**Internet Draft** **E. Terrell**
**Category: Informational** **ETT-R&D Publications**
**Expires: January 27th, 2008** **July 2007**

# The IPtX Domain Name Service Specification; IPtX-MX DNS

**'draft-terrell-iptx-mx-dns-specification-00'**

## Status of this Memo

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## Requirements Terminology

**The keywords Must, Must Not, Required, Shall, Shall Not, Should, Should Not, Recommended, May, and Optional, when they appear in this document, are to be interpreted as described in [RFC-2119].**

## Conventions

**Please note, the mathematical operators that cannot be represented in the 'txt' file format, which represent; the '^' Carrot sign for 'NESTED' Super-Script, and the 'v' sign is used for a 'NESTED' Sub-Script.**

**This Internet-Draft will expire on January 27th, 2008.**

## Abstract

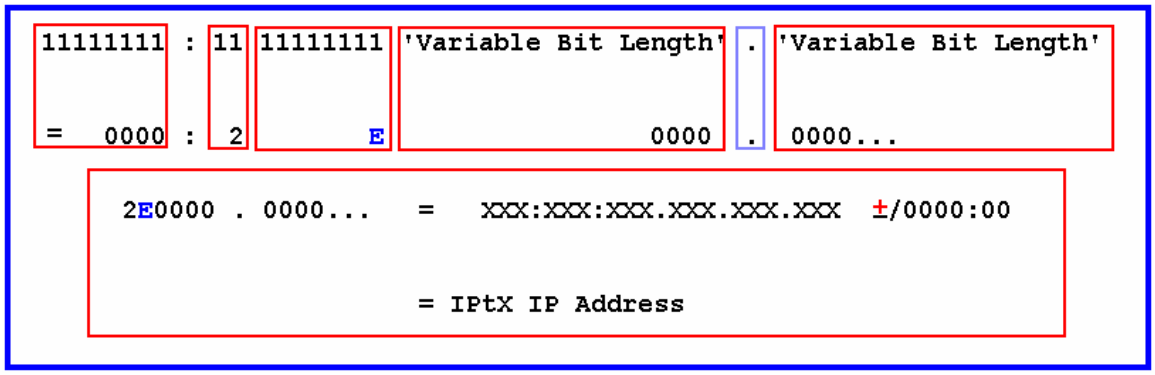
**This document defines the IPtX Specification for the 'Domain Name Service' (IPtX / IPtX-MX DNS), and eliminates the possibility of an Addressing 'Conflict', or a Mathematical Addressing Error in the IPtX Address Space. In other words, the IPtX / IPtX-MX IP Addressing format on the "Back-End", or "Backbone", obtains its uniqueness through the use and / or difference defined by the accuracy of the 'Exponential Decimal String'. However, this uniqueness, if not clarified, would not be discernable on the "Front-End", because the IPtX IP Addressing Specification 'Allows' only a '64' Bit-Mapped IP Address for every IP Addressing Format. That is, on the "Front-End", if there is No distinction, because every Addressing Format in the IPtX Specification, when Resolved, is Equal, there will ultimately be Address Conflicts within the Addressing Scheme.**

## Introduction

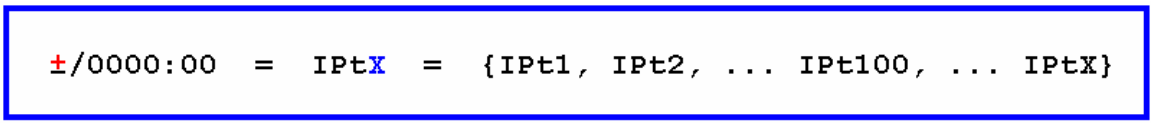
**The profoundness of the 'IPtX Specification' is that, it represents and defines a real conundrum. In other words, IP Addressing in the IPtX Specification, is a Mathematical Enigma that begs the question; 'How much does anyone really know about the Human Neuronic Processes? Or more specifically; 'Does anyone truly understand the Communication Process of the Neuron (perhaps, Macro and Quantum Levels), to actually develop a 'True Artificial Intelligence'? In which case, it should be understood; Today's Computers cannot discern the 'Identity', or 'Equality', between any two or more IP Addresses having Numerical Value that actually define the same IP Address in the IPtX Specification - e.g.;**

```
     213 = 00E0000.0000... ~ 2          E    7  .         73
11010101                    11   11001010  111  .    1001001

      Bit-Mapped Length  =  110101011111001001  ~  18 Bits



     213 = 00E0000.0000... ~ 2          E    7  .         735

11010101                    11   11001010  111  .  1011011111

      Bit-Mapped Length  =  11010101111110111111  ~  21 Bits
```

**The distinction between the Binary Numerals is defined by the Accuracy of the 'Exponential Decimal String', which represents a Unique Binary Sequence from the Binary Set, {0,1}. However, while this clearly defines a valid conclusion, it is sustained only on the "Back-End". In other words, when converting the Binary Sequence into the Integer representing the IP Address, an additional Tag, which identifies (equaling the 'CIDR Network Descriptor') the Bit-Mapped Length of the Addressing Format being used is necessary when making a distinction - where;**

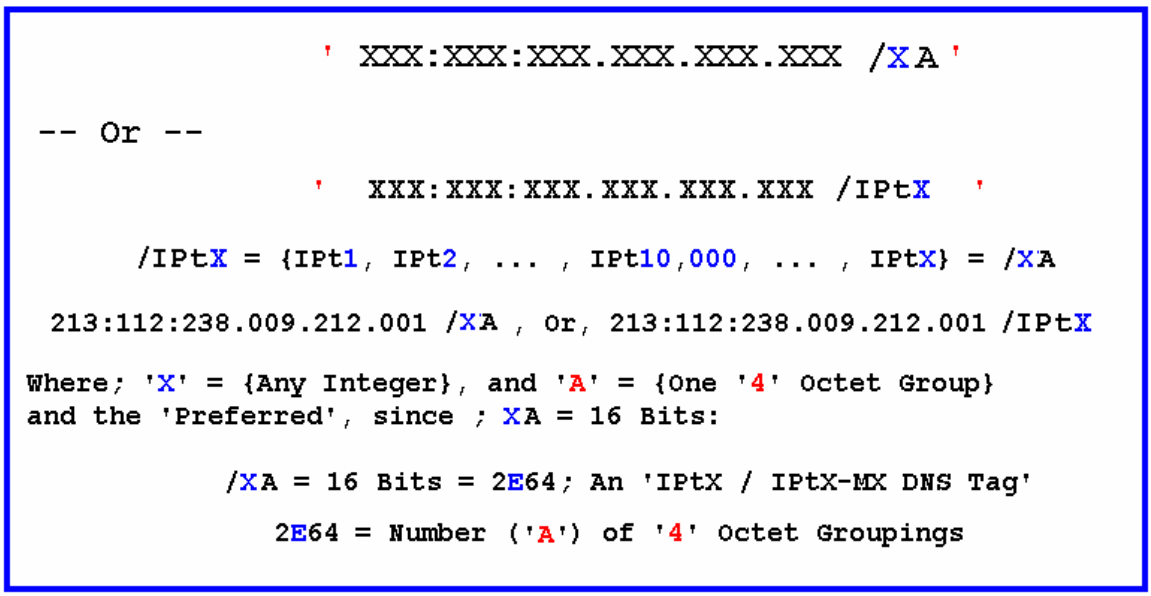



**And given that the Display of the 'CIDR Network Descriptor' is replaced with the Display of the Name of the Addressing Format identifying the Bit-Mapped Length of the IPtX Addressing Format being used;**




**The User sees the Binary Conversion of '2E0000 . 0000...' only as the Integer which represents the IPtX IP Address - In other words, using the IPtX / IPtX-MX DNS 'IP Addressing Format Tag', which distinguishes the Addressing Specification using an 'A' to represent the number of 32 Bit Groupings the Addressing Format contains, prevents 'Front-End' Address Resolution Conflicts. - As given by;**

