

## **The Internet and the Millennium Problem (Year 2000)**

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### Abstract

The Year 2000 Working Group(WG) has conducted an investigation into the millennium problem as it regards Internet related protocols. This investigation only targeted the protocols as documented in the Request For Comments Series (RFCs). This investigation discovered little reason for concern with regards to the functionality of the protocols. A few minor cases of older implementations still using two digit years (ala [RFC 850](#)) were discovered, but almost all Internet protocols were given a clean bill of health. Several cases of 'period' problems were discovered, where a time field would 'roll over' as the size of field was reached. In particular, there are several protocols, which have **32 bit, signed integer representations of the number of seconds since January 1, 1970** which will turn negative at Tue Jan 19 03:14:07 GMT **2038**. **Areas whose protocols will be effected by such problems have been notified so that new revisions will remove this limitation.**

### **1. Introduction**

According to the trade press billions of dollars will be spend the upcoming years on the year 2000 problem, also called the millennium problem (though the third millennium will really start in 2001). This problem consists of the fact that many software packages and some protocols use a two-digit field for the year in a date field. Most of the problems seem to be in administrative and financial programs, or

in the hardcoded microcomputers found in electronic equipment. A lot of organizations are now starting to make an inventory of which software and tools they use will suffer from the millennium problem.

With the increasing popularity of the Internet, more and more organizations use the Internet as a serious business tool. This means that most organizations will want to analyze the millennium problems due to the use of Internet protocols and popular Internet software. In the trade press the first articles suggest that the Internet will collapse at midnight the 31st of December 1999.

To counter these suggestions, and to avoid having countless companies redo the same investigation, this effort was undertaken by the IETF. The Year 2000 WG has made an inventory of all-important Internet protocols that have been documented in the Request for Comments (RFC) series. Only protocols directly related to the Internet will be considered.

This document is divided into a number of sections. [Section 1](#) is the Introduction which you are now reading. [Section 2](#) is a disclaimer about the completeness of this effort. [Section 3](#) describes areas in which millenium problems have been found, while [Section 4](#) describes a few other "period" problems. [Section 5](#) describes potential fixes to problems that have been identified. [Section 6](#) describes the methodology used in the investigation. Sections [7](#) through [22](#) are devoted to the 15 different groupings of protocols and RFCs. [Section 23](#) discusses security considerations, [Section 24](#) is devoted to references, and [Section 25](#) is the author contact information. [Appendix A](#) is the list of RFCs examined broken down by category. [Appendix B](#) is a PERL program used to make a first cut identification of problems, and [Appendix C](#) is the output of that PERL program.

The editor of this document would like to acknowledge the critical contributions of the follow for direct performance of research and the provision of text: Alex Latzko, Robert Elz, Erik Huizer, Gillian Greenwood, Barbara Jennings, R.E. (Robert) Moore, David Mills, Lynn Kubinec, Michael Patton, Chris Newman, Erik-Jan Bos, Paul Hoffman, and Rick H. Wesson. The pace with which this group has operated has only been achievable by the intimate familiarity of the contributors with the protocols and ready access to the collective knowledge of the IETF.

## **[2. Disclaimer](#)**

This RFC is not complete. It is an effort to analyze the Y2K impact on hundreds of protocols but is likely to have missed some protocols and misunderstood others. Organizations should not attempt to claim any legitimacy or approval for any particular protocol based on this document. The efforts have concentrated on the identification of

potential problems, rather than solutions to any of the problems that have been identified. Any proposed solutions are only that: proposed. A formal engineering review should take place before any solution is adopted.

It should also be noted that the research was performed on RFCs 1 through 2128. At that time the IESG was charted with not allowing any new RFCs to be published that had any Year 2000 issues. Since that cutoff time there has been work to correct issues discovered by this Working Group. In particular, RWhois as documented by [RFC 1714](#) has been updated to fix the problems found. [RFC 2167](#) now documents a fixed version of the RWhois protocol. The work of this group was to look backwards, and hence new RFC's which supplant the old are expected to make the information in this RFC obsolete. The work of this group will truly be complete when this document is completely obsolete.

A number of people have suggested looking into other "special" dates. For example, the first leap year, the first "double digit" day (January 10, 2000), January 1, 2001, etc. There is not one place where days have been used in the protocols defined by the RFC series so there is little reason to believe that any of these special dates will have any impact.

### **[3. Summary of Year 2000 Problems](#)**

Here is a brief description of all the Millennium issues discovered in the course of this research. Note that many of the RFCs are unclear on the issue. They mandate the use of UTCTime but do not specify whether the two-digit or four-digit year representation should be used.

#### **[3.1 "Directory Services"](#)**

- [rfc1274.txt](#) - References UTC date/time
- [rfc1276.txt](#) - References UTC date/time for version control.
- [rfc1488.txt](#) - References UTC Time as printable strings.
- [rfc1608.txt](#) - Refers to uTCTimeSyntax
- [rfc1609.txt](#) - Refers to uTCTimeSyntax
- [rfc1778.txt](#) - Refers to uTCTimeSyntax

#### **[3.2 "Information Services and File Transfer"](#)**

HTTP 1.1, as defined in [RFC 2068](#), requires all newly generated date stamps to conform to [RFC 1123](#) date formats which are Year 2000 compliant, but it also requires acceptance of the older non-compliant [RFC850](#) formats. Some specific recommendations have been passed to the HTTP WG.

HTML 2.0, as defined in [RFC 1866](#), could allow a very subtle Year 2000 problem, but once again this recommendation has been passed on the

HTML WG.

[RFC 1778](#) on String Representations of Standard Attribute Syntax's define UTC Time in [Section 2.21](#) and uses that definition in [Section 2.25 on User Certificates](#). Since UTC Time is being used, there is a potential millennium issue.

[RFC 1440](#) on SIFT/UFT: Sender-Initiated/Unsolicited File Transfer defines an optional DATE command in [Section 5](#) of the form mm/dd/yy which is subject to millennium issues.

### [3.3](#) "Electronic Mail"

After reviewing all mail-related RFCs, it was discovered that while some obsolete standards required two-digit years, all currently used standards require four-digit years and are thus not prone to typical Year 2000 problems.

RFCs 821 and 822, the main basis for SMTP mail exchange and message format, originally required two-digit years. However, both of these RFCs were later modified by [RFC 1123](#) in 1989, which strongly recommended 4-digit years.

### [3.4](#) "Name Serving"

While not a protocol issue, there is a common habit of writing serial numbers for DNS zone files in the form YYXXXXXX. The only real requirement on the serial numbers is that they be increasing (see [RFC 1982](#) for a complete description) and a change from 99XXXXXX to 00XXXXXX cause a failure. See the section on "Name Serving" for a complete description of the issues.

### [3.5](#) "Network Management"

Version 2 of SNMP's MIB definition language (SMIV2) specifies the use of UCTTimes for time stamping MIB modules. Even though these time stamps do not flow in any network protocols, there could be an issue with management applications, depending on implementations.

### [3.6](#) "Network News"

There does exist a problem in both NNTP, [RFC 977](#), and the Usenet News Message Format, [RFC 10336](#). They both specify two-digit year format. A working group has been formed to update the network news protocols in general, and addressing this problem is on their list of work items.

### [3.7](#) "Real-Time Services"

A Year 2000 problem does occur in the Simple Network Paging Protocol, versions 2 & 3. Both define a HOLDuntil option which uses a YYYYMMDDHHMMSS+/-GMT field. Version 3 also defines a MStatus command,

which is required to store dates and times as YYMMDDHHMMSS+/-GMT.

There is a small Year 2000 issue in [RFC 1786](#) on the Representation of IP Routing Policies in the ripe-81++ Routing Registry. In Appendