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**GENERAL PRINCIPLES AND SCOPE OF  
STANDARDISATION FOR PUBLIC  
TELECOMMUNICATIONS  
SERVICES**



## **FOREWORD**

1. This Standardisation Guide describes the general principles of setting telecommunications standards as well as the scope of public telecommunications services that require standardisation by the ~~Telecommunications Authority (TA)~~ **Communications Authority (CA)** in Hong Kong.
2. Pursuant to Section 32D of the Telecommunications Ordinance (Cap. 106), the ~~TA~~ **CA** may prescribe standards and specifications of telecommunications networks, systems, installations, customer equipment and services. This Guide is primarily concerned about the standardisation of telecommunications services which are provided by operators of public telecommunications networks (PTNs) ~~including operators of Fixed Telecommunication Network Services (FTNS) and Public Mobile Radiotelephone Service (PMRS) / Personal Communications Service (PCS)~~ as well as holders of fixed carrier licence and mobile carrier licence in Hong Kong.
3. The ~~TA~~ **CA** may amend any part of this document as and when he deems necessary.
4. In case of doubt about the interpretation of this document, the decision of the ~~TA~~ **CA** shall be final.
5. The ~~HKTA~~ **HKCA** series documents are issued by the ~~TA~~ **CA**. The documents can be obtained through one of the following methods:-
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Senior Telecommunications Engineer (Standards)  
Standards Section,  
Office of the ~~Telecommunications~~ **Communications** Authority,  
29/F Wu Chung House,  
213 Queen's Road East, Wanchai, Hong Kong.
6. If further information is required, please contact :

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

Fax: +852 2838 5004  
Email: [standards@ofca.gov.hk](mailto:standards@ofca.gov.hk) ~~standards@ofca.gov.hk~~

## AMENDMENT TABLE

Item	Issue No.	Paragraph	Descriptions
1.	Issue 2	Title	Re-title document as "General Principles and Scope of Standardisation for Public Telecommunications Services"
2.	Issue 2	Foreword	Include editorial changes to incorporate descriptions about the Telecommunications Authority's power of setting standards under the Telecommunications Ordinance.
3.	Issue 2	Body Clause 2	Re-write Clause 2 to align general principles of standards setting with the provision under the Telecommunications Ordinance.
4.	Issue 2	Body Clause 3	Re-write Clause 3 to give elaboration about the scope of standardisation and describe considerations in determining the need for setting a standard.
5	Issue 3	All	Consequential amendments of the document as a result of the establishment of the CA and OFCA.

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## 1. INTRODUCTION

This Standardisation Guide describes the general principles of setting telecommunications standards as well as the scope of public telecommunications services that require standardisation by the ~~Telecommunications Authority (TA)~~ **Communications Authority (CA)** in Hong Kong.

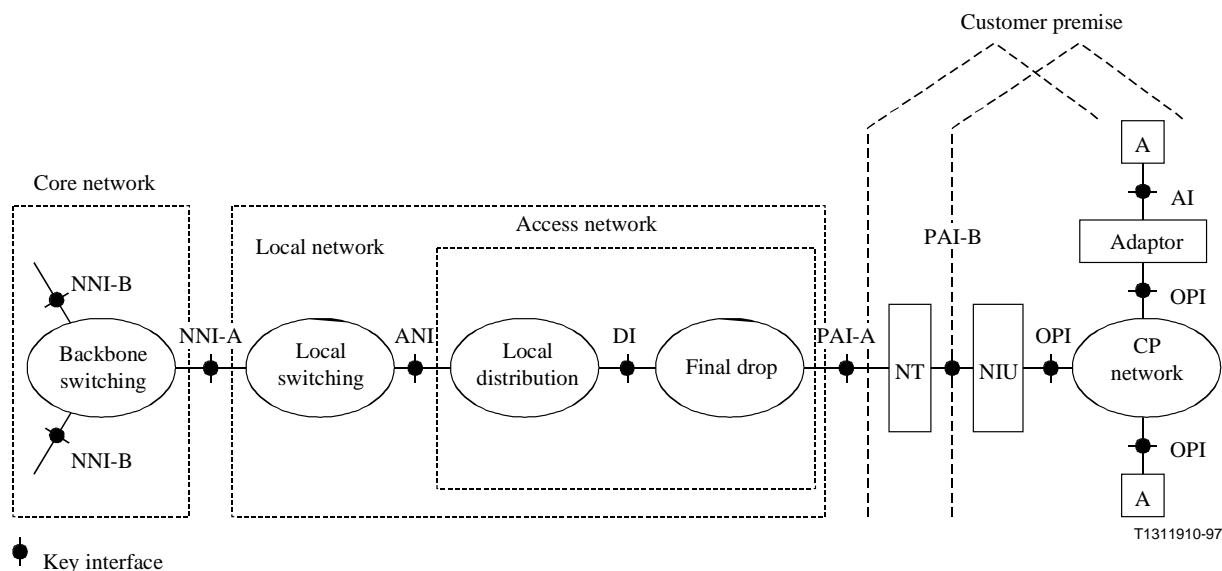
## 2. GENERAL PRINCIPLES OF SETTING TELECOMMUNICATIONS STANDARDS

The ~~TA~~-**CA** may prescribe standards and specifications for telecommunications equipment and services in pursuit of the following objectives:

- (i) to prevent or reduce radio interference or the risk of interference to telecommunications networks, systems, installations, customer equipment and services;
- (ii) to facilitate correct, efficient or reliable operation of telecommunications;
- (iii) to ensure safety and health of users and personnel affected by electrical voltages or non-ionising electromagnetic radiation from telecommunications apparatus;
- (iv) to ensure that equipment complies with international or recognized industrial standards;
- (v) to ensure the compatibility of the interfacing equipment between 2 or more interconnecting telecommunications networks, systems, installations, customer equipment or services;
- (vi) to ensure the interoperability of customer equipment with the telecommunications system to which it is connected;
- (vii) to ensure an acceptable quality of reception of telecommunications services;
- (viii) as a means to achieve the objectives of the Telecommunication Ordinance.

## 3. SCOPE OF STANDARDISATION FOR PUBLIC TELECOMMUNICATIONS SERVICES

- 3.1 Figure 1 shows a generic reference model for a telecommunications network to facilitate understanding of clause 3.2. The model contains the generic elements and interfaces which constitute potential objects of standardisation for public telecommunications services.



Legend:

NNI-A	Network-to-Network Interface Type A between a long distance backbone network and a local switching network
NNI-B	Network-to-Network Interface Type A between a long distance backbone network and a peer long distance backbone network
ANI	Access-Network Interface between a local switching network and an access network
DI	Drop-Distribution Interface between a local distribution network and the final drop network to the customer premise
PAI	Premise-Attachment Interface between the external network and the internal customer premise network or equipment
OPI	On-Premise Interface between the on-premise network or equipment and the appliances
AI	Adaptation Interface between an appliance and an adaptor which converts from the native OPI to another appliance specific interface
NT	Network Terminating Unit
NIU	Network Interface Unit
CP	Customer Premises
A	Appliance

Figure 1 Generic Reference Model for a Telecommunications Network

3.2 The scope of public telecommunications services that may require standardisation by the ~~TA~~ **CA** in the form of ~~HKTA~~ **HKCA** specifications is as follows:-

Telecommunications services which need special provisions of, or impose any requirements on :-

a) the Customer Equipment (CE)

The CE is the equipment acquired by a customer of a network operator and intended to be connected to the network of that operator. In the case that the CE is inside the customer premises as in Figure 1, it may be a simple terminal equipment or an equipment cluster including any or all of the elements acquired by the customer for physical attachment to a point-of-interconnection which demarcates the responsibility between the network operator and the customer.

- b) the User-to-Network Interface (UNI)

The UNI is a conceptual interface for connection of the CE to the network equipment at which interface a set of communication protocols applies for access to the network. In the case that the UNI is inside the customer premises as in Figure 1, it can be at various interfaces such as the PAI, OPI and AI, depending on the specific scenarios of implementation.

- c) the Network-to-Network Interface (NNI)

The NNI is a conceptual interface for connection of the network equipment of one operator with the network equipment of another operator. In Figure 1, the NNI can be at various interfaces in the telecommunications network, such as NNI-A, NNI-B, ANI and DI.

- d) any other requirements as mandated by the ~~TA~~CA.

3.3 Within the scope of standardisation for public telecommunications services as given in clause 3.2, the ~~TA~~CA will determine the need for prescribing a standard or specification by considering on a primary basis the impact on:

- a) setting of essential technical requirements for interconnection of equipment with the public networks and interoperability of public telecommunications services between different parties;
- b) minimisation of interference to other telecommunications users;
- c) the number of telecommunications users that may subscribe to the concerned services;
- d) competitive provision of products and services to the users; and
- e) proper implementation of regulatory requirements of the ~~TA~~CA.

#### 4. REFERENCE

- [1] ~~HKTA~~ HKCA 3201 “General Procedure for Setting Telecommunications Standards and Related Policies” issued by the ~~Telecommunications~~ Communications Authority
- [2] ~~HKTA~~ HKCA 3202 “Classification of ~~HKTA~~ HKCA Specifications Related to Public Telecommunications Services” issued by the ~~Telecommunications~~ Communications Authority
- [3] ITU-T Recommendation Y.101 - GII Terminology: Terms and Definitions
- [4] ITU-T Recommendation Y.120 - Global Information Infrastructure Scenario Methodology

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