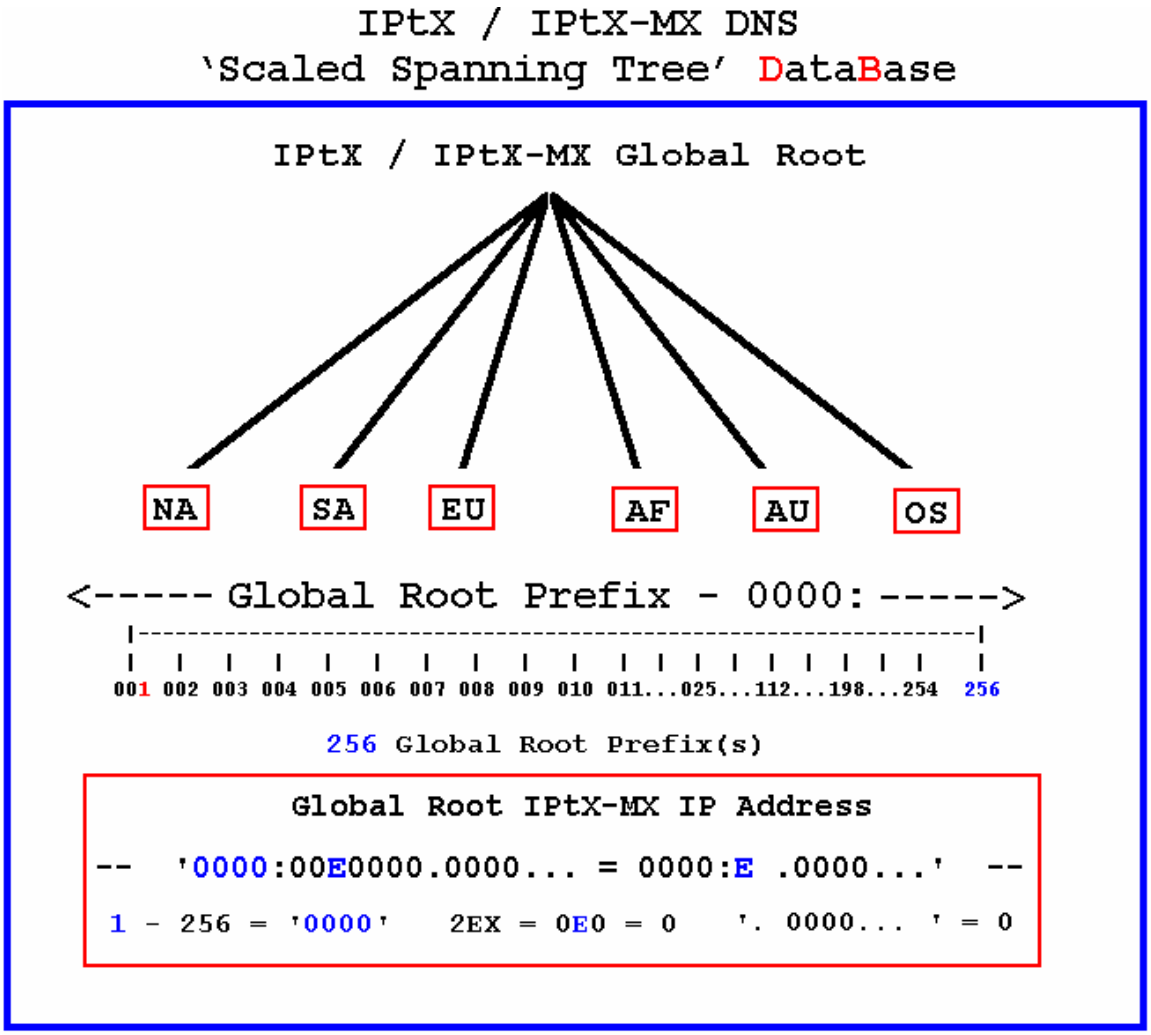
'Front-End' Address Resolution - Conflict Avoidance Technique

