

TEC

TELECOMMUNICATION ENGINEERING CENTRE

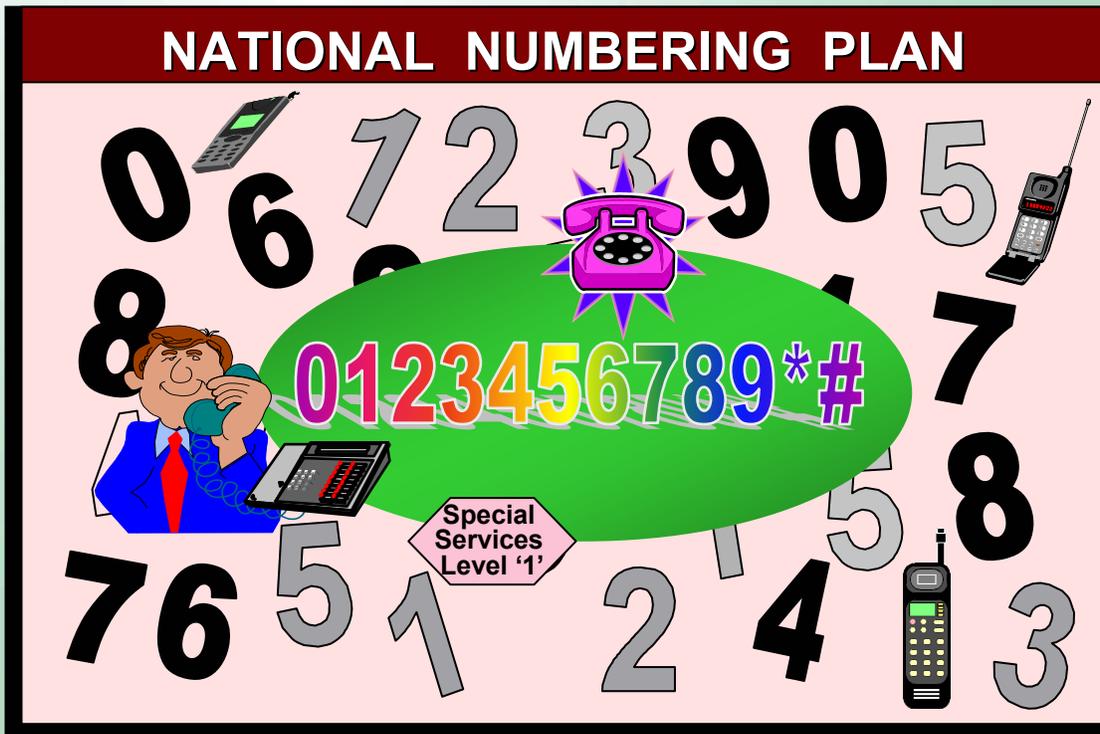
NEWSLETTER

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ISSUE 1

NATIONAL NUMBERING PLAN



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REVISED NATIONAL NUMBERING PLAN

DISCLAIMER

Extracts from 'Revised National Numbering Plan' given in this issue of TEC Newsletter are for information purposes only and shall not be taken as official communication for implementation or any other purpose. Neither the Editor nor TEC shall be responsible for any errors, omissions or incompleteness.

The Revised National Numbering Plan aims to meet the challenges of Multi-Operator, Multi-Service environment and it will be flexible enough to meet the numbering requirements for next 30 years without any change in its basic structure. The plan covers the numbering requirements of Basic, Cellular mobile and new telecom services and takes into account the allocation of different digits to enable user friendly dialing and uniform digit lengths.

Some of the salient features of the National Numbering Plan are as follows:

- Dialling procedure as per ITU-TE.164 has been followed.
- Short Distance Charging Area (SDCA) based Linked Numbering scheme for basic services.
- National (Significant) Number [N(S)N] is 10 digit for both the basic as well as cellular mobile services.
- The subscriber number (SN) for basic services will be 6, 7 or 8 digits depending upon the SDCA code.
- There is no change in the cellular mobile numbering structure.
- Levels 0, 1, 7, 8 and 9 shall not be used as first digit for exchange codes.
- There is no change in the numbering structure for paging services.
- Carrier Access Code (CAC) for National Long Distance (NLD) and International Long Distance (ILD) has been defined as '10'.
- Separate Carrier Identification Codes (CIC) have been earmarked for toll and non-toll quality NLD and ILD services.

