



**EASTERN CARIBBEAN TELECOMMUNICATIONS AUTHORITY  
(ECTEL)**

**NUMBERING PLAN**

**CONSULTATION DOCUMENT  
(REV. MARCH 2005)**



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# ECTEL REGIONAL NUMBERING PLAN

## TABLE OF CONTENTS

	<b>Page No.</b>
<b>FOREWORD</b>	<b>4</b>
<b>1.0 INTRODUCTION</b>	<b>5</b>
1.1 The Background	
1.2 Rationale for Numbering Plan	
1.3 Numbers in ECTEL	
1.4 Availability of numbers	
1.5 Issues in Numbering	
<b>2.0 PURPOSE AND OBJECTIVES</b>	<b>7</b>
2.1 Purpose	
2.2 Why a Numbering Plan	
2.3 Ownership of the resource	
<b>3.0 SCOPE OF THE PLAN</b>	<b>8</b>
3.1 Assumptions and Constraints	
3.1 Existing Population and Growth Rate	
3.2 Technology in Use	
3.3 Regulatory Requirements	
<b>4.0 PRINCIPLES</b>	<b>10</b>
4.1 General Principles	
4.2 Special consideration	
4.3 ITU-T Recommendation E-164.	
4.4 Guidelines for the allocation, assignment and management of Central Office Codes (COC or NXX )	
4.5 Principles for the operation of non-geographic codes in ECTEL Member States	
<b>5.0 INTERNATIONAL LINKAGES</b>	<b>12</b>
5.1 Responsibilities	
5.2 International Agencies	
5.3 International Relations	
<b>6.0 PROCESSES AND PROCEDURES</b>	<b>14</b>
6.0 General Considerations	
6.1 Central Office Code Administration	
6.1.1 Assumptions and Constraints	
6.1.2 Assignment Principles	
6.1.3 Criteria for the assignment of Central Office Codes	
6.1.4 Responsibilities of the CO Code Administrator	
6.1.5 Responsibilities of Code Applicants and Holders	

	6.1.6	Criteria for Transfer of Central Office Codes	
	6.1.7	Reclamation Procedures	
	6.1.8	Responsibilities for Code Relief Planning	
	6.1.9	Appeals Process	
	6.1.10	Maintenance of these guidelines	
	6.1.11	Training	
	6.2	Uniform Dialing Plan	
	6.2.1	Overview	
	6.2.2	Existing Dialing Plan	
	6.2.3	Recommendations for Dialing Plan	
	6.2.4	Recommendation for Service Codes	
	6.2.5	Recommendation for Short Codes	
	6.2.6	Recommendation for Vertical Services Codes	
<b>7.0</b>		<b>ISSUES REQUIRING FURTHER CONSIDERATION</b>	<b>19</b>
	7.1	Introduction	
	7.2	ENUM	
	7.2	Number Portability	
	7.3	Carrier Identification Code (CIC)	
	7.4	SS7 Networks Codes/ Wireless ID/ Data Network ID	
	7.5	Numbers Exhaust	
	7.6	Non-Geographic Codes	
8.0		GLOSSARY	21
90		ANNEXES	36

FOREWORD

*[A FOREWORD FROM THE CHAIRMAN OF COUNCIL IS TO BE  
INSERTED HERE]*

# 1. INTRODUCTION

## 1.1 The Background

This is the Regional Numbering Plan of the Eastern Caribbean Telecommunications Authority (ECTEL). The Plan is a requirement of the ECTEL Treaty that mandates ECTEL to “recommend a regional policy for the conduct of telecommunications, in particular in relation to universal service, interconnection, numbering and pricing, and to monitor its implementation in the Contracting States.”

The Commission shall, in managing the national plan for the allocation of numbers among telecommunications providers, pay due regard to the existing allocation of numbers.

*This Plan contains:*

- the rationale for a Regional Numbering Plan
- the method used in designing the plan
- the purpose and objectives
- the scope of the plan
- principles used in the Plan
- International linkages
- Processes and procedures
- Issues for consideration;
- Definitions
- Glossary and
- Annexes

This version takes into account the comments received on the Consultation Document issued in November 2004.

## 1.2 Rationale for Numbering Plan

Numbers are a limited resource. A Numbering Plan is required to ensure equitable distribution and management of this resource, thereby promoting a vibrant competitive telecommunications environment.

The Telecommunications Acts<sup>1</sup> of the ECTEL Member States make provision for the National Telecommunications Regulatory Commissions to “establish and manage a national plan for the allocation of numbers among telecommunications providers by the Minister on the recommendation of ECTEL, in the manner prescribed.

The Commission shall, in managing the national plan for the allocation of numbers among telecommunications providers, pay due regard to the existing allocation of numbers. It is ECTEL’s responsibility to develop the Regional Plan.

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<sup>1</sup> <sup>1</sup> Commonwealth of Dominica ACT No 8 of 2000 Reg.#52; Grenada Act 31 of 2000 Reg. #51; St. Kitts/Nevis Act 12 of 2000 Reg. #32; Saint Lucia Act 27 of 2000 Reg. #52 St. Vincent and the Grenadines Act 1 of 2001 Reg. #50

### 1.3 Numbers in ECTEL

Governments in the OECS have had very limited intervention in the assignment of numbers prior to the liberalization of the telecommunications sector. The advent of competition and the desire to promote a competitive telecommunications environment require that a fair and equitable distribution system be developed for the distribution of numbers. This necessitates the development of national numbering plans and in keeping with the approach of developing a single telecommunications space there is need for a Regional Plan.

### 1.4 Availability of Numbers

Each of the five ECTEL States: Commonwealth of Dominica; Grenada; St. Kitts and Nevis; Saint Lucia and St. Vincent and the Grenadines, has its own area code assigned by the International Telecommunications Union (ITU) as follows:

Country	Assigned Area Code
Commonwealth of Dominica	767
Grenada	473
St. Kitts/Nevis	869
Saint Lucia	758
St. Vincent and the Grenadines	784

The current practice is to use the area code with a seven-digit telephone number representing (theoretically), the availability of up to ten million numbers for each Member State. There are some restrictions however on the numbers that can be used and the actual quantity available for each Member State would be eight million numbers.

### 1.5 Issues in Numbering

There are various issues in the management of numbers and among the most critical are:

- Central Office Code Administration;
- Uniform dialing Plan;
- ENUM;
- Home Number Identification Codes (HNIC's)
- Number Portability;
- Number Fees;
- Carrier Identification Codes; and
- Non-Geographic codes.

This Numbering Plan addresses directly all of the above but defers final resolution on the issues of Number Portability, HNI Codes, Number Fees and ENUM for subsequent consultations.

## **2.0 PURPOSE AND OBJECTIVES**

### **2.1 Purpose**

*The purpose of the Regional Numbering Plan is to:*

- Fulfill the legislative mandate of the NTRC's and ECTEL in the regulation of the numbers in the telecommunications sector;
- Provide a framework for the development of National Numbering Plans;
- Provide the policies to guide the management of the numbering resource in the ECTEL Member States;
- Allocate the national resource in a fair and transparent manner to facilitate the development of the telecommunications sector in the ECTEL Member States;
- Ensure consistency in the allocation and assignment of the limited resource;
- Avoid the premature exhaustion of the resource; and
- Eliminate all aberrations that currently exist in the exploitation of the number resource;

### **2.2 Why a Numbering Plan**

The incumbent operator previously did the administration of numbers. It is however a normal consequence of the liberalization process that this would be done by an independent regulator. In a liberalized environment the numbering plan should be administered in order to allow a fair and equitable competition among the different operators. Management of the numbering system is now done by the NTRC's in consultation with ECTEL.

The Numbering Plan for ECTEL must reflect the competitive telecommunication market for the country. Hence a competition-driven Numbering Policy is being developed and will be modified to accommodate new functions such as number portability, ENUM, non-geographic codes and carrier selection.

### **2.3 Ownership of the Resource**

Numbers are a limited resource of the Member States. In order to establish a fair and transparent process for the distribution of this resource the States have first established ownership through legislation and regulation. The Numbering Plan to is to administer this resource.

### **3.0 SCOPE OF THE PLAN**

#### **Scope**

The ECTEL Member States belong to the North American Numbering Plan (NANP). Each state has been assigned by the ITU its own area code or Number Plan Area (NPA), which is not expected to be exhausted in the immediate future considering the present population and its growth rate.

A word of caution however needs be inserted in that there is need to consider the growth in demand for numbers from new services that use great quantities of numbers. This growth in demand is countered by the trend of convergence where single numbers can now be used for a number of different services. ENUM is one such case where convergent services will be offered using single numbers.

The Plan contains:

1. The background and rationale for the Numbering Plan;
2. The Purpose and Objective of the Plan;
3. The Scope of the Plan including the assumptions, constraints and context for the development of the Plan;
4. The General Principles applied in the development of the Plan;
5. The International Linkages and inter-relationships between the various agencies in number administration;
6. The Processes and Procedures relevant to number resource management;
7. The guidelines for the allocation, assignment and management of the Central Office Codes (COC or NXX)
8. The principles and procedures for the assignment and use of the short codes
9. The application of ENUM in the ECTEL Member States;
10. Principles for the operation of non-geographic codes in ECTEL Member states;
11. All of the relevant forms and procedures for the management of the Numbering Resource;
- 12. A Glossary;**

#### **3.0 Assumptions and Constraints**

*The following assumptions have been used in developing this plan:*

- The population of the Member States will experience less than 5% growth over the next ten to fifteen years;
- Every person will have some means of communication that requires numbers and will impact on the numbers available in the nation specific NPA;
- The governments of the ECTEL Member States will provide the environment for growth of the telecommunications sector.

*A major constraint* is that there are significant differences in the existing dialing Plans.

#### **3.1 Existing Population and Growth Rate**

The existing population and growth rate will provide indicators as to the exhaust of the numbering resources in a particular NPA. In each NPA, there are approximately 8 million numbers using the maximum ten digit number format.

The analysis of population growth in the OECS shows that the growth for all States in the OECS is less than five percent for the periods 1975 – 2002 and 2002-2005<sup>2</sup>. Some countries, Grenada and St. Kitts, show negative growth. The conclusion is the Number Plan Areas (NPA) or area codes will not be exhausted for a considerable length of time. The local dialling plan will be using seven (7) digits while the overseas dialling plan for countries within the North American Plan (NANP) will be ten (10) digits in keeping with the recommendations of the NANP.

### 3.2 **Technology in Use**

The telecommunications services provided by the telephone companies in the ECTEL Member States use digital technology. The cellular providers use both TDMA and GSM technology.

### 3.3 **Regulatory Requirements**

The ECTEL Member States have decided that:

- a) Telecommunications services must be accessible and affordable to the population;
- b) Universal Service obligations are to be met by all licensed providers;
- c) All providers of telecommunications services must meet quality of Service Obligations.

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<sup>2</sup> UNDP Development Report

## 4.0 PRINCIPLES

### 4.1 General Principles

The Numbering Plan has been developed in accordance with:

- The relevant rules of the International Telecommunication Union Recommendations (ITU –R) regarding the integrity of numbering resources;
- The instructions in the resolutions adopted by ITU Plenipotentiary conferences relevant for the stability of the numbering plans, especially the E.164 plan;
- Ensuring the sovereignty of the Member States with regard to country code numbering plans and addresses;
- Maintaining the principles as enshrined in Recommendation E.164 of the ITU Telecommunication Standardization Sector, in whatever application they are used.

### 4.2 Special considerations

*The Plan has been developed giving special consideration to:*

- The principles concerning future numbering, naming, addressing and identification plans to deal with emerging services or applications and relevant number allocation procedures to meet telecommunication needs.
- The Recommendations and guidelines for international telecommunication numbering, naming, addressing and identification resources being known, recognized and applied by all and used to build and maintain confidence of all in the related services;
- Any necessary action to ensure that the sovereignty of Member States with regard to country code numbering, naming, addressing and identification plans is fully maintained, in accordance with ITU Recommendation E.164 and other relevant Recommendations;

### 4.3 ITU-T RECOMMENDATION E.164

The ITU-T Recommendation E. 164 is the international public telecommunication numbering plan.

This Recommendation provides the number structure and functionality for the three categories of numbers used for international public telecommunication – they are geographic areas, global services and Networks. For each of the categories, it details the components of the numbering structure and the digit analysis required to successfully route the calls. Annex A provides additional information on the structure and function of E.164 numbers. Annex B provides information on network identification, service parameters, calling/connected line identity, dialling procedures and addressing for geographic-based ISDN calls. Specific E.164-based applications, which differ in usage, are defined in separate Recommendations. The ECTEL Numbering Plan will follow the general principles of ITU-T Recommendation E. 164.

#### **4.4 The guidelines for the allocation, assignment and management of Central Office Codes (COC or NXX);**

The Central Office Code (COC) or NXX refers to the second three digit number in a ten digit telephone number e.g. in the ten digit number 758-453-xxxx, 453 is the COC or NXX. The services which use COC's are plain old telephone service (POTS), Centrex, Direct Inward Dialling, wireless services, pagers, facsimile and pay telephones. The ECTEL Member States are part of the North American Numbering Plan ( NANP ) and by virtue of this the telephone numbering plans and recommendations developed by the telephone industry committees in the USA are applicable to them . The North American Standards will be adopted in the development of the telecommunications infrastructure and the guidelines for Central Office Code allocation will be in keeping with recommendations made for the North American Numbering Plan.

*The Guidelines includes:*

- Implementation principles;
- Description of the Numbering database
- Who can apply for numbers
- Reserving numbers or codes;
- Assessment of applications;
- Response times;
- Conditions placed on allocations
- Withdrawal of reservations and allocations;
- Appeals procedure;
- Reporting, auditing and forecasting.
- 

#### **4.5 Principles for the operation of non-geographic codes in ECTEL Member States;**

##### 4.5.1 800 and 900 numbers

These numbers and their use will receive special treatment and a detailed section prepared on the application for numbers how they will be granted and the terms and conditions for their use will be presented in this section.

##### 4.5.2 Mirror Codes

The mirror codes were used in the Caribbean to facilitate access to the US 800 and 900 numbers. The incumbent has in place a paid 800 service in several of the ECTEL Member States. "400" Access codes are being used to access overseas 800 numbers. They were however removed from service as of April 1<sup>st</sup> 2004 and its inclusion as a section in the numbering plan is of questionable value. Paid "800" numbers will be used to replace the mirror codes.

## **5.0 INTERNATIONAL LINKAGES**

### **5.1 Responsibilities**

The National Telecommunications Regulatory Commissions (NTRC's) and ECTEL will be the entities that administer the Numbering Plan. ECTEL will provide the broad policy guidelines within the Regional Plan and provide advice on the management of numbers. The NTRC will in consultation with ECTEL implement the National Plan.

In the exercise of their responsibility there will be the need for interaction and consultation with several specialized bodies. ECTEL will establish and maintain the various international linkages required for the implementation of the national plans.

### **5.2 International Agencies**

*The organizations involved in the administration of numbers are:*

#### **5.1.1 NTRC- National Telecommunications Regulatory Commissions**

The NTRC's will be responsible for completing the National Numbering Plan in consultation with ECTEL and would be responsible for its implementation of the Plan.

#### **5.1.2 ECTEL- Eastern Caribbean Telecommunications Authority**

ECTEL will be responsible for the development of the Regional Plan and consulting with the NTRC's in the development and implementation of the National Plan. ECTEL will coordinate the interaction with the international agencies ensuring that the relevant obligations are met.

**5.1.3 NANPA - The North American Numbering Plan Administration** is responsible for the coordination and administration of the North American Numbering/Dialling Plans. These central administration functions are exercised in an impartial manner toward all industry segments while balancing the utilization of a limited resource.

**5.1.4 NANC -. The North American Numbering Council** NANC is a Federal Advisory Committee that was created to advise the Commission on numbering issues and to make recommendations, that foster efficient and impartial number administration. The NANC members are representatives from telecommunications carriers, state regulators, and consumer advocates.

**5.1.5 INC - Industry Numbering Committee**, a standing committee of the Industry Carriers Compatibility Forum (ICCF) that provides an open forum to address and resolve industry-wide issues associated with the planning, administration, allocation, assignment and use of the numbering resources and related dialling considerations for public telecommunications networks within the North American Numbering Plan (NANP).

**5.1.6 ATIS - Alliance for Telecommunications Industry Solutions** - a trade group open to membership of North American and World Zone 1 Caribbean telecommunications carriers, resellers, manufacturers, and providers of enhanced services. ATIS is heavily involved in standards issues including interconnection and interoperability.

**5.1.7 ITU- The International Telecommunication Union (“ITU”)** is a United Nations specialized agency that brings governments and industry together to coordinate the establishment and operation of global telecommunication networks and services; it is responsible for standardization, coordination and development of international telecommunications including radio-communications, as well as the harmonization of national policies.

**5.1.8 Telcordia** - This is a multi facted entity that addresses issues related to numbering. Telcordia has an Administrative Operating Company Number (AOCN) service facility that facilitates the rating and routing of telephone calls for assignees of Central Office (CO) Codes (NPA-NXX) and Thousands-Blocks (NPA-NXX-X)  
They maintain the necessary rating and routing for the Buisness Routing and Rating Database System (BIRRDS) and ensures that calls to a Service Provider (SP) are routed or rated correctly and that proper information is kept up to date in the BIRRDS.

**5.3 International relations.**

It is agreed that ECTEL will coordinate all activities and inter-relationships with the international agencies as these relate to the administration of numbers.

This is embodied in the Letter of Commitment attached as Annex # 27.

## **6.0 PROCESSES AND PROCEDURES**

### **6.0 General Considerations**

The process for the application of Numbers is as follows:

1. The applicant submits CO code Assignment Form (Annex 2 & 3) to the NTRC in the country of operation for certification.
2. Upon certification by the NTRC, the request is sent to ECTEL.
3. ECTEL reviews the application and acknowledges receipt of the application on the NTRC's Response/Confirmation Form (Annex 4) within 5 calendar days of receipt of the application.
4. The applicant is informed of the CO code assigned or its denial with reasons within 10 calendar days of receipt of the application.
5. The information for the TRA/BRIDS databases is then submitted to the appropriate party on Part 2 of the CO Code Assignment Request Form for input.

ECTEL is informed by the assignee that the CO code is in service within six months of the actual in service date on the Confirmation of Code In Service Form (Annex 5).

### **6.1 Central Office Code Administration**

The Central Office Codes (COC's) are the three digits immediately following the area code and are administered by the local regulator, the NTRC. These numbers generally identify the various operators and some operators use them to differentiate between different services.

The Plan provides the purpose and scope of regulating the central office codes, the assumptions and constraints and defines all relevant terms.

#### **6.1.1 Assumptions and Constraints**

1. Central Office Code assignment guidelines have been developed considering the current constraints and assumptions. The numbering resources are considered a public resource, assigned in a transparent and efficient manner and may be subject to an audit at any time.
2. The assumptions and constraints are outlined in Annex # 8.

#### **6.1.2 Assignment Principles**

The principles for the assignment of COCs are:

- CO codes (NXX's) are assigned to licensed operators for use in the facilities they own or control.
- These codes are for use on the public switched telephone network and not for use on private networks.
- CO codes (NXX's) must be assigned in an effective and efficient manner, as they are a finite resource. All applicants for initial central office codes must provide proof of being a licensed operator in the geographic area for which the central office code is being requested.
- All applicants for additional central office codes must provide proof of being a licensed operator in the areas for which the CO codes are being requested as well as additional information on the prescribed forms.

- The information submitted by all CO code (NXX) applicants must be uniform and shall be treated as proprietary and duly secured by the NTRC.
- CO codes (NXX's) shall be assigned in a fair and impartial manner to any applicant that meets the criteria for assignment
- Any operator that is denied the assignment of one or more CO codes (NXX's) under these guidelines has the right to appeal that decision.

These principles provide guidance on who are to be provided COCs, the conditions and the processes for verification.

### **6.1.3 Criteria for the Assignment of Central Office Codes**

The NTRC has specific rules by which every request for an initial / additional code is evaluated. All information provided shall be considered confidential so as not to put the operator at a competitive disadvantage. These rules are outlined in Annex # 9.

### **6.1.4 Responsibilities of the CO Code Administrator and Code holder**

The responsibilities of the CO Code Administrator and Code Holder are outlined in Annexes # 11 & 12.

#### **6.1.4. (i) Code Use**

CO code (NXX) assignments are made subject to the conditions listed in Section 4. A code assigned to an authorized operator, either directly by the CO Code Administrator or through transfer from another authorized operator, should be placed into service within 6 months after notification of the assignment of the code by the CO Code Administrator.

Certification of the service status of a CO code is mandatory and forms part of the conditions of these guidelines. The certification of the in service status of a code must be done on Confirmation of Code In Service Form (Annex # 5).

Should the applicant or code holder no longer has need for the code, the code should be returned to the CO Code Administrator for reassignment. If, after an audit exercise or other means, it is determined that a code is not in service after 6 months as noted above, the CO Code Administrator will request the return of the code.

#### **6.1.4.(ii) Assignee/Code Holder Responsibility**

The authorized operator to which a CO code(s) (NXX) has been assigned shall return the CO Code(s) to the CO Code Administrator under the following conditions:

- (a) It is no longer needed by the authorized operator for the purpose for which it was originally assigned.
- (b) The service for which it was assigned has been disconnected / withdrawn
- (c) The CO Code(s) was not activated within the time frame specified in these guidelines

The assignee may in the case (c) above, apply to the CO Code administrator for an extension date. This request must include the reason for the delay in putting the CO code into service and a commitment of a new activation date

#### **6.1.4.(iii) NPA Planning Information**

All CO code holders must supply, upon request of the CO Code Administrator, a forecast of CO code requirements, which will be used for projecting NPA exhaust

and NPA planning relief . All such data supplied shall be treated with confidentiality.

All information supplied by the CO code holders shall be submitted to the NTRC on the Form provides for such purpose and must be submitted by the requested date. Any reluctance or undue delay on the part of the CO code holder can result penalties.

#### **6.1.5 Criteria for the Transfer of Central Office Codes**

The procedure which follows outlines criteria which the CO Code Administrator uses in reviewing requests for transfer of a CO code (NXX) from one authorized operator i.e. the current holder of the CO code to another authorized operator ( the applicant) making the transfer request . This criterion applies to a situation where there is a single end user, the full NXX is assigned and there has been agreement between the authorized operators for such transfer pending approval of the government/regulatory agencies and the CO Code Administrator.

All time frames applicable to the assignment of a new code apply in the case of a transfer. The time frames needed to perform network and other rearrangements, where necessary, associated with the transfer are not included in this guideline.

The applicant (i.e. the authorized operator who is the recipient of the CO code (NXX)) must complete and submit a CO Code Request Form with a letter from the current CO code holder certifying that there is agreement to transfer the CO Code in question.

The CO Code Administrator, upon approval of the request, will liaise with TRA and BRIDS for the relevant changes to the databases. Any costs associated with the updating of these databases will be borne by the applicant in addition to any administrative costs.

#### **6.1.7 Reclamation Procedures**

The CO Code (NXX) Administrator, the NTRC will communicate with any authorized operator who has been identified as having CO codes in their possession, which should have been returned to the Administrator for subsequent re-assignment. The CO code(s) (NXX) which should be returned to the Administrator must fall within the categories outlined in Annex # 13.

#### **6.1.8 Responsibility for Code Relief Planning**

1. CO code (NXX) planning relief is the sole responsibility of the CO Code (NXX) Administrator .
2. Responsibilities of the Authorized Operators:  
The responsibilities of the Authorized Operators are to:
  - Provide accurate data for the Central Office Code Utilization survey by due date
  - Cooperate fully with the annual audit
  - Participate in the discussions with the CO code Administrator on measures to be adopted to make efficient and effective use of CO codes.

### **6.1.9 Maintenance of these guidelines**

6.1.10.(i) These guidelines may be reviewed and modified as required by a committee established by the CO code (NXX) Administrator and comprising representatives of the regulatory authority in the ECTEL membership. Consultation with the authorized operators will constitute part of the deliberations of this committee. The committee will not be bound by recommendations made by the authorized operators.

6.1.10.(ii) the authorized operator(s) may submit suggestions with justifications, in writing, for modification to the current guidelines

6.1.10.(iii) The committee will decide on suggested changes by consensus. Every effort will be made to accommodate the special situations peculiar to the individual ECTEL member territory and authorized operator(s).

6.1.10.(iv) All regulatory authorities of the ECTEL members will be issued the modified guidelines with the appropriate covering letter .

6.1.10.(v) All authorized operators will be advised by the CO Code (NXX) Administrator that the CO Code (NXX) Assignment guidelines have been modified and the effective date of the modified guidelines. They will be advised as to where to obtain a copy for their use.

### **6.1.11 Training**

Training for the administrators in numbers management and administration will be provided by ECTEL.

## **6.2 Uniform Dialing Plan**

### **6.2.0 Overview**

The Member States of the Eastern Caribbean Telecommunications Authority belong to the North American Numbering Plan (NANP). Each State has been assigned its own area code (NPA), which will not exhaust in the foreseeable future considering the present population and its growth rate.