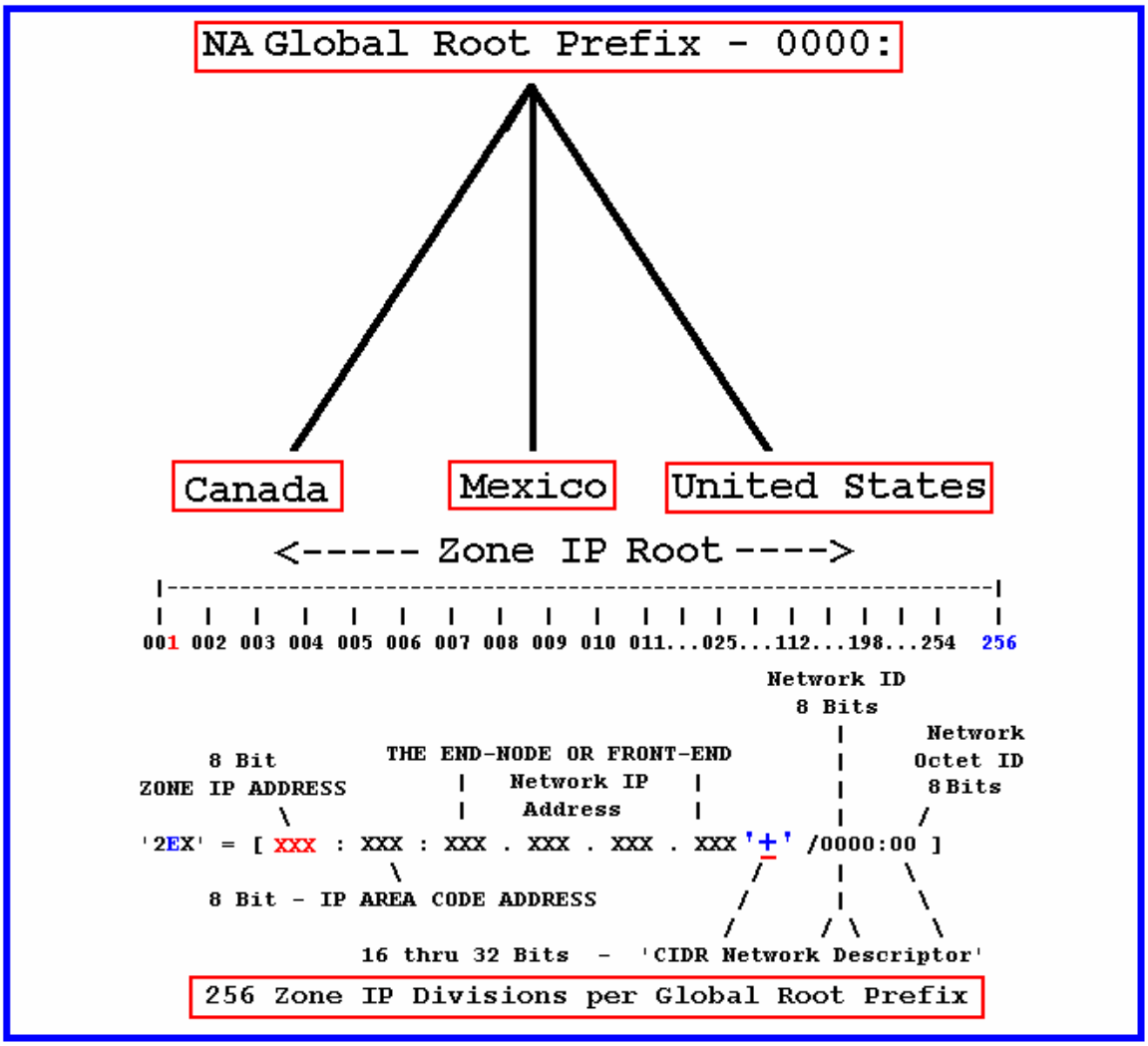


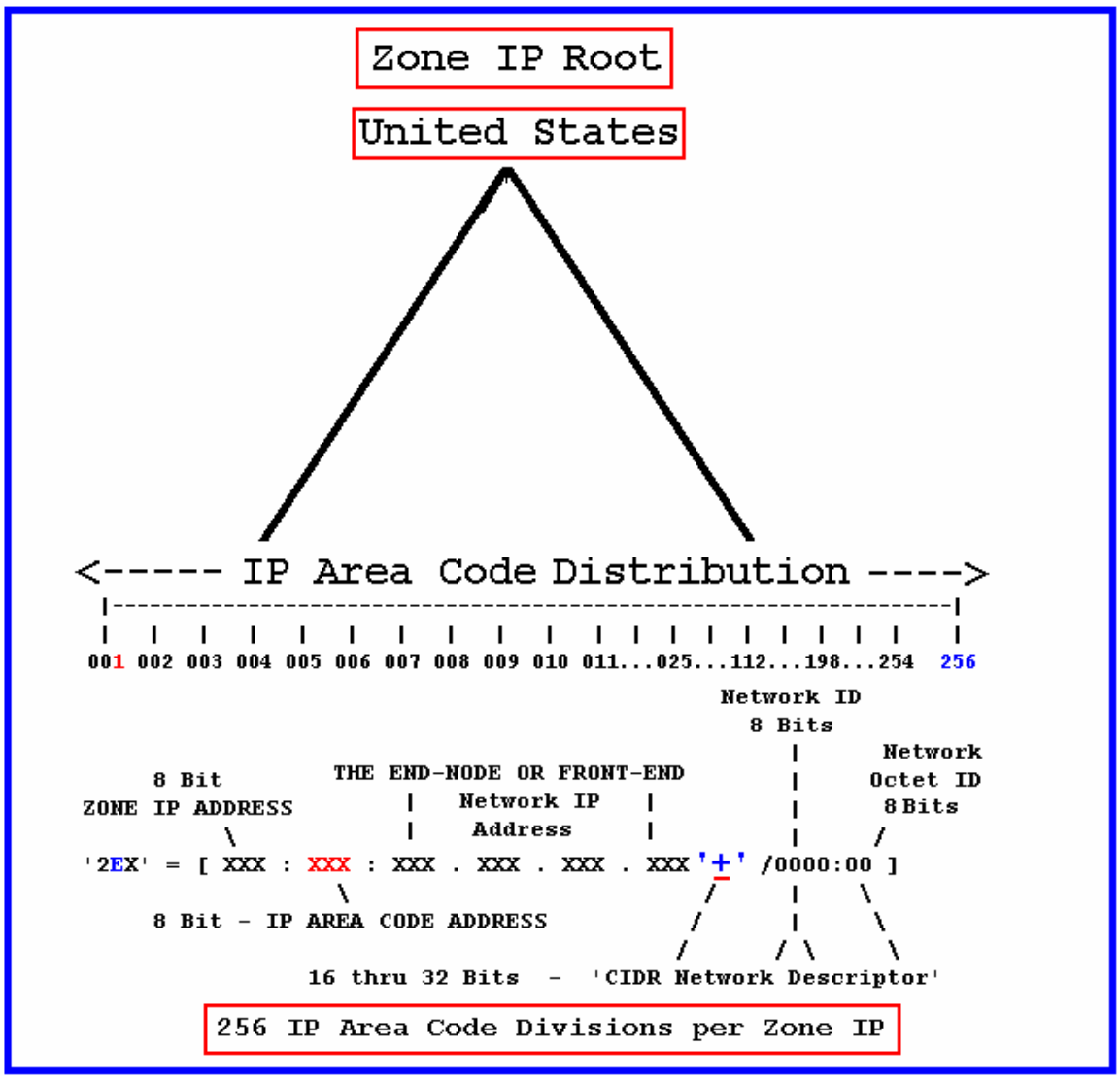

**Clearly then, any translation and / or distinction available to the user, must also be defined within the code of the Operating System, and in particular, defined within the code of the 'Domain Name Service' for the IPtX / IPtX-MX DNS Specification.**

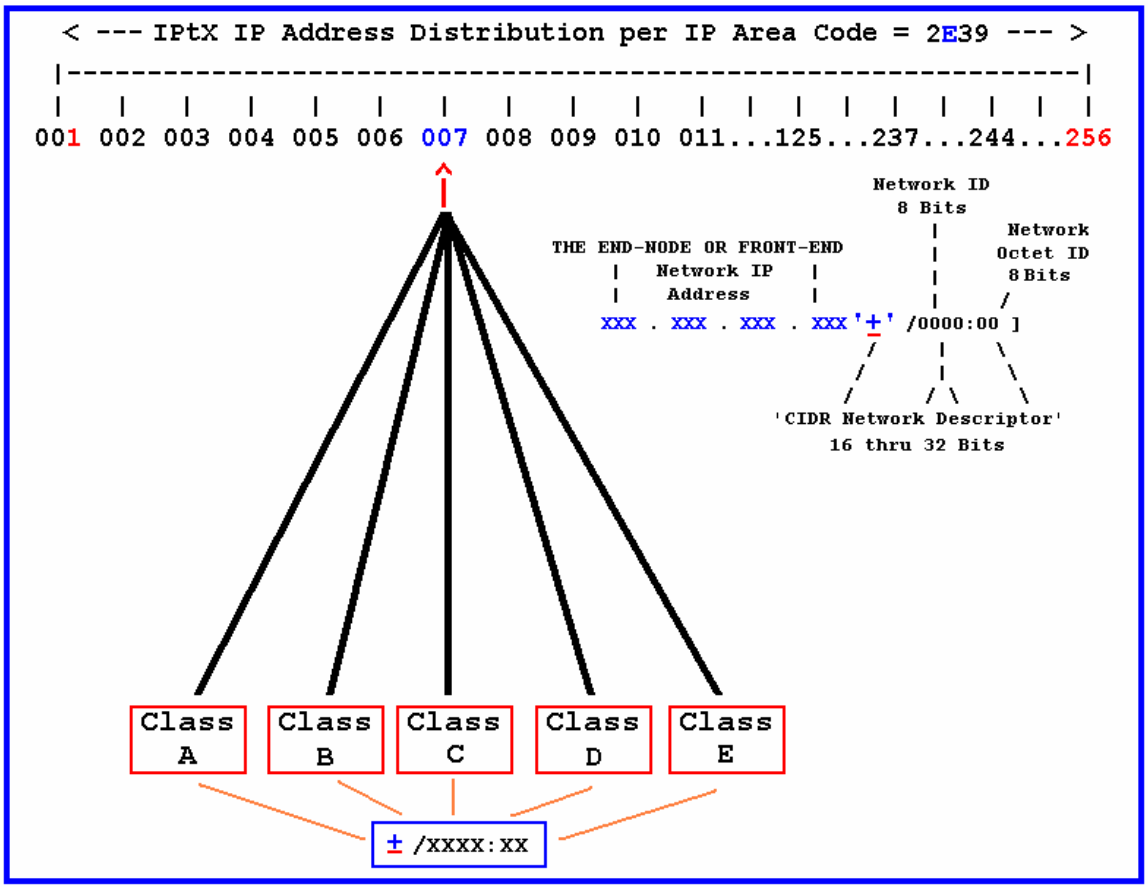
## IANA Consideration

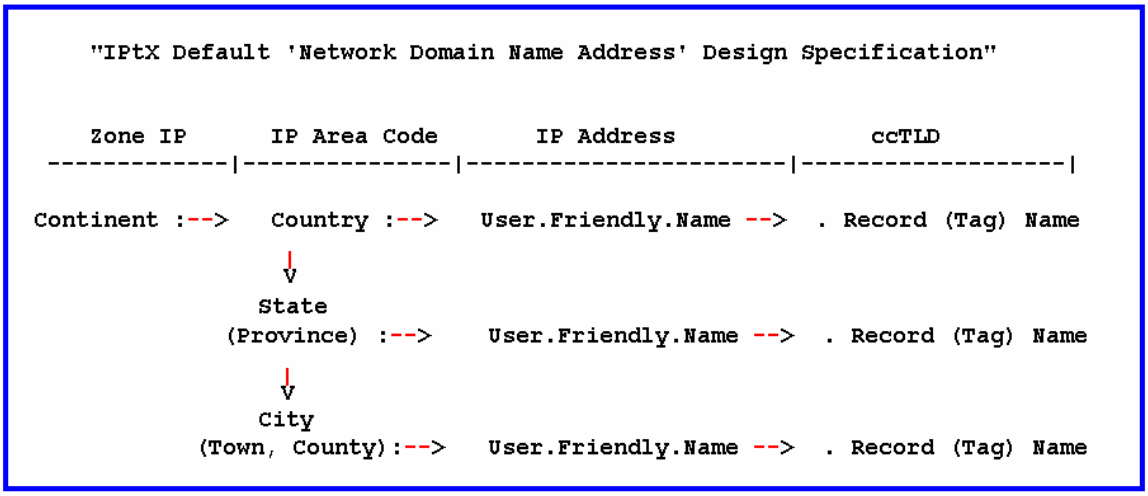
### I. IPtX / IPtX-MX DNS 'Scaled Spanning Tree' Data Base for an IP Address;