- All the service providers shall use 100, 101 and 102 for Police, Fire and Ambulance uniformly.
- '107' has been allotted for 'Natural Calamities, Emergency Information & Accident Related services' like earth quake, floods, air and train accidents etc.
- IN service access, codes are shifted from 16XX to 18XX.
- Trunk services codes are shifted from 18X to 150X.
- Certain level 1 codes are earmarked for all service providers to offer various subscriber related services as per their wishes.
- Voice Mail services access code is shifted from 93 to 170.
- Enough spare levels/ codes are reserved for future needs.

National Numbering Scheme

Level '0':

Sub level '000'

The prefix '000' shall be used for Home country Direct Service (Bilateral) and International Toll Free Service (bilateral). The format used is '000 +Country Code (CC)+Operator Code' for Home country Direct Service except '0008000' which is used for Bilateral International Toll Free Service.

Sub level '0010' – International Carrier Access (Prefix) Code:

The prefix '0010' shall be used for selection of International carrier. It will be followed by International Carrier Identification Code (ICIC), CC and N(S)N.

The format shall be:

Prefix	International Carrier Identification Code	Country Code	National (Significant) Number
0010	ICIC	CC	N(S)N

Initially ICIC shall be a two-digit code. This will be sufficient for allotment to 100 ILD Service Providers. However to take care of all possible future requirements, length of ICIC would be reviewed and may be changed to a 3

digit code as and when required. The allotment of ICIC may start from '10'.

Sub level '00' – International Prefix:

The prefix '00' shall be used for International dialling. It will be followed by the CC and the N(S)N of the country to which that call is attempted. The format is as per ITU-T Recommendation E 164:

Prefix	Country Code	National (Significant) Number
00	CC	N(S)N

Sub level '010' – National Carrier Access (Prefix) Code:

The prefix '010' shall be used for selection of NLD Carrier. It will be followed by (National) Carrier Identification Code (CIC), and N(S)N as shown below:

Prefix	Carrier Identification Code	National (Significant) Number
010	CIC	N(S)N

Initially CIC shall be a two-digit code. This will be sufficient for allotment to 100 NLD Service Providers. However to take care of all possible future requirements, length of CIC would be reviewed and may be changed to a 3 digit code. The allotment of CIC may start from '10'.

For Intra Circle long distance service, the Carrier Access code shall be the same as applicable for NLD service. The CIC from '10' to '79' shall be allotted to NLD service providers. For the NLD service providers who are also Basic Service Operators (BSOs), same CIC shall be applicable for intra circle (service area) calls.

CIC from 80 to 99 shall be allocated to the BSOs who are not licensed to provide NLD service.

Sub level '0' – National Prefix:

The prefix '0' shall be used for NLD calls, intra service area (Circle) calls for Basic Services, calls from Basic Services to Cellular Mobile Services (where point of interconnect is not available in LDCA) and Cellular Mobile

Services to Basic Services. For calls within India, N(S)N will follow the prefix.

The format for Basic Services:

Prefix	National Destination Code	Subscriber Number
0	2/ 3/ 4 Digit SDCA Code	8/ 7/ 6 Digit SN

The format for Cellular Mobile Services:

Prefix	Cellular Mobile Services Access Code	MSC Code	Subscriber Number
0	2 Digit Code	3 digit	5 Digit SN

Sub level '011' to '089' – Geographical Number Range:

These codes are also called Trunk codes to identify a specified geographical area where a call is to be terminated. The National telecom Network in India has been divided area wise as:

- **SDCA**---- Short Distance Charging Area now called Local area
- **LDCA**---- Long Distance Charging Area comprising of several SDCAs

ITU-T Recommendation E.164 provides four options for National Destination Code structure. India has adopted type 2 for PSTN where NDC is the Trunk (Area) code assigned to each SDCA.

Each SDCA is allotted a unique Trunk code. There are 2645 SDCAs distributed in 322 LDCAs.

With increase of N(S)N to 10 digits, the present Scheme of SDCA link Numbering will be sufficient to cater for futuristic demand of more than 30 years. The Indian Telecom Network Numbering is based on SDCA link Numbering Scheme. Accordingly, 2645 codes would be required to cover the entire country, based on SDCA link Numbering Scheme. The length of the SDCA Code varies from 2 to 4 depending upon the size and telephone density requirements of the SDCA.

Sub level '09' – Service (Prefix) Codes:

The prefix in '09' level range is to be used for Services like Mobile, Satellite, INET, HVNET

and IN Services like Premium Rate and Universal Number Long Distance. INET Service which is presently working on 099 code shall be relocated under level 1 Services (171). This level shall be reserved for Mobile services along with new services which are likely to be introduced in future like Global Mobile Personal Communication via Satellite (GMPCS), Mobile Satellite Service (MSS), Universal Personal Telephone (UPT) and Digital Satellite Phone Terminal (DSPT) in addition to IN services. Levels '094' and '098' shall be used to access to cellular mobile services wherever point of interconnection is not available in the LDCA. Levels '091', '092', '093', '097' and '099' have been reserved to be used in future for cellular mobile services. Level '096' is spare and not allocated.

