls passed to networks not covered by this specification

When a call is routed to a network not covered by this specification, e.g. international calls, the network operator may not be in a position to guarantee that the calling customer's wishes with regard to his CLI privacy will be respected by the subsequent network.

Rule CLI-15      On calls for destinations in networks not covered by this specification with the CLI information classified as 'CLI withheld' or 'CLI unavailable', the CLI information shall be deleted before the calls are sent to such networks, unless it is known that the subsequent network will act according to the classification.

**END OF PNO-ISC/SPEC/016§2**



### 3 RULES OF THE CODE RELATING TO CONNECTED LINE IDENTIFICATION

The following rules apply equally to 'Network Numbers' and 'Presentation Numbers'.

#### 3.1 Classification of COL information

For COL display purposes COL information shall have one of three classifications (for definitions see 0.7.2):

'COL Available'

'COL Unavailable'

'COL Withheld'.

The Network Number may be classified as 'COL Available', 'COL Unavailable' or 'COL Withheld', and Presentation Number may be classified as 'COL Available' or 'COL Withheld'.

The classification of the COL information shall be determined by the terminating network for calls terminating in the UK. The classification determined by the terminating network shall be maintained for calls terminating outside the UK.

#### 3.2 Responsibilities of the Terminating Network

##### 3.2.1 Classification of COL information

It is the responsibility of the Terminating Network to ensure that COL information is correctly classified. The rules for classifying the COL information depend on the availability of the COLR service.

For calls to ISDN terminals where COLR Temporary mode is provisioned with the Temporary Mode Default set to 'presentation not restricted' then the COLR service shall be invoked by the connected party when answering the call.

For calls to ISDN terminals where COLR Temporary mode is provisioned with the Temporary Mode Default set to 'presentation restricted' then the COLR service shall be overridden by the connected party when answering the call.

For calls to analogue terminals COLR is not possible in Temporary mode.

The rules below describe how the terminating network classifies the COL information. These rules give rise to the following classifications:

Table 3.1

	Network Number	Presentation Number
COLR not invoked, PN not available	'COL Available'	Not applicable
COLR not invoked, PN available	'COL Available' Note 1	'COL Available'
	'COL Unavailable' Notes 1 and 2	'COL Available'
COLR invoked, PN available	'COL Withheld'	'COL Withheld'
COLR invoked, PN not available	'COL Withheld'	Not applicable

Note 1: The choice between 'COL available' and 'COL unavailable' for the Network Number is a customer subscription option.

Note 2: As an interim measure some networks may use 'COL withheld'.

##### 3.2.2 Conditions to be met by Presentation Number

Although a Presentation Number will not identify a call's point of ingress/egress to a public network it may well carry more useful information. The requirements of a Presentation Number are that it has to be:

- a diallable number;

- allocated to the connected party or if allocated to a third party, only used with their permission;
- not be a number that generates an excessive call charge (e.g. a premium rate number appearing on the ICSTIS list 'Premium Rate Dialling Codes and Charges');

Alternatively, it may be a number that has been received from the public network and passed back to the public network unchanged.

It is further required that the terminating Communications Provider providing a Type 1 Presentation Number service has the following responsibilities:

- (a) to correctly datafill a Type 1 Presentation Number
- (b) to obtain the following written confirmation from the Presentation Number applicant prior to provision of a Type 1 Presentation Number:
  - (i) confirmation that the number requested for use as a presentation number (PN) is allocated to the applicant, or company the applicant is representing, and that he does not require the permission of anyone else in relation to that number, or
  - (ii) confirmation that where the requested number is not allocated to the applicant, or company the applicant is representing, that written consent from the allocated owner for its use as a presentation number has been obtained and that this consent has not been withdrawn, and
  - (iii) confirmation that the requested telephone number is a number that is allocated to an actual customer, is in use, and that calls to that number will be connected to a terminal capable of receiving calls, and
  - (iv) acknowledgement that the order will be processed based upon the information supplied by the applicant, and
  - (v) agreement that the terminating Communications Provider will be informed forthwith if any of the information stated above ceases to be correct, and
  - (vi) acknowledgement of the right of the terminating Communications Provider to suspend/withdraw the use of the Presentation Number service if it is subsequently found that the information supplied was, or has become, inaccurate, or the PN is being misused, and
  - (vii) confirmation of the applicant's understanding that the PN will not be a revenue sharing number that generates an excessive or unexpected call charge.

### 3.2.3 Rules relating to the COLR service

Rule COL-1 COL information shall be classified as follows:

- If COLR has been invoked, then COL information shall be classified as 'COL withheld;'
- If COLR has not been invoked, and a Presentation Number is not supplied, then the COL information shall be classified as 'COL available'
- If COLR has not been invoked, and a Presentation Number is supplied then the Presentation Number shall be classified as 'COL available', and the Network Number shall be classified as either 'COL available' or 'COL unavailable'. The choice between classification of the Network Number as 'COL available' or 'COL unavailable' in this case is network or customer specific.

Note: As an interim measure some networks may classify the Network Number as 'COL withheld'.

### 3.2.4 Verification of COL information supplied by the connected customer

COL information may be supplied by the connected customer, e.g. from ISDN terminating lines. The Terminating Network has a responsibility to verify that COL information supplied by the connected customer is valid for the particular connected customer. How this responsibility is discharged depends on whether a 'Special Arrangement' to forward user provided information without verification applies.