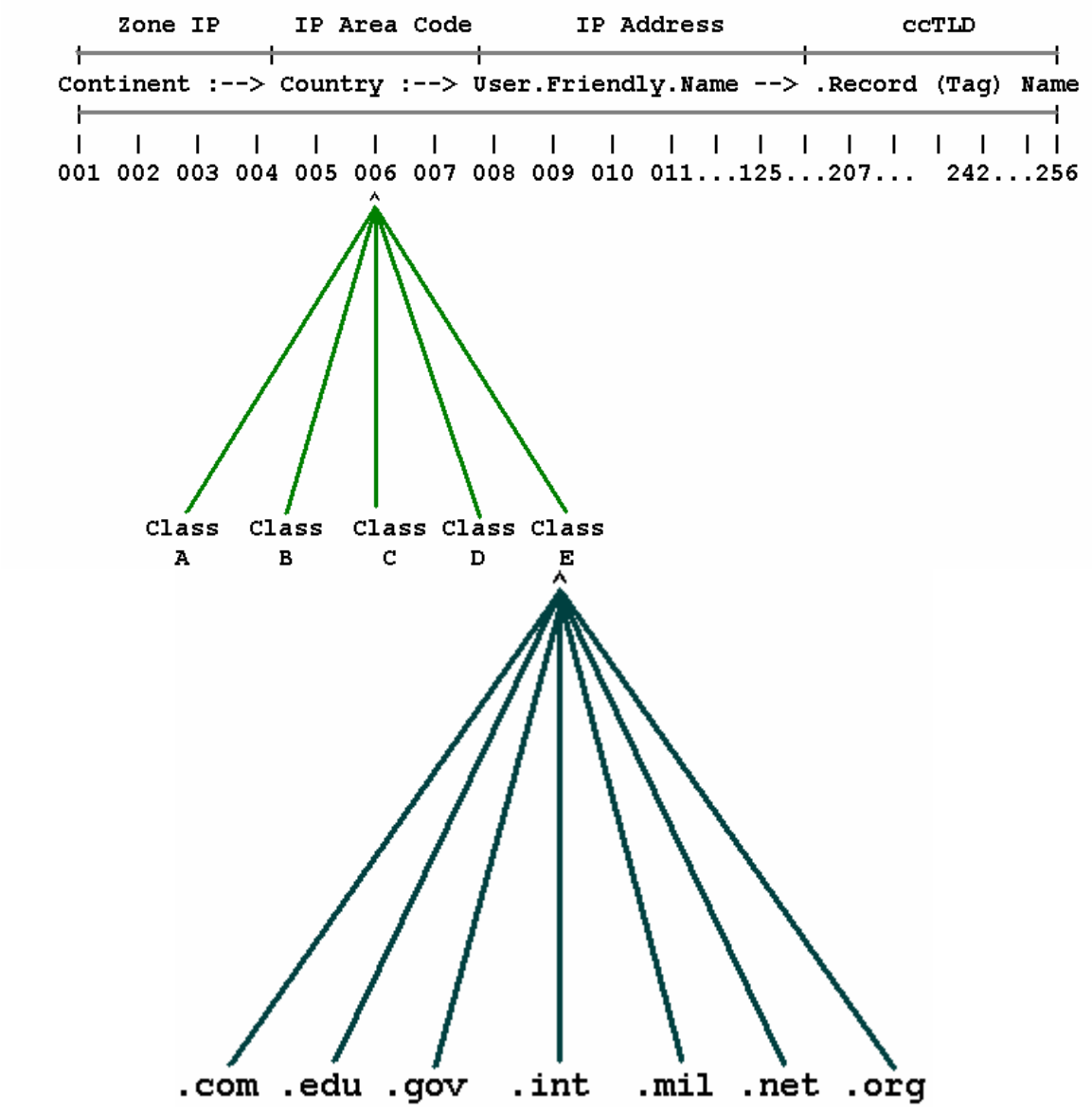

NA Global Root Prefix - 0000:
Canada
Mexico
United States
<----- Zone IP Root ---->
001 002 003 004 005 006 007 008 009 010 011...025...112...198...254 256
Network ID
8 Bits
Network
Octet ID
8 Bits
8 Bit
ZONE IP ADDRESS
THE END-NODE OR FRONT-END
Network IP
Address
'2EX' = [ XXX : XXX : XXX . XXX . XXX . XXX '+' /0000:00 ]
8 Bit - IP AREA CODE ADDRESS
16 thru 32 Bits - 'CIDR Network Descriptor'
256 Zone IP Divisions per Global Root Prefix


Zone IP Root
United States
<----- IP Area Code Distribution ---->
001 002 003 004 005 006 007 008 009 010 011...025...112...198...254 256
Network ID
8 Bits
Network
Octet ID
8 Bits
8 Bit
ZONE IP ADDRESS
THE END-NODE OR FRONT-END
Network IP
Address
'2EX' = [ XXX : XXX : XXX . XXX . XXX . XXX '+' /0000:00 ]
8 Bit - IP AREA CODE ADDRESS
16 thru 32 Bits - 'CIDR Network Descriptor'
256 IP Area Code Divisions per Zone IP


< --- IPtX IP Address Distribution per IP Area Code = 2E39 --- >
001 002 003 004 005 006 007 008 009 010 011...125...237...244...256
Network ID
8 Bits
Network
Octet ID
8 Bits
THE END-NODE OR FRONT-END
Network IP
Address
XXX . XXX . XXX . XXX '±' /0000:00 ]
'CIDR Network Descriptor'
16 thru 32 Bits
Class A
Class B
Class C
Class D
Class E
± /XXXX:XX

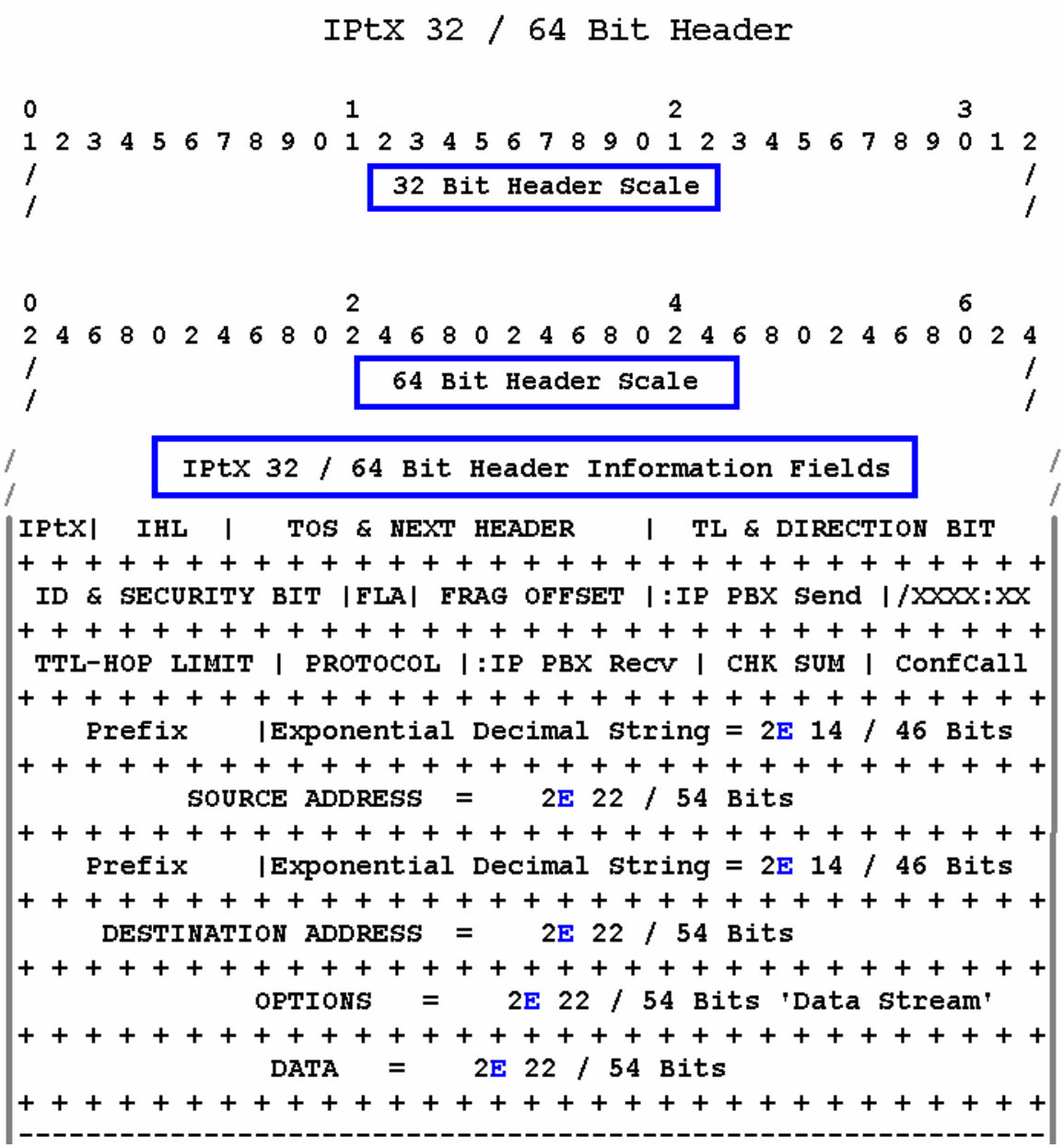

"IPtX Default 'Network Domain Name Address' Design Specification"
Zone IP
IP Area Code
IP Address
ccTLD
Continent :--> Country :--> User.Friendly.Name --> . Record (Tag) Name
State
(Province) :--> User.Friendly.Name --> . Record (Tag) Name
City
(Town, County):--> User.Friendly.Name --> . Record (Tag) Name