Level '1' – Special Services:

Level '1' is used for accessing special Services, like Emergency, supplementary Services, Inquiry and Operator assisted Services. Some sublevels have been allocated for use by access Providers (Operators). These levels can be used for providing the Services within their Network.

Level '2 to 6' – Basic Service Number:

The numbers starting from 2 to 6 are reserved for Basic Services within SDCA. The N(S)N is uniform and of 10 digits length. Level 2 is reserved for BSNL/MTNL and levels 3 & 4 are reserved for National level Operators operating in 75% or more out of 21 service areas in the country. Sub-level commencing from 5 will be allocated to other basic service operators. Level 6 has been reserved for allocation in future.

Level '7 & 8':

Level 7 & 8 are not being allocated for the present and the same shall be used for new services.

Level '9' – Services

Cellular Mobile Services

Levels '94' and '98' are used at present to access to cellular mobile services wherever point of interconnect is available in the LDCA.

Levels '91', '92', '93', '97' and '99' have been reserved to be used in future for cellular mobile services. Level '90' is spare and not allocated.

At present the following format is used for cellular mobile services and shall continue.

Prefix	MSC Code	Subscriber Number
2 digit	3 digit	5 digit

Paging Services

At present the following format is used for paging Services and shall continue.

96	Operator Code	Service Code (Auto/manual paging)	Pager Number
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Access to adjacent Area

'95' shall be used for accessing adjacent areas in the following format:

95	SDCA Code	Subscriber Number
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SPECIAL SERVICES

Number/ Prefix	Type of Services
(10)	Emergency Services
100	POLICE
101	FIRE
102	AMBULANCE
103 - 104	SPARE Not allocated
105	Hospital Related Services
1050	Heart Related.
1051	AIDS Related
1052	Blood Bank
1053	Eye Bank
1054 to 1058	Reserved, To be allocated
1059XX	Hospitals with specialisation
106	SPARE Not allocated
107	Natural Calamities, Emergency Information & Accident Related Information Services
1070	Relief Commissioner
1071	Air Accident
1072	Train Accident
1077	Control of District Collectors
108	SPARE Not allocated
109	Police Related Services
1090	Call alert (Crime Branch)
1091	Women crises response Centre
1092 to 1097	Reserved, To be allocated
1098	Children in difficult situation
1099	Central accident and Trauma services (CATS)
(11)	Access Provider Services
110-115	SPARE & Not allocated
	Supplementary Control Services

Number/ Prefix	Type of Services
116	Wakeup call Registration
117	Wakeup call Cancellation
118	Call waiting Registration
119	Call Waiting Cancellation
(12)	Supplementary Control Services
120 to 121	Supplementary Control Services, Reserved for access Providers
122	Supplementary Control Services.
1220	Call Forwarding (CF) Busy Registration
1221	CF Busy Cancellation
1222	CF No Reply Registration
1223	CF No Reply Cancellation
1224	CF Unconditional Registration
1225	CF Unconditional Cancellation
1226 to 1229	Reserved for access Providers
123	Dynamic STD Password Setting
124	Class of Service Registration
125YYY-129YYY	Services to be provided by Access Providers within their network
(13)	Travel Related Enquiry Services
130	Spare & Not allocated
131	Railway General Enquiry
132	Reserved, To be allocated
133	Railway Recorded Announcement/ IVRS services for Arrival/Departure and PNR Reservation services
134	Reserved, To be allocated
135	Spare & Not allocated
136	
1360 to 1362	Reserved for Travel Services
1363	Tourist information service
1364	Tourist information service for State Govt.
1365	Dial a CAB
1366	Weather Information
1367 to 1369	Reserved, To be allocated
137-139	Spare & Not allocated
(14)	Travel Enquiry Services, Airlines
140	Indian Airlines Services
141	Air India Services
142	Private airlines Services
143 to 149	SPARE & Not allocated
(15)	
150	Trunk Booking, demand Trunk and Telegram/Phonogram Services by Access Provider
151	Trunk and Telegram/ Phonogram Services by Access Provider
152 to 159	SPARE & Not allocated
(16)	SPARE & Not allocated
(17)	New Services
170	Voice Mail Service
171	Access to Data Services
172	Access to Internet Services
173 to 176	SPARE & Not allocated

