

只提供英文版

只提供英文版

HKTA 3102  
ISSUE 1  
DECEMBER 1999

**REGULATORY GUIDE FOR THE  
TECHNICAL CONFIGURATIONS OF  
EXTERNAL TELECOMMUNICATION  
SERVICE PLATFORMS OPERATED BY  
EXTERNAL TELECOMMUNICATION  
SERVICE OPERATORS**

**OFTA**



電訊管理局

**TELECOMMUNICATIONS AUTHORITY  
HONG KONG**

## **FOREWORD**

1. This Regulatory Guide forms part of the code of practice referred to in Special Condition 22(2) under a Public Non-Exclusive Telecommunications Service (PNETS) licence held by an External Telecommunication Service (ETS) operator. It also provides guidance to the ETS operator on the requirement to file information on system configurations in pursuance of Special Condition 16(2) and 16(3) of the PNETS licence. It is divided into two parts. Part I describes the procedure to be followed by an ETS operator for filing information on its system configurations with the Telecommunications Authority (TA). Part II describes the legitimate routes for outgoing, incoming and refiled calls in the operation of ETS.

2. The HKTA series Regulatory Guides and other information notes issued by the TA can be obtained by one of the following methods:-

- downloading direct from the OFTA's Internet Home Page <http://www.ofta.gov.hk>; and
- requesting a hard copy from :-

Senior Telecommunications Engineer (Technical Support 1)  
Office of the Telecommunications Authority  
29/F, Wu Chung House,  
213 Queen's Road East,  
Wanchai,  
Hong Kong.

3. If further information is required regarding this Regulatory Guide, please contact :

Senior Telecommunications Engineer (Technical Support 1)  
Office of the Telecommunications Authority  
29/F, Wu Chung House,  
213 Queen's Road East,  
Wanchai, Hong Kong.

Fax: +852 2803 5112

## **CONTENTS**

1. INTRODUCTION

### **Part I**

2. SUBMISSION OF TECHNICAL CONFIGURATION INFORMATION FROM ETS OPERATORS

### **Part II**

3. LEGITIMATE ROUTES FOR OUTGOING CALLS
4. LEGITIMATE ROUTES FOR INCOMING CALLS
5. LEGITIMATE ROUTES FOR REFILED CALLS

## 1. INTRODUCTION

### *General*

- 1.1 ETS operators are required to submit their technical configurations and other necessary information to the TA. The submission should be made using the defined formats as shown in Appendix A. The duly completed Appendix A shall be approved and signed by a director of the ETS operator.
- 1.2 This document also sets out the legitimate configurations to be used by the operators or service providers who provide ETS.

### *Definition of Terms*

<b><u>Term</u></b>	<b><u>Definition</u></b>
External Telecommunication Service	<p>an external public switched telephone service or external public switched non-telephonic service which, by virtue of its characteristics such as functions, technical interface for the customer terminal usable to access the service and tariff structure, is a close substitute for the International Direct Dialing (IDD) services which are accessible by dialling the access code "001" or "002", and includes, but is not limited to, the following external services:</p> <ul style="list-style-type: none"><li>(a) all services currently provided by an operator of a local fixed network accessible by dialling the codes with the prefix "00";</li><li>(b) telephone calling card services;</li><li>(c) callback services;</li><li>(d) virtual private network services;</li><li>(e) services known as international simple resale services for facsimile and data;</li><li>(f) services known as international simple resale services for voice; and</li><li>(g) telephony services carried over data communication networks such as Internet, frame relay networks, etc.</li></ul>
External Telecommunication Service Operator	the holder of a Public Non-exclusive Telecommunications Service (PNETS) Licence for the operation of external telecommunication services
Outgoing Call	a call intended for routing to a place outside Hong Kong Special Administrative Region (HKSAR)
Incoming Call	a call received from a place outside HKSAR
Directly Connected	Public Mobile Radiotelephone Service (PMRS) / Personal