Default IPtX Specification 'Network Domain Name Specification'



## II. IPtX 32 / 64 Bit Header Design Specification - 'Variable IP Addressing Format Range Bit-Mapped Capacity' - e.g.; IPt1 thru IPtX

**The current IP Bit-Mapped Transmission of an IP Address, is nothing more than the 'End or Station' Node Software Translation of a Binary Numerical Conversion. Clearly, utilizing the same principles and continuing to exploit of the 'DCE Unit'. The Compression Range of a 22 to 54 Bit-Mapped IPtX IP Addressing Format, can be reduces to the Bit-Mapped Length of a 32 or 64 Bit Header.**



INTERNET PROTOCOL tX (32 / 64 Bit) ADDRESS SPACE

IPtX / IPtX-MX IP Address = 0000:2E0000.0000...

| 8 Bits | 8 Bits | 8 Bits | 38 Bits | 16 Bits |
|---|---|---|---|---|
| Prefix : | Zone IP : | IP Area Code : | IPtX IP Address | ± /XXXX:XX |

| Prefix -8 BIT- | Zone IP ---8 BIT--- | IP Area Code ---8 BIT--- | IPtX IP Address | CIDR Network Descriptor | Distribution Purpose | Date |
|---|---|---|---|---|---|---|
| None | None | None | 000.000.000.000 | None | None | 7/2007 |
| 001 | 001-256: | All: | XXX.XXX.XXX.XXX | All | NA | 7/2007 |
| 002 | 001-256: | All: | XXX.XXX.XXX.XXX | All | SA | 7/2007 |
| 003 | 001-256: | All: | XXX.XXX.XXX.XXX | All | EU | 7/2007 |
| 004 | 001-256: | All: | XXX.XXX.XXX.XXX | All | OS | 7/2007 |
| 005 | 001-256: | All: | XXX.XXX.XXX.XXX | All | AU | 7/2007 |
| 006 | 001-256: | All: | XXX.XXX.XXX.XXX | All | AF | 7/2007 |
| 007-256 | 001-256: | All: | XXX.XXX.XXX.XXX | All | IANA/RESERVED | 7/2007 |
| IANA | 001-256: | All: | 000.000.000.000 | All | IANA/EMERGENCY | 7/2007 |
| IANA | None | None | 127.000.000.000 | ± /0000:08 | IANA/LoopBack | 7/2007 |

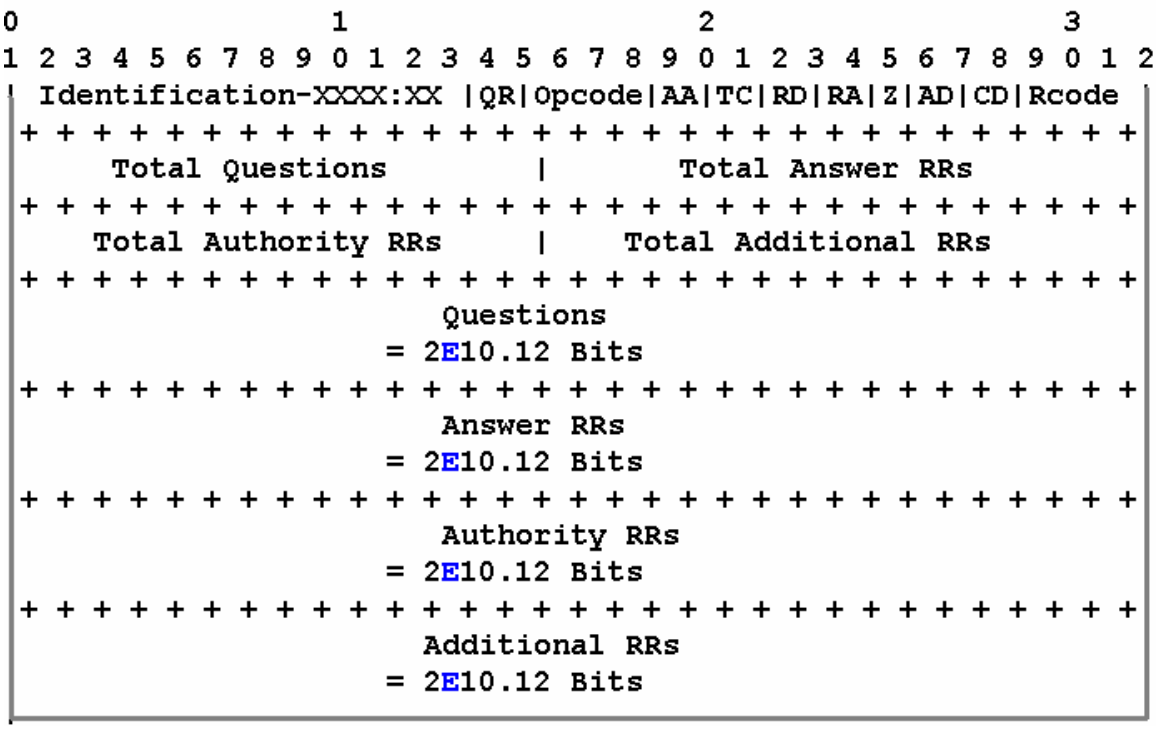
SA = South America, NA = North America,
EU = European Union, AU = African Union,
AF = Asian Federation, OS = Oceania States

**III. IPtX 32 / 64 Bit - DNS Header, DNS Query, DNS Resource Record, TCP Header, TCP Pseudo Header, UDP Header, and UDP Pseudo Header, Design Specification(s) -**

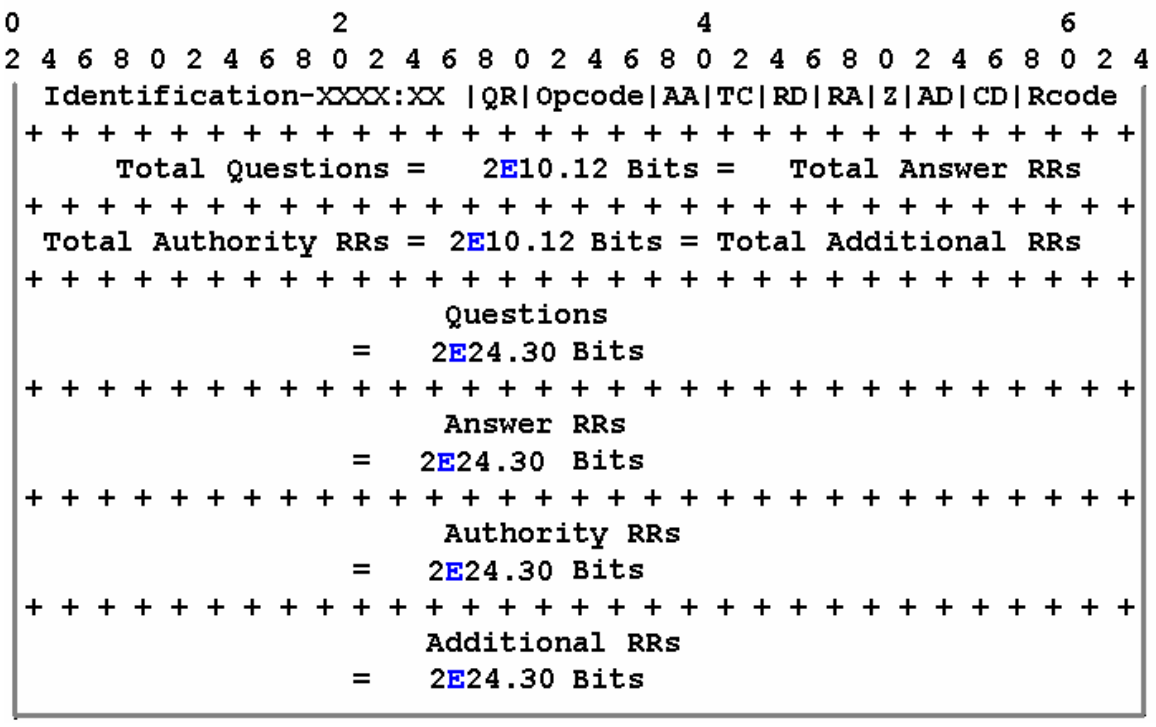
## CHANGES: IPtX DNS Services 32 / 64 Bit Header

