

UNITED REPUBLIC OF TANZANIA
TANZANIA COMMUNICATIONS REGULATORY AUTHORITY

ISO 9001:2015 CERTIFIED



NATIONAL SIGNALLING POINT CODES PLANS AND ASSIGNMENTS

June, 2020

1. Introduction

The Signalling Point Codes (SPC) are used in the CCITT (International Telegraph and Telephone Consultative Committee) Signalling System No.7 (SS7) to identify the exchanges between which speech path connections are to be established.

The SPCs are processed in the SS7 network by the Message Transfer Part (MTP) of each Signalling Point (SP) or Signalling Transfer Point (STP) to enable establishment of speech path connections.

The SPCs are divided into the international and the national SPCs. The national SPCs have been left by the International Telecommunication Union - Telecommunication Standardization Sector (ITU-T) Secretariat to be defined at the national level.

As the national telecommunication networks in the United Republic of Tanzania consist of several operator networks, it is the responsibility of the Regulatory Body, the Tanzania Communications Regulatory Authority (TCRA), to allocate and administer the national SPCs to enable interworking between the networks in the country.

This document specifies the confirmed international SPC formats and as well as the national SPC formats and later, SPC allocated to various operators in the United Republic of Tanzania.

2. Definitions

International Signalling Point Code (ISPC): A signalling point code with a unique 14-bit format used at the international level for signalling message routing and identification of signalling points involved.

National Signalling Point Code (NSPC): A signalling point code with a unique 14-bit format used at the national level for signalling message routing and identification of signalling points involved.

Signalling Point: A node in a signalling network that originates and receives signalling messages, or transfers signalling messages from one signalling link to another, or both.

Signalling Point Code: A code used to identify a signalling point and processed within the Message Transfer Part (MTP) of each signalling point and within users of the MTP

3. Format of the ISPC

ITU-T has specified in the Recommendation Q.708 the following 14-bit binary format for the identification of the International Signalling Point Codes to be used in the international SS7 Signalling links:

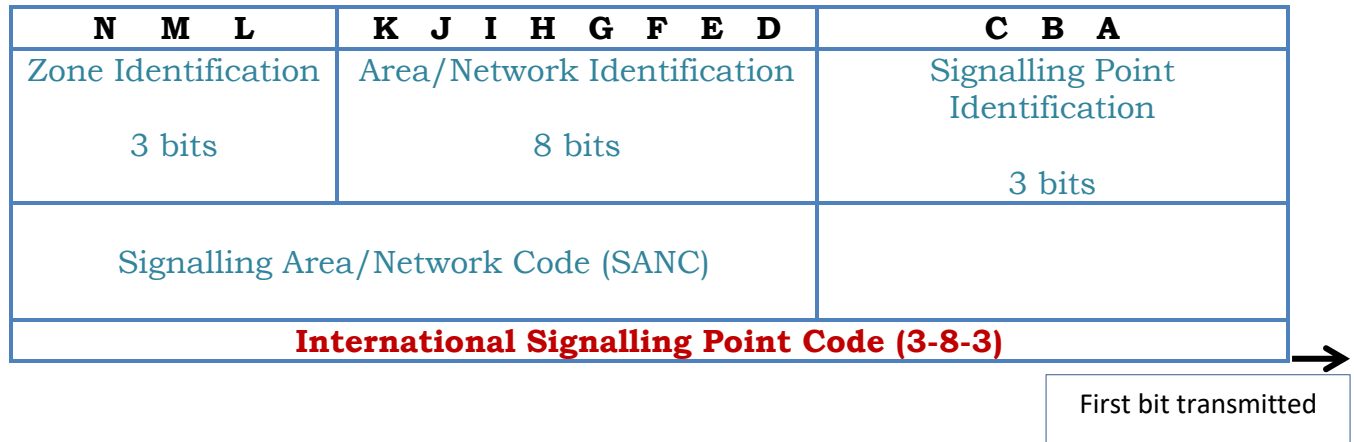


Figure 1: ITU-T format for the ISPCs

The **3-bit** sub-field '**NML**' defines the world geographical zone where the network is located in. The **8-bit** sub-field '**KJIHGFED**' identifies the geographical area or network within a specific world zone. The **3-bit** sub-field '**CBA**' identifies the Signalling point (international exchange) within a specific geographical area or network.