Customer of the ETS operator	Communications Services (PCS) operator, another ETS operator(s), Fixed Telecommunication Network Services (FTNS) operator or corporate customer(s) of the ETS operator connected to the ETS operator through dedicated circuits. In this case, customers of PMRS/PCS operator, another ETS operator(s) or FTNS operator are using the external telecommunication service provided by the ETS operator but not using the external telecommunication service provided by the respective PMRS/PCS operator, another ETS operator(s) or FTNS operator.
Route	the means of transmission (paths, links via wire, cable, radio) used or to be used for the set-up of permanent or switched connections between two locations, and may include all types of telecommunication connections (circuits, groups, blocks)
Location	the origin or destination of a route, which should be described by the geographical place within or outside HKSAR, the carrier providing the termination and the terminal exchange / transmission point
Circuits	individual trunks/lines within a route

## **Part I**

### **2. SUBMISSION OF TECHNICAL CONFIGURATION INFORMATION FROM ETS OPERATORS**

- 2.1 ETS operators are required to fill in the three schedules as shown in Appendix A, signed by a director of the ETS operator, to provide the TA with information on the technical configuration of the system used for the provision of the licensed service.
- 2.2 Before a new ETS operator installs its system, or an existing ETS operator amends its technical configuration, it should submit details of the technical configuration or proposed amendments using the three schedules as shown in Appendix A to the TA before implementation<sup>1</sup>. The operator can implement the proposed technical configuration after receipt of OFTA's acknowledgement of the schedules, in which case OFTA's acknowledgement would be sent within 3 working days of the receipt of the schedules.
- 2.3 When an ETS operator needs to install its system or amend its configuration urgently, they can implement the amendments to the technical configuration immediately after filing the amendment schedules with OFTA, in which case they must contact the relevant officer in OFTA to seek positive acknowledgement of receipt of the amendment schedules on the next working day after sending the schedules by fax.
- 2.4 Acknowledgement by OFTA does not signify that OFTA has accepted that the configuration shown in the notification conforms to Part II of this Technical Guide. Besides, if the proposed technical configurations are not covered by the legitimate routes as described in Part II of this document, ETS operators should make such amendments as may be specified by the TA if the TA should notify the operator that the configuration submitted is not in compliance with the licence condition and is therefore not acceptable.
- 2.5 All the submissions should be addressed to

Office of the Telecommunications Authority  
29/F Wu Chung House  
213 Queen's Road East  
Wan Chai, Hong Kong  
[Attention: Controller (Telecommunications)/Competitive Licensing Section]  
Fax : 2834 1501  
Telephone : 2961 6654