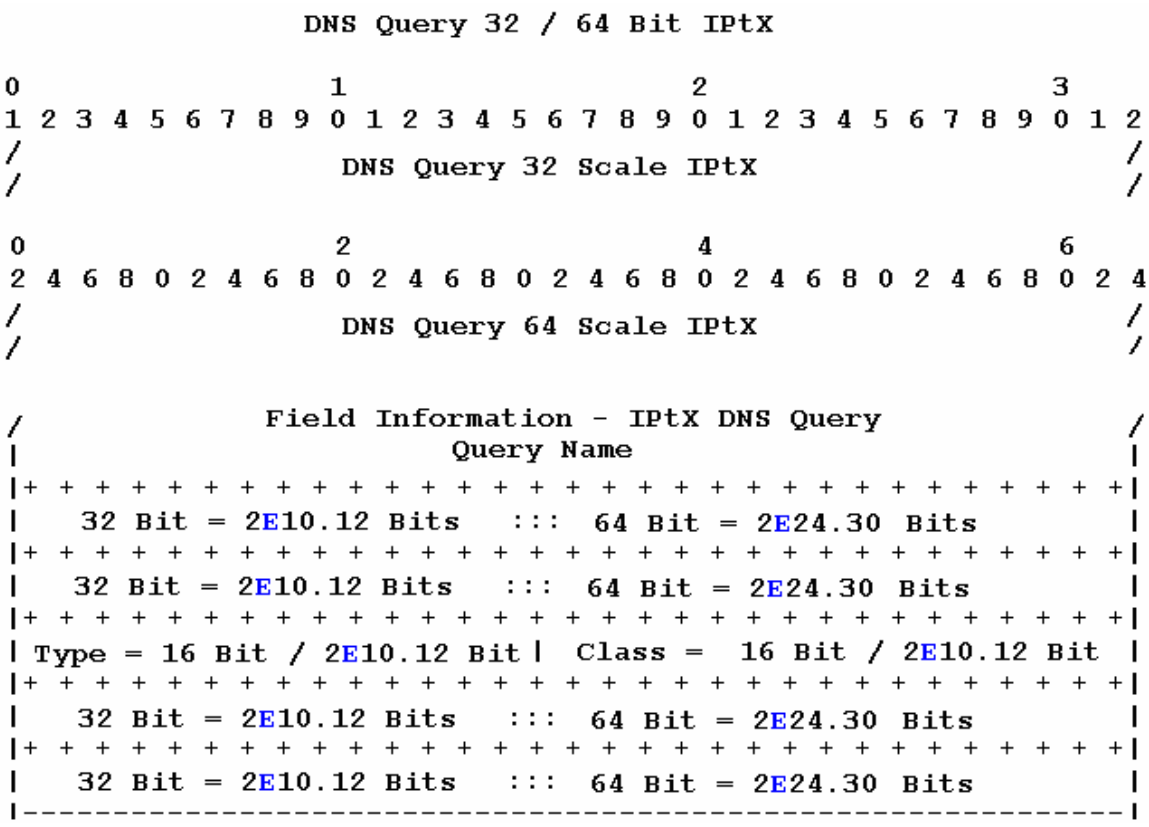
| DNS Header for IPtx | DNS Query for IPtX | DNS RR Record for IPtX |
|---|---|---|
| Identification = 2E15.25 Bits<br>Opcode = 4 Bits<br><br>Rcode = 4 Bits | Type = 2E18.20 Bits<br><br>Class = 16 Bits<br><br>Length Rdata = 2E12.20Bits | Type = 2E18.20 Bits<br><br>Class = 16 Bits<br><br>TTL = Variable to 2E22.40 Bits |
| TQuestions = 2E12.20 Bits<br><br>TAnswers RR = 2E12.20 Bits<br><br>TAuthority RR = 2E12.20 Bits<br><br>TAdditional RR = 2E12.20 Bits<br><br>CIDRNetDes = XXXX:XX /XXXX:XX = 8 Bits | 3 New "TYPE" Categories<br><br>1. TYPE 43 = 'RNN'<br>= "Reverse Network Domain Name"<br>Title: IN-ADDR.APARA NAME<br>= IN-ADDR.RNN<br><br>2. TYPE 44 = 'RNN-PTR'<br>= "Reverse Network Domain Name-Domain Name Pointer"<br><br>3. TYPE 45 = 'XA' = "IPtX (IP Address)"<br>Where X = Integer Variable ≥ 1<br>- e.g. IPt1 = A, IPt2 = AA = 2A, IPt3 = AAA = 3A, IPt4 = AAAA = 4A, etc | |