### 3.2.4.1 'Special Arrangement' does not apply

Rule COL-2 Where a 'Special Arrangement' does not apply, the Terminating Network must ensure on a call by call basis that COL information either wholly or partly supplied by the connected customer's equipment is valid for the particular connected customer. Where the COL information supplied by the connected customer is found to be invalid, the Terminating Network shall supply alternative information in accordance with the rules of this specification.

### 3.2.4.2 'Special Arrangement' applies

Rule COL-3 Where a 'Special Arrangement' applies, the customer must enter into an explicit agreement to ensure that the information they supply is valid. The Terminating Network's responsibility to ensure the validity of the information is discharged by means of this explicit agreement, and the Terminating Network need not perform any call by call verification upon the COL information supplied by the customer's equipment.

## 3.3 Responsibilities of the Originating Network

It is the responsibility of the Originating Network to ensure that the classification of calls is respected in the delivery of COL information to the calling party. The following rules shall apply:

Rule COL-4 An Originating Network that supports a COLP service and/or related services shall ensure that COL information shall be available at the calling customer's access only if it is classified as 'COL available'. In addition, any other service that allows the calling party to gain access to the connected line identification shall similarly be available only in relation to COL information with the 'COL available' classification.

Rule COL-5 Where the Originating Network supports a COLP service the information delivered to the originating access must adhere to the following:

Table 3.2

Indicator at interconnect	Information at access (Note 1)
'COL Withheld'	Withheld indicator, no COL information
'COL Unavailable'	Unavailable indicator, no COL information (Note 2)
'COL Available'	COL information

Note 1: This specification does not determine how the indicators should be displayed.

Note 2: The indicator for 'unavailable' might be an empty data set. The crucial factor is that it can be distinguished in some way from the 'withheld' indicator.

Rule COL-6 Where the Originating Network is not capable of supporting COLP or related services no action is required on the basis of the call classification.

## 3.4 Responsibilities of Transit Networks

Rule COL-7 Except as allowed for by Rule COL-8 a Transit Network shall ensure that the connected party's COL information and classification do not alter from the point of entry to the point of exit except where such alterations are part of a service offered by the Transit Network and explicitly requested by the connected party (e.g. Intelligent Network service).

## 3.5 Responsibilities of Networks providing additional services

A network that is not the terminating network can also offer a COLR service, or other COL-related services, if it wishes. The method by which these services are offered is up to the network providing additional services. A network offering such services takes on the responsibilities of a Terminating Network in respect of the authenticity and classification of the COL information, if its customers activate this service. Such a scenario could apply where an intermediate network returns a personal number.

Rule COL-8 A network offering additional COLR services, or other COL related services, must ensure that COL information on calls where its customers have activated these services is authentic, and correctly classified according to the Rules for Terminating Networks, upon handover to another Communications Provider.

On calls to ISDN terminals, a network providing additional services supplying COL must offer per call blocking, or obey the per call blocking instructions received from the terminating network before it can return a COL. Equally, a network providing additional services which changes a 'COL unavailable' classification to 'COL available' can only do so if it offers the connected party a per call blocking code and meets the other requirements for Terminating Networks.

## **3.6 Interworking with networks not covered by this specification**

### **3.6.1 Calls passed to networks not covered by this specification**

Where there are reasonable grounds for believing that received COL information may not be authentic, the interworking network may remove COL information. Otherwise, the following rule applies:

- Rule COL-9** Calls passed to networks not covered by this specification (e.g. International calls) shall be treated by the network receiving the COL information as follows:
- (a) if an explicit indication is received that the connected party wishes that their COL should not be made available at the calling customer's access then the COL information shall be classified as 'COL withheld';
  - (b) otherwise, if COL information is available, then it shall be classified as 'COL available'.

### **3.6.2 Calls received from networks not covered by this specification**

When a call is received from a network not covered by this specification, e.g. international calls, the network operator may not be in a position to guarantee that the connected customer's wishes with regard to his COL privacy will be respected by the previous network.

- Rule COL-10** On calls from networks not covered by this specification where the COL information is classified as 'COL withheld' or 'COL unavailable', the COL information shall be deleted, unless it is known that the previous network will act according to the classification.

**END OF PNO-ISC/SPEC/016§3**

## Annex A Calls where CLIR is not operational

It is a requirement contained within both reference [1] and reference [3] that all networks shall support the CLIR service.

This Annex covers the exceptional case of a legacy network not supporting the CLIR service.

In this case, the following rules apply:

- Rule CLI-16 Where CLIR is not operational, dialling the standard CLI blocking or unblocking prefix shall either have no effect on the call (which should therefore be routed to the destination indicated by the remaining digits of the called party number), or the call shall be terminated at the originating network.
- Rule CLI-17 All CLI information emerging from networks where CLIR is not operational shall be classified 'CLI unavailable'.
- Rule CLI-18 All CLI information originating on any part of any network where CLIR is not operational shall be classified 'CLI unavailable'.
- Rule CLI-19 All CLI information originating on parts of networks where customers have not been informed that CLI will be forwarded unless they invoke the CLIR supplementary service shall be classified 'CLI unavailable'.

Note: Since Presentation Numbers cannot be classified 'CLI unavailable', then Presentation Numbers will not be sent in the above cases.

The above rules describe how the originating network classifies the CLI information. These rules give rise to the following combinations of classifications:

Table A.1

	Network Number	Presentation Number
CLIR not operational, PN not available	'CLI Unavailable'	Not applicable

**END OF PNO-ISC/SPEC/016 Annex A**

**END OF PNO-ISC/SPEC/016**