Internet Draft **E. Terrell**
Category: Proposed Standard **ETT-R&D Publications**
Expires: March 3rd, 2008 **September 2007**

The IPtX Dynamic Host Configuration Protocol; DHCPvIPtX-MX

'draft-terrell-iptx-mx-dhcp-specification-00'

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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 March 3rd, 2008.

Abstract

This document defines the IPtX Specification for the 'Dynamic Host Configuration Protocol'; IPtX / IPtX-MX DHCP (DHCPvIPtX-MX), which provides Backwards Compatibility with the IPv4 Specification without compromise or change to current DHCP Server and Client Configuration and / or Operational requirements. And more importantly, because the IPtX / IPtX-MX Specification represents a 3 State Binary IP Addressing Specification, there are 2 IP Address Band Specifications; Mobile IP Address Pool and a Stationary IP Address Pool, with a 3 Dimensional Locator, which represents a 3 IP Address Coordinate System that uses an EMERGENCY Broadcast [e911] to establish a Synchronized LINK with 3 different [KNOWN] Router Locations and the MAC Address, to Triangulate the Location of any Node Connected to the Network.

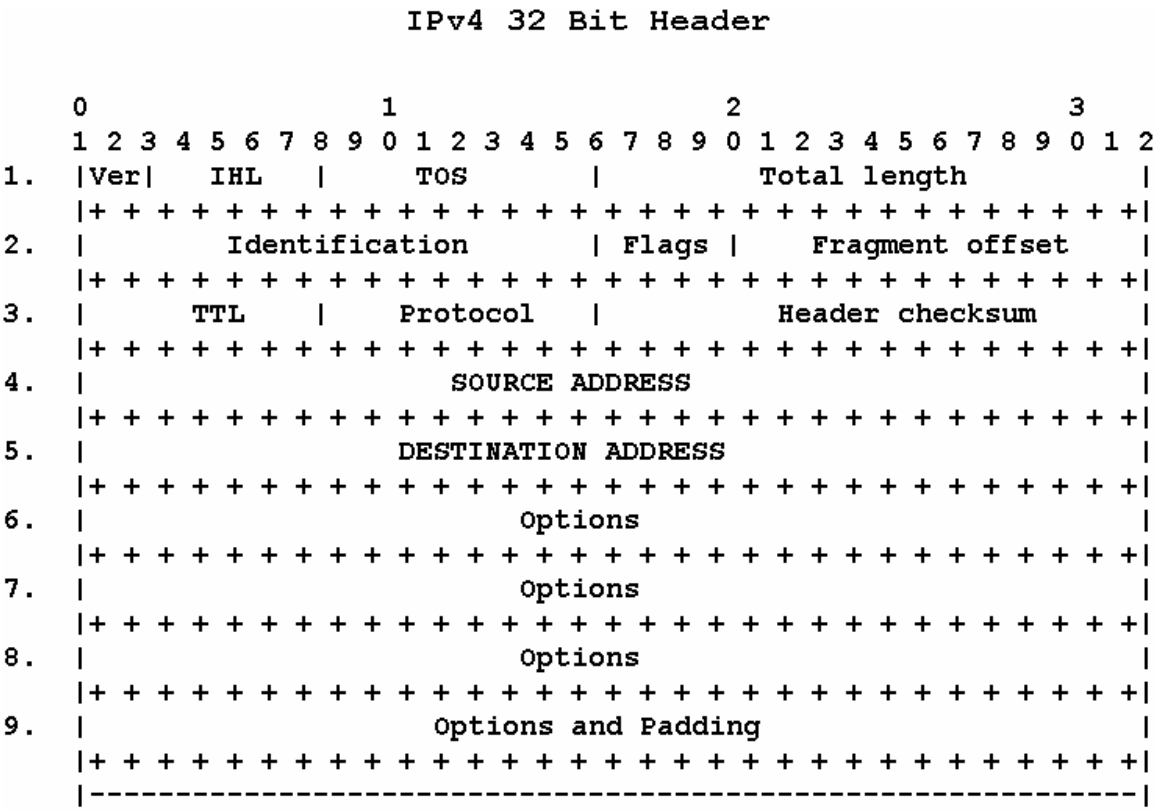
Table of Contents

Introduction

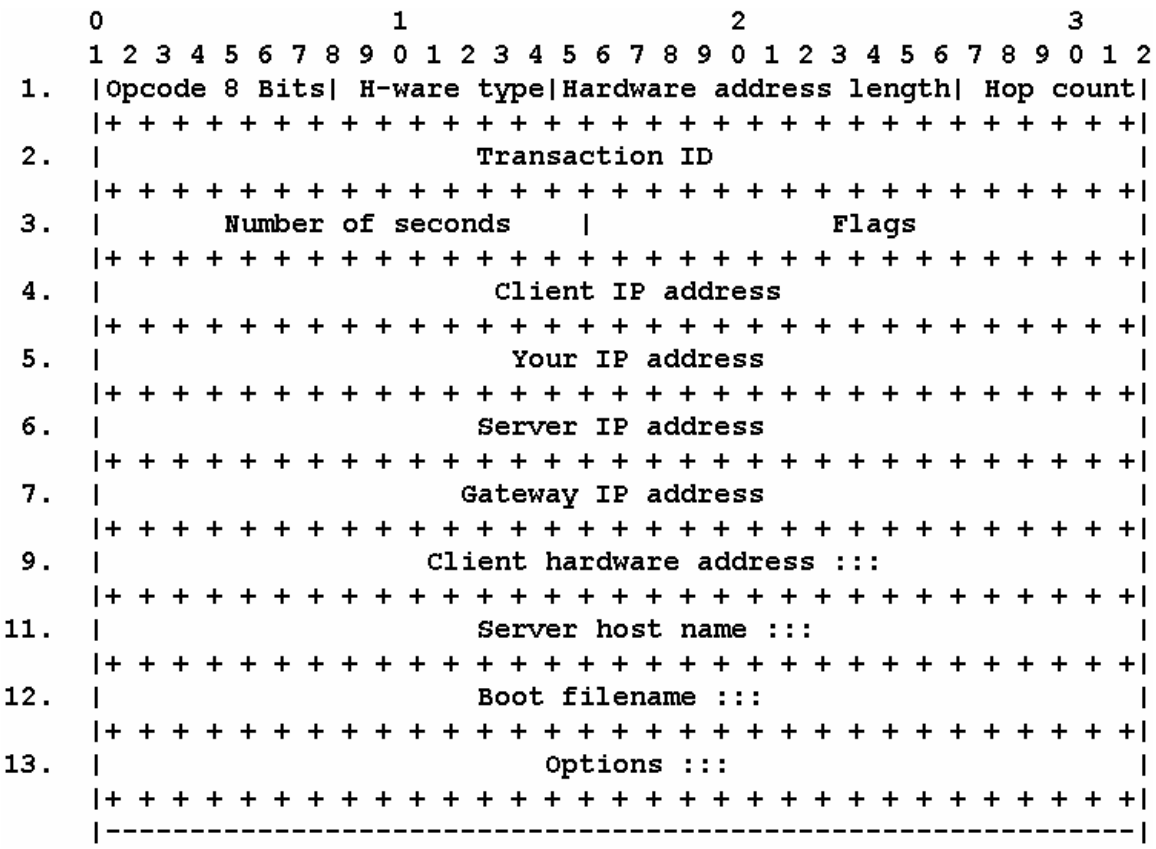
The DHCPv4 Header, which was derived from the Bootp Protocol (RFC 951 Bootstrap Protocol), other than Commands, has not changed since 1985. And clearly, the purpose or functional use of DHCPv4 not is obsolete, because there are several viable reasons not to assign a Static IP Address to a Client. Especially when the Client is only a Guest of the Network. In other words, if any improvement in Performance or Use necessitates Change, then the DHCPvIPtX-MX Specification prescribes the logically viable reason(s) for making the changes.