Number/ Prefix	Type of Services
177	Hindi Vishesh Seva
178 to 179	SPARE & Not allocated
(18)	IN Services
180	IN Services
1800	Free phone service
1801	Virtual Private Network
1802	Virtual Card calling (VCC)
1803	Tele-voting (No charge)
1804	Account Card Calling (ACC)
1805 to 1809	Reserved, To be allocated
181	Reserved (IN services) & Not allocated
182 to 185	SPARE & Not allocated
186	IN Services (Charge)
1860	Universal Number (local)
1861	Tele-voting
1862 to 1869	Reserved, To be allocated
187-189	SPARE & Not allocated
(19)	Telecom Services
190 to 194	SPARE & Not allocated
195	Changed Number Announcement by Access providers
196	SPARE & Not allocated
197	Directory enquiry
198	Local complaints
199	Local Assistance

Notes:

1. The structure of Special Services numbers may vary from 3 to 6 digits.
2. **Spare & Not allocated:** These are the numbers for which services have not been defined and should not be allocated.
3. **Reserved, To be allocated:** These are the numbers to be allocated by the Number Plan Administrator.
4. **Reserved, Not allocated:** These are the numbers to be allocated in consultation with the DoT for similar services.

Change of STD code			
S. No.	Name of SDCA	Old STD code	New STD code
1.	Attingal	4727	470
2.	Chandragiri (Trupati)	8574	877
3.	Chinchwad	2134	212
4.	Irinjalakuda	4888	480
5.	Karimnagar	8722	878
6.	Khadakvasla	2110	230
7.	Kharar	1888	160
8.	Manjeri	4937	483
9.	Panipat	1742	180
10.	Sonipat	1264	130
11.	Tiruvilla	4736	469
12.	Warangal	8712	870

TABLE OF NATIONAL NUMBERING SCHEME

Number /Prefix		Services	Structure	Remarks
	Sub level			
0	000	Home Country Direct Service (International Service)	000+CC+Operator Code Except CC = '800'	International Called party pays
	000800	International Toll Free Service (Bilateral)	000800+CC+Toll Free Number	International Called party pays
	0010	International Carrier Selection	0010+ ICIC+ CC+ NDC+SN where ICIC will be between '10' to '99'	ICIC code to be allocated from '10' to '99'. ICIC = '00' to '09' reserved. Maximum of two Codes may be allotted to each Service Provider depending upon toll quality and non-toll quality Network.
	00	International Service	00 +CC+NDC+SN	As per ITU-T Rec. E.164 For pre-selection.
	010	National Long Distance Carrier selection	010+CIC+N(S)N where CIC is between '10' to '99'. CIC = '10' to '79' for NLDOs & NLDOs licensed for Basic services. CIC = '80' to '99' for BSOs licensed only for Basic services.	CIC = '00' to '09' are reserved. Provision may be kept for allotment of a maximum of two Codes to each Service Provider depending upon Toll Quality and Non-toll Quality Service.
	0	National Long Distance Service	0+NDC+SN Same for Mobile Services NDC+SN also called as National (Significant) Number N(S)N	As per ITU-T Rec. E.164 For pre-selection
	11XX to 89XX range	National Destination Code (NDC) [SDCA Code]	NDC=2 to 4 digits	
	0900	IN Service – Premium Rate	0900+XX + IN Number where 'XX' is SCP code from '00' to '99'	'XX' to be allocated to Intelligent Network Provider
	0901	IN Service - Universal Number (Long Distance)	0901+XX + IN Number where 'XX' is SCP code from '00' to '99'	'XX' to be allocated to Intelligent Network Provider
	0902	UPT Service	Not allocated	
	0903 to 0909	Reserved for IN Services	Not allocated	
	091 to 093	Reserved for Cellular Mobile	Not allocated	
	094	For dialling Cellular Mobile Service	0+94+MSC code+ SN MSC code = 000 to 999, SN = 5 digits	To be used wherever point of interconnect does not exist.
	0950	Reserved for Mobile Satellite Services	0950+XX+SN 'XX' = Service Provider	To be Allocated 'XX' = '00' to '99'
	0951	Reserved	Not allocated	
	0952	HVNET	0952+X+SN 'X' is Service Provider	
	0953	INMARSAT Mini-M	0953+X+SN 'X' is Service Provider	To be Allocated 'X' = '0' to '9'
0954	Digital Satellite Phone Terminal	0954+X+SN 'X' is Service Provider	To be Allocated 'X' = '0' to '9'	