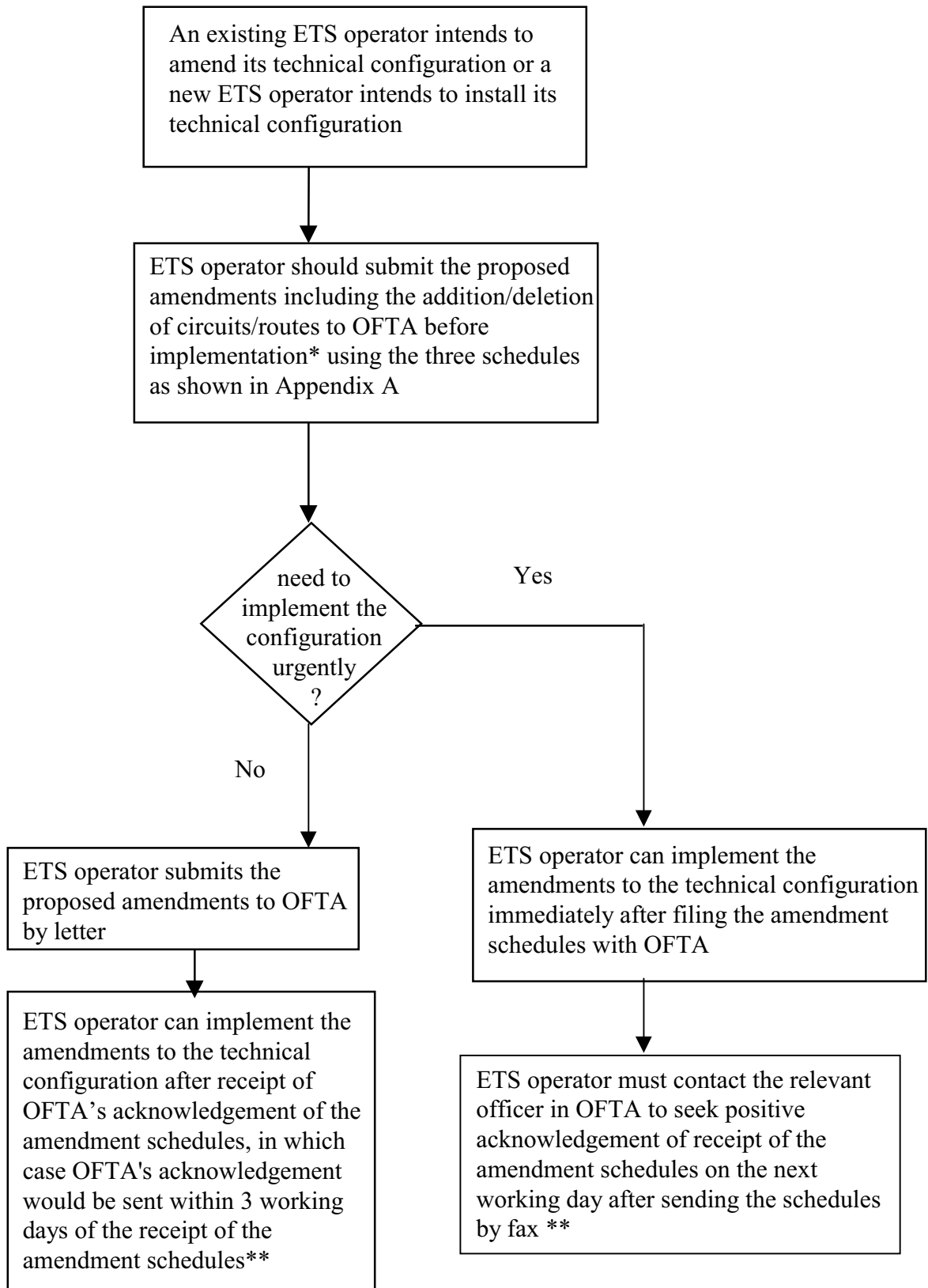
---

<sup>1</sup>"Implementation" means the bringing-into-service of an individual route/circuit to provide service to customer. Prior to the implementation, the ETS operator may make necessary preparatory work such as installation, testing and commissioning etc.

2.6 In addition to the information as mentioned in Appendix A, the ETS operator shall also include the following details regarding installation or amendment of its system configuration:

- (a) the dialling procedure for making an ETS Outgoing Call. For example, dial 15XX followed by country code, area code, destination number, etc;
- (b) the description, nature, specification and configuration of building blocks, including embedded software and information programmed into the switch or remote computer equipment and switches in or connected with the system, the interconnection between the building blocks and all incoming and outgoing telecommunication circuits connected to the system;
- (c) for switched circuits mentioned in sub-paragraph (b) above, information identifying the circuits such as telephone number and circuit identification number of the provider of the circuit and the ETS operators and the type, quantity and the special features and functions for example call forwarding available on or in connection with these circuits;
- (d) for non-switched circuits or dedicated circuits mentioned in paragraph (b) above, circuit identification information, type, quantity and terminating locations; and
- (e) information on the routing of messages between the system and an external gateway means of telecommunication (including, without limitation, an external gateway switching facility) duly licensed under the Telecommunication Ordinance. The information shall include details on any intermediate nodes, switches or service providers involved in the routing of calls and routing information programmed into the switch or any remote computer equipment.

2.7 The following flowchart shows the procedure to be followed by ETS operators in filing their technical configurations:



Legend :

\* : "Implementation" means the bringing-into-service of an individual route/circuit to provide service to customer. Prior to the implementation, the ETS operator may make necessary preparatory work such as installation, testing and commissioning etc.

\*\* : Acknowledgement by OFTA does not signify that OFTA has accepted that the configuration shown in the notification conforms to Part II of this Technical Guide

## Part II

### 3. LEGITIMATE ROUTES FOR OUTGOING CALLS

- 3.1 Refer to Figure 1, an Outgoing Call can be routed by an ETS operator to a place outside HKSAR through the ETS operator's own IPLC, through the ETS operator's directly connected FTNS operator or through another ETS operator.