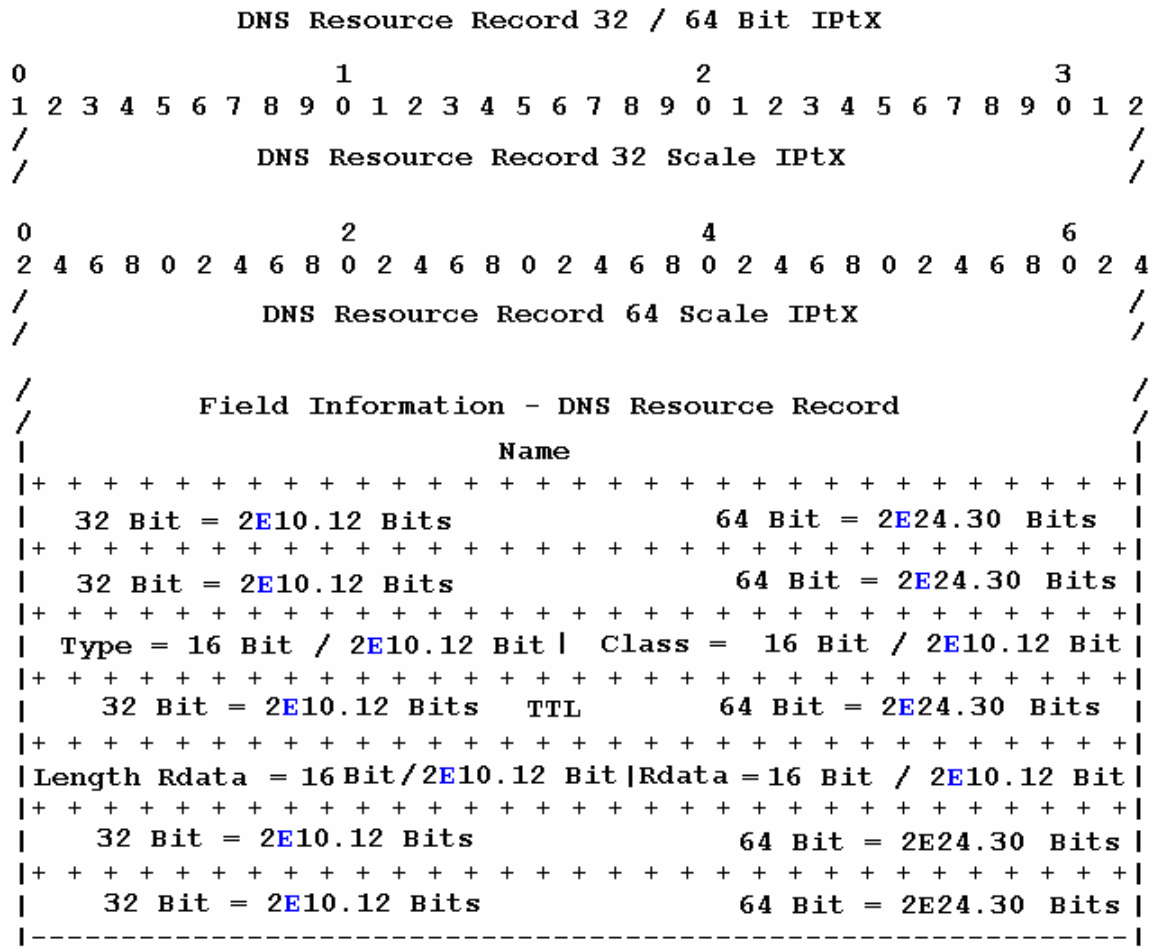
DNS Header 32 Bit IPtX

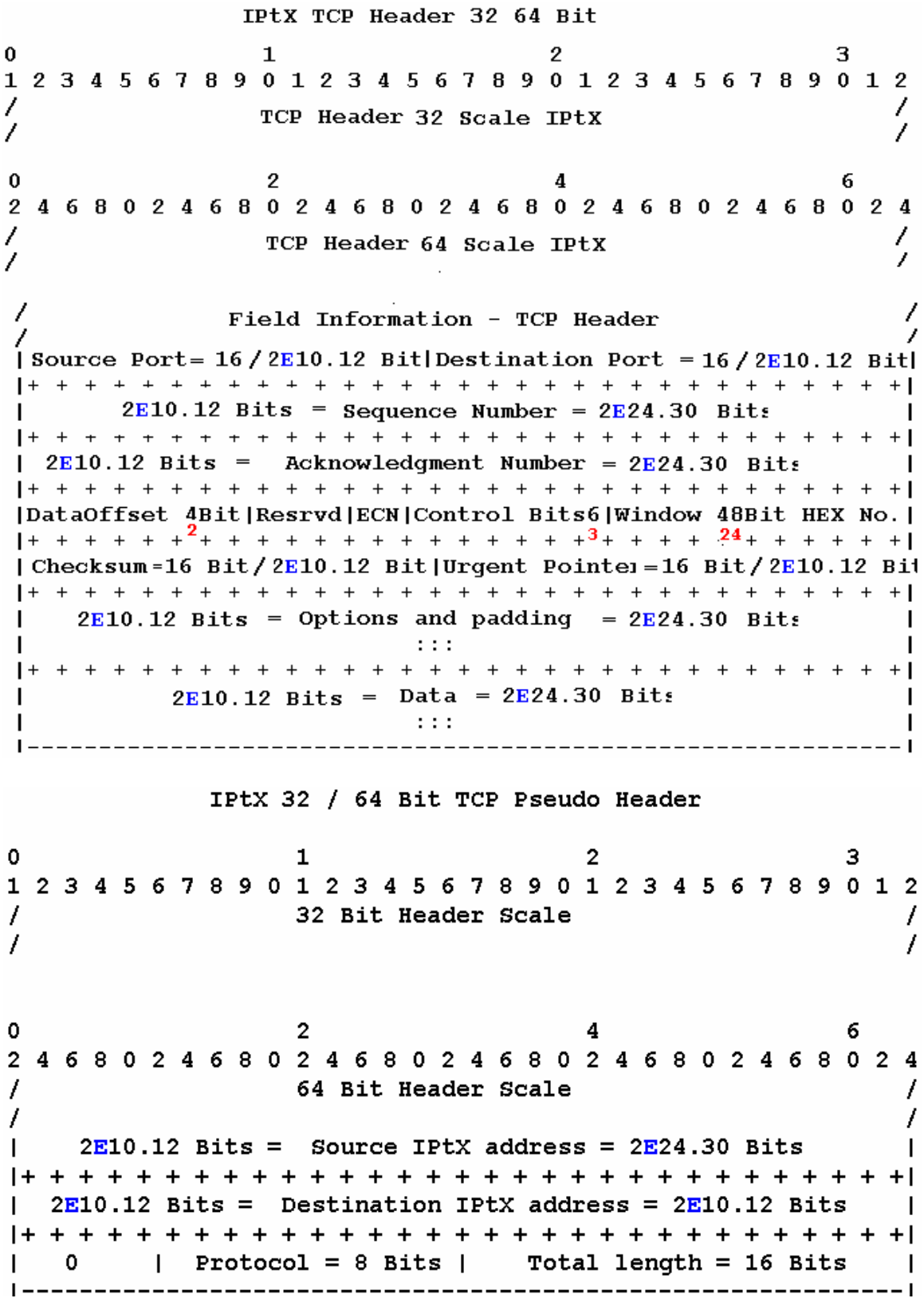


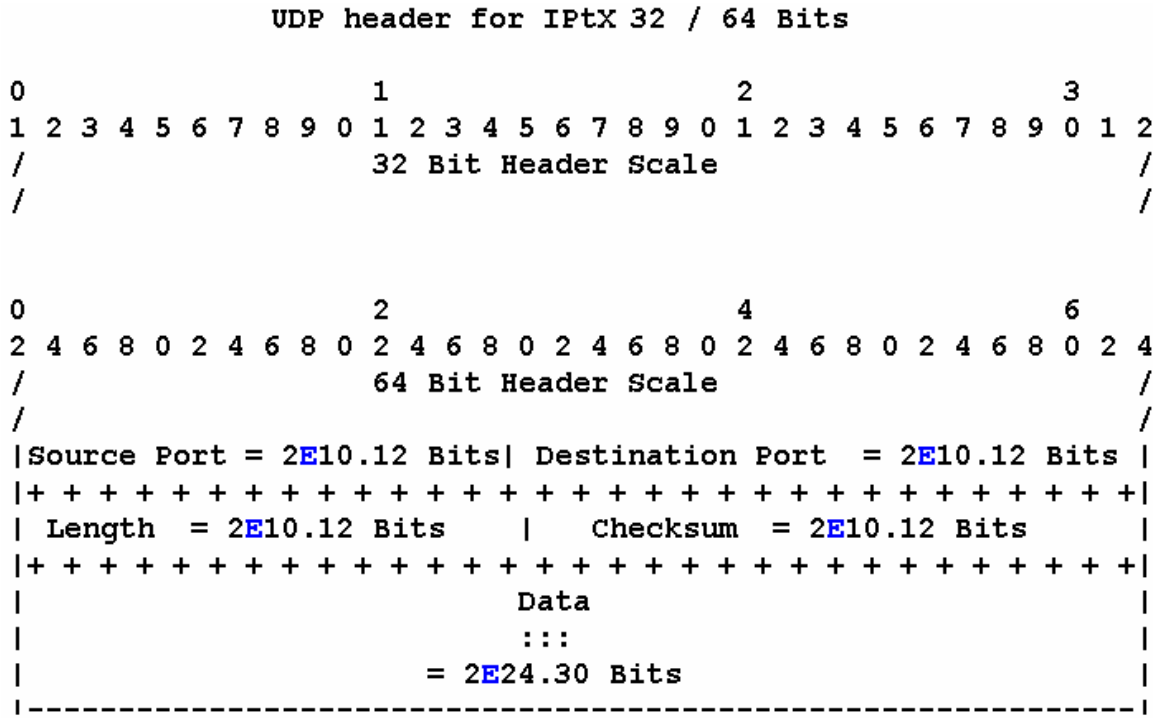

DNS Header 64 Bit IPtX




DNS Query 32 / 64 Bit IPtX
0 1 2 3
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2
DNS Query 32 Scale IPtX
0 2 4 6
2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4
DNS Query 64 Scale IPtX
Field Information - IPtX DNS Query
Query Name
32 Bit = 2E10.12 Bits ::: 64 Bit = 2E24.30 Bits
32 Bit = 2E10.12 Bits ::: 64 Bit = 2E24.30 Bits
Type = 16 Bit / 2E10.12 Bit
Class = 16 Bit / 2E10.12 Bit
32 Bit = 2E10.12 Bits ::: 64 Bit = 2E24.30 Bits
32 Bit = 2E10.12 Bits ::: 64 Bit = 2E24.30 Bits


DNS Resource Record 32 / 64 Bit IPtX
0 1 2 3
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1 2
DNS Resource Record 32 Scale IPtX
0 2 4 6
2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4 6 8 0 2 4
DNS Resource Record 64 Scale IPtX
Field Information - DNS Resource Record
Name
32 Bit = 2E10.12 Bits
64 Bit = 2E24.30 Bits
32 Bit = 2E10.12 Bits
64 Bit = 2E24.30 Bits
Type = 16 Bit / 2E10.12 Bit
Class = 16 Bit / 2E10.12 Bit
32 Bit = 2E10.12 Bits
TTL
64 Bit = 2E24.30 Bits
Length Rdata = 16 Bit/2E10.12 Bit
Rdata = 16 Bit / 2E10.12 Bit
32 Bit = 2E10.12 Bits
64 Bit = 2E24.30 Bits
32 Bit = 2E10.12 Bits
64 Bit = 2E24.30 Bits


