

HKTA 2203
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**NETWORK CONNECTION SPECIFICATION
FOR NETWORK-TO-NETWORK
CONNECTION OF CALLING NAME DISPLAY
SERVICE IN THE PUBLIC
TELECOMMUNICATION NETWORK (PTN) IN
HONG KONG**



**TELECOMMUNICATIONS AUTHORITY
HONG KONG**

FOREWORD

1. In Hong Kong, there are four Fixed Telecommunication Network Services (FTNS) operators. As different switching systems and technologies are employed by the four operators, the characteristics of each network may differ. However, the Public Telecommunication Networks (PTNs) operated by individual FTNS operators are required to adopt a standard network interface as stipulated in the HKTA 2202 so as to allow transparent interworking of basic telecommunication services. Details of the individual network connection characteristics and services offered are available direct from the operators. Contact information of the FTNS operators may be found in information note I.412 issued by the Telecommunications Authority.
2. This network connection specification covers the technical requirements of the network-to-network connection standard for supporting the calling name display service in the Public Telecommunication Networks (PTNs) operated by the FTNS operators. The scope of the specification covers :-
 - (a) protection of the public telecommunication network (PTN);
 - (b) safety hazard to the personnel using or working on the network; and
 - (c) network interworking requirement for supporting the calling name display service.
3. The Telecommunications Authority reserves the right to revise the contents of this specification without prior notice. Amendments or re-issues of this specification may not be distributed automatically to concerned parties and it will be the responsibility of the concerned parties to ensure that their system/equipment conform to the latest requirements.
4. The Telecommunications Authority accepts no responsibility for the satisfactory end-to-end performance of terminal equipment connected to the networks of the FTNS operators. This specification does not address performance, reliability or quality-of-service parameters.
5. The HKTA series specifications are issued by the Telecommunications Authority. The documents as well as other information notes issued by the Telecommunications Authority can be obtained through one of the following methods:-
 - download direct through the OFTA's Internet Home Page. The Home Page address is <http://www.ofa.gov.hk>;
 - download direct through the OFTA's Bulletin Board Service. The access details are given below:

BBS telephone number :	+852 2834 0119
Number of data bits:	8
Number of parity bit:	none
Number of stop bit	1
Flow Control:	Hardware
Terminal Mode:	ANSI
Default Protocol:	Zmodem is recommended

- hard copies will be available upon request to :-

Senior Telecommunications Engineer (Standards)
Office of the Telecommunications Authority
29/F, Wu Chung House,
213 Queen's Road East,
Wanchai,
Hong Kong.

6. If further information is required, please contact :

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1. **SCOPE**

This Network Connection Specification defines the interworking requirements of the network-to-network connection standard for supporting the Calling Name Display service in the Public Telecommunication Networks (PTNs) operated by the Fixed Telecommunication Network Services (FTNS) operators in Hong Kong.

An optional parameter "Generic Name" embedded in the Initial Address Message (IAM) over the Common Channel Signalling System No. 7 as stipulated in the HKTA 2202 is adopted for sending the calling name information across the network interface. The format of the "Generic Name" parameter is defined in this specification and individual FTNS operators are required to comply when providing the Calling Name Display service across networks.

2. **ELECTRICAL SAFETY**

2.1 PRINCIPLE OF PROTECTION

In order to safeguard operating personnel, users, and plant, it is essential to prevent the transmission of excessive voltages from any terminal equipment or terminating network into the public telecommunication network in Hong Kong.

2.2 SAFETY REQUIREMENTS

Equipment connecting with the public telecommunication network in Hong Kong shall comply with the specification HKTA 2001.

3. **TECHNICAL REQUIREMENT FOR SUPPORTING CALLING NAME DISPLAY SERVICE**

3.1 INTRODUCTION

Calling Name Display service enables the delivery of the caller's name data to the recipient of the call that allows him to identify the calling party.

For interworking of the Calling Name Display service across networks that support the service in Hong Kong, the calling name information shall be contained in an optional parameter "Generic Name", based on ANSI T1.641-1995 and embedded in the Initial Address Message (IAM), which is sent from the originating network to the terminating network. Query from the terminating network to originating network is not supported

3.2 FORMAT AND CODING

The details of the "Generic Name" (GN) parameter should be coded as follows:-

8	7	6	5	4	3	2	1
Parameter Name							
Parameter Length							
Type of name		Availability		Spare		Presentation	
character 1							
character 2							
.							
character n							

where $N \leq 15$

Parameter Name	Code for GN (8 bits)
Generic Name	11000111

Type of name	Value (3 bits)
Spare	000
Calling name	001
Original called name *1	010 (optional)
Redirecting name *1	011 (optional)
Spare	100-111

Availability	Value (1 bit)
Name available/unknown *2	0
Name not available	1

Presentation	Value (2 bits)
Presentation Allowed	00
Presentation Restricted	01
Blocking toggle *3	10 (not supported)
No indication	11

Characters	Code (8 bits)
max. 15	IA5 code

*** Remarks**

1. It is optional for network operators to support original called name and redirecting name.
2. "Availability" field should be set as "name available" if CNAM information is present. GN parameter is not required if name information is not available.
3. "Blocking toggle" setting in "Presentation" field is not supported.

4. REFERENCE DOCUMENTS

- [1] HKTA 2001 - Compliance Test Specification : Safety and Electrical Protection Requirements for Subscriber Equipment connected to the Public Telecommunication Networks in Hong Kong
- [2] HKTA 2022 - Network Connection Specification of Calling Name Display (CNAM) Service For Customer Premises Equipment (CPE) to Be Connected to the Public Switched Telephone Network (PSTN) In Hong Kong
- [3] HKTA 2202 - Network Connection Specification for Network-to-network connection of the Public Telecommunication Network (PTN) in Hong Kong based on ITU-T Common Channel Signalling System No. 7
- [4] ANSI T1.641-1995 Calling Name Identification Presentation