#### *Through ETS Operator's Own IPLC*

- 3.2 The ETS operator may route the Outgoing Call originated from its directly connected FTNS operator A or its directly connected customer to a place outside HKSAR through its IPLC (I2 to O1 or I3 to O1).

#### *Through ETS Operator's Directly Connected FTNS Operator*

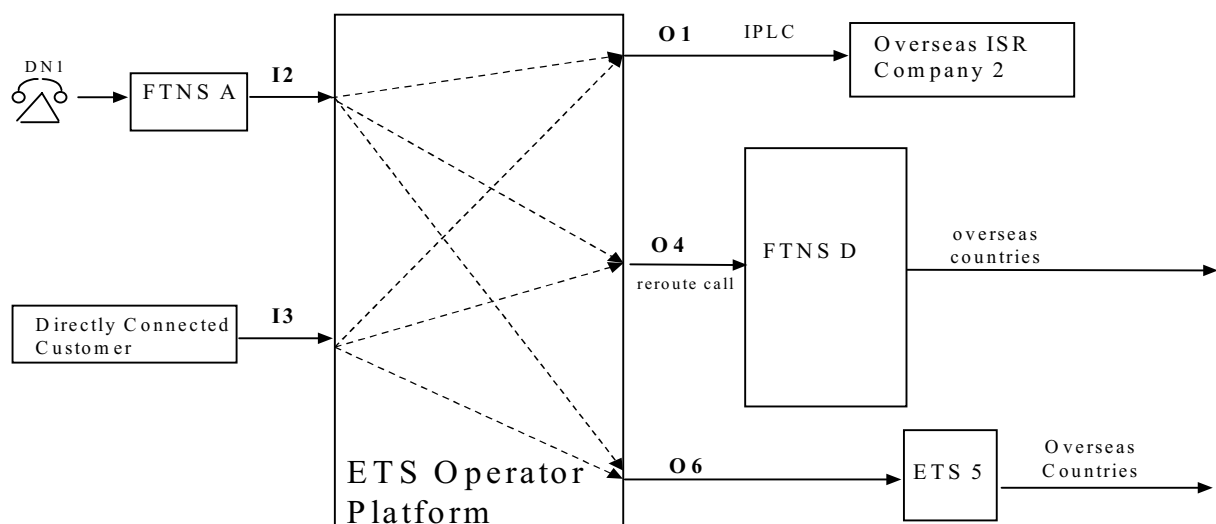
- 3.3 The Outgoing Call originated from its directly connected FTNS operator A or its directly connected customer can be routed by the ETS operator to its directly connected FTNS operator D via its reroute routes (I2 to O4 or I3 to O4).

- 3.4 ETS operator may connect to more than one FTNS operator at its outgoing routes.

#### *Through Another ETS Operator*

- 3.5 The Outgoing Call originated from its directly connected FTNS operator A or its directly connected customer can be directed by the ETS operator to another ETS operator 5 (I2 to O6 or I3 to O6).

- 3.6 The ETS operator may connect to more than one ETS operators at its outgoing routes.



sample-o..ppt

Figure 1 Legitimate Routes for Outgoing Calls

### 4. LEGITIMATE ROUTES FOR INCOMING CALLS

4.1 Refer to Figure 2, an Incoming Call may be passed to an ETS operator from the ETS operator's own IPLC, through Cable & Wireless HKT International Limited (CWHKTI) gateway or through another ETS operator 2.