IANA Consideration

I. The DHCPv4 and DHCPv6 Header Design Specification



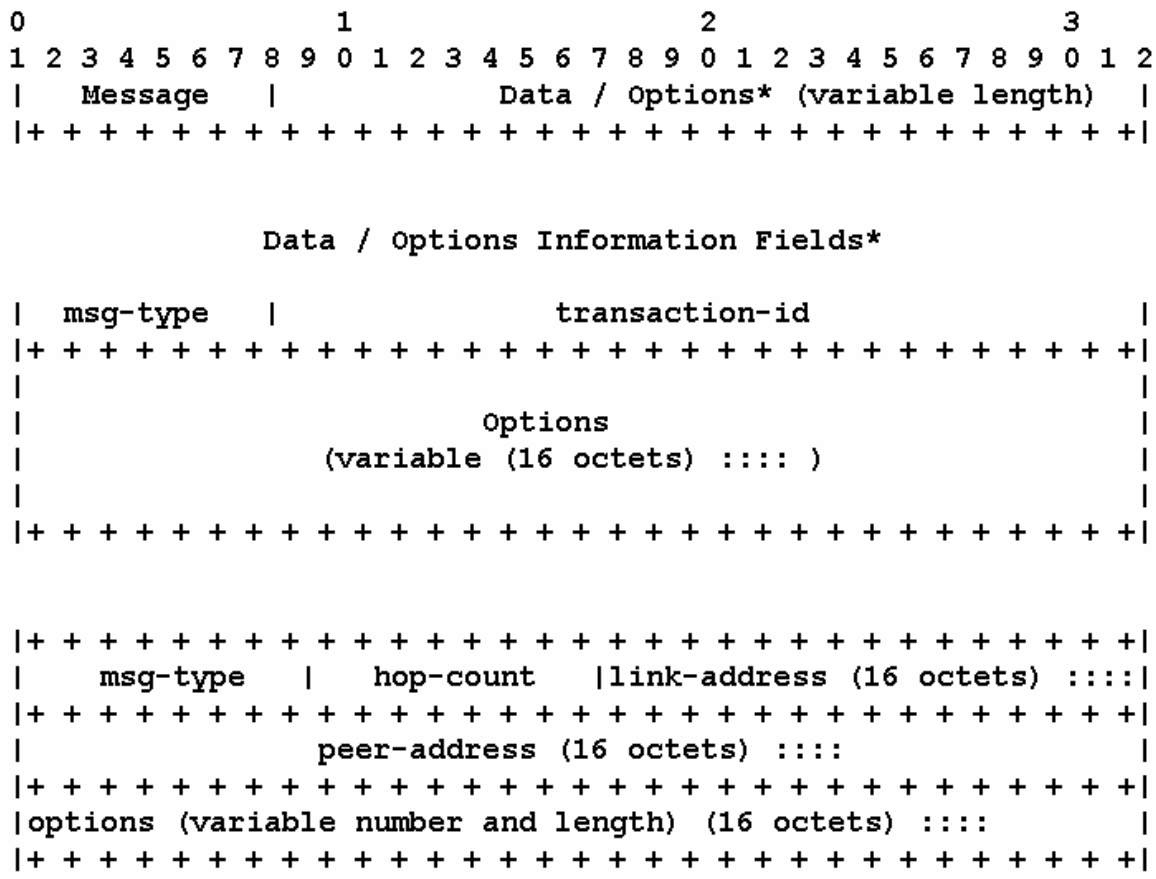
DHCPv4 32 Bit Header

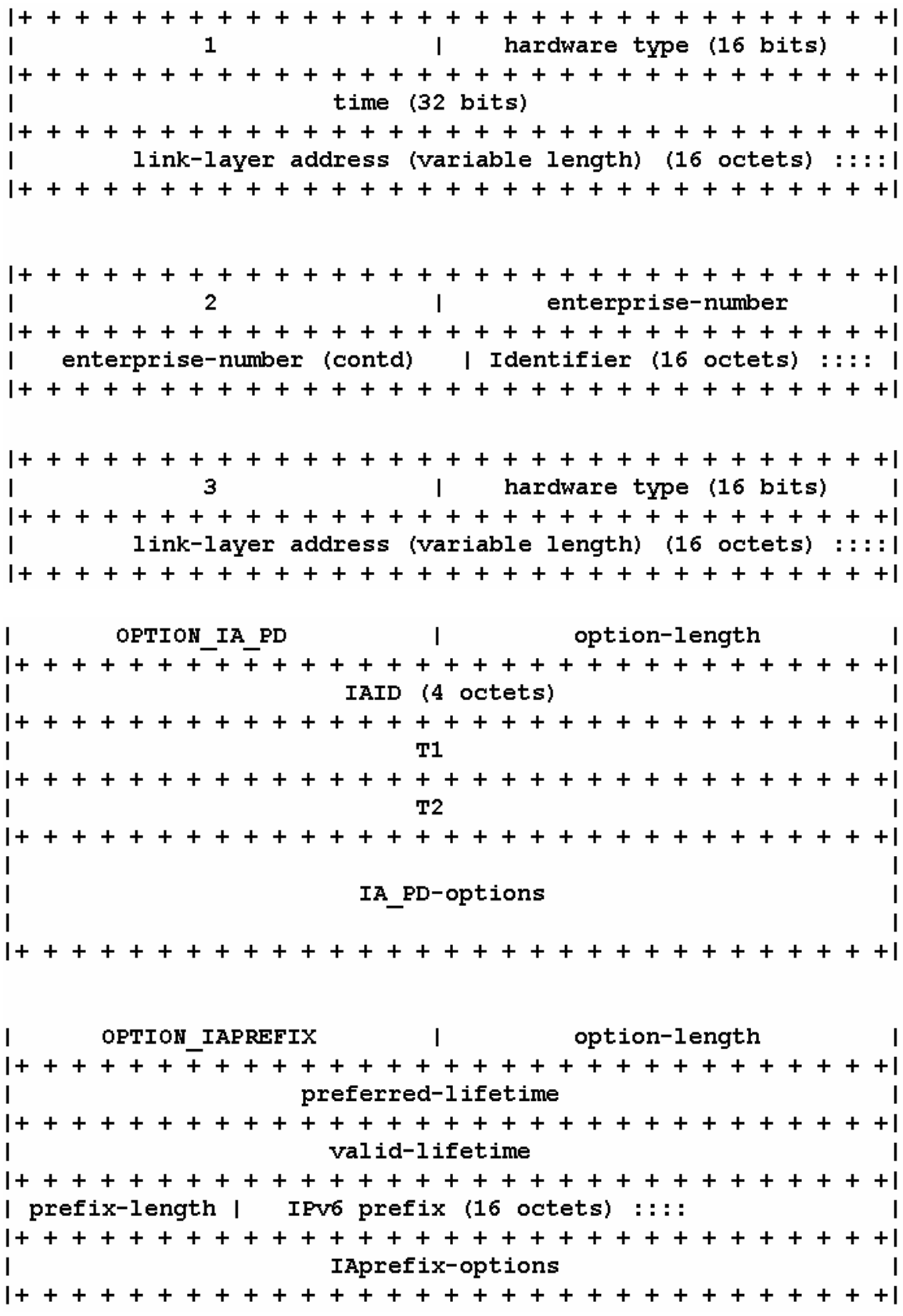


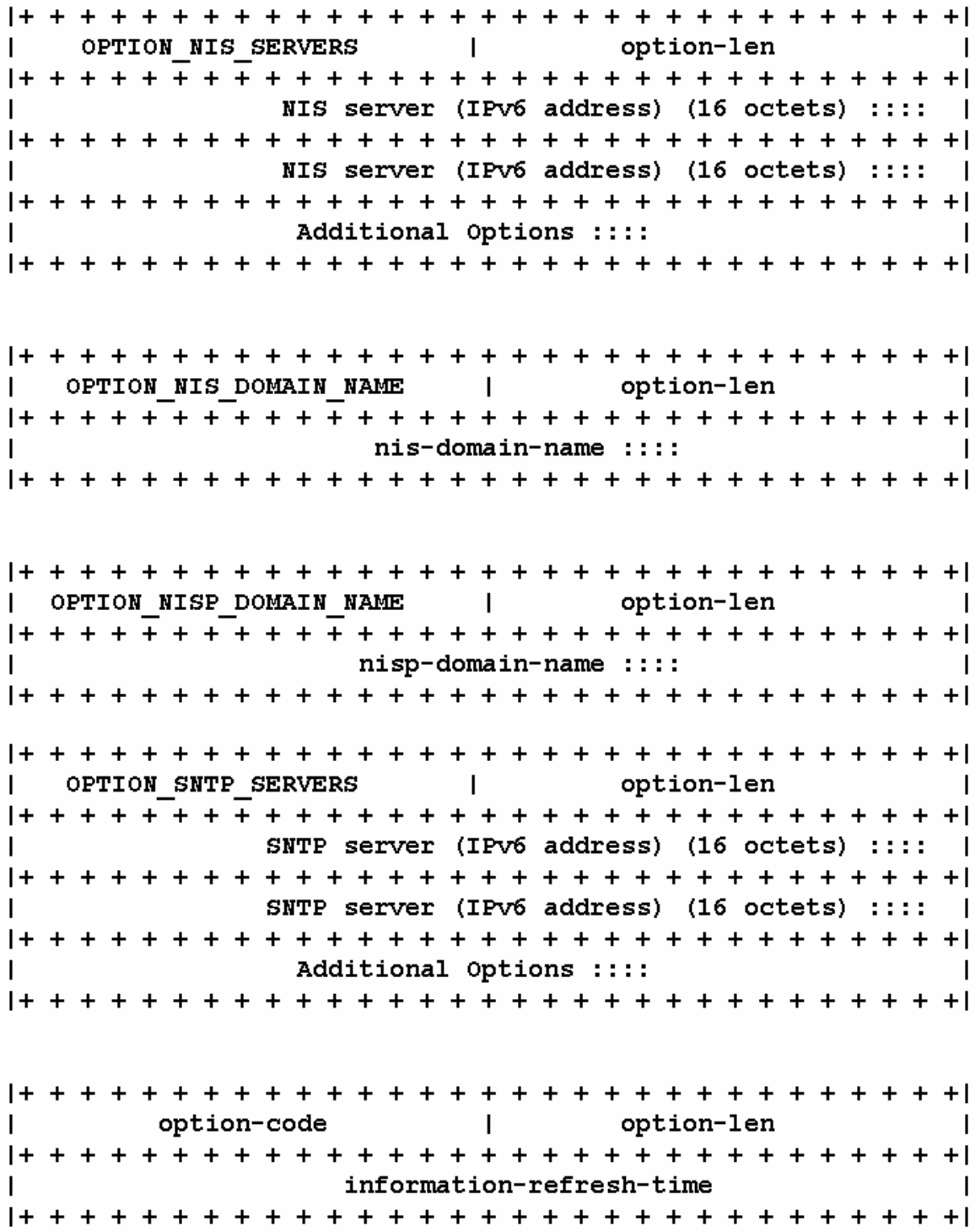
IPv6 32 Bit Header

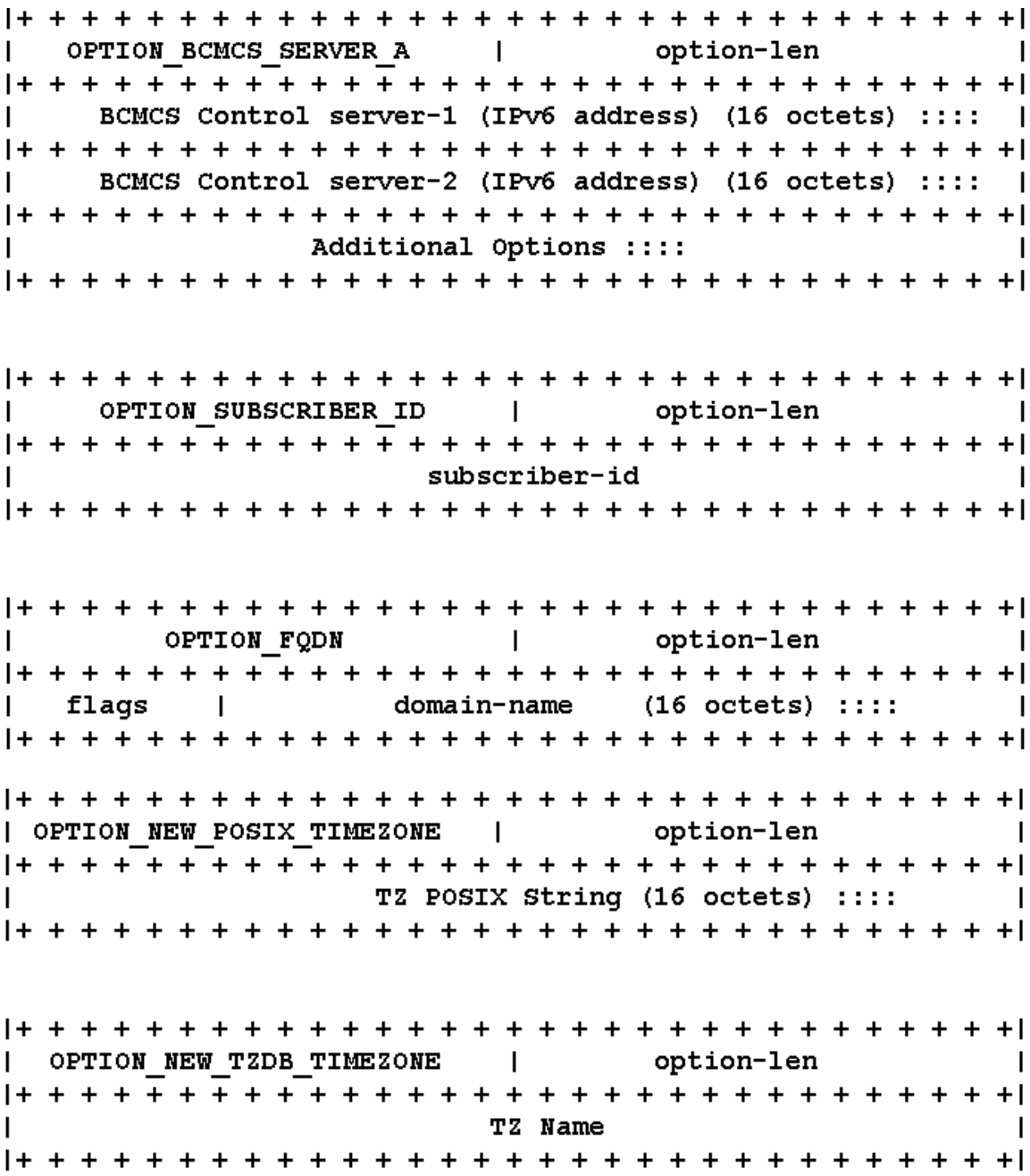
Note: IPv6 Header Bit-Map Length = 14 x 4 Octets = 56 Octets
14 x 32 Bits = 56 Octets = IPv6 Header 448 Bits

DHCPv6 32 Bit Header



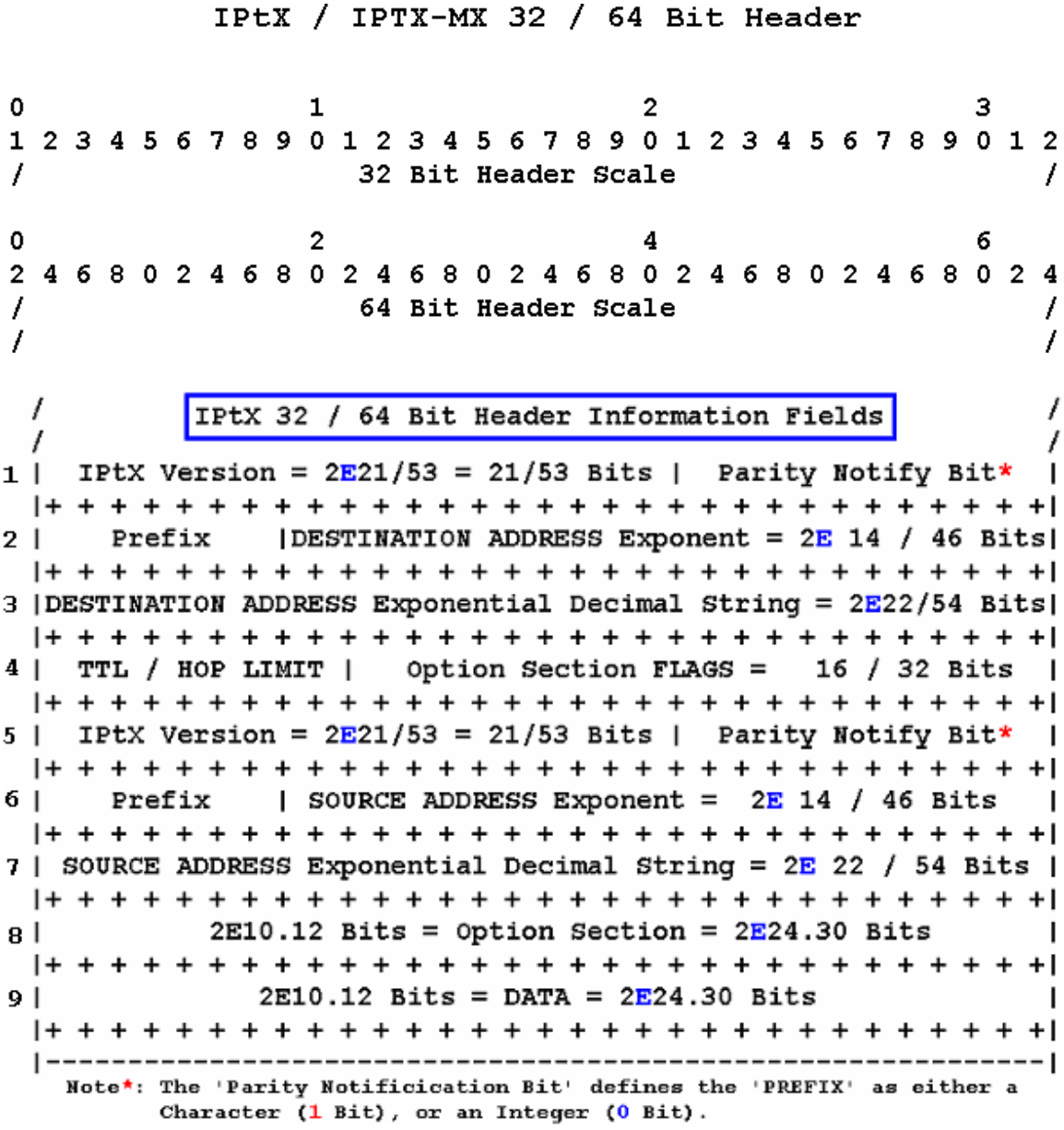

1
hardware type (16 bits)
time (32 bits)
link-layer address (variable length) (16 octets) ::::
2
enterprise-number
enterprise-number (contd)
Identifier (16 octets) ::::
3
hardware type (16 bits)
link-layer address (variable length) (16 octets) ::::
OPTION_IA_PD
option-length
IAID (4 octets)
T1
T2
IA_PD-options
OPTION_IAPREFIX
option-length
preferred-lifetime
valid-lifetime
prefix-length
IPv6 prefix (16 octets) ::::
IAprefix-options