A Uniform Dialling Plan will be adopted for the member States of ECTEL using the following format:

1. Local calls (within a nation) – seven (7) digits consisting of  
CO code (3 digits) + subscriber number (4 digits)
2. Calls outside the nation but within the North American Numbering Plan- (NANP) – ten (10) digits consisting of  
NPA (3 digits) + CO code (3 digits) + subscriber number (4 digits)

3. Calls outside the North American Numbering Plan (NANP) up to 13 digits consisting of 011 + country code + significant *number*
- 4.

### **6.2.1 Recommendation for Dialling Plan**

The following dialling Plan is recommended for the ECTEL Member States.

1. All local or home NPA calls be seven (7) digits
2. All overseas calls within the NANP be ten (10) digits
3. All non-World Zone 1 calls remain as is, i.e. 011 prefix + country code + national significant number

In other words:

Local calls – seven (7) digits CO code (NXX) + xxxx

Overseas calls within the NANP (WZ1)–ten (10) digits NPA + CO code (NXX) + xxxx

Non World Zone 1 calls – 011 prefix + country code + national significant number (up to 13 digits)

### **6.2.2 Recommendation for service codes, short codes, and vertical services codes**

Eastern Caribbean Telecommunications Authority (ECTEL) will conduct specific consultations on the use of the various codes.

The consultation would seek to:

- a) Review the assignment and use of service codes, short codes and vertical service codes with a view to standardizing the codes across the ECTEL Member States.
- b) Formulate an implementation plan to bring the codes in (a) in line with the recommendations of the Industry Numbering Committee for nations belonging to the North American Numbering Plan.

It is of benefit to do so because of the community of interest between the islands and to enable citizens to access services without having to resort to a telephone directory for common services. It will also assist visitors in using the telephone services in the islands.

It must be emphasized that the assignment of CO codes, short codes, service codes and vertical service codes must be done in such a manner so as to maximize the finite numbering resources. The efficient utilization of the numbering resource is necessary as new technologies and services become available and may be demanding numbers for their application. It is therefore critical that there is strict adherence to the guidelines for the assignment of CO codes and the management of the numbering resources in the OECS. The implementation of a Uniform Dialling Plan will lay the foundation for the successful management and assignment of the numbering resources in the member States of the OECS.

## **7.0 ISSUES REQUIRING FURTHER CONSIDERATION**

## **7.1 Introduction.**

### **7.2 ENUM**

ENUM is a protocol that is the result of work of the Internet Engineering Task Force's (IETF's) Telephone Number Mapping working group. The charter of this working group was to define a Domain Name System (DNS)-based architecture and protocols for mapping a telephone number to a Uniform Resource Identifier (URI), which can be used to contact a resource associated with that number. The protocol itself is defined in the standards track document "E.164 number and DNS" (RFC 2916) that provides facilities to resolve E.164 telephone numbers into other resources or services on the Internet. ITU-T Recommendation E.164 is the international public telecommunication telephony numbering plan. The syntax of Uniform Resource Identifiers (URIs) is defined in RFC 2396 (1998). ENUM makes extensive use of Naming Authority Pointer records defined in RFC 2915 in order to identify available ways or services for contacting a specific node identified through the E.164 number.

### **7.2 NUMBER PORTABILITY**

This is a complicated issue, which will require an analysis of the cost benefit analysis of each type of number portability and will be the subject of further analysis and consultation.

The key issues to be considered are:

- What types of portability are to be considered
  - Geographic portability
  - Portability between carriers
  - Portability within a given state vs. any ECTEL State;
  - Portability between fixed and mobile services
- What is the cost of the various types of portability;
- Who will cover the cost of portability;
- How will the various cost elements be apportioned;

### **7.3 CARRIER IDENTIFICATION CODE (CIC)**

The Country Identifier Codes (CIC) and its application have a number of key issues to be considered.

This issue requires further consultation.

### **7.4 SS7 NETWORKS CODES/ WIRELESS ID/ DATANETWORK ID**

Consultation will be held to develop a position on these issues.

### **7.6 NON-GEOGRAPHIC CODES**

#### **800 and 900 numbers**

These codes are non-geographic codes and not directly under the administrative control of ECTEL nor NTRC's.

A number of administrative procedures are to be developed to cover the allocation of these numbers and to ensure that those numbers in the control of existing providers are assigned in a fair and transparent manner.

A number of guidelines to address advertising on these pay services are also being completed and included in annex #24 for comment.

## 8.0 GLOSSARY

### 8.1 Glossary of Terms

<b>Access Network</b>	means the network to which the caller is connected directly
<b>AOCN Service</b>	Administrative Operating Company Number (AOCN) Service is the service provided by an administrator for the facilitation of the inputting and maintaining the necessary rating and routing information in the Telcordia® Business Information Routing and Rating Database System (BIRRDs).
<b>Additional CO Code (NXX)</b>	A code assigned to a switching entity or point of interconnection subsequent to the assignment of an initial code or first code for the same purpose as a code that was previously assigned to the same switching entity or point of interconnection . A “ Growth code” is a code requested when the line numbers available for assignment in a previously assigned NXX code will not meet expected demand.
<b>Authorized Operator</b>	A telecommunications services provider who has been approved to provide specified telecommunications services in a designated geographic area by the regulatory authorities in a country and has received the licence to do so
<b>Basket</b>	means a service, or group of services, for which an end-user can pre-select one carrier network for the provision of that service or group of services.

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® Telcordia is a registered trademark and Telcordia LERG Routing Guide, Telcordia TPM Data Source and Telcordia Routing Administration (TRA) are trademarks of Telcordia Technologies, Inc.

<b>BIRRDS</b>	Business Information Routing and Rating System (BIRRDS) is a centralized database used to collect pertinent data that supports the routing and rating of local exchange calls within the Public Switched Telephone Network (PSTN). Output of BIRRDS includes a monthly Telcordia® LERG™ Routing Guide (LERG) that serves as a recognized source for common and consistent reporting of routing information to interexchange carriers and the telecommunications industry in general. Another output is the Telcordia® TPM™ Data Source which provides information for the rating of calls within the PSTN.
<b>Carrier Selection</b>	means the mechanism that allows customers to choose between carrier network providers to carry their long distance calls essentially but not exclusively
<b>Carrier Network</b>	means a network to which the caller is not directly connected to, consisting of transmission lines and exchanges providing transmission between access networks
<b>Call-by-call selection</b>	means selection used when a user has the possibility to dial in each call a carrier that he wants to use usually by making use of a prefix
<b>Central Office Code</b>	The second set of three digits after the NPA code in a ten digit NANP area address . Central office codes are in the form “NXX”, where N is a number from 2 to 9 and X is a number from 0 to 9. Central office codes are commonly referred to as “NXX codes” .

<b>CLLI</b>	Common Language Location Identifier is an eleven-character descriptor of a switch and is used for routing calls.
<b>CO Code ( NXX) Exhaust</b>	A point in time at which the quantity of T N's within CO codes (NXX) which are " Available for Assignment" equals zero within a switching entity/POI or, conversely, when the quantities of "Working Telephone Numbers" plus "Telephone Numbers Unavailable for Assignment" equal 10,000 times the quantity of existing CO codes(NXX) assigned to a switching entity/POI . Where CO code sharing occurs or partial CO codes are assigned to a switching entity/ POI, the latter number should be adjusted accordingly.
<b>Certify</b>	<p>(When used by the applicant ): As part of the Central Office Code ( NXX) Assignment request , to confirm , through a formal statement information contained within the assignment request is true, accurate and complete to the best of his/her knowledge.</p> <p>(When used by the regulator): Where applicable , to authorize, in writing , an entity to provide a telecommunications service in the relevant geographic area . Such authorization is the responsibility of the appropriate regulatory agency .</p>

<b>COCUS</b>	Central Office code Utilization
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	Survey (COCUS) is conducted annually by the CO Code Administrator from input received from the authorized operators in order to monitor central office code utilization, projected exhaust of the NPA and demand for new Nap's to provide code relief . The purpose of COCUS is to provide an annual over view of both present and projected CO code (NXX) utilization for each NPA in the OECS.
<b>Code Administrator</b>	The appointed authority responsible for the administration of NXX's within the Nap's of the OECS members.
<b>Code holder</b>	An authorized operator who is the assignee of a full NXX
<b>Code Protection</b>	Code protection is an arrangement where a central office code assigned in one NPA is not assigned in an adjacent NPA , thereby becoming protected to allow 7-digit dialling across the common boundary. It is not expected that this will be instituted in the OECS at this time .
<b>Conservation</b>	Consideration given to the efficient and effective use of a finite numbering resource in order to minimize the cost and need to expand its availability in the introduction of new services, capabilities and features
<b>Effective Date</b>	The date by which routing and rating changes within the PSTN must be complete for the assigned code. Also, the date by which the assigned code becomes an active code .

	standing committee of the Industry Carriers Compatibility Forum (ICCF) that provides an open forum to address and resolve industry-wide issues associated with the planning, administration, allocation, assignment and use of the numbering resources and related dialling considerations for public telecommunications within the North American Numbering Plan (NANP)
<b>Initial Code</b>	The first geographic NXX code assigned at a unique switching entity or point of interconnection.
<b>In Service</b>	An active code in which specific subscribers or services are utilizing assigned telephone numbers.
<b>Jeopardy NPA</b>	A jeopardy condition exists when the forecasted and / or actual demand for NXX resources will exceed the known supply during the Planning / implementation interval for relief. Accordingly, pending exhaust of NXX resources within an NPA does not represent a jeopardy condition if NPA relief has been or can be planned and additional NXX's associated with the NPA will satisfy the need for new NXX codes.
<b>LERG</b>	Local Exchange Routing Guide: contains Information about the local routing data obtained from the Traffic Routing Administration (TRA).

<b>Months to Exhaust</b>	This is used by the assignee as one
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	<p>of the means of justifying the need for a new NXX in a given switching entity/POI. It is also used by the CO code Administrator to determine CO code exhaust . The formula used is :</p> $\text{TN's Available for Assignment} = \frac{\text{Growth ( Quantity of lines added per month )}}{\text{TN's Available for Assignment}}$
<b>Multi-basket</b>	means a pre-selection requirement whereby an end-user can pre-select a separate carrier provider for the provision of each pre-selectable basket
<b>NANP</b>	The North American Numbering Plan is a numbering architecture in which every station in the NANP Area is identified by a unique 10-digit address consisting of a three-digit NPA code, a three-digit central office code in the form NXX, and a four-digit line number of the form XXXX.
<b>NANPA</b>	North American Numbering Plan Administration is responsible for the coordination and administration of the North American Numbering/Dialling Plans. These central administration functions are exercised in an impartial manner toward all industry segments while balancing the utilization of a limited resource.
<b>NANP Area</b>	Consists of the United States and its territories, Canada and the English speaking nations in the Caribbean and the Dominican Republic .

<b>NPA</b>	<p>Numbering Plan Area, also called area code. A NPA is the first three-digit code of a 10 digit NANP format that applies throughout the NANP area. NPA's are of the form NXX where N represents the digits 2-9 and X represents any digit from 0-9. In the NANP, NPA's are classified as follows:</p> <p>Geographic – these NPA's correspond to discrete geographic areas or countries, as in the case of the Caribbean, within the NANP.</p> <p>Non-geographic- these NPA's do not correspond to discrete geographic areas, but are assigned for services with attributes, functionalities, or requirements that transcend specific geographic boundaries e.g. NPA's in the N00 format such as 800.</p> <p>NPA Code Relief NPA code relief refers to an activity that must be performed when an NPA near exhaust of its 792 NXX capacity.</p>
<b>NPA Relief Date</b>	<p>The date by which the NPA is introduced and routing of normal commercial traffic begins.</p>
<b>Numbering Plan</b>	<p>means a plan that specifies the format and structure of the numbers used within that plan. It typically consists of decimal digits segmented into groups in order to identify specific elements used for identification, routing and charging capabilities. <i>(ITU-T Recommendation E.16)</i></p>
<b>Number Portability</b>	<p>means the ability of a customer to change the carrier or service provider supplying a particular telecommunications service, without having to change their number</p>

<b>Operating Company Number (OCN)</b>	A code used in the telephone industry to identify a telephone company.
<b>Personal Number Services</b>	means services that allow an end-user to have a discrete number that is not permanently associated with a physical network termination point but, rather, with a particular end-user.
<b>Premium Rate Services</b>	means services for which the caller pays a premium over and above the cost of conveying the call.
<b>Pre-selection</b>	means selection used when a user has the possibility to pre-select his carrier beforehand. In this case, it is not necessary to dial the carrier code.
<b>PSTN</b>	means the Public Switched Telephone Network
<b>PLMN</b>	means the Public Land Mobile Network  Point of Connection (POI) The physical location where a carrier's connecting circuits interconnect for the purpose of interchanging traffic on the PSTN.
<b>Premature Exhaust</b>	Reference to NANP : Premature exhaust means the exhaust of NANP resources much sooner than the Reference to NPA: Premature exhaust is when a specific date for NPA relief has been established and the NPA is projected to exhaust prior to that date. best industry projections

<b>Private Networks</b>	Private networks are composed of stations, which are not directly accessible from all PSTN stations via the use of NANP E.164 numbers.
<b>PSTN</b>	Public Switched Telephone Network. The PSTN is composed of all transmission and switching facilities and signal processors supplied and operated by all telecommunications common carriers for use by the public. Every station on the PSTN is capable of being accessed from every other station on the PSTN via use of the NANP E.164 numbers.
<b>RBDS</b>	See TRA.
<b>Reassignment</b>	Refers to the transfer of a working or assigned NXX from one switching entity/POI to another.
<b>Reserved CO Codes</b>	A reserved code is an NXX code that has been temporarily set-aside for an applicant for future use, and, is therefore, not to be immediately activated. Code reservation may be used, for example, by new entrants who need to prepare their switches before they are ready to offer service to subscribers. In addition, a reserved code is an NXX code that has been set aside for potential future use but is not associated with any specific applicant.
<b>Single basket</b>	means a pre-selection requirement whereby end-users can pre-select one carrier network provider for the provision of a number of services.