IPtX TCP Header 32 64 Bit
TCP Header 32 Scale IPtX
TCP Header 64 Scale IPtX
Field Information - TCP Header
Source Port= 16 / 2E10.12 Bit
Destination Port = 16 / 2E10.12 Bit
2E10.12 Bits = Sequence Number = 2E24.30 Bits
2E10.12 Bits = Acknowledgment Number = 2E24.30 Bits
DataOffset 4Bit
Resrvd
ECN
Control Bits6
Window 48Bit HEX No.
Checksum=16 Bit / 2E10.12 Bit
Urgent Pointer=16 Bit / 2E10.12 Bit
2E10.12 Bits = Options and padding = 2E24.30 Bits
2E10.12 Bits = Data = 2E24.30 Bits
IPtX 32 / 64 Bit TCP Pseudo Header
32 Bit Header Scale
64 Bit Header Scale
2E10.12 Bits = Source IPtX address = 2E24.30 Bits
2E10.12 Bits = Destination IPtX address = 2E10.12 Bits
0
Protocol = 8 Bits
Total length = 16 Bits




**Security Considerations**

**This document, whose only objective was the deliberation of Information, does not directly raise any security issues. Hence, there are no issues that warrant Security Considerations.**

## Work(s) in Progress;

**These drafts represent the twelve chapters of the Networking Bible, designing a Network IP Addressing Specification that maintains a 100 Percent backward compatibility with the IPv4 Specification. In other words, this is a design specification developed from the Theory of the Expansion of the IPv4 IP Addressing Specification, which allowed the representation of the Network for the entire World on paper, and the possibility of an Infinite IP Address Pool. Nevertheless, the Internet-Drafts listed below, "Cited as Work(s) in Progress', explain the design Specification for the development of the IPtX (IP Telecommunications Specification) Protocol Addressing System and the correction of the Mathematical Error in the Binary System.**

**Computer Science / Internet Technology:**

**1. http://www.ietf.org/internet-drafts/draft-terrell-logic-analy-bin-ip-spec-ipv7-ipv8-10.txt**
**(Foundational Theory for the New IPtX family IP Addressing Specification, and the Binary Enumeration error discovery after the correction.) - "Work(s) in Progress'**

**2. http://www.ietf.org/internet-drafts/draft-terrell-simple-proof-support-logic-analy-bin-02.txt**
**(The 2nd proof for the existence of another Binary System, resulting from the Error Correction.)**
**- "Work(s) in Progress'**

**3. http://www.ietf.org/internet-drafts/draft-terrell-visual-change-redefining-role-ipv6-01.pdf**
**(Argument against the Machine dependant IPv6 deployment.)**
**- "Work(s) in Progress'**

**4. http://www.ietf.org/internet-drafts/draft-terrell-schem-desgn-ipt1-ipt2-cmput-tel-numb-02.pdf**
**(The foundation of the New IPtX Addressing Spec compared to the Telephone Numbering System.)**
**- "Work(s) in Progress'**

**5. http://www.ietf.org/internet-drafts/draft-terrell-internet-protocol-t1-t2-ad-sp-06.pdf**
**(The IPtX Addressing Specification Address Space / IP Address Allocation Table; establishes the visual perspective that actually represents Networking Schematic Networking the entire World on Paper. ) - "Work(s) in Progress'**

**6. http://www.ietf.org/internet-drafts/draft-terrell-iptx-spec-def-cidr-ach-net-descrip-01.pdf**
**(Re-Defines CIDR) {Classes Inter-Domain Routing Architecture} and introduces the Network Descriptor for the IPtX Addressing Standard.) - "Work(s) in Progress'**

**7. http://www.ietf.org/internet-drafts/draft-terrell-math-quant-new-para-redefi-bin-math-04.pdf**
**(The 3rd Proof for the New Binary System, correcting the error in Binary Enumeration.)**
**- "Work(s) in Progress'**

**8. http://www.ietf.org/internet-drafts/draft-terrell-gwebs-vs-ieps-00.pdf**
**(Defining the GWEBS – The Global Wide Emergency Broadcast System)**
**- "Work(s) in Progress'**

**9. http://www.ietf.org/internet-drafts/draft-terrell-iptx-dhcp-req-iptx-ip-add-spec-00.pdf**
**(The development of the DHCP {Dynamic Host Configuration Protocol} for the IPTX IPSpec)**
**- "Work(s) in Progress'**

**10. http://www.ietf.org/internet-drafts/draft-terrell-iptx-dns-req-iptx-ip-add-spec-03.pdf**
**(The development of the DNS {Domain Naming Specification} the for IPTX IPSpec)**
**- "Work(s) in Progress'**

**11. http://www.ietf.org/internet-drafts/draft-terrell-math-quant -ternary-logic-of-binary-sys-08.pdf**
**(Derived the Binary System from the proof of "Fermat's Last Theorem", and Developed the Ternary Logic for the Binary System) - "Work(s) in Progress"**

**12. http://www.ietf.org/internet-drafts/draft-terrell-cidr-net-descrpt-expands-iptx-add-spc-17.pdf**
**- "Work(s) in Progress"**
**(An application of Quantum Scale Theory, the $2^X$ : 1 Compression Ratio, the Expansion derived from the 'CIDR Network Descriptor, and the Mathematics of Quantification provided the foundation for the development of the "Intelligent Quantum Tunneling Worm Protocol"; A Routable Mathematical Exponential Expression, Backend IP Addressing Protocol that provides an (nearly) Unlimited IP Address Space using the Compression Ratio $2^X$ : 1.)**

**Note: These Drafts has Expired at www.ietf.org Web Site. However, you can still find copies posted at Web Sites all over the World. {Suggestion; Perform Internet search using "Yahoo" or "Google", Key word: "ETT-R&D Publications"}.**

## 7. Normative References:

**Pure Mathematics:**


**1. The Proof of Fermat's Last Theorem; The Revolution in Mathematical Thought {Nov 1979}**
**Outlines the significance of the need for a thorough understanding of the Concept of Quantification and the Concept of the Common Coefficient. These principles, as well many others, were found to maintain an unyielding importance in the Logical Analysis of Exponential Equations in Number Theory.**

**2. The Rudiments of Finite Algebra; The Results of Quantification {July 1983}**
**Demonstrates the use of the Exponent in Logical Analysis, not only of the Pure Arithmetic Functions of Number Theory, but Pure Logic as well. Where the Exponent was utilized in the Logical Expansion of the underlining concepts of Set Theory and the Field Postulates. The results yield another Distributive Property that is Conditional, which supports the existence of a Finite Field (i.e. Distributive Law for Exponential Functions) and emphasized the possibility of an Alternate View of the Entire Mathematical field.**

**3. The Rudiments of Finite Geometry; The Results of Quantification {June 2003}**
**Building upon the preceding works from which the Mathematics of Quantification was derived. Where by it was logically concluded that there existed only 2 mathematical operations; Addition and Subtraction. In other words, the objectives this treatise maintained, which was derived from the foundation of the Mathematics of Quantification; involves not only the clarification of the misconceptions concerning Euclid's Fifth Postulate, and the logical foundation of his work, or the existence of 'Infinity in a Closed Bound Finite Space'. But, the logical derivation of the Foundational Principles that are consistence with the foundation presented by Euclid, which would establish the logical format for the Unification of all the Geometries presently existing.**

**4. The Rudiments of Finite Trigonometry; The Results of Quantification {July 2004}**
**The development of the concepts for Finite Trigonometry from the combined foundations derived from numbers 3 and 5, and the Mathematics of Quantification.**

**5. The Mathematics of Quantification and the Metamorphosis of $\pi : \tau$ { October 2004}**
**The logical derivation of the exact relationship between the Circumference and the Diameter of the Circle, which defines the measurement of the exact length of the Circle's Circumference, $\tau$ when the Radius is equal to '1'.**

**6. Squaring the Circle? First! What is the Circle's Area? {January 2005}**
**The Rhind Papyrus Tale, and the 10,000 year old quest involving "Squaring the Circle"; Derivation of the equation resolving the Area of the Circle. An illusion perplexing the Sight and Mind of the greatest mathematicians for about 10,000 years, which maintains an elementary algebraic solution: $(\pi r \div 2)^2$ = Area of Circle.**


**Physics:**


**7. The Mathematics of Quantification & The Rudiments of Finite Physics**
**The Analysis of Newton's Laws of Motion…the Graviton' {December 2004}**
**Through the use of Finite Algebra, Geometry, Trigonometry, and # 5, investigation of the Laws of Classical Physics were found to be erroneous. This allowed the presentation of the initial work, which correct the flaws in Classical Physics, and establishes the foundation upon which there exist the possibility of a Grand Unified Field Theory for the Natural Sciences.**

## Informative References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**"This work is Dedicated to my first and only child, 'Princess Yahnay', because she is the gift of Dreams, the true treasure of my reality, and the 'Princess of the Universe'. (E.T. 2006)"**

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