

## **Next Generation Networks; Release Definition**

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**NOTE :**

The main body of ND1610 is applicable for all values of z, since the scope of the Release remains constant, i.e. this pdf remains valid for v3.1.1, v3.1.2 etc of ND1610.

The contents of the associated spreadsheet will change between values of z, to reflect changes to the standards that comprise the Release, i.e. the contents of the spreadsheet will change between v3.1.1, v3.1.2 etc.

**NICC Standards Limited**

Michael Faraday House,  
Six Hills Way,  
Stevenage  
SG1 2AY

Tel.: +44(0) 20 7036 3636

Registered in England and Wales under number 6613589

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The Technical Secretary, NICC Standards Ltd.,

Michael Faraday House,  
Six Hills Way,  
Stevenage  
SG1 2AY

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## Foreword

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

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## Introduction

NICC has adopted a release scheme in order to programme manage the development of access, interconnect and interoperability standards relating to Next Generation Networks (NGNs). Each release consists of a series of topics, each of which contains associated standards. These standards may be re-used across multiple topics.

Standards related to a given topic area are published once there is a critical mass of material approved. Therefore, standards that are developed under a given programme management release will be published over a period of time.

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## 1 Scope

This document defines the standards that shall be applicable for the following topics:

- Generic IP Connectivity for PSTN / ISDN Services between Next Generation Networks
- Active Line Access
- Next Generation Access Telephony
- Provision of location information from VoIP lines to the emergency services
- BICC
- Transport of SS7 signalling transport between PLMNs using IP technology
- Voice Line Control
- Usage of a Common numbering DataBase (CDB)

Note : This list consists of the topics which comprises NICC programme management releases Purple, Orange and Green. The present document supersedes v1.x.x and v2.x.x of ND1610.

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## 2 References

For the full list of applicable standards, together with the particular version of a document applicable to this release see the associated [ND1610 spreadsheet](#).

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## 3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ALA	Active Line Access
BICC	Bearer Independent Call Control protocol
CAP	CAMEL Application Part
CDB	Common Numbering DataBase
CP	Communications Provider
ISDN	Integrated Services Digital Network
ISUP	ISDN User Part
IP	Internet Protocol
MAP	Mobile Application Part
NGN	Next Generation Network
PLMN	Public Land Mobile Network
PSTN	Public Switched Telephone Network
SS7	Signalling System Number 7
VLC	Voice Line Control
VOIP	Voice over Internet Protocol

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## 4 NGN Document Release Structure

NICC produces deliverables which are grouped to relate to specific topics. For programme management purposes, these are grouped into releases.

The deliverables within a topic provide a suite of standards that support interconnection and interoperability of NGNs and customer networks. Where possible, standards are written so as to be re-usable by multiple topics. Where appropriate, consideration is given to interoperability of standards between topics, for example interoperability of standards associated with access with those associated with interconnection, and the layering of application layer standards with underlying transport standards.

The grouping of topics into releases is purely a function of programme managing the delivery, and does not imply that the topic suites within a release are fully interoperable.

### 4.1 Document Structure

In principle, the documentation structure breaks into a series of broad areas;

Release scope	This top layer document that sets the topics within scope of a release, and the full list of standards that are used by the topics.
Service requirements and architecture	The service specific requirements and architecture for a given topic. Each service architecture specification describes the service features, functional architecture and other general reference documents that define the service.
Common Infrastructure	Standards which are called by multiple services, for example common transport, naming and addressing and overload control features.
Management & Testing	Standards to facilitate the management of the service, and testing for introduction of it.
Protocols	The core interface specifications, including application signalling.

### 4.2 NICC Specification Version Numbering

NICC specifications are version controlled using the following scheme

Version X.Y.Z

where:-

- X is a number indicating major changes / new version
- Y is a number indicating minor, technical changes
- Z is a number indicating only editorial changes

The first published version of a NICC specification is given the version number v1.1.1.

### Specifically for this document

X is incremented for each programme management release,  
Y is incremented with the addition of a topic within that release, and  
Z is incremented with the addition/update of an individual standard

Since the full list of applicable standards is contained in the associated spreadsheet, increments of Z update only the spreadsheet, not this textual document.

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## 5 Release Scope

The topics within scope are:

- **Generic IP Connectivity for PSTN / ISDN Services between Next Generation Networks.** Specifications for interconnecting PSTN and ISDN services provided on NGN infrastructure, utilising a common interconnect transport infrastructure.
- **Active Line Access (ALA).** Specifications for provision of Ethernet services between a Communication Provider network and residential or business customer premises connected to a third party access network.
- **Next Generation Access Telephony.** The delivery of voice services over a fibre access using a packet based transport and session based protocols.
- **Provision of location information from VoIP lines to the emergency services.** Provision of a method for providing sufficient location information to the 999 Call Handling Agencies in all circumstances so that an emergency call (999/112) can be quickly and automatically routed to the correct local Emergency Authority (Police, Fire, Ambulance or Coastguard), and delivery of location information to the correct local Emergency Authority can also be reliably enabled.
- **BICC.** Specification of the connectivity of PLMN services between UK NGNs using BICC/IP technology. It is intended to support all relevant PLMN bearer services, teleservices and supplementary services.
- **Transport of SS7 signalling transport between PLMNs using IP technology.** Specification of the generic connectivity of SS7 signalling transport service between UK PLMNs using IP technology. It is intended to support all relevant signalling protocols including, but not restricted to, BICC, ISUP, MAP and CAP.
- **Voice Line Control.** Support of the logical extension of analogue line access via an MSAN so that the NGN Call Control in one network has the ability to provide PSTN or other types of voice service via base-band lines in a separate NGN.
- **Usage of a Common numbering DataBase (CDB).** Support of architecture to fulfil the requirement that networks be capable of routing calls on an individual number basis to the correct terminating node. It should be noted that the regulatory mandate that necessitated standardisation of this topic has subsequently been withdrawn. However, the standards remain published on the basis of providing guidance for CPs that wish to use a CDB architecture.

A full list of the associated standards, together with information of the current version numbers, can be found on the accompanying [spreadsheet](#).

## History

<b>Document history</b>		
Version	Date	
V3.1.z	June 2011	NICC approved