<b>Shared Cost Services</b>	means services for which callers only pay a proportion of the charge for conveyance.
<b>Switching Entity</b>	An electromechanical or electronic system for connecting lines to lines, lines to trunks or trunks to trunks for the purpose of originating/terminating PSTN calls. A single switching system may handle several central office codes.
<b>TN's Available for Assignment</b>	The quantity of telephone numbers within existing CO codes (NXX) which are immediately available for assignment to subscriber access lines or their equivalents within a switching entity/POI.
<b>TN's Unavailable for Assignment</b>	The quantity of telephone numbers within existing CO codes (NXX) which are neither "Working Telephone Numbers" nor available for new assignments as working telephone numbers within a switching entity/POI. Such numbers include numbers required for maintenance testing, numbers reserved for specific customers or services, disconnected numbers on intercept, pending connects or disconnects ,etc.
<b>TRA</b>	Traffic Routing Administration ( also known as RBDS- Routing Data Base System) is a service provided by Telcordia Technologies . The database contains a complete description of all Local Exchange Companies' networks in the NANP Area ( except, currently Canada) and pertinent information relating to the networks of other code holders. This provides information for,(1) message routing, (2) common channel signaling call set up routing, and (3) operator service access routing.

<b>Un-assignable Code</b>	An “un-assignable” code is an NXX code designated by the administrator, which will not be made available for assignment to any code applicant . e.g. the code “911” will not be assigned as a CO code.
<b>Working Telephone Numbers(TN’s)</b>	The quantity of telephone numbers within existing CO codes (NXX) which are assigned to working subscriber access lines or their equivalents e.g. direct inward dialling trunks, paging numbers, special services, temporary local directory numbers (TLDNs) etc within the switching entity/POI.

*\*Most of these definitions have been taken from the industry standard INC document – INC 95-0407-008.*

## 8.2 Glossary of Acronyms<sup>3</sup>

A6	DNS Resource Record used to look up 128-bit IPv6 Address
AAAA	DNS Resource Record to help transition and coexistence between IPv4 and IPv6 networks
ACE	ASCII Compatible Encoding
APNG	Asia Pacific Networking Group
ARIN	American Registry for Internet Numbers
BIND	Berkeley Internet Name Domain
ccTLD	Country Code Top Level Domain
DES	Data Encryption Standard, widely-used method of data encryption
DIG	Domain Internet Groper
DIN	Deutsches Institut für Normung
DNAME	DNS Resource Record providing capability to map entire sub tree of a DNS name space to another domain (RFC 2672)
DNS	Domain Name System
DNSSEC	Domain Name System Security
DOC	US Department of Commerce
E2U	E.164 to URI resolution (specific type of NAPTR service)
ENUM	IETF Telephone Number Mapping Working Group and resultant protocol
GATS	General Agreement on Trade in Services
GIC	Group Identification Code
GOC	Groups of Countries
GPS	Global Positioning System
GTLD	Generic Top Level Domain
GTLD-MOU	Generic Top Level Domain Memorandum of Understanding
HTTP	Hypertext Text Transfer Protocol
IAB	Internet Architecture Board

<sup>3</sup> Source - International Telecommunications Union.

IAHC	International Ad Hoc Committee
IANA	Internet Assigned Numbers Authority, now part of ICANN
IC	Identification Code
ICANN	Internet Corporation for Assigned Names and Numbers
IDNS	International Domain Names
iDNS	Internationalized Multilingual Multiscript Domain Names Service
IETF	Internet Engineering Task Force
INTUG	International Telecommunications User Group
IP	Internet Protocol
ISOC	Internet Society
ISP	Internet Service Provider
ITU	International Telecommunication Union
ITU-T	ITU Telecommunication Standardization Sector
JIS	Japanese Industrial Standard
KEY	DNS Resource Record type used in DNSEC
LDAP	Lightweight Directory Access Protocol
MIB	Management Information Base
MINC	Multilingual Internet Names Consortium
MRTG	Multi Router Traffic Grapher
NAPTR	Naming Authority Pointer (RFC 2915)
NIST	US National Institute of Standards and Technology
NOTIFY	Extension to DNS protocol defined in RFC 1996
NP	Number Portability
NSF	US National Science Foundation
NSI	Network Solutions Incorporated
NTPD	Network Time Protocol Daemon
NXT	DNS Resource Record type used in DNSEC
PSTN	The Public Switched Telephone Network

QoS	Quality of Service
RBL	Real-time Black hole List
RFC	Request for Comments, an IETF-related document
RFP	Request for Proposals
RIPE	Réseaux IP Européen
RIPE-NCC	RIPE Network Coordination Center
RLOGIN	UNIX Remote Logon command
RR	DNS Resource Record
RRDtool	Round Robin Database Tool
RSH	UNIX Remote Shell command
RTT	Round Trip Time
SG2	ITU-T Study Group 2
SIG	DNS Resource Record type used in DNSEC
SIP	Session Initiation Protocol
SLA	Service Level Agreement
SNMP	Simple Network Management Protocol
SOA	Start of Authority
SOA	Start of Authority DNS Resource Record
SPAM	Unsolicited Commercial Email
SSHD	Secure Shell Daemon
TLD	Top Level Domain
TSB	Telecommunication Standardization Bureau
TSIG	Transaction Signatures
TSON	TSB Telecommunication, Operation and Numbering Services Unit
TSP	Telephone Service Provider
UCE	Unsolicited Commercial Email
UIFN	Universal International Freephone Numbers
URI	Uniform Resource Identifier

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URL	Uniform Resource Locator
VGRS	Verisign Global Registry Services
VoIP	Voice over IP
VPN	Virtual Private Network
WG	Working Group
WIPO	World Intellectual Property Organization
WP1/2	Working Party 1 of SG 2
WTO	World Trade Organization
WTSA	World Telecommunication Standardization Assembly

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Source: ITU Listing of Acronyms.

**9.0****ANNEXES**

This document contains Twenty eight (28) Annexes.  
Annex 1 provides the list of these Annexes.

<b>Annex 1</b>	<b>List of Annexes in Numbering Plan</b>
<b>Annex 2</b>	<b>Central Office Code (NXX) Assignment Request – Part 1</b>
<b>Annex 3</b>	<b>Central Office Code (NXX) Assignment Request Part 1 Footnotes</b>
<b>Annex 4</b>	<b>NTRC's Response/Confirmation</b>
<b>Annex 5</b>	<b>Confirmation of Code In Service</b>
<b>Annex 6</b>	<b>Request for additional CO Code Assignments</b>
<b>Annex 7</b>	<b>Requesting a central office code - the process</b>
<b>Annex 8</b>	<b>Assumptions and constraints in the Administration of Codes</b>
<b>Annex 9</b>	<b>Principles for the assignment of Central Office Codes</b>
<b>Annex 10</b>	<b>Rules for the assignment of Central Office Codes</b>
<b>Annex 11</b>	<b>Responsibilities of the Codes NTRC</b>
<b>Annex 12</b>	<b>Responsibilities of the Code holder</b>
<b>Annex 13</b>	<b>Categories for the return of Codes</b>
<b>Annex 14</b>	<b>Proposed time lines for processing of code request</b>
<b>Annex 15</b>	<b>Uniform Dialling Scheme</b>
<b>Annex 16</b>	<b>Service Codes in ECTEL Member States</b>
<b>Annex 17</b>	<b>Short Codes in ECTEL Member States</b>
<b>Annex 18</b>	<b>Vertical Service Codes in ECTEL Member States</b>
<b>Annex 19</b>	<b>Short Codes in the USA</b>
<b>Annex 20</b>	<b>N11 Codes in ECTEL Member States</b>
<b>Annex 21</b>	<b>North American Numbering Plan recommended vertical service codes (VSC's)</b>
<b>Annex 22</b>	<b>Use of HNIC in ECTEL Member States</b>
<b>Annex 23</b>	<b>Table of Numbers allocated in ECTEL Member States</b>
<b>Annex 24</b>	<b>Guidelines for Advertising using numbering resources</b>
<b>Annex 25</b>	<b>Draft Agreement for the surrender of Codes.</b>
<b>Annex 26</b>	<b>References to Standards Related Materials for Numbering</b>
<b>Annex 27</b>	<b>ENUM</b>
<b>Annex 28</b>	<b>Letter of Commitment by NTRC's</b>

**Annex 2**

Central Office Code (NXX) Assignment Request – Part 1

**Type of Application:**       New  Change<sup>1</sup>       Delete

**1.0 GENERAL INFORMATION**

**1.1 Contact Information:**

Code Applicant:

Company/Entity Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, Country: \_\_\_\_\_

Phone: \_\_\_\_\_ FAX: \_\_\_\_\_ E-Mail: \_\_\_\_\_

Code NTRC:<sup>2</sup>

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, Country: \_\_\_\_\_

Phone: \_\_\_\_\_ FAX: \_\_\_\_\_

**1.2 NPA:** \_\_\_\_\_ **OCN:**<sup>3</sup> \_\_\_\_\_

Switching Identification (Switching Entity/POI)<sup>4</sup> \_\_\_\_\_

Locality/City/Wire Centre: \_\_\_\_\_ Rate Centre:<sup>5</sup> \_\_\_\_\_

Homing Tandem Operating Co.: Tandem Homing CLLI:<sup>7</sup> \_\_\_\_\_

Route same as: NPA \_\_\_\_\_ NXX \_\_\_\_\_ Rate Centre same as: NPA

NXX \_\_\_\_\_

**1.3 Dates:** Date of Application: \_\_\_\_\_ Requested Effective Date:<sup>8 9</sup> \_\_\_\_\_

**1.4 Type of company/entity requesting the code:**

a) \_\_\_\_\_ (LEC, IC, CMRS, Other)

b) Type of service: \_\_\_\_\_ (e.g., Cellular - Type 2)

c) Is certification required? Yes \_\_\_\_\_ No \_\_\_\_\_

1) If no, explain: \_\_\_\_\_

2) Does your company have certification? Yes \_\_\_\_\_ No \_\_\_\_\_

i) If yes, what type?

ii) If no, explain:

d) Code Assignment Preference (Optional)

Codes that are undesirable, if any  
Type of change:

---

**1.5** Type of Request (Initial, growth, etc.):

Pool Indicator \_\_\_\_\_(YES)<sup>10</sup>

**1.6** NPA Jeopardy Criteria Apply: Yes \_\_\_\_\_ No \_\_\_\_\_

**1.7** Code request for new service(Explain):

**1.8** Part 2 is attached \_\_\_\_\_ Part 2 is not attached \_\_\_\_\_ for TRA  
(RDBS) & BRIDS<sup>11 12</sup>

I hereby certify that the above information requesting an NXX code is true and accurate to the best of my knowledge and that this application has been prepared in accordance with the current Central Office Code (NXX) Assignment Guidelines dated March 3, 2005.

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Signature of Code Applicant<sup>14</sup>

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Title

**Date**

### **Annex 3**

#### **Central Office Code (NXX) Assignment Request-Part1**

##### **Footnotes**

Identify type and reason for change(s) in Section 1.4(f).

The NTRC(s) can provide assistance in completing this form.

Operating Company Number (OCN) assignments must uniquely identify the applicant. Relative to CO Code assignments, NECA-assigned Company Codes may be used as OCNs. Companies with no prior CO Code or Company Code assignments may contact NECA (973-884-8355) to be assigned a Company Code(s). Since multiple OCNs and/or Company Codes may be associated with a given company, companies with prior assignment should direct questions regarding appropriate OCN usage to the Traffic Routing Administration (TRA) on 732-699-6700.