OPTION_NIS_SERVERS
option-len
NIS server (IPv6 address) (16 octets) ::::
NIS server (IPv6 address) (16 octets) ::::
Additional Options ::::
OPTION_NIS_DOMAIN_NAME
option-len
nis-domain-name ::::
OPTION_NISP_DOMAIN_NAME
option-len
nisp-domain-name ::::
OPTION_SNTP_SERVERS
option-len
SNTP server (IPv6 address) (16 octets) ::::
SNTP server (IPv6 address) (16 octets) ::::
Additional Options ::::
option-code
option-len
information-refresh-time

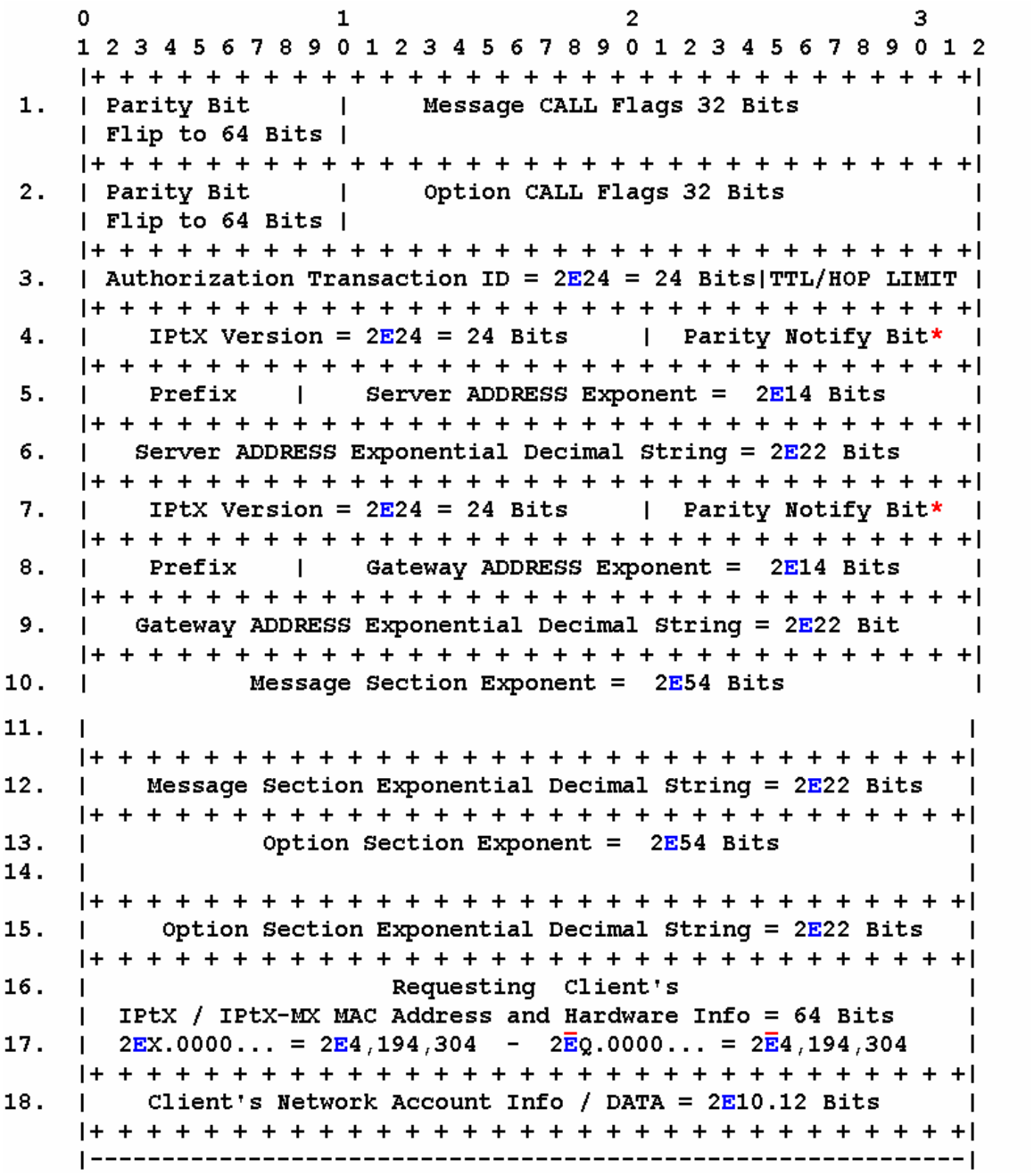


Note: The average person, or student for that matter, may not understand how to interpret the Design of a Header, or Frame, which is used in an Electronic Communications Transmission. In other words, an Electronic Communications Transmission has only the one dimension structure that mimics the format of a Sentence. In the structure of the Headers noted above forexample, uses the 32 Bit Assembler Word to define each of the numbered Fields, which may represent a group of Letters, Digits, or some combination of Both, in a Transmission Sequence having the format of a Sentence with a predefined Bit-Mapped Length measured in Bytes.

