

## **Requirements on Communications Providers in relation to Customer Line Identification display services and other related services**

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# Contents

Intellectual Property Rights .....	4
Foreword .....	4
1 Scope .....	5
2 References .....	5
2.1 Normative references .....	5
3 Definitions, symbols and abbreviations .....	6
3.1 Definitions .....	6
3.2 Abbreviations .....	10
4 Background and Purpose .....	11
4.1 General .....	11
4.2 The cardinal principles for the use of Customer Line Identities .....	11
4.3 Objectives of this Specification .....	11
4.4 Purpose of this Specification .....	11
4.5 Application of this Specification .....	12
5 Classification of CLI Information .....	12
5.1 CLI Available .....	12
5.2 CLI Unavailable .....	12
5.3 CLI Withheld .....	12
6 Classification of COL Information .....	13
6.1 COL Available .....	13
6.2 COL Unavailable .....	13
6.3 COL Withheld .....	13
7. Conditions to be met by Presentation Number .....	14
8 Rules of the code relating to Calling Line Identification .....	15
8.1 Responsibilities of the Originating Network .....	15
8.1.1 Classification of CLI Information .....	15
8.1.2 Verification of CLI information provided by the calling user .....	16
8.1.3 Rules relating to the CLIR service .....	16
8.2 Responsibilities of the Terminating Network .....	17
8.3 Responsibilities of Transit Networks .....	18
8.4 Responsibilities of networks providing additional services .....	18
8.5 Responsibility of networks interworking with networks not covered by this specification .....	18
8.5.1 Calls received from networks not covered by this specification .....	19
8.5.2 Calls passed to networks not covered by this specification .....	19
9 Rules of the code relating to Connected Line identification .....	19
9.1 Responsibilities of the Terminating Network .....	19
9.1.1 Classification of COL information .....	19
9.1.2 Verification of COL information provided by connected customer .....	20
9.1.3 Rules relating to COLR service .....	20
9.2 Responsibilities of the Originating Network .....	21
9.3 Responsibilities of Transit Networks .....	21
9.4 Responsibilities of Networks providing additional services .....	22
9.5 Responsibility of networks interworking with networks not covered by this specification .....	22
9.5.1 Calls passed to networks not covered by this specification .....	22
9.5.2 Calls received from networks not covered by this specification .....	23
10 Usage of CLI and COL information for network operation .....	23
11 Rules which no longer apply .....	23
History .....	24

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## Foreword

This NICC Document (ND) has been produced by NICC TSG.

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# 1 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.

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# 2 References

## 2.1 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For non-specific references, the latest edition of the referenced document (including any amendments) applies.

- [1] Guidelines for the provision of Calling Line Identification Facilities and other related services over Electronic Communications Networks Version 2 (26/04/07)  
<http://www.ofcom.org.uk/telecoms/ioi/orp/cli/>
- [2] [Null](#)
- [3] Statutory Instrument 2003 No. 2426: The Privacy and Electronic Communications (EC Directive) Regulations 2003  
<http://www.hmsso.gov.uk/si/si2003/20032426.htm>
- [4] Consolidated version of General Conditions 2009  
[http://www.ofcom.org.uk/telecoms/ioi/g\\_a\\_regime/gce/](http://www.ofcom.org.uk/telecoms/ioi/g_a_regime/gce/)
- [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”
- [9] ITU-T Recommendation Q.731.3 (03/93) “Stage 3 Description for Number Identification Supplementary Services using Signalling System No. 7 : Calling Line Identification Presentation (CLIP)”
- [10] ITU-T Recommendation Q.731.5 (03/93) “Stage 3 Description for Number Identification Supplementary Services using Signalling System No. 7 : Connected Line Identification Presentation (COLP)”

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## 3 Definitions, symbols and abbreviations

### 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

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

Note : based upon [3].

**Calling Line Identity/Idenfification:** 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. The CLI may be a Network Number or a Presentation Number.

**CLI Available :** A CLI classification, as described in Section 5.1 of the present document

**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. 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.

**Calling Line Identification Presentation (CLIP):** A supplementary service that provides the called party with the possibility of receiving identification of the calling party.

**Calling Line Identification Restriction (CLIR) :** A supplementary service that allows the calling party to prevent delivery of any CLIs to the called party.

**CLI Unavailable :** A CLI classification, as described in Section 5.2 of the present document.

**CLI Withheld :** A CLI classification, as described in Section 5.3 of the present document.

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

Note : based upon [4]

**Connected Line Identity (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. The COL may be a Network Number or a Presentation Number.