This is an eleven-character descriptor of the switch provided by the owning entity for the purpose of routing calls. This is the eleven-character COMMON LANGUAGE Location Identification (CLLI) of the applicant's switch or POI.

Rate Center name must be a tariffed Rate Center associated with toll billing.

Applies to any code applicant connecting to the Public Switched Telephone Network via a tandem owned by a different carrier.

CLLI code of PSTN interconnecting carrier switch/POI. Should be the same as Part 2, Form 2, Page 2 of 2 of the application form for initial code or, for an additional code, the same as the tandem identified for the initial code.

The nationwide cut-over is a minimum of 45 calendar days after the NXX code request is input to TRA (RDBS) and BRIDS. To the extent possible, code applicants should avoid requesting an effective date that is an interval less than 66 calendar days from the submission of this form. It should be noted that interconnection arrangements and facilities need to be in place prior to activation of a code. Such arrangements are outside the scope of these guidelines.

Requests for code assignment should not be made more than six months prior to the requested effective date.

Per Section 4.1.3, the Pool NTRC will check this section if the NXX being requested will be used for thousand block number pooling.

Applicant is not required to submit Part 2 of the code request form if it is doing its own TRA (RDBS) and BRIDS entries, or if the applicant has arranged for a third party to input the Part 2 forms data on its behalf.

**WARNING!** It is the code applicant's responsibility to arrange input of Part 2 information into TRA (RDBS) and BRIDS. The 45 calendar day nationwide minimum

interval cut-over for TRA (RDBS) and BRIDS will not begin until input into TRA (RDBS) and BRIDS has been completed.

An incomplete form may result in delays in processing this request.

If application is submitted electronically, applicant must also fax form with signature to establish a “signature on file.” All subsequent applications then assume “signature on file” (i.e., no fax required – unless contact name for request is different than “signature on file.”)

**Annex 4**

**NTRC's Response/Confirmation**

Date of Application: \_\_\_\_\_

Date of Receipt: \_\_\_\_\_

Date of Response: \_\_\_\_\_

Effective Date: \_\_\_\_\_

**NTRC Contact Information:**      **Company/Entity Name:** \_\_\_\_\_

\_\_\_\_\_  
Signature of NTRC Representative

Phone: \_\_\_\_\_

\_\_\_\_\_  
Name (print)

Fax: \_\_\_\_\_

**NPA:** \_\_\_\_\_    **Code Assigned:** \_\_\_\_\_    **Date of NXX Code Assignment:** \_\_\_\_\_

Switch Identification(Switching Entity/POI)<sup>13</sup> \_\_\_\_\_

- a. Rate Center: \_\_\_\_\_
- b. The Code NTRC is \_\_\_\_\_, is not \_\_\_\_\_<sup>14</sup> responsible for inputting Part 2 information into TRA (RDBS) and BRIDS.
- c. Routing and Rating information complete:    Yes    \_\_\_\_\_ No    \_\_\_\_\_  
Additional TRA (RDBS) and BRIDS information necessary as follows:
- d. To be published in the LERG and TPM by \_\_\_\_\_ additional TRA (RDBS) and BRIDS information needs to be received by the code NTRC no later than \_\_\_\_\_.

**Code Reserved:** \_\_\_\_\_    **Date of Reservation:** \_\_\_\_\_ Your code \_\_\_\_\_  
reservation will be honored until \_\_\_\_\_

Switch Identification (Switching Entity / POI)<sup>1</sup>: \_\_\_\_\_

**Form incomplete**

Additional information required in the following section(s):

---

**Form complete, code request denied**

Explanation:

---

**Assignment activity suspended by the NTRC**

Explanation: \_\_\_\_\_

---

Further Action: \_\_\_\_\_

**NPA in jeopardy: Yes** \_\_\_\_\_ **No** \_\_\_\_\_

If yes, refer to Section 7 of the assignment guidelines.

Remarks:

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## Annex 5 Confirmation of Code In Service

By signing below, I certify that the CO code (NXX) specified in Section 1 below is in service and that the CO code (NXX) is being used for the purpose specified in the original application (See Section 6.3.3 and Section 7.1).

Company Name: \_\_\_\_\_ OCN: \_\_\_\_\_

\_\_\_\_\_  
Authorized Representative of Code Applicant (Print)

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

1. NPA-NXX code: \_\_\_\_\_ Rate Center: \_\_\_\_\_
2. Switch Identification (Switching Entity / POI)<sup>13</sup>: \_\_\_\_\_
3. Dates:  
Date of Application: \_\_\_\_\_  
In-Service Date: \_\_\_\_\_

Note: This form must be submitted to the NTRC within 6 months of the requested effective date. See Part 1, Section 1.3.

**Annex 6 Request for additional CO Code assignment**

**MONTHS TO EXHAUST CERTIFICATION WORKSHEET - TN Level<sup>†</sup>**  
 (Worksheet to be used for Requests for Additional Codes for Growth)

Date: \_\_\_\_\_ Company Name: \_\_\_\_\_

Switching Entity/Point of Interconnection (CLLI):  
 \_\_\_\_\_ Rate Center:

NPA(s)<sup>5</sup>: \_\_\_\_\_ NXXs included in growth calculation:

Signature of Authorized Representative of Code Applicant:

Title: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ FAX No.: \_\_\_\_\_

A. Telephone Numbers (TNs) Available for Assignment (See Glossary<sup>6</sup>):

Month #1	Month #2	Month #3	Month #4	Month #5	Month #6
----------	----------	----------	----------	----------	----------

Month #7	Month #8	Month #9	Month #10	Month #11	Month #12
----------	----------	----------	-----------	-----------	-----------

B. Previous 6-month growth history<sup>7</sup>: \_\_\_\_\_

C. Projected growth - Months 1-12<sup>8</sup>: \_\_\_\_\_

D. Average Monthly Forecast ( Sum of months 1-6 Part C above divided by 6): \_\_\_\_\_

E. Months to Exhaust<sup>9</sup> =  $\frac{\text{Telephone No (TNs) Available for Assignment(A)}}{\text{Average Monthly Forecast (D)}}$

F. Utilisation Level<sup>7</sup> =  $\frac{\text{Telephone No's (TNs) Assigned}}{\text{Total Numbering Resources in Applicant's Inventory}} \times 100 = \text{ \_\_\_\_\_\_ } \%$

## **Annex 7. REQUESTING A CENTRAL OFFICE CODE THE PROCESS**

1. The applicant submits CO code Assignment Form (Annex 2) to the Regulator in the country of operation for certification.
2. Upon certification by the Regulator, the request is sent to the NTRC.
3. The NTRC reviews the application and acknowledges receipt of the application on the NTRC's Response/Confirmation Form (Annex 4) within 5 calendar days of receipt of the application.
4. The applicant is informed of the CO code assigned or its denial with reasons within 10 calendar days of receipt of the application.
5. The information for the TRA/BRIDS databases submitted to the appropriate party on Part 2 of the CO Code Assignment Request Form for input.
6. NTRC is informed by the assignee that the CO code is in service within six months of the actual in service date on the Confirmation of Code In Service Form (Annex 5).

(a) Request submitted to Regulator in country for certification Application submitted	-
(b) CO code request approved by regulator and passed to CO Code NTRC 5 calendar days	-
(c) NTRC responds to applicant 5 calendar days	-
(d) Assigned CO Code/denial sent to applicant 10 calendar days	
(e) Input to TRA & BRIDS databases 45 calendar days Total time for implementing an initial/additional code 60 calendar days	-
(f) Assignee informs NTRC of In Service date of code 180 calendar days	

## **Annex # 8 Assumptions and Constraints in the Assignment of Central Office Codes**

- The Numbering resources are managed by an NTRC, The NTRC, who will allocate the resource for the purpose of routing calls to subscriber terminals and may be included in the call record for the purpose of rating calls.
- The Numbering resources are considered a public resource and are not owned by the assignees. Consequently, the resources cannot be sold , brokered , bartered or leased by the assignee for a fee or other consideration . Transfer of code(s) due to merger/acquisition is permitted
- If a resource is sold, brokered, bartered or leased for a fee, the resource is subject to reclamation by the NTRC.
- Numbering resources shall be assigned in such a manner that effective and efficient use of the finite numbering resource is accomplished so that premature exhaust of the numbers available does not occur.
- Where regulatory approval is required , the applicant must be able to demonstrate that regulatory authorization has been obtained for the area where the code is to be utilized.
- These assignment guidelines may not apply to an environment where number portability exists. Another set of guidelines will be written to cover number portability.
- These guidelines do not address the issue of the Number NTRC. The Number NTRC is dealt with under another guideline.
- Administrative assignment of the CO code ( NXX ) public resource by an entity does not imply ownership of the resource by the entity performing the administrative function , nor does it imply ownership by the entity to which it is assigned.
- Audits of both the Code NTRC(s) and code applicant/holders may be performed to:
  - Determine compliance to uniformity in application of these guidelines by a Code NTRC to all code requests received by that Code NTRC
  - Determine compliance with these guidelines by the code applicants and Code Administrations determine whether the numbering resources are being efficiently and effectively used by code applicants and managed in an efficient and effective manner by the Code NTRC
- An applicant is not required to provide any additional explanation or justification of items that he/she has certified. However, certification alone may not provide the Code NTRC with sufficient information upon which to make a decision regarding code assignment, and additional dialog and written documentation may be required.

## **Annex # 9 Principles for the Assignment of Central Office Codes**

- CO codes ( NXX's) are assigned to authorized operators for their use.
- These codes are for use on the public switched telephone network and not for use on private networks.
- CO codes ( NXX's) must be assigned in an effective and efficient manner as they are a finite resource . All applicants for initial central office codes must provide proof of being an authorized operator in the geographic area for which the central office code is being requested.
- All applicants for additional central office codes must provide proof of being an authorized operator in the areas for which the CO codes are being requested as well as additional information on the prescribed forms .
- The information submitted by all CO code(NXX) applicants must be uniform and shall be treated as proprietary and duly secured by the NTRC.
- CO codes (NXX's) shall be assigned in a fair and impartial manner to any authorized applicant that meets the criteria for assignment.
- In the event of CO code (NXX) exhaust , the operators in the affected area have the right and will be given the opportunity to participate in the process of determining the method to be employed to provide relief.
- Resource conservation procedures should in no way prevent the assignment of CO codes.

## **Annex # 10 Rules for the Assignment of COC's**

### **Initial Code(s)**

CO codes (NXX's) are assigned only to authorized operators, which must indicate this in the manner prescribed on the forms provided for such purpose. (See Annex 2)

- The applicant must certify a need for numbers and indicate the area and the service for which the numbers are required in the Public Switched Telephone Network on the prescribed form. (See Annex 2)
- An applicant may request an NXX assignment for the establishment of an initial Location Routing Number ( LRN ) per Point of Interconnection ( POI) provided the applicant has no existing resources available for LRN assignment.

### **Additional code(s)**

Assignment of additional code(s) must be made for an established point of interconnection or switching entity by satisfying one of the criteria in the sections below

- Additional CO code(s) (NXX's) requests must have certification by the authorized operator that the CO code(s) in service at a switching centre/POI , per service provided at that switching centre/POI , will exhaust within twelve(12) months . Documentation to support such certification must be supplied using "Months to Exhaust Certification Worksheet" ( Annex 6) which has fields for the following data:
  - Telephone Numbers(TN's) Available for assignment;
  - Growth history for last six(6)months;
  - Projected demand for the next 12 months.
- Additional CO code(s) for other purposes must be accompanied by an explanation of why current assigned resources to that entity cannot satisfy the requirement.
  - CO code (NXX) sharing between operators , in which portions of the NXX codes are assigned to multiple switching centres/POI's may be utilized where the operators mutually agree.
    - This is particularly useful where the customer base is small enough so that the operators will not need a full CO Code (NXX) of 10,000 numbers . In this scenario, unused numbers may be assigned
      - to any operator on an as needed basis except where there may be restrictions for wireless carriers .
    - CO codes (NXX's) shall be assigned on a first-come first-served basis . Reserved codes will be held under the following conditions:

- CO code(s) shall be reserved if the authorized operator making the request can justify that the reservation of the code is essential to accommodate technical or planning constraints or pending regulatory approval of whatever kind provided that documentation to support such request is furnished to the appropriate regulatory body.
- No requests for a reserved code(s) will be entertained unless there is compliance with criteria listed in sections 4.1.-4.1.2 for initial codes or sections 4.2-4.2.2 for additional code(s) respectively.
- In any case , if a reserved code is not activated within 12 months , the code will be released from its reserved status.