II. The IPtX / IPtX-MX 32/64 Bit Header Design Specification



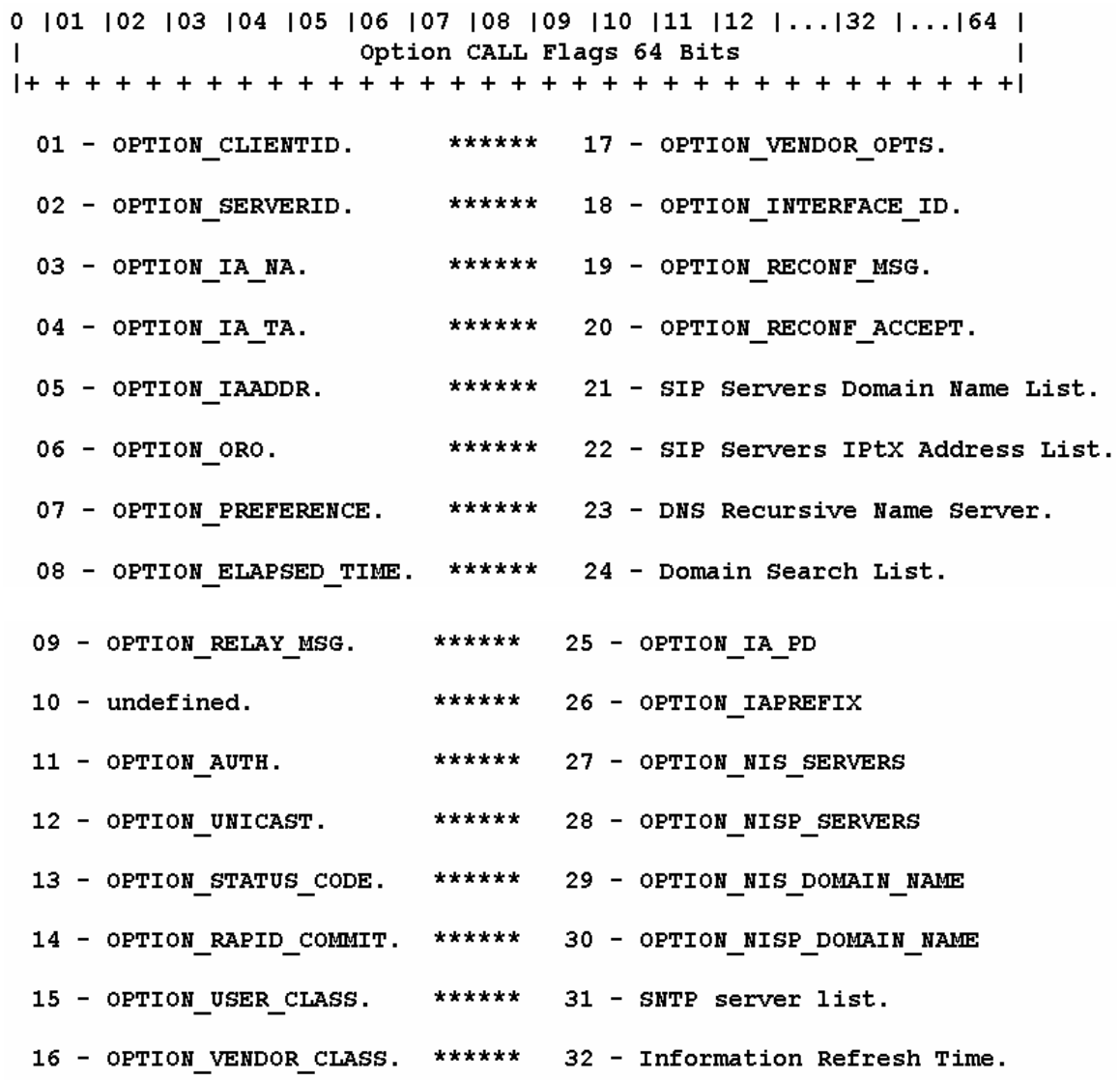
DHCPvIPtX-MX 32 Bit Header

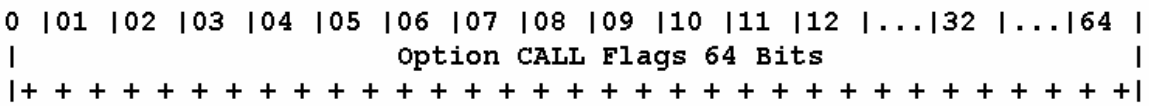


Note: Client's MAC Address is used as SOURCE Address when Requesting Client is on the Backbone of the DHCP Server's Network.

In the structure of the Header noted above, for example, where each numbered Line defines a 32 Bit Field in a Transmission Sequence having the format of a Sentence, defines the 'Message and Option CALL Flag Fields' as a Set of Pointers interfacing with the 'Message and Options Section Fields', which defines a Set of Instructions ENCODED by the 'DCE Unit' that Performs a DHCP Task - as given below;

```
0 |01 |02 |03 |04 |05 |06 |07 |08 |09 |10 |11 |12 |...|32 |...|64 |
|                   Message Call Flags 64 Bits                    |
|+ + + + + + + + + + + + + + + + + + + + + + + + + + + + + + + + +|

            01 - SOLICIT.             09 - DECLINE.

            02 - ADVERTISE.           10 - RECONFIGURE.

            03 - REQUEST.             11 - INFORMATION-REQUEST.

            04 - CONFIRM.             12 - RELAY-FORW.

            05 - RENEW.               13 - RELAY-REPL.

            06 - REBIND.              14 - Undefined.
                                       :      :
            07 - REPLY.                :      :
                                       :      :
            08 - RELEASE.             64 -  Undefined.
```


0 |01 |02 |03 |04 |05 |06 |07 |08 |09 |10 |11 |12 |...|32 |...|64 |
Option CALL Flags 64 Bits
01 - OPTION_CLIENTID. ****** 17 - OPTION_VENDOR_OPTS.
02 - OPTION_SERVERID. ****** 18 - OPTION_INTERFACE_ID.
03 - OPTION_IA_NA. ****** 19 - OPTION_RECONF_MSG.
04 - OPTION_IA_TA. ****** 20 - OPTION_RECONF_ACCEPT.
05 - OPTION_IAADDR. ****** 21 - SIP Servers Domain Name List.
06 - OPTION_ORO. ****** 22 - SIP Servers IPtX Address List.
07 - OPTION_PREFERENCE. ****** 23 - DNS Recursive Name Server.
08 - OPTION_ELAPSED_TIME. ****** 24 - Domain Search List.
09 - OPTION_RELAY_MSG. ****** 25 - OPTION_IA_PD
10 - undefined. ****** 26 - OPTION_IAPREFIX
11 - OPTION_AUTH. ****** 27 - OPTION_NIS_SERVERS
12 - OPTION_UNICAST. ****** 28 - OPTION_NISP_SERVERS
13 - OPTION_STATUS_CODE. ****** 29 - OPTION_NIS_DOMAIN_NAME
14 - OPTION_RAPID_COMMIT. ****** 30 - OPTION_NISP_DOMAIN_NAME
15 - OPTION_USER_CLASS. ****** 31 - SNTP server list.
16 - OPTION_VENDOR_CLASS. ****** 32 - Information Refresh Time.



33 - BCMCS Controller Domain Name list.

34 - BCMCS Controller IPtX address list.

35 - undefined.

36 - OPTION_GEOCONF_CIVIC.

37 - OPTION_REMOTE_ID.

38 - Relay Agent Subscriber-ID.

39 - FQDN, Fully Qualified Domain Name.

40 - OPTION_PANA_AGENT.

41 - OPTION_NEW_POSIX_TIMEZONE.

42 - OPTION_NEW_TZDB_TIMEZONE.

43 - OPTION_ERO.

44 - OPTION_LQ_QUERY.

45 - OPTION_CLIENT_DATA.

46 - OPTION_CLT_TIME.

47 - OPTION_LQ_RELAY_DATA.

48 - OPTION_LQ_CLIENT_LINK.

*** 49 - Undefined.

*** 50 - Undefined.

*** 51 - Undefined.

*** 52 - Undefined.

*** 53 - Undefined.

*** 54 - Undefined.

*** 55 - Undefined.

*** 56 - Undefined.

*** 57 - Undefined.

*** 58 - Undefined.

*** 59 - Undefined.

*** 60 - Undefined.

*** 61 - Undefined.

*** 62 - Undefined.

*** 63 - Undefined.

*** 64 - Undefined.

RECALL; -- Using the 'Data Compression' Ratio; '2EX : 1', or 2^{X} --

Example of Encoding the Bit-Map of the Equation for the 'Message and Option Section Fields'

Example of Text to encode...

'I went to the store today.'

I = 01001001 = 73 = 2EX ~ 2E8

went = 01110111011001010110111001110100 = 2,003,136,116 = 2EX ~ 2E32

to = 0111010001101111 = 29,807 = 2EX ~ 2E16

the = 011101000110100001100101 = 7,628,901 = 2EX ~ 2E24

store = 01110011011101000110111101110011001100101 = 495,874,699,877 = 2EX ~ 2E40

today = 01110100011011110110010001100001011110001 = 500,085,055,865 = 2EX ~ 2E40

' . ' = 00101110 = 46 = 2EX ~ 2E8

The Equivalent Binary Numerical Conversion to be Transmitted;

'I went to the store today.' 'Iwenttothestoretoday.'

```
01001001001000000111011011001        010010010111011101100101011011
01011011100111010000100000111        100111010001110100011011110111
01000110111100100000011101000l        010001101000011001010111001101
10100001100101001000000l110011        110100011011110111001001100101
01110100011011111011100l0011001        011101000110111101100100011000
01001000000111010001101111011O        010111100100101110
01000110000101111100100101110
```

208 Bits 168 Bits

In other words, everything is counted, which includes the Blank SPACES Separating every word the sentence contains -

168 Bit Sentence '6 Words' = 'I went to the store today.'

Blank Space ' ' separating Words

00100000 = 8 BITS

Now... 'Taking it Away' yields;

'I went to the store today.'