*Through ETS Operator's Own IPLC*

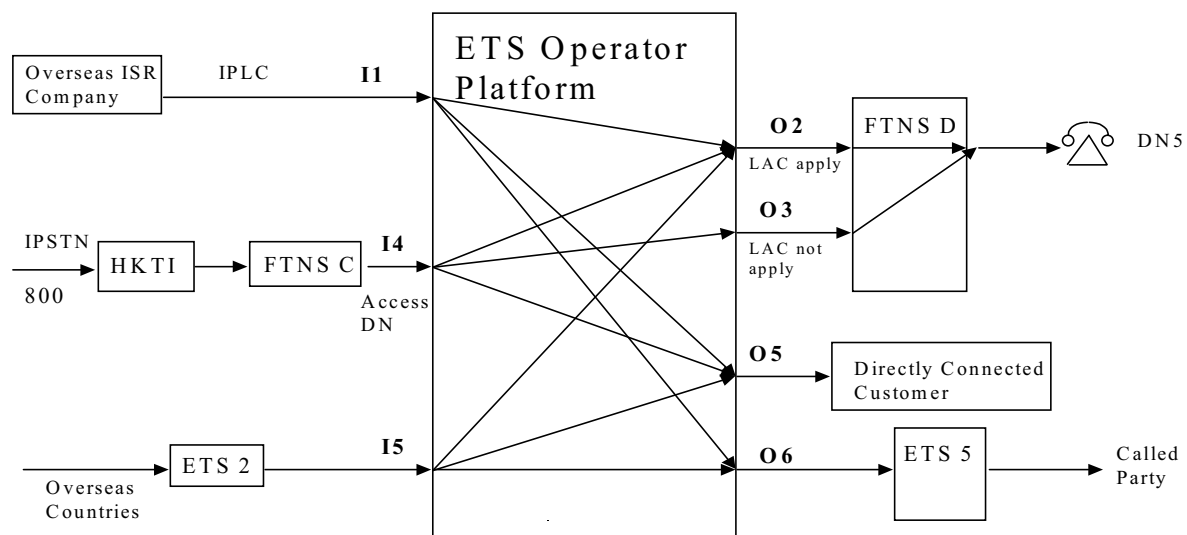
4.2 Through the ETS operator's own IPLC, an Incoming Call coming into the ETS operator's platform can be rerouted to its directly connected FTNS operator D using the routes where Local Access Charge (LAC) is applied (I1 to O2), its directly connected customer (I1 to O5) or another ETS operator 5 (I1 to O6).

*Through CWHKTI Gateway*

4.3 The incoming toll free call such as 800 free phone service or home direct service received from CWHKTI shall be sent by the ETS operator to its directly connected FTNS operator D or its directly connected customer. If the originating country of the incoming toll free call was a Category A country, the ETS operator shall route it to FTNS operator D via its routes where LAC is applicable (I4 to O2). If the originating country of the incoming toll free call was a Category B country, the ETS operator can route it to FTNS operator D via its routes where LAC is not applicable (I4 to O3).

*Through Another ETS Operator*

4.4 An Incoming Call received via another ETS operator 2 can be routed by the ETS operator to its directly connected FTNS operator D via its routes where LAC is applicable (I5 to O2), its directly connected customer (I5 to O5) or another ETS operator 5 (I5 to O6).



sample-i.ppt

Figure 2 Legitimate Routes for Incoming Calls

## 5. LEGITIMATE ROUTES FOR REFILED CALLS <sup>2</sup>

### *Incoming Call from ETS Operator's Own IPLC*

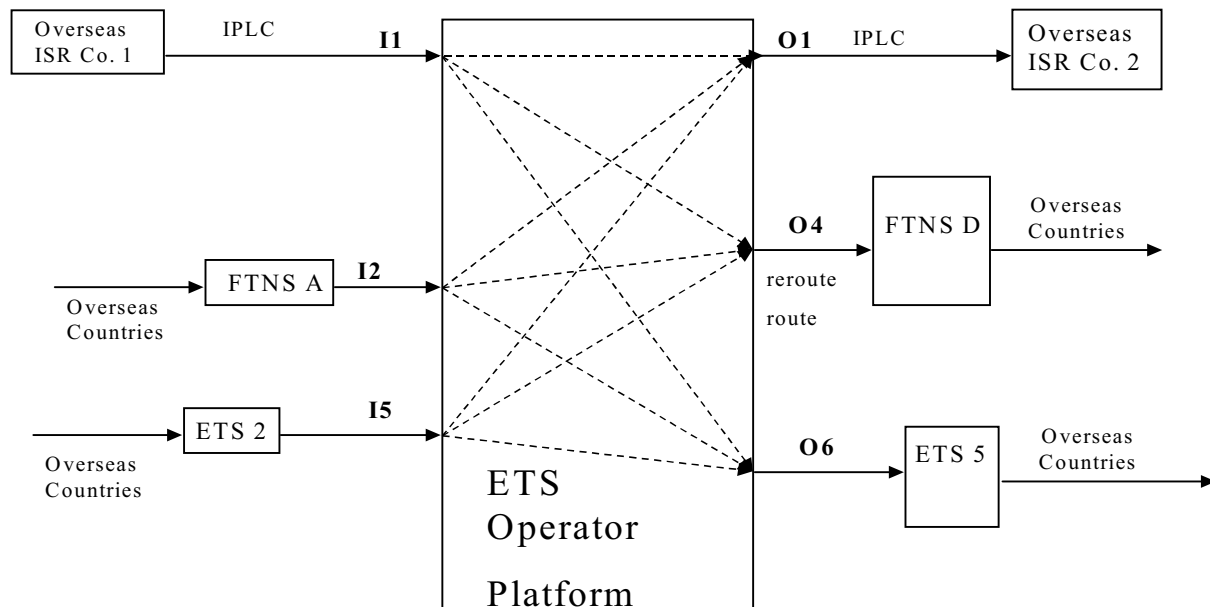
- 5.1 Refer to Figure 3, an Incoming Call received from the ETS operator's own IPLC can be refiled by the ETS operator to a place outside HKSAR via its own IPLC (I1 to O1), its directly connected FTNS operator D (I1 to O4) or another ETS operator 5 (I1 to O6).