## **Annex # 11 Responsibilities of the Code NTRC**

1. Provide information to all authorized operators on procedures for applying for CO codes with all the necessary forms and instructions on how to complete them.
2. Provide all authorized operators with any updates to the procedures and any conservation procedures being invoked.
3. Receive and process applications for CO codes (NXX's) for which the NTRC is responsible.
4. The NTRC must reply to any request for a CO code(s) (NXX) within 5 calendar days of receipt of the application form by completing the response portion of the form in Annex 4.
5. Review the documentation and determine whether the code request satisfies the procedures as outlined in these guidelines.
6. Where a request is denied, the applicant shall be informed as to the specific reasons for such denial in writing . The applicant can appeal the NTRC's decision in accordance with the appeal procedure in these guidelines.
7. Select and assign an available CO code to the authorized operator and inform the operator of such within 10 calendar days of receipt of the CO Code request form.
8. The CO Code (NXX) NTRC may , on behalf of the authorized operator, update the TRA and BRIDS databases for a fee provided that the necessary forms (Part 2) have been duly completed and submitted to the NTRC initiate reclamation of the CO code if it is not in service within 6 months of its assignment.

## **Annex # 12 Responsibilities of the CO Code Applicants and Holders**

- i. Applying for a CO Code
- ii. Authorized operators requesting initial and / or additional CO codes (NXX) assignments shall submit their requests on the appropriate Central Office Code (NXX) Assignment Request ( Annex 2) . A separate application form shall be made for each CO code ( NXX) being requested . The applicant must complete all the relevant fields on the Code Request form and have the form signed by an authorized officer of the Company . All incomplete / inaccurate code request forms will be returned to the authorized operator for correction
- iii. Requests for CO code assignments must be made at least two(2) months prior to the in service date . This is necessary for the code processing time (15 calendar days) and the 45 day activation of the TRA and BRIDS databases, which provide the routing and rating data for other carriers.
- iv. Requests for additional CO code (NXX) assignments must be in compliance with the requirement of Section 4.2
- v. The requestor shall certify on the CO code Request Form that the necessary governmental /regulatory approvals have been obtained to provide the service(s) for which the code is being requested .
- vi. Information Required for Code Activation
- vii. The following steps are necessary for CO code (NXX) activation and are done by either the code holder or NTRC ,if agreed or a third party :
- viii. Part 2 of the CO code (NXX) Assignment Request Form must have the relevant routing information for entry into the TRA and BRIDS databases for routing and rating respectively .
- ix. Information Changes
  - The NTRC must be informed in the event of any changes to the information supplied on the CO Code ( NXX) Request Form Part 1 which has been kept as record of the assignment by the NTRC . These changes include but are not limited to the following
  - Change of name of holder e.g. in the event of merger or acquisition of the current code holder
  - Tandem homing arrangement or other network changes
- x. Responsibilities of the Code Holder

- xi. It is the responsibility of the initial code holder or subsequent code holder where the code has been obtained by merger or acquisition to use the code in compliance with these guidelines. This includes cooperating with and participating in the audit process necessary to effectively assess code utilization. Any reluctance or undue delay on the part of the CO code holder can result in fines or loss of licence to operate in the designated area.
- xii. The code holder is responsible for the notification of TRA and BRIDS of such changes, which affect their database or initiating the updating of these databases through a third party.

## **Annex # 13 Categories for the return of Codes**

The following categories of codes will be returned to the NTRC for reassignment:

- Assigned, but no longer in use by the authorized operator
- Assigned to a service which is no longer offered
- Assigned, but not activated within the time frame specified in these guidelines
- Assigned, but not used in conformance with these guidelines

The relevant category will be determined as follows:

- i. The NTRC will seek clarification, in writing, from the authorized operator with regards to the status of the CO code(s) (NXX) in question. The letter from the NTRC will be sent by registered mail to the registered address of the authorized operator. The authorized operator will respond within 21 working days of receipt of the letter.
- ii. If the NTRC decides that the explanation provided by the authorized operator is satisfactory and is in conformance with these guidelines, the CO code(s) (NXX) will remain assigned to the authorized operator and the records of the NTRC amended to reflect this.
- iii. If the explanation is, in the opinion of the NTRC, unsatisfactory and is not in conformance with these guidelines, the NTRC will request in writing from the authorized operator reasons why the assigned CO code(s) ( NXX) should not be returned.
- iv. Should the authorized operator fail to respond within the 21 working days period from the date of receipt of the letter, the NTRC will reclaim the CO code(s) and reissue them after an appropriate aging period. TRA and BRIDS will be duly informed of the NTRC's action and be requested by the NTRC to remove the CO code(s) ( NXX) from their databases.
- v. The NTRC may decide to extend the activation date of a CO code(s) ( NXX) , if requested by the assignee, provided that the reason for non activation is not within the control of the assignee .

Such extension may be for a period of up to 90 days, whereupon the status will be reviewed by the NTRC.

- vi. It is the responsibility of the assignee to advise the NTRC of the status of the CO code at the end of the 90 day period if the CO code is still not activated. If the CO Code has been activated within the 90 day period, then the assignee will provide certification of the activation of the CO code(s) to the NTRC on the Confirmation of Code In Service (Annex 5) .

## **Annex # 14 Proposed time lines for processing of codes request**

- (a) Request submitted to Regulator in country for certification. Application submitted.
- (b) CO code request approved by regulator and passed to NTRC. 5 calendar days.
- (c) NTRC responds to applicant  
5 calendar days
- (d) Assigned CO Code/denial sent to applicant  
10 calendar days
- (e) Input to TRA & BRIDS databases  
45 calendar days
- (f) Total time for implementing an initial/additional code  
60 calendar days
- (g) Assignee informs NTRC of In service date of code.  
180 calendar days

<b>SUBSCRIBER DIALLING</b>				
<b>Grenada</b>	<b>Com. of Dominica</b>	<b>St Kitts/ Nevis</b>	<b>St Lucia</b>	<b>St Vincent &amp; the Grenadines</b>
Local – 7 digits Overseas- 1+10 digits to NANP countries. 011+8-16 digits to countries outside the NANP	Local – 7 digits Overseas- 1+10 digits to NANP countries. 011+8-16 digits to countries outside the NANP	Local – 7 digits Overseas- 1+10digits to NANP countries. 011+8-16 digits to countries outside the NANP	Local – 7 digits Overseas- 1+10digits to NANP countries. 011+8- 16 digits to countries outside the NANP	Local – 7 digits Overseas- 01+10digits to NANP countries. 0+10- 16 digits to countries outside the NANP

## Annex 16 Service Codes in the ECTEL Member States

SERVICE CODES				
Grenada	Com. of Dominica	St Kitts/ Nevis	St Lucia	St Vincent & the Grenadines
0	110	411	999	100
121	111	412	911	110
131	112	511	211	112
211	113	611	811	113
222	114	811	411	114
237	115	911	0	115
292	116	333		116
311	117	707		117
353	118			118
399	119			119
411	333			121
434	911			131
511	999			191
611				123
811				211
822				311
911				411
2650				911/999

## Annex 17 Short codes in ECTEL Member States

<b>SHORT CODES</b>				
<b>Grenada</b>	<b>Com of Dominica</b>	<b>St Kitts/ Nevis</b>	<b>St Lucia</b>	<b>St Vincent &amp; the Grenadines</b>
2653	2000	355	921	111
277	2001	356	922	222
422	2002	357	923	333
426	2003	358	924	444
4636	2004		926	555
622			927	269
6387872			928	1471
7283			929	
774			930	
777			931	
786			932	
8255			933	
876			935	
930			936	
957				
989				
990-999				

## Annex 18 Vertical Service Codes in ECTEL Member States

Grenada	Com of Dominica	St Kitts/ Nevis	St Lucia	St Vincent & the Grenadines
			*26# *43# *52# #21# #22# #23# #26# #41# #52# #33* #51* #55* *#21* *#22* *#23* *#33* *#55* *21* *22* *23* *33* *41* *51* *55* *57 *66 *67 #66 #67 #69 *#21# *#33# *#69	

## **ANNEX 19 The Use of Short Codes in the USA**

In the USA, the service codes or N11 codes recognised as nationally assigned are as follows:

- 211 Community Information and Referral service
- 311 Non Emergency Police and other Governmental services
- 511 Traffic and Transportation Information
- 711 Telecommunication Relay Service

All other N11 codes are assigned by the local authorities but there is an agreement that if one of these codes need to be assigned nationally, the local assignment must be withdrawn promptly. The traditional use of N11 codes in the USA is as follows:

- 211 Community Information and Referral service
- 311 Non Emergency Police and other Governmental services
- 411 Local Directory Assistance
- 511 Traffic and Transportation Information
- 611 Repair service
- 711 Telecommunication Relay Service
- 811 Business Office
- 911 Emergency

**Annex # 20**

**N11 Code use in ECTEL Member States**

N11 code	Grenada	Com. of Dominica	St Kitts/ Nevis	St Lucia	St Vincent & the Grenadines
211	Driving Reports	Not assigned	Not assigned	Customer Care/ Faults	Bill Information
311	Operator Assistance	Not assigned	Not assigned	Not assigned	Police
411	Directory Assistance	Not assigned	Directory Service	Directory Enquiries	Narcotics

N11 code	Grenada	Com. of Dominica	St Kitts/ Nevis	St Lucia	St Vincent & the Grenadines
511	Operator Services	Not assigned	Fault Reporting	Not assigned	Not assigned
611	Fault Hotline	Not assigned	Fault Reporting	<b>Not assigned</b>	Not assigned
711	Not assigned	Not assigned	Not assigned	<b>Not assigned</b>	Not assigned
811	Customer relations	Not assigned	Bill Queries	Credit card calling	Not assigned
911	Police Emergency	Police Emergency	Emergency	Fire/ Ambulance	Emergency

The current codes used for services are as follows:

Service	Grenada	Com. of Dominica	St Kitts/ Nevis	St Lucia	St Vincent & the Grenadines
Operator Assistance	0,121,311	119		0	
Directory Assistance	131,411	118	411, 412	411	
Driving rpts.	211				
Sales	222				
Fault lines	237,292,353, 611	112,113,114,	511, 611	211	
Coast Guard	399				
Credit Card calling				811	
Fire	434	911,999	333	911	
Operator Services	511				100,110,113, 114,115,116, 117,118,119, 121,131,191
Customer	811	119			112,123

Relations					
Billing Information	822		811		211
Police		911,999	707	999	311,411
Emergency	911	911,999	911		911,999
Installations		115,117			
Crisis Hotline		333			
Testing Number		110,111			

It is noted that there is no standard use of service codes across the member States of the OECS listed above. There is also no adherence to the standard use of these codes as recommended in the North American Numbering Plan despite the fact that the member States of the OECS belong to the NANP.

## **Annex 21 North American Numbering Plan recommended vertical service codes (VSC's)**

<b>VSC</b>	<b>Description</b>
*00	Inward Voice Activated Services (English)
*01	Inward Voice Activated Services ( French)
*02	Deactivated/Activation of In-session Activation (ISA) on a per line basis
*03	Deactivation of In-Session Activation (ISA) on a per call basis
*2X	Reserved for expansion to 3-digit VSC's
*228	Over-the Air Service Provisioning
*3X	Reserved for expansion to 3-digit VSC's
*40	Change Forward- to Number for customer programmable Call Forwarding Busy line
*41	Six-Way Conference Calling Activation
*42	Change Forward-To Number for Customer programmable Call Forwarding Don't Answer
*43	Drop last member of Six-way Conference Call
*44	Voice Activated Dialling
*45	Voice Dialling Extended Dial network
*46	French Voice Activated Network Control
*47	Override Feature Authorization
*48	Override Do Not Disturb
*49	Long Distance Signal
*50	Voice Activated Network Control
*51	Who Called Me?
*52	Single Line Variety Package (SVP)- Call Hold
*53	Single Line Variety Package (SVP)- Distinctive Ring B
*54	Single Line Variety Package (SVP)- Distinctive Ring C
*55	Single Line Variety Package (SVP)- Distinctive Ring D
*56	Change Forward- To Number for ISDN Call Forwarding
*57	Customer Originated Trace
*58	ISDN MBKS Manual Exclusion Activation
*59	ISDN MBKS Manual Exclusion Deactivation
*60	Selective Call Rejection Activation
*61	Distinctive Ringing/Call Waiting Activation
*62	Selective Call Waiting
*63	Selective Call Forwarding Activation
*64	Selective Call Acceptance Activation
*65	Calling Number Delivery Activation
*66	Automatic Callback Activation
*67	Calling Number Delivery Blocking
*68	Call Forwarding Busy Line/Don't Answer Activation
*69	Automatic Recall Activation
*70	Cancel Call Waiting
*71	Usage Sensitive Three Way calling
*72	Call Forwarding Activation
*73	Call Forwarding Deactivation
*74	Speed Calling 8 – Change List
*75	Speed Calling 30 – Change List

- \*76 Advanced Call Waiting Deluxe
- \*77 Anonymous Call Rejection Activation
- \*78 Do Not Disturb Activation
- \*79 Do Not Disturb Deactivation
- \*80 Selective Call Rejection Deactivation
- \*81 Distinctive Ringing /Call Waiting Deactivation
- \*82 Line Blocking Deactivation
- \*83 Selective Call Forwarding Deactivation
- \*84 Selective Call Acceptance Deactivation
- \*85 Calling Number Delivery Deactivation
- \*86 Automatic Callback Deactivation
- \*87 Anonymous Call Rejection Deactivation
- \*88 Call Forwarding Busy Line/Don't Answer Deactivation
- \*89 Automatic Recall Deactivation
- \*90 Customer Programmable Call Forwarding Busy Line Activation
- \*91 Customer Programmable Call Forwarding Busy Line Deactivation
- \*92 Customer Programmable Call Forwarding Don't Answer Activation
- \*93 Customer Programmable Call Forwarding Don't Answer Deactivation
- \*94 Reserved For Local Assignment
- \*95 Reserved For Local Assignment
- \*96 Reserved For Local Assignment
- \*97 Reserved For Local Assignment
- \*98 Reserved For Local Assignment
- \*99 Reserved For Local Assignment

## **Annex # 22 Use of HNIC's in ECTEL Member States**

The use of foreign Home Number Identification Codes (HNICs) and shared codes in the ECTEL Member States is the subject of separate consultation.