I = 01001001 ~ 2E8 = 73

Blank Space ' ' = 00100000 ~ 2E8 = 32

went = 01110111011001010111011100111O1000
~ 2E32 = 2,003,136,116

Blank Space ' ' = 00100000 ~ 2E8 = 32

to = 01110100011011110 ~ 2E16 = 29,807

Blank Space ' ' = 00100000 ~ 2E8 = 32

the = 011101000110100001100l010 ~ 2E24 = 7,628,901

Blank Space ' ' = 00100000 ~ 2E8 = 32

store = 01110011011101000110111101110010011001010
~ 2E40 = 495,874,699,877

Blank Space ' ' = 00100000 ~ 2E8 = 32

today = 011101000110111101100100011000010111110010
~ 2E40 = 500,085,055,865

- No Blank Space Separating the 'WORD' and the 'Period' -

' . ' = 00101110 ~ 2E8 = 46 (No Blank Space or 'Carriage Return' after the Period.)

```
And... 'Putting it Together' yields;

        'I  +  went  +  to  +  the  +  store  +  today  +  .'

   I = 01001001 = 73 +

   Blank Space = 00100000 = 32 +

   went = 01110111011001010110111001110100 = 2,003,136,116 +

   Blank Space = 00100000 = 32 +

   to = 01110100011011110 = 29,807 +

   Blank Space = 00100000 = 32 +

   the = 011101000110100001100101O = 7,628,901 +

   Blank Space = 00100000 = 32 +

   store = 01110011011101000110111101110010011001010 = 495,874,699,877 +

   Blank Space = 00100000 = 32 +

   today = 01110100011011110110010001100001011110010 = 500,085,055,865 +

   No Blank Space = Zero

   ' . ' = 00101110 = 46
```

```
Assembling (Joining) the Data Stream yields;

   I(73) + Blank(32) + went(2,003,136,116) + Blank(32) + to(29,807) +
   Blank(32) + the(7,628,901) + Blank(32) + store(495,874,699,877) +
   Blank(32) + today(500,085,055,865) + Period(46)

 =  73 + 32 + 2003136116 + 32 + 29807 + 32 + 7628901 + 32 +
    495874699877 + 32 + 500085055865 + 46 = 60 Digit Number

        =  733,220,031,361,163,229,807,327,628,901,324,958,746,
           998,773,250,008,505,586,546 = 2E198.868003799...

      =   2        E        198   .  868003799 ...
      =  11 01000101   11000110   .  11001110111100101011111101O111
      =  2E198.868003799... = 48 Bit-Mapped Displacement
                [ ' . ' = 8 Bits = 00101110 = 46 ]
  48 - 56 Bits  vs  208 Bits    -    6 - 7 Octets  vs  26 Octets
```

- Or -

= 60 Digit Number = 'I went to the store today.' = 2E198.868003799...

And this is equivalent to 26 Bytes, or approximately 208 Bits.

- Or -

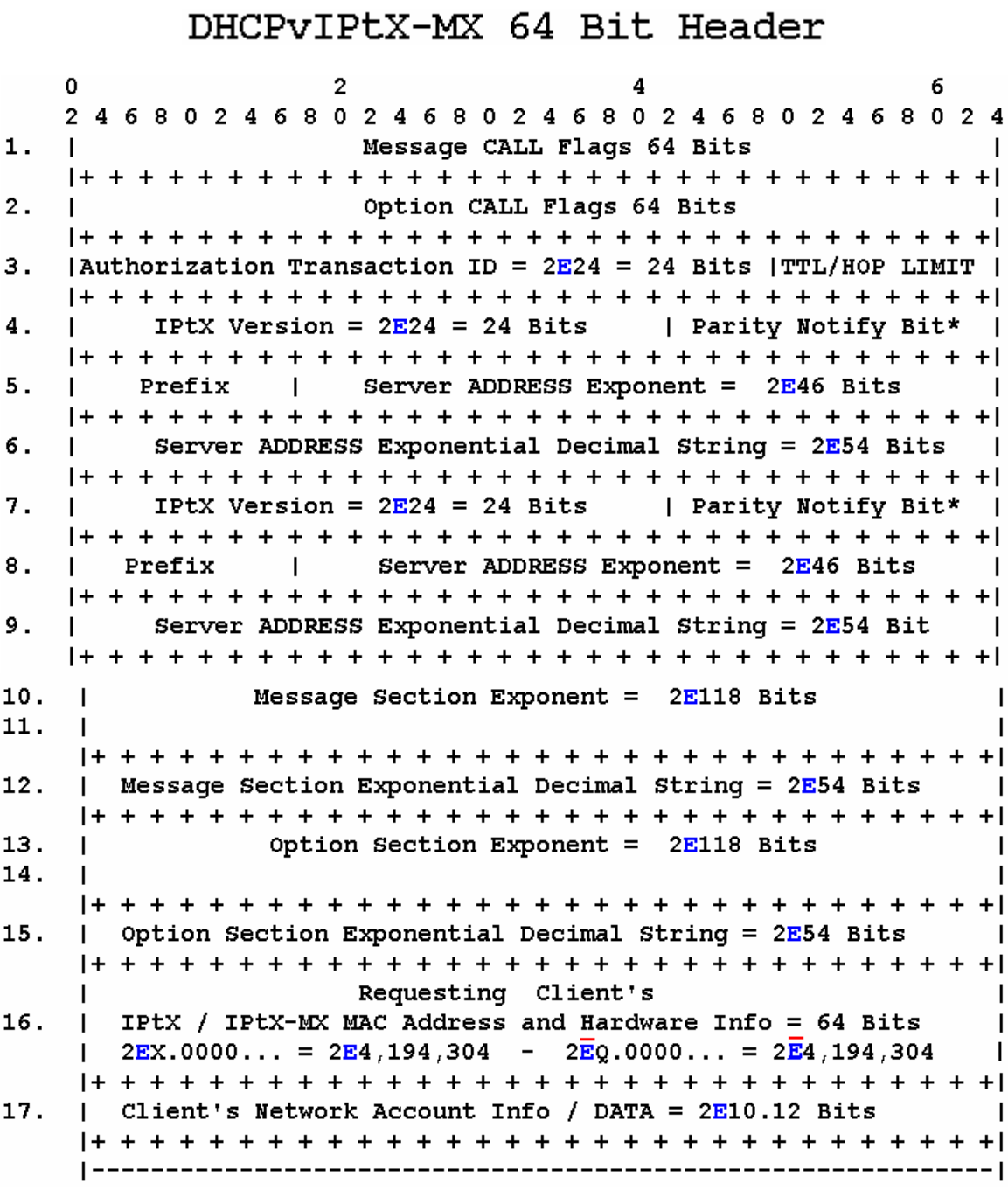
2E198.868003799... ~ 2E208 = an approximate Bit-Mapped Displacement of 20 Bits (4 + 8 + 8). Or 20 Bits vs. 208 Bits; represents the difference between Bit-Mapping the 'Data Stream', as compared to Bit-Mapping the Equation of the 'Data Stream'.

Note: The Bit Mapped example used above follows from the Current Binary Translation, which includes the Askew Error!

And more importantly, the Compression Ratio becomes even greater, by some Exponential factor, as the amount of Data, which is to be Compressed increases. - e.g. 100Mbyte (800 MBit ~ 100,000,000 Octets) Document is compressed to '2E800,000,000', or (4 + 8 + 30) 42 Bits (~ 6 Octets) [Approximating a '20,000,000 to 1' Bit-Mapped Compression Ratio].

Furthermore, it should be readily concluded, since each of the numbered Line in the DHCPvIPtX-MX Header defines a 32 Bit Field in a Transmission Sequence having the format of a Sentence, also defines the 'Message and Option CALL Flag Fields' as a Set of Pointers interfacing with the 'Message and Option Section Fields'. Where the 'Message and Options Section Fields' contains the Set of Instructions ENCODED by the 'DCE Unit', can Perform any assigned DHCP Task.

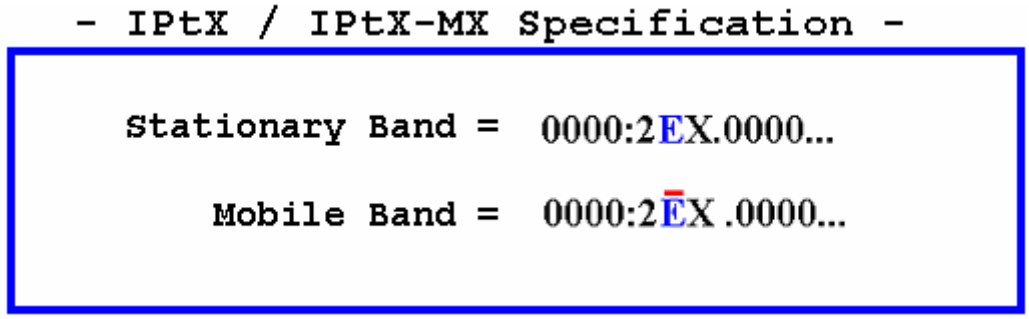
III. The IPtX / IPtX-MX 64 Bit Header Design Specification



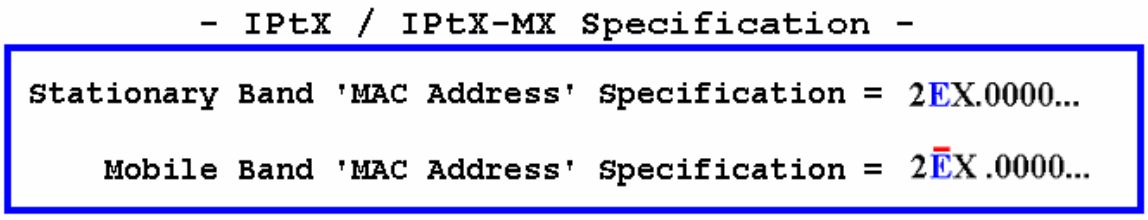
Note: Client's MAC Address is used as SOURCE Address when Requesting Client is on the Backbone of the DHCP Server's Network.