**COL Available :** A COL classification, as described in Section 6.1 of the present document

**COL display and related services :** The delivery of information to the calling party that allows the calling party to gain access to the COL. This could be in the form of information that is displayed, recorded, interpreted by a database or provided by other means.

**Connected Line Presentation (COLP) :** A supplementary service that provides the calling party with the possibility of receiving identification of the connected party.

**Connected Line Restriction (COLR) :** A supplementary service that allows the connected party to prevent delivery of any COLs to the calling party.

**COLUnavailable :** A COL classification, as described in Section 6.2 of the present document.

**COL Withheld :** A COL classification, as described in Section 6.3 of the present document.

**Electronic Communications Network :**

- a) a transmission system for the conveyance, by the use of electrical, magnetic or electromagnetic 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.

Note : based upon [4]

**Electronic Communications Service :** 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.

Note : based upon [4]

**End User (of a Public Electronic Communications Service) :**

- (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.

Note : based upon [4]

**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*.

**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.

Notes

- 1: Network Number may also be known as administration number, electric number, or billing number.
- 2: A Network Number may be network provided (NP) or user provided verified and passed (UPVP).
- 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.
- 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.

**Network Provided (NP) Number** : A CLI or COL that is stored in the Public Electronic Communications Network.

Notes

- 1: A Network Provided number may also be referred to as a default number.
- 2: A Network Provided number may be a Network Number or a Presentation Number.

**Network Termination Point (NTP)** : 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.

Note : based upon [4]



**Network Termination and Testing Apparatus** : 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).

Note : based upon [4]

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

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

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

Note : based upon [4]

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

Note : based upon [4]

**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.

**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.

**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'.

**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'.

**Subscriber** : 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.

Note : based upon [4]

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

**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.

**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. A UPNV number may only be a Presentation Number.

**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. A UPVP number may be a Network Number or a Presentation Number.

## 3.2 Abbreviations

ACR	Anonymous Call Rejection
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
ISDN	Integrated Services Digital Network
ISC	International Switching Centre
ITU-T	International Telecommunications Union - Telecommunications Standardisation Sector
NP	Network Provided
NTP	Network Termination Point
PABX	Private Automatic Branch Exchange
PBX	Private Branch Exchange
PN	Presentation Number
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

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## 4 Background and Purpose

### 4.1 General

The Guidelines for the provision of Calling Line Identification Facilities and other related services over Electronic Communications Networks [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.

### 4.2 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 prevent the display of their number should always be able to do so using a simple means 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.

### 4.3 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.

### 4.4 Purpose of this Specification

The purpose of this specification is to define a mutually agreed set of rules to satisfy 4.2 above.

## 4.5 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.

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## 5 Classification of CLI Information

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

- 'CLI Available' (see Section 5.1)
- 'CLI Unavailable' (see Section 5.2)
- 'CLI Withheld' (see Section 5.3)

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.

UK numbers should be conveyed as UK national addresses, as defined by the relevant protocol specification.

### 5.1 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.

### 5.2 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 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..

### 5.3 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.

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.

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## 6 Classification of COL Information

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

- 'COL Available' (see Section 6.1)
- 'COL Unavailable' (see Section 6.2)
- 'COL Withheld' (see Section 6.3)

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.

UK numbers should be conveyed as UK national addresses, as defined by the relevant protocol specification.

### 6.1 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

### 6.2 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.

### 6.3 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.

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.

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## 7. Conditions to be met by Presentation Number

Although a Presentation Number will not necessarily 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:

- must be a diallable number;
- must be allocated to the caller or if allocated to a third party, only used with their permission;
- must not be a number that connects to a Premium Rate Service prefixed 09, or to a revenue sharing number that generates an excessive or unexpected call charge.
- must be supported by an underlying Network Number

Alternatively, it may be a number that has been received from the public network and passed back to the public network unchanged, eg for a call diverted by a PBX.

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

- (a) to correctly datafill the Presentation Number (where applicable)
- (b) to obtain the following written confirmation from the Presentation Number applicant prior to provision of Presentation Number service (see note 1):
  - (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 consent from the allocated owner for its use as a PN has been obtained and that this consent has not been withdrawn, or will be obtained (see note 2)

- (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) agreement that the originating Communications Provider will be informed forthwith if any of the information stated above ceases to be correct, and
- (v) 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
- (vi) 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.