The following issues will be addressed:

- What are the merits of utilizing foreign or shared HNIC's?
- Should the use of foreign HNI codes be allowed?
- If the use is allowed how will they be subject to the applicable laws and/or regulations of each country?
- Why is it necessary to use foreign HNI's in light of the fact that the ITU has issued HNI to many countries of the world? Is it in the interests of the consumers?
- Is it a matter of national sovereignty that the mobile operators in their countries use the HNI's assigned to the respective countries? Can a process for delegating authority be developed to ensure that the "national sovereignty" issue be addressed with respect to a code that no one sees or cares about?
- Is the identification of mobile calls originating from a Caribbean island possible when a foreign HNI code is used?
- How will the subscribers of a specific island on a specific network be identified if foreign HNI's are used?
- What are the assurances that all relevant revenues for each state be identified?

ECTEL agrees that in respect of the use of foreign home Number Identification Codes the providers will provide assurances that all revenue identification issues would be addressed to satisfy the countries requirements and that further proper billing information will be provided that will permit countries will be able to determine and allocate the appropriate revenue flows. These records will be made available to the regulators for auditing and verification in the prescribed form.

The providers will be invited to make presentations to the regulators of ECTEL to demonstrate that the above objectives are and can be met.

Having identified the issues public consultation on the issue is engaged. The views of all concerned will then be incorporated and a determination on the issue made giving due considerations to the facts.

## Annex 23

## Table of COC's allocated in ECTEL Member States

Table of Numbers Allocated in ECTEL Member States

Key:

DOM – Dominica

GND – Grenada

SKN – St. Kitts /Nevis

SLU – St. Lucia

SVG – St. Vincent and the Grenadines

Digi – Digicel

AT&T Wireless Cellular

AWS – AT&T Wireless Services

Cari – Cariglobe

C&W – Cable and Wireless Ltd

TWTC – Trans World Telecoms Company

A – Area Code

S – Service Code

C – Central Office Code

F – Fixed line

Country	Operator	Type of Code	Number Range	Service	Comments
<b>Dom</b>	<b>AT&amp;T</b>	C	614-0000-9999	Cellular	
		C	615-0000-9999	Cellular	
		C	616-0000-9999	Cellular	
<b>Dom</b>	<b>C&amp;W</b>	C	225-0000-9999	Cellular	
		C	235-0000-9999	Cellular	
		C	245-0000-9999	Cellular	
		C	255-0000-9999	PSTN	
		C	265-0000-9999	Cellular	
		C	266-0000-9999	PSTN	
		C	275-0000-9999	Cellular	
		C	276-0000-9999	Cellular	
		C	277-0000-9999	Cellular	
		C	440-0000-9999	PSTN	
		C	441-0000-9999	PSTN	
		C	442-0000-9999	PSTN	
		C	445-0000-9999	PSTN	
		C	446-0000-9999	PSTN	
		C	447-0000-9999	Paging	
		C	448-0000-9999	Cellular	
		C	449-0000-9999	Cellular	
		C	2-0000-9999	Cellular	
		C	2-0000-9999	Cellular	
<b>Dom</b>	<b>Marpin</b>	C	500-0000-9999	PSTN	
		C	501-0000-9999	PSTN	
		C	502-0000-9999	PSTN	
		C	503-0000-9999	PSTN	
		C	504-0000-9999	PSTN	

Country	Operator	Type of Code	Number Range	Service	Comments
<b>Dom</b>	<b>Orange</b>			Cellular	
				Cellular	
				Cellular	
				Fixed	
				Fixed	
<b>Dom</b>	<b>TWTC</b>	C	760-0000-9999	Cellular	Not in use
		C	761-0000-9999	Cellular	Not in use
		C	762-0000-9999	Cellular	Not in use
<b>GND</b>	<b>AWS Holdings</b>	C	533-0000-9999	Cellular	
		C	534-0000-9999	Cellular	
		C	535-0000-9999	Cellular	
		C	536-0000-9999	Cellular	
		C	537-0000-9999	Cellular	
		C	538-0000-9999	Cellular	
<b>GND</b>	<b>Digicel</b>	C	414-0000-9999	Cellular	
		C	415-0000-9999	Cellular	
		C	416-0000-9999	Cellular	
		C	417-0000-9999	Cellular	
		C	418-0000-9999	Cellular	
		C	419-0000-9999	Cellular	
			420		
<b>GND</b>	<b>C&amp;W</b>	C	403-0000-9999	GSM	
<b>GND</b>	<b>C&amp;W</b>	C	404-0000-9999	GSM	
		C	405-0000-9999	GSM	
		C	406-0000-9999	Pre paid	
		C	407-0000-9999	Post paid	
		C	408-0000-9999	Paging	
		C	409-0000-9999	Post paid	
		C	410-0000-9999	Pre paid	
		C	458-0000-9999	Pre-paid	
		C	435-0000-9999	PSTN	
		C	436-0000-9999	PSTN	
		C	437-0000-9999	PSTN	
		C	438-0000-9999	PSTN	
		C	439-0000-9999	PSTN	
		C	440-0000-9999	PSTN	
		C	441-0000-9999	PSTN	
		C	442-0000-9999	PSTN	

Country	Operator	Type of Code	Number Range	Service	Comments
		C	443-0000-9999	PSTN	
		C	444-0000-9999	PSTN	
GND	C&W	C	438-0000-9999	PSTN	
		C	439-0000-9999	PSTN	
		C	440-0000-9999	PSTN	
		C	441-0000-9999	PSTN	
		C	442-0000-9999	PSTN	
		C	443-0000-9999	PSTN	
		C	444-0000-9999	PSTN	
GND	C&W	C	449-0000-9999	Special Services	
		C	455-0000-9999	Special Services	
		C	456-0000-9999	Special Services	
		C	457-0000-9999	Special Services	
		C	459-0000-9999	Special Services	
		C	468-0000-9999	Special Services	
		C	473-0000-9999	Special Services	
GND	C&W	C	490-0000-9999	Special Services	
		C	636-0000-9999	Special Services	
		C	638-0000-9999	Special Services	
		C	758-0000-9999	Special Services	
		C	784-0000-9999	Special Services	
		C	938-0000-9999	Special Services	
		C	269-0000-9999	Special Services	
GND	C&W	C	328-0000-9999	Special Services	
		C	329-0000-9999	Special Services	
		C	386-0000-9999	Special Services	
<b>GND</b>	<b>TWTC</b>	C	480-0000-9999	Cellular	Not in use
		C	481-0000-9999	Cellular	Not in use
		C	482-0000-9999	Cellular	Not in use
<b>GND</b>	<b>GNP</b>	C	505-0000-9999	Cellular	Not in use
		C	506-0000-9999	Cellular	Not in use
		C	507-0000-9999	Cellular	Not in use
<b>SKN</b>	<b>AT&amp;T</b>	C	762-0000-9999	Cellular	
		C	763-0000-9999	Cellular	
		C	764-0000-9999	Cellular	
<b>SKN</b>	<b>Cari</b>	C	556-0000-9999	Cellular	
		C	557-0000-9999	Cellular	
		C	558-0000-9999	Cellular	
<b>SKN</b>	<b>TWTC</b>	C	456-0000-9999	Cellular	
		C	457-0000-9999	Cellular	

Country	Operator	Type of Code	Number Range	Service	Comments
		C	458-0000-9999	Cellular	
<b>SKN</b>	<b>C&amp;W</b>	C	229-0000-9999	PSTN	
		C	236-0000-9999	Cellular	
		C	465-0000-9999	Cellular	
		C	466-0000-9999	Cellular	
		C	467-0000-9999	Cellular	
		C	468-0000-9999	Cellular	
		C	469-0000-9999	Cellular	
		C	470-0000-9999	Cellular	
		C	662-0000-9999	Cellular	
		C	663-0000-9999	Cellular	
		C	664-0000-9999	Cellular	
		C	665-0000-9999	Cellular	
		C	667-0000-9999	Cellular	
		C	668-0000-9999	Cellular	
<b>SLU</b>	<b>AT&amp;T</b>	C	518-0000-9999	Cellular	
		C	519-0000-9999	Cellular	
		C	520-0000-9999	Cellular	
<b>SLU</b>	<b>Digi</b>	C	712-0000-9999	Cellular	
	Digi	C	713-0000-9999	Cellular	
		C	714-0000-9999	Cellular	
		C	715-0000-9999	Cellular	
		C	716-0000-9999	Cellular	
		C	717-0000-9999	Cellular	
		C	718-0000-9999	Cellular	
		C	719-0000-9999	Cellular	
		C	720-0000-9999	Cellular	
<b>SLU</b>	<b>C&amp;W</b>	C	234-0000-9999	PSTN	
		C	284-0000-9999	Cellular	
		C	285-0000-9999	Cellular	
		C	286-0000-9999	Cellular	
		C	287-0000-9999	Cellular	
		C	384-0000-9999	Cellular	
		C	450-0000-9999	PSTN	
		C	451-0000-9999	PSTN	
		C	452-0000-9999	PSTN	
		C	453-0000-9999	PSTN	
		C	454-0000-9999	PSTN	

Country	Operator	Type of Code	Number Range	Service	Comments
		C	455-0000-9999	PSTN	
		C	456-0000-9999	PSTN	
		C	457-0000-9999	PSTN	
		C	458-0000-9999	PSTN	
		C	459-0000-9999	PSTN	
		C	460-0000-9999	Cellular	
		C	461-0000-9999	Cellular	
		C	462-0000-9999	PSTN	
		C	463-0000-9999	PSTN	
		C	464-0000-9999	PSTN	
		C	465-0000-9999	PSTN	
		C	466-0000-9999	PSTN	
		C	467-0000-9999	PSTN	
		C	468-0000-9999	PSTN	
		C	469-0000-9999	PSTN	
		C	480-0000-9999	PSTN	
		C	481-0000-9999	Paging	
		C	482-0000-9999	Paging	
		C	484-0000-9999	Cellular	
		C	485-0000-9999	Cellular	
		C	486-0000-9999	Cellular	
		C	487-0000-9999	Cellular	
		C	488-0000-9999	Cellular	
		C	489-0000-9999	Cellular	
		C	584-0000-9999	Cellular	
		C	638-0000-9999	Internet	
		C	758-0000-9999	PSTN	
<b>SVG</b>	<b>AT&amp;T</b>	C	430-0000-9999	Cellular	
		C	431-0000-9999	Cellular	
		C	432-0000-9999	Cellular	
		C	433-0000-9999	Cellular	
		C	434-0000-9999	Cellular	
		C	435-0000-9999	Cellular	
<b>SVG</b>	<b>Digi</b>	C	526-0000-9999	Cellular	
		C	527-0000-9999	Cellular	
		C	528-0000-9999	Cellular	
	Digi	C	529-0000-9999	Cellular	
		C	530-0000-9999	Cellular	
		C	531-0000-9999	Cellular	
		C	532-000-9999	Cellular	
<b>SVG</b>	<b>C&amp;W</b>	C	452-0000-9999	PSTN	

<b>Country</b>	<b>Operator</b>	<b>Type of Code</b>	<b>Number Range</b>	<b>Service</b>	<b>Comments</b>
	C&W	C	488-0000-9999	PSTN	
	C&W	C	638-0000-9999	PSTN	
	C&W	C	453-0000-9999	PSTN	
	C&W	C	451-0000-9999	PSTN	
	C&W	C	266-0000-9999	PSTN	
	C&W	C	456-0000-9999	PSTN	
	C&W	C	457-0000-9999	PSTN	
	C&W	C	458-0000-9999	PSTN	
	C&W	C	482-0000-9999	PSTN	
	C&W	C	485-0000-9999	PSTN	
	C&W	C	487-0000-9999	PSTN	
	C&W	C	454-0000-9999	Cellular	
	C&W	C	455-0000-9999	Cellular	
	C&W	C	492-0000-9999	Cellular	
	C&W	C	493-0000-9999	Cellular	
	C&W	C	593-0000-9999	Cellular	
	C&W	C	494-0000-9999	Cellular	
	C&W	C	495-0000-9999	Cellular	
	C&W	C	490-0000-9999	Cellular	
<b>SVG</b>	<b>TWTC</b>	C	330-0000-9999	Cellular	
	TWTC	C	330-0000-9999	Cellular	
	TWTC	C	332-0000-9999	Cellular	
	TWTC	C	332-0000-9999	Cellular	

This table is incomplete and will be updated once the Numbers Audit is completed.