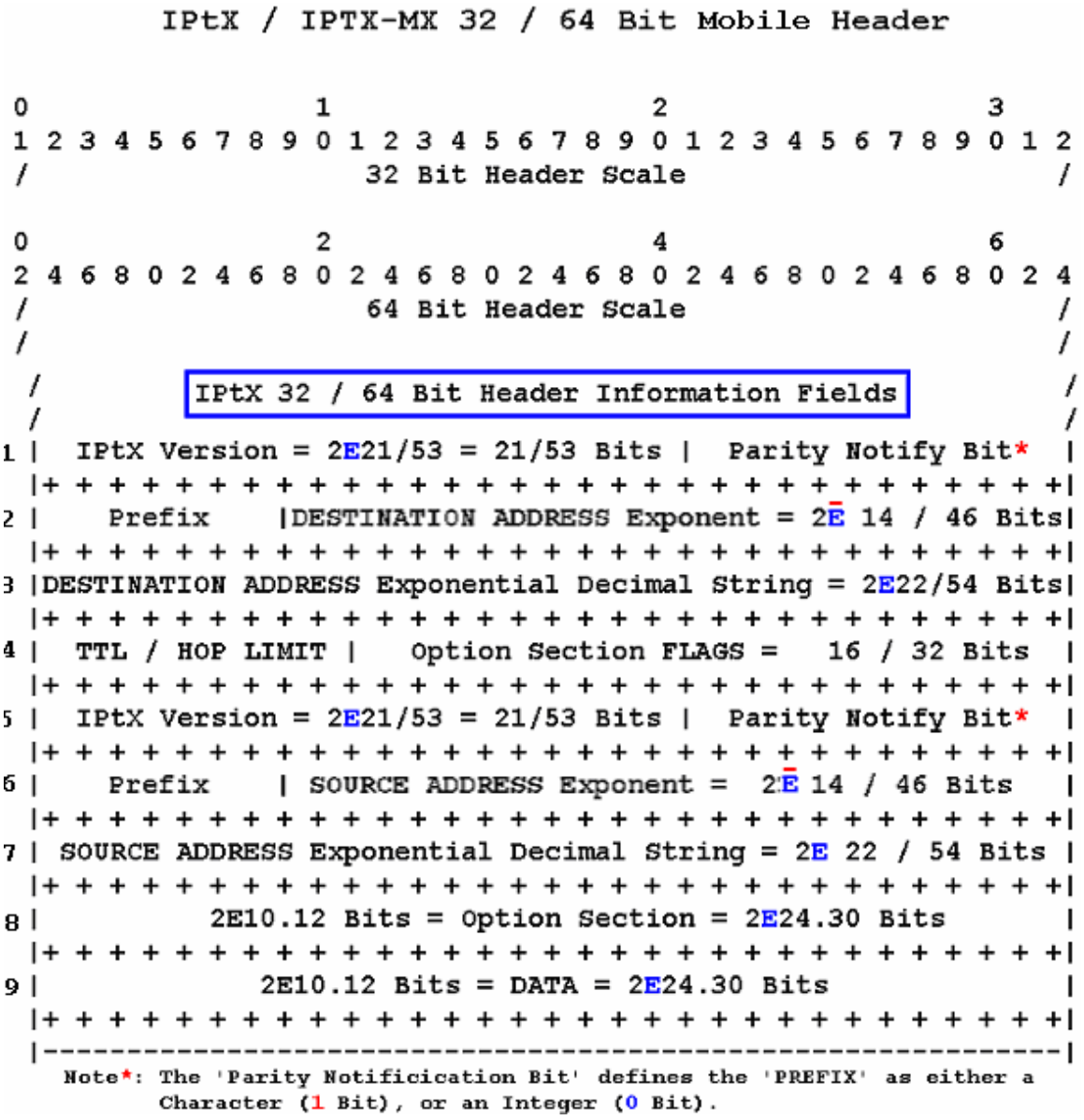
IV. IPtX / IPtX-MX Mobile IP Addressing Specification

There is a far greater growth potential, which expands the IPtX IP Addressing Protocol Family Specification, well beyond the results from the use of a Single IP Address Band Specification. That is, when adding the use of the 'Bar E' (Ĕ) notation to the 'DCE Unit' {2ĔQ} (given that the Members of the 'Real Number Set' represents every possible Numeral, denoting an Infinite Set), the IP Address Pool Total defined by the IPtX Specification increases to an amount equal to 'Bit-Mapping' every Element, or Member defined by the 'Set of Real' Numbers. In other words, the IPtX /IPtX-MX Specification defines a Logical 3 State Binary (2 Band) IP Addressing Specification, defining a Stationary and a Mobile IP Addressing Bands in a 3 Dimensional Space. – As given by;



And more importantly, with each of these Address Band Specification there is a corresponding 'MAC Address' Specification – as given by;




IPtX / IPTX-MX 32 / 64 Bit Mobile Header
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
32 Bit Header Scale
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
64 Bit Header Scale
IPtX 32 / 64 Bit Header Information Fields
1 IPtX Version = 2E21/53 = 21/53 Bits | Parity Notify Bit*
2 Prefix |DESTINATION ADDRESS Exponent = 2E 14 / 46 Bits
3 DESTINATION ADDRESS Exponential Decimal String = 2E22/54 Bits
4 TTL / HOP LIMIT | Option Section FLAGS = 16 / 32 Bits
5 IPtX Version = 2E21/53 = 21/53 Bits | Parity Notify Bit*
6 Prefix | SOURCE ADDRESS Exponent = 2E 14 / 46 Bits
7 SOURCE ADDRESS Exponential Decimal String = 2E 22 / 54 Bits
8 2E10.12 Bits = Option Section = 2E24.30 Bits
9 2E10.12 Bits = DATA = 2E24.30 Bits
Note*: The 'Parity Notificication Bit' defines the 'PREFIX' as either a
Character (1 Bit), or an Integer (0 Bit).

V. IPtX / IPtX-MX Subnet ID

It is extremely important to note, the general procedures for Subnetting, or allocating IP Address to a Sub-Division of the Network remain unchanged. That is, while the Subnet Mask has changed, Subnetting or allocating IP Address to a smaller Sub-Division of the Network remains unchanged, because it provides an easy method to account for every Node in the Structure of Network Hierarchal Scheme. However, because of the number of available IP Address in the IPtX / IPtX-MX IP Address Pool, Supernetting, as it were, is no longer a viable procedure or useful concept, especially since the IPtX / IPtX-MX Specification Sequentially counts every available IP Address.

Note: The Subnet Mask, now defined as the Subnet ID for the Stationary and Mobile IP Address Bands is given by;

```
Stationary Band Subnet ID = 0000:DCE Unit.0000...

 Mobile Band Subnet ID =  0000:DCĒ Unit.0000...
```