The combination of sub-fields '**NML-KJIHGFED**' is defined as a Signalling Area /Network Code (SANC). Each country shall be assigned at least one SANC.

The allocation of the codes in the first sub-field 'CBA' in this 3-8-3 bit structure is left for the national authorities with the responsibility to notify the ITU-T Secretariat on the codes used. The 3-bit structure of the 'CBA' sub-field allows 8 International Signalling Point Codes to be used for each SANC code. Should more than 8 International Signalling Points be required, one or more additional SANC code(s) would then be assigned by ITU-T for the country.

4. Format of the NSPC

The following below structure is recommended for the use the 14-bits in the Signalling Point Code for the exchanges in the national networks:

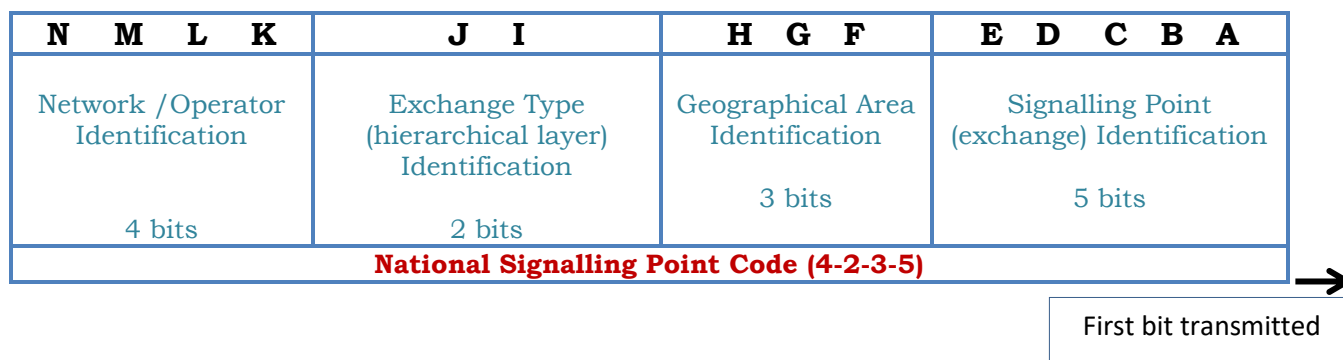


Figure 2: Recommended general format for the NSPC

Sub-field ‘NMLK’

The 4-bit sub-field ‘NMLK’ shall define the network (operator) in which the exchange is located in.

Sub-field ‘JI’

The 2-bit sub-field ‘JI’ shall define the hierarchical layer of the exchange in the operator’s network as follows:

Hierarchical Layer	Bit Pattern ‘JI’ [binary]	Bit Pattern ‘JI’ [decimal]
International layer	00	0
National transit layer	01	1
Local tandem layer	10	2
Local layer	11	3

In case an exchange is a combined exchange operating on two or more layers, it shall be specified on its highest operating layer in the sub-field ‘JI’.

Sub-field ‘HGF’

The 3-bit sub-field ‘HGF’ is used to identify the geographical area where the exchange is located in.

The SPC area boundaries follow basically the local dialling numbering area boundaries in the new National Numbering Scheme. Exception is made in the Dar es Salaam numbering area that is divided into DSM North and DSM South Areas to provide enough capacity for the densely populated capital area.

The geographical areas to be used in the SPC numbering are shown in the Table 1.

Table 1: Geographic Signalling Area Codes

Code	Area Allocated
0	Dar es Salaam North
1	Dar es Salaam South
2	Coast, Morogoro, Mtwara and Lindi Regions
3	Zanzibar (including Pemba and Unguja) Regions
4	Mbeya, Ruvuma, Katavi, Songwe and Rukwa Regions
5	Dodoma, Iringa, Njombe, Singida and Tabora Regions
6	Arusha, Kilimanjaro, Manyara and Tanga Regions
7	Geita, Kagera, Kigoma, Mara, Mwanza, Shinyanga and Simiyu Regions

Sub-field ‘EDCBA’

The first sub-field to be transmitted (‘EDCBA’) shall define the exchange, i.e. the Signalling Point within a geographical area defined in the sub-field ‘HGF’.