*These guidelines would apply for all advertising directed to children less than 16 years:*

1. Advertisers should enquire as to the age of the caller.
2. Advertisers should always take into account the level of knowledge, sophistication and maturity of the audience to which their message is primarily directed. Younger children have a limited capacity for evaluating the credibility of information they receive. They also may lack the ability to understand the nature of the personal information they disclose on the Internet. Advertisers, therefore, have a special responsibility to protect children from their own susceptibilities.
3. Realizing that children are imaginative and that make-believe play constitutes an important part of the growing up process, advertisers should exercise care not to exploit unfairly the imaginative quality of children. Unreasonable expectations of product quality or performance should not be stimulated either directly or indirectly by advertising.
4. Products and content which are inappropriate for children should not be advertised or promoted directly to children.
5. Recognizing that advertising may play an important part in educating the child, advertisers should communicate information in a truthful and accurate manner and in language understandable to young children with full recognition that the child may learn practices from advertising, which can affect his or her health and well-being.
6. Advertisers are urged to capitalize on the potential of advertising to influence behavior by developing advertising that, wherever possible, addresses itself to positive and beneficial social behavior, such as friendship, kindness, honesty, justice, generosity and respect for others.
7. Care should be taken to incorporate minority and other groups in advertisements in order to present positive and pro-social roles and role models wherever possible. Social stereotyping and appeals to prejudice should be avoided.
8. Although many influences affect a child's personal and social development, it remains the prime responsibility of the parents to provide guidance for children. Advertisers should contribute to this parent-child relationship in a constructive manner.

## **Annex # 25 Draft Agreement for the Surrender of country codes**

*By issuing this acknowledgment and approval we understand that the Country is not obligated to offer ENUM services. In addition, this approval does not require nor obligate the Country to provide financial resources to \_\_\_\_\_ (CC1 ENUM NTRC) or other participants offering ENUM services within Country Code 1. This simply allows for the temporary delegation of the Country Code 1 in ENUM/e164.arpa allowing each Country Code 1 country to establish ENUM/e164.arpa as it sees fit.*

*As a member of Country Code 1, the Administration of \_\_\_\_\_, [hereinafter Country] hereby acknowledges and approves the temporary delegation of Country Code 1 for the purposes of ENUM/e164.arpa to \_\_\_\_\_ (CC1 ENUM NTRC\*). This temporary delegation is valid through XX/XX/XX, pending selection of the long-term contracted provider and is renewable if the selection process is not complete by the aforementioned date, with the following stipulation:*

- (1) The NPA(s) that have been allocated to serve the Country cannot be allocated without the expressed written approval from the Country Administration. No telephone numbers within exclusive jurisdiction of the Country will be provisioned for ENUM without the express written approval from the Country.*
- (2) Any delegation would be on the condition that \_\_\_\_\_ (ENUM NTRC) would hold only the 'pointers' to Tier 2 databases and that the establishment of these Tier 2 databases would be subject to the approval of the national NTRC as designated by the Country or the Country, unless that NTRC waives its right to such approval.*
- (3) Failure by \_\_\_\_\_ to abide by this directive would negate this approval.*
- (4) Any Country can terminate this agreement by providing at least one hundred eighty (180) days written notice to the remaining CC1 Countries.*
- (5) As per the ITU-T Ad Interim guidelines, failure of any one Country within CC1 to agree to the temporary delegation or any one Country within CC1 terminating this agreement will negate the temporary delegation of CC1. The Guidelines specifically state: "For country codes within an integrated numbering plan, the request corresponds to that portion of the code for which the requesting Member State has administrative responsibilities. When a request representing the entire integrated country code area is received, all Member States within the integrated numbering plan must endorse the request".*

*This approval will be forwarded to ITU-TSB Director for purposes of validation. \_\_\_\_\_ (CC1 ENUM NTRC) will then request the temporary delegation of Country Code 1 for the purposes of ENUM from RIPE-NCC.*

*The term CC1 ENUM NTRC refers to the temporary Tier 1 entity and is only being used for ease of reading. When a temporary Tier 1 provider is selected the term will be removed.*

## ANNEX 26 References to Standards Related Materials for Numbering

<b>ITU-T RECOMMENDATION E.164:</b>	<b>THE INTERNATIONAL PUBLIC TELECOMMUNICATIONS NUMBERING PLAN</b>
<b>ITU-T RECOMMENDATION E.164.1:</b>	<b>– CRITERIA OF PROCEDURES FOR THE RESERVATION, ASSIGNMENT AND RECLAMATION OF E.164 COUNTRY CODES AND ASSOCIATED IDENTIFICATION CODES</b>
<b>ITU-T RECOMMENDATION E.164.2</b>	<b>– E.164 NUMBERING RESOURCES FOR TRIALS (TO BE PUBLISHED)</b>
<b>ITU-T RECOMMENDATION E.164.3</b>	<b>– PRINCIPLES, CRITERIA AND PROCEDURES FOR THE ASSIGNMENT AND RECLAMATION OF E.164 COUNTRY CODES AND ASSOCIATED IDENTIFICATION CODES FOR GROUPS OF COUNTRIES (DETERMINED AT JANUARY 2001 MEETING OF STUDY GROUP 2)</b>
<b>ITU-T RECOMMENDATION E.168 –</b>	<b>APPLICATION OF E.164 NUMBERING PLAN FOR UPT</b>
<b>ITU-T RECOMMENDATION E.169</b>	<b>– APPLICATION OF RECOMMENDATION E.164 NUMBERING PLAN FOR UNIVERSAL INTERNATIONAL FREEPHONE NUMBERS FOR INTERNATIONAL FREEPHONE SERVICE</b>
<b>ITU-T RECOMMENDATION E.169.2</b>	<b>- APPLICATION OF RECOMMENDATION E.164 NUMBERING PLAN FOR UNIVERSAL INTERNATIONAL PREMIUM RATE NUMBERS FOR INTERNATIONAL PREMIUM RATE SERVICE</b>
<b>ITU-T RECOMMENDATION E.169.3</b>	<b>- APPLICATION OF RECOMMENDATION E.164 NUMBERING PLAN FOR UNIVERSAL INTERNATIONAL SHARED COST NUMBERS FOR INTERNATIONAL SHARED COST SERVICE</b>

<b>ITU-T RECOMMENDATION E.190</b>	<b>– PRINCIPLES AND CRITERIA FOR THE MANAGEMENT AND ASSIGNMENT OF E-SERIES INTERNATIONAL NUMBERING RESOURCES</b>
<b>ITU-T RECOMMENDATION H.323 (11/00)</b>	<b>- PACKET-BASED MULTIMEDIA COMMUNICATIONS SYSTEMS</b>

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**RFC 1034 DOMAIN NAMES - CONCEPTS AND FACILITIES**

**RFC 1035 DOMAIN NAMES - IMPLEMENTATION AND SPECIFICATION**

**RFC 1129 INTERNET TIME SYNCHRONIZATION: THE NETWORK TIME PROTOCOL**

**RFC 1591 DOMAIN NAME SYSTEM STRUCTURE AND DELEGATION**

**RFC 2182 SELECTION AND OPERATION OF SECONDARY DNS SERVERS**

**RFC 2535 DOMAIN NAME SYSTEM SECURITY EXTENSIONS**

**RFC 2536 DSA KEYS AND SIGS IN THE DOMAIN NAME SYSTEM (DNS)**

**RFC 2537 RSA/MD5 KEYS AND SIGS IN THE DOMAIN NAME SYSTEM (DNS)**

**RFC 2541 DNS SECURITY OPERATIONAL CONSIDERATIONS**

**RFC 2826 IAB TECHNICAL COMMENT ON THE UNIQUE DNS ROOT**

**RFC 2870 OPERATIONAL CRITERIA FOR ROOT NAME SERVERS**

**RFC 2845 SECRET KEY TRANSACTION AUTHENTICATION FOR DNS (TSIG)**

**RFC 2915 THE NAMING AUTHORITY POINTER (NAPTR) DNS RESOURCE RECORD**

**RFC 2916 RECOMMENDATION E.164 NUMBER AND DNS**

**RFC 3008 DOMAIN NAME SYSTEM SECURITY (DNSSEC) SIGNING AUTHORITY**

**RFC 3026 LIAISON TO IETF/ISOC ON ENUM**

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**RFC 3071 REFLECTIONS ON THE DNS, RFC 1591, AND CATEGORIES OF DOMAINS**

## **Annex 27 Electronic Numbering (ENUM)**

Electronic numbering maps phone numbers to the Internet. This would have significant implications for technological convergence and would enable a host of new services. It is anticipated that all countries of Country Code 1 (CC1) would have similar interest and issues including the issues of consumer protection, privacy and security.

ECTEL member states will have to decide if they are opting into the ENUM and given its wide reaching implication a separate policy document is being prepared on ENUM to fashion how it will be treated in the final Plan.

Any new numbering plan must of necessity treat the issue of convergence and the above issue of electronic numbering is only one of the issues that convergence necessitates be treated as a matter of urgency.

The critical aspect of the implementation of ENUM is the resignation of the country codes. A proposed draft for this process is attached as Annex # 25. ECTEL present position is that this is a complex and involved process and energies would be better utilized at this point in the development of the Numbering Plan and to hold separate specialized consultations on this issue later.

## **Annex 28 Letter of Commitment by NTRC's**

### **Chairman NTRC:-**

Commonwealth of Dominica  
Grenada  
St. Kitts and Nevis  
Saint Lucia  
St. Vincent and the Grenadines

Dear Chairman

### **RE: REGIONAL NUMBERING PLAN**

The Directorate is in the process of developing a Regional Numbering Plan that would form the basis for the National Numbering Plans.

In order to facilitate the efficient administration of the number resource in the sub-region, ECTEL proposes that the NTRC agrees that ECTEL acts as its agent in interacting with external agencies in ensuring that all the numbers assigned are properly recorded and accessible by all telecommunications providers worldwide.

To give effect to the foregoing, we specifically request the agreement of the NTRC on the following matters:

1. That ECTEL will, in consultation with the NTRC, coordinate all activities with international and regional bodies in respect of matters pertaining to numbering specifically in reference to the Federal Communications Commission (FCC), North American Numbering Plan Administration (NANPA), The North America Numbering Council (NANC), Industry Numbering Committee (INC) Alliance for Telecommunications Industry Solutions (ATIS), Telcordia, the ITU and any other similar body.
2. That ECTEL will coordinate with Telcordia all activities in respect of the entry of numbers assigned to operators in the LERG database to ensure full operability.

Where applicable, ECTEL will seek representation in the bodies listed at item 1 above.

1. ECTEL will ensure payment of all associated fees in respect of membership or the provision of related services by these extra-regional bodies;
2. ECTEL agrees to indemnify and hold harmless the NTRC from any reasonable claims, damages, liability, attorneys' fees and expenses arising solely as a result of a failure by ECTEL to satisfy any obligation stated herein.

2/.....

March, 2005  
Page 2 of 2

If the foregoing meets with your approval initial each page and sign at the end where your agreement is signified and return to us by 31<sup>st</sup> March, 2005. A copy of this letter is enclosed for your records

Yours faithfully

**ELIUD T. WILLIAMS**  
**MANAGING DIRECTOR**

I agree

.....  
Chairman

*Copied to: Coordinator/Director - NTRC*