Special IANA Considerations

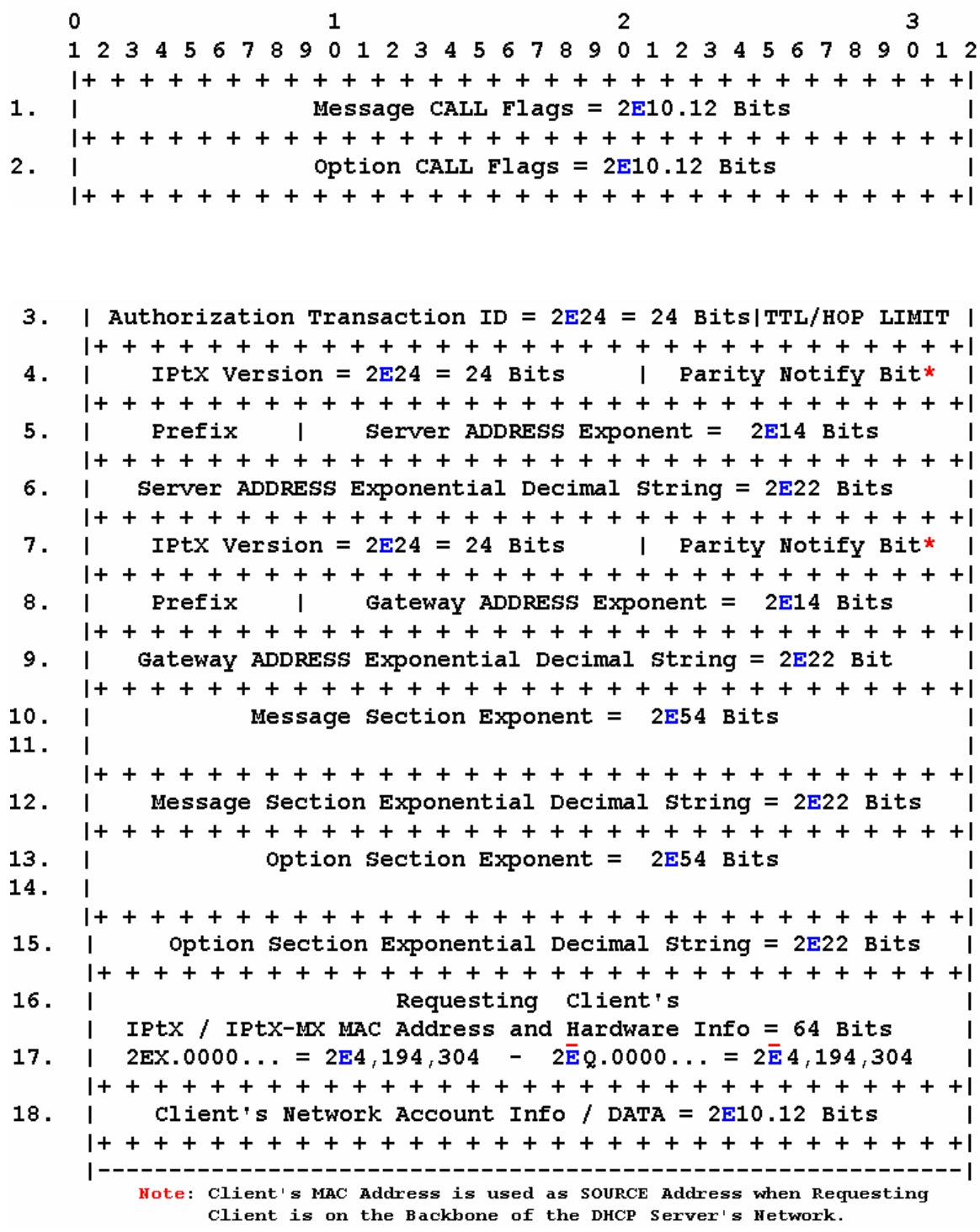
Clearly, further exploitation of the 'DCE Unit'; since it has been shown that the Binary Exponential Base 2 Algorithm, '2EX', sequentially count using successive additions of "1's". The 'Preferred' Design of the 'Message CALL Flags Field' and the 'Option CALL Flags Field' in the DHCPvIPtX-MX 32 / 64 Bit Header Specification, is given by;

```
Note: The using the 'DCE Unit' to redefine the 32 and 64 Bit Scales to
      represent a 'One to One' Correspondence with the Set of Integers,
      Bit-Maps each Flag as the Incremental Progression from 1 thru 32,
      or 64. And while this defines the Flags Progression in each Field,
      the Sequence Order of the Integer(s) representing the Bit Mapped
      Flag(s) is Function Governed. Hence, from pages 17 thru 20, the
      procedure for converting the first '3' 'Bit-Mapped Flag(s)',
      which represents the Sequence 1, 2, and 3, is given by;
```

```
Given that:

         '1, 2, 3'                                     '123'

00110001001011000010000000001100          001100010011001000110011
1000101100001000000000110011

         56 Bits                                     24 Bits


Recalling that everything is counted, which includes the 'COMMA(s)' and
the 'BLANK SPACE(s)' Separating every Numeral the Sequence contains -

    Hence, the Numerical Sequence represents a '56 Bit Sentence';

                BLANK SPACE = 00100000 = 8 Bits

                      COMMA = 00101100 = 8 Bits


   And Assembling or Joining the Number Stream, '1, 2, 3', yields;

      1, 2, 3 = 13,840,790,651,150,387 = 17 Digit Number

       1, 2, 3 = 13,840,790,651,150,387 ≈ 2E53.619775...
```

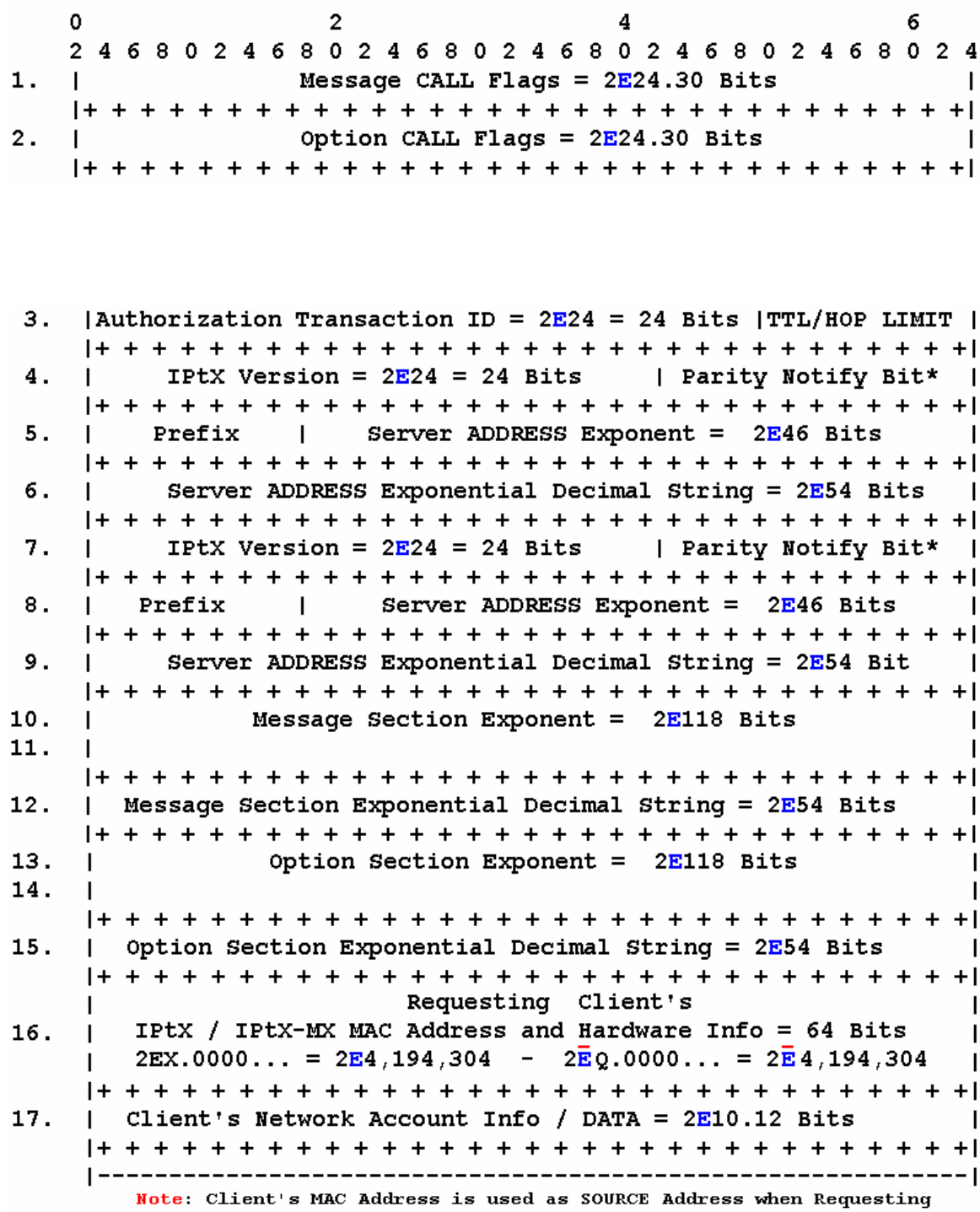
```
Note: The Bit Mapped example used above follows from the Current
      Binary Translation, which includes the Askew Error!
```

DHCPvIPtX-MX 32 Bit Header



Note: Client's MAC Address is used as SOURCE Address when Requesting Client is on the Backbone of the DHCP Server's Network.

DHCPvIPtX-MX 64 Bit Header



Note: Client's MAC Address is used as SOURCE Address when Requesting Client is on the Backbone of the DHCP Server's Network.

Security Considerations

There are No Security Considerations presented in this document.

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
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- "Work(s) in Progress'

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(The development of the DHCP {Dynamic Host Configuration Protocol} for the IPTX IPSpec)
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11. http://www.ietf.org/internet-drafts/draft-terrell-math-quant -ternary-logic-of-binary-sys-10.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-20.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.)

13. http://www.ietf.org/internet-drafts/draft-terrell-iptx-mx-dns-specification-04.pdf
(The development of the IPtX / IPtX-MX DNS {Domain Name Service} for IPTX IP Addressing Spec) 'Work(s) in Progress'

14. http://www.ietf.org/internet-drafts/draft-terrell-iptx-mx-dhcp-specification-00.pdf
(The development of the IPtX / IPtX-MX DHCP {Dynamic Host Configuration Protocol } for IPTX IP Addressing Spec) 'Work(s) in Progress'

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"}.

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, τ 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.

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Acknowledgement

Funding for the RFC Editor function is provided by the IETF Administrative Support Activity (IASA).