### *Incoming Call from ETS Operator's Directly Connected FTNS Operator*

- 5.2 An Incoming Call to the ETS operator received from its directly connected FTNS operator A can be refiled by the ETS operator to a place outside HKSAR using its own IPLC (I2 to O1), through its directly connected FTNS operator D (I2 to O4) or through another ETS operator 5 (I2 to O6).

### *Incoming Call from Another ETS Operator*

- 5.3 An Incoming Call received from another ETS operator 2 can be refiled by the ETS operator to a place outside HKSAR using its IPLC (I5 to O1), through its directly connected FTNS operator D (I5 to O4) or through another ETS operator 5 (I5 to O6).



sample-r.ppt

Figure 3 Legitimate Routes for Refiled Calls

Office of the Telecommunications Authority  
December 1999

<sup>2</sup> Legitimate refile routes are those routes as permitted by the TA.

**Appendix A [Sample]**

**Schedule 1 of Technical Configuration**

Please tick one of the following boxes as appropriate:

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

1. Notification from a new ETS operator
2. Application from an existing ETS operator for technical configuration outside HKTA3102
3. Notification from an existing ETS operator for addition/deletion of routes/circuits which fall within HKTA3102

Type of Route	Directly connected companies	Country & City	Type of switched circuit	Type of Non-switched circuit	Usage of Circuit	Capacity of Circuit	Access Number	Trunk/Line Number	Channel for incoming / outgoing calls
I1	Overseas ISR Company 1 Overseas ISR Company 3	Canada, Toronto Singapore		IPLC	incoming call to ETS 1	5 T1 3 T1		IL654321-41 TB33450-2	dynamic channel allocation
I2	FTNS A	Hong Kong	DEL		outgoing call from directly or indirectly customer of FTNS A		15XX +country code +area code +destination number	DL123456	
I3	XYZ company	Hong Kong		leased line	outgoing call to ETS 1	1 T1			
I4	CWHKTI via FTNS C	Hong Kong	DEL		external incoming toll free calls	10 lines			
I5	ETS 2	Hong Kong		leased line		2 T1			
O1	Overseas ISR Company 2	United States, New York		IPLC		10 T1		ABC123456	channel 1-12 for outgoing call
O2	FTNS D	Hong Kong	DEL			20 lines			
O4	FTNS D	Hong Kong	DEL			40 lines			
O5	BCD company	Hong Kong		leased line		1 T1			
O6	ETS 5	Hong Kong		Leased line	outgoing call to ETS 5	2 T1		TS321456	

Name of ETS Operator: \_\_\_\_\_

Name of Director: \_\_\_\_\_

Director's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

PNETS Licence Number: \_\_\_\_\_

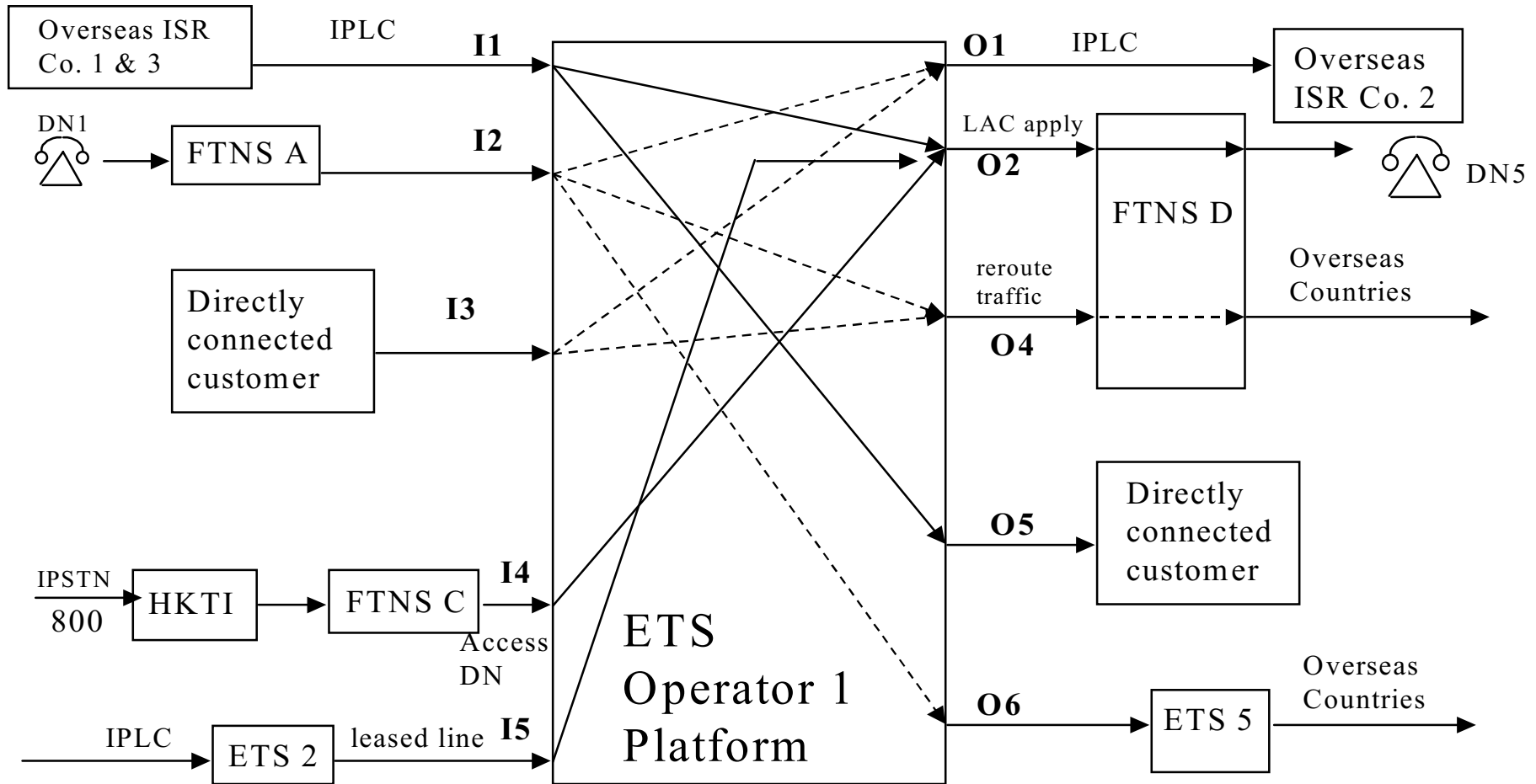
\_\_\_\_\_  
Company Chop

[Sample]

### Schedule 2 Technical Configuration

—————▶ incoming call

- - - - -▶ outgoing call



Name of ETS Operator: \_\_\_\_\_

SPC= \_\_\_\_\_

Number of Site(s)/Platform: \_\_\_\_\_ Service Access Code= \_\_\_\_\_

ISPC= \_\_\_\_\_

### **Schedule 3 of Technical Configuration**

Site Number	Location of Platform	Name of switch supplier and model /software of equipment being used	Call handling capacity of ETS platform	Intra-platform trunks and capacity (a connection diagram is required)
1	1 Tai Wan Road, Tai Po		20 Mbps	
2	1 King's Road, North Point		10 Mbps	

Any other supplementary information:

---

---

---

---

- End of Document -