5. Current Assignments

The following are the current ISPC and National SPCs assignment based on services as per descriptions provided above.

5.1. International Signalling Point Codes

The assigned SANCS to Tanzania by ITU are 6-080, 6-081 and 6-123. The assignment of ISPC to service providers is indicated in Table 2.

Table 2: International Signalling Point Codes Assignments

S/N	EXCHANGE OPERATOR	ASSIGNED ISPC (3-8-3)
1.	TANZANIA TELECOMMUNICATIONS CORPORATION	6-080-0
2.	TANZANIA TELECOMMUNICATIONS CORPORATION	6-081-0
3.	MIC TANZANIA PLC	6-080-2
4.	ZANZIBAR TELECOM PLC	6-080-3
5.	ZANZIBAR TELECOM PLC	6-080-7
6.	VODACOM TANZANIA PLC	6-080-4
7.	VODACOM TANZANIA PLC	6-081-3
8.	AIRTEL TANZANIA PLC	6-080-5
9.	AIRTEL TANZANIA PLC	6-081-5
10.	AIRTEL TANZANIA PLC	6-081-6
11.	AIRTEL TANZANIA PLC	6-081-7

S/N	EXCHANGE OPERATOR	ASSIGNED ISPC (3-8-3)
12.	VIETTEL TANZANIA PLC	6-081-1
13.	VIETTEL TANZANIA PLC	6-081-4
14.	SMILE COMMUNICATIONS TANZANIA LIMITED	6-123-0
15.	WIAFRICA TANZANIA LIMITED	6-123-1
16.	TANZANIA TELECOMMUNICATIONS CORPORATION	6-123-2
17.	TANZANIA TELECOMMUNICATIONS CORPORATION	6-123-3

5.2. National Signalling Point Codes

The assignment of National SPC to service providers is indicated in Table 3.

Table 3: National Signalling Point Codes (ISPCs) in Tanzania

SN	SERVICE	EXCHANGE OPERATOR	ASSIGNMENT SPC PLAN (4-2-3-5)
CALL CENTRES FOR LIFE AND SAFETY NUMBERS			1-0-0-21 to 1-0-0-31
1	POLICE CALL CENTRE (111/112)	TANZANIA POLICE FORCE	1-0-0-31
PUBLIC SWITCHED TELEPHONE NETWORK (PSTN)			
1	PSTN	TANZANIA TELECOMMUNICATIONS CORPORATION	1-Y-X-ZZ Except 1-0-0-21 to 1-0-0-31
2	PSTN	ZANZIBAR TELECOM TANZANIA PLC	2-Y-X-ZZ
VOICE OVER IP (VOIP)			4-Y-X-ZZ
1	VOIP	SIMBANET TANZANIA LIMITED	4-1-1-00 & 4-1-1-01
2	VOIP	STARTEL TANZANIA LIMITED	4-1-1-31
PUBLIC LAND MOBILE NETWORK (PLMN)			
1	PLMN	SMILE COMMUNICATION TANZANIA LIMITED	6-Y-X-ZZ
2	PLMN	MIC TANZANIA PLC	8-Y-X-ZZ

SN	SERVICE	EXCHANGE OPERATOR	ASSIGNMENT SPC PLAN (4-2-3-5)
3	PLMN	TANZANIA TELECOMMUNICATIONS CORPORATION	9-Y-X-ZZ
4	PLMN	ZANZIBAR TELECOM PLC	10-Y-X-ZZ
5	PLMN	VODACOM TANZANIA PLC	11-Y-X-ZZ
6	PLMN	AIRTEL TANZANIA PLC	12-Y-X-ZZ
7	PLMN	VIETTEL TANZANIA PLC	14-Y-X-ZZ
8	PLMN	WIAFRICA TANZANIA LIMITED	15-Y-X-ZZ
		RESERVED	0-Y-X-ZZ
		RESERVED	3-Y-X-ZZ

6. Future Assignments

The SPCs will be assigned on a continuous basis depending on the applications received and emerging new or operators in accordance with the published APPLICATION GUIDELINES AND FEES FOR NUMBERING RESOURCES.