Number /Prefix	Services	Structure	Remarks
	Sub level		
0955 to 0959	Reserved	Not allocated	
096	Spare	Not allocated	
097	Reserved for Cellular Mobile	Not allocated	
098	For dialling Cellular Mobile Service	0+98+MSC code+ SN MSC code = '000' to '999', SN = 5 digits	To be used wherever Point of Interconnect does not exist.
099	Reserved for Cellular Mobile	Not allocated	
1	Special Services	3 to 6 digits depending on Services.	
2 to 6	Basic Services Subscriber Number	SN = 6 to 8 digit length	
7 & 8	Reserved for future services	Not allocated	
9	Services		
90	Spare	Not allocated	
91 to 93	Reserved for Cellular Mobile.	Not allocated	
94	For dialling Cellular Mobile Service	94+MSC code+ SN MSC code = 000 to 999, SN = 5 digits	To be used wherever Point of Interconnect exists.
95	Access to adjacent / within Circle SDCA of a BSO	95+SDCA code of adjacent area+SN	
96	Paging Service	96+X+Y+ Pager number" 'X' is Service Provider code 'X' = '0' to '9' 'Y' is Service = '0' to '9' Pager = 6 Digit Number	'X' = '0' to '9' to be allocated. Accessible from Outside Service area.
97	Reserved for Cellular Mobile.	Not allocated	
98	For dialling Cellular Mobile Service	98+MSC code+ SN MSC code = '000' to '999', SN = 5 digits	To be used wherever Point of Interconnect exists.
99	Reserved for Cellular Mobile.	Not allocated	

Notes:

- 1. Reserved, Not allocated:** These are the numbers to be allocated in consultation with the DoT for similar Services under which they are categorised.
- 2. Reserved, To be allocated:** These are the numbers to be allocated by the DoT.
- 3. Spare and Not allocated:** These are the numbers for which Services have not been defined and should not be allocated.

Approvals issued by TEC upto 31.12.2002

Type Approvals.....	5911
Interface Approvals.....	3454
Service Test Certificates.....	1515
Grand Total	10880

**Approvals issued by TEC during the period
October 2002 to December 2002**

Type Approvals.....	111
Interface Approvals.....	54
Service Test Certificates.....	23
Total	188

IMPORTANT ACTIVITIES OF TEC DURING THE 3rd QUARTER OF 2002 - 2003

A. Preparation of GRs/IRs & Technical documents

Following GRs/IRs and Technical documents issued:

GRs

- CDoT Access Network based on 256P RAX.
- SMSC for PSTN/ISDN.
- Multi wave Length Meter.
- UTP to Optical Converter.
- 20m & 30m Narrow Base Light Weight Tower.

IR

- IR for Coin Box Telephone including Table Top Type.

Revised IRs

- Interworking between Basic Service Operator's Switch and PSTN/ PLMN.
- Interworking between MSC of GSM Cellular Mobile Network and PSTN/ PLMN.

B. Tests and Field trials

Tests/field trials have been carried out for:

- Interworking of CDOT AN-RAX with 5ESS, EWSD & OCB 283 exchanges.
- Fibre Distribution Management System of M/s SRV Telecom Pvt. Ltd.
- Integrated FWT Model LSP-340 of M/s LG with 16 KHz metering pulse and display of metered units in built-in display unit.
- Integrated Media Gateway of M/s 121 Transmatrix.
- Tensile Strength & Characteristics Impedance of Feeder Cable.

- Traffic Analysis and Report Compilation for EWSD exchanges.
- V-MUX of M/s Precision Electronics Ltd.
- VoIP equipment of M/s ITI.
- WLL CDMA equipment of M/s HFCL.

C. Other Activities

• Manufacturer Forum conducted for

- Digital Parameter of Low Speech Data Circuits
 - Electronic Telephone Instruments
 - Privately Owned PABX
 - Short Message Service Centre for SMS in PSTN/ISDN
 - SMS Phone for PSTN
 - Single Pair High Bit-Rate Digital Subscriber Line and Very High Bit-Rate Digital Subscriber Line
 - Telephone Call Simulator
 - Tester for measurement of Digital parameter of low speed data circuits
 - Videoconferencing service
 - 2-Line Feature Phone
 - 64 Kbps Line Drivers for use on 2 wire or 4 wire or 2/4 wire basis IVRS
 - 64 Kbps Line Drivers for use on 2 Wire or 4 Wire or 2/4 Wire basis Intrusion Detection System
- #### • Field Support
- Solution provided for interworking problem related to RBT on V5.2 for OCB283 and CorDect

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