Notes :

- 1: Acceptance of the material provided constitutes a Special Arrangement
- 2: Where the Presentation Number is of Type 4[1], the consent may be implied via the CLI of the original caller not having been withheld.

## 8 Rules of the code relating to Calling Line Identification

### 8.1 Responsibilities of the Originating Network

#### 8.1.1 Classification of CLI Information

It is the responsibility of the Originating Network to ensure that CLI information is provided and 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 8.1.1.a**

	Classification of Network Number	Classification of Presentation Number
CLIR not invoked, PN not available	'CLI Available'	Not applicable
CLIR not invoked, PN available	'CLI Available'	'CLI Available'
CLIR invoked, PN available	'CLI Withheld'	'CLI Withheld'
CLIR invoked, PN not available	'CLI Withheld'	Not applicable

### 8.1.2 Verification of CLI information provided by the calling user

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.

#### **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.

#### **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, as set out in Section 7. 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.

### 8.1.3 Rules relating to the CLIR service

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

#### **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'.

#### **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).



## 8.2 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-20

Where Presentation Number information is present then this shall be used for all display purposes irrespective of the setting or the presence of CLI available indication, since that applies only to the Network Number, see Section 5.2. For the purposes of this rule, display extends to any other service that allows the called party to call back or gain access to the calling line identification. Where there is no Presentation Number the Network Number should be used.

### 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 8.2.a**

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 Anonymous Call Rejection, this service shall operate in such a way as to reject calls only on the basis where CLI is marked as 'withheld'.

### 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.

## 8.3 Responsibilities of Transit Networks

The following rule shall apply:

### **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).

## 8.4 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.

## 8.5 Responsibility of networks interworking with networks not covered by this specification

Where calls are passed to networks not covered by this specification, or received from networks not covered by this specification, it may be necessary to carry out certain CLI interworking functions as set out in this section. It should be noted that the node at the boundary of networks covered by this specification, which is responsible for carrying out the interworking functions, may be a discrete ISC, or a node which carries out a series of roles including ISC functionality.

### 8.5.1 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'.

Nodes receiving calls from outside the UK must additionally fulfil the interworking requirements set out in [9] with respect to CLI information.

### 8.5.2 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.

Nodes sending calls to outside the UK must additionally fulfil the interworking requirements set out in [9] with respect to CLI information.

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## 9 Rules of the code relating to Connected Line identification

### 9.1 Responsibilities of the Terminating Network

#### 9.1.1 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 9.1.1.a**

	<b>Network Number</b>	<b>Presentation Number</b>
COLR not invoked, PN not available	'COL Available'	Not applicable
COLR not invoked, PN available	'COL Available'	'COL Available'
COLR invoked, PN available	'COL Withheld'	'COL Withheld'
COLR invoked, PN not available	'COL Withheld'	Not applicable

### 9.1.2 Verification of COL information provided by 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.

#### **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.

#### **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 as set out in Section 7. 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.

### 9.1.3 Rules relating to 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'.

## 9.2 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-11

Where Presentation Number information is present then this shall be used for all display purposes. For the purposes of this rule, display extends to any other service that allows the calling party to call back or gain access to the COL information. Where there is no Presentation Number the Network Number should be used.

### 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 9.2.a**

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.

## 9.3 Responsibilities of Transit Networks

The following rule shall apply:

### 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).

## 9.4 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.

## 9.5 Responsibility of networks interworking with networks not covered by this specification

Where calls are passed to networks not covered by this specification, or received from networks not covered by this specification, it may be necessary to carry out certain COL interworking functions as set out in this section. It should be noted that the node at the boundary of networks covered by this specification, which is responsible for carrying out the interworking functions, may be a discrete ISC, or a node which carries out a series of roles including ISC functionality.

### 9.5.1 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'.

Nodes sending calls to outside the UK must additionally fulfil the interworking requirements set out in [10] with respect to COL information.

## 9.5.2 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. Nodes receiving calls from outside the UK must additionally fulfil the interworking requirements set out in [10] with respect to COL information.

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## 10 Usage of CLI and COL information for network operation

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.

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## 11 Rules which no longer apply

The following rules applied in previous versions of this document, but are withdrawn and hence no longer apply:

CLI-4  
CLI-16  
CLI-17  
CLI-18  
CLI-19

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## History

<b>Document history</b>		
1	Sept 2004	Initial publication
2.1.1	May 2010	Restructure of document, review following experience of operation, notably to clarify that where Presentation Number is present, it should always be used for display purposes in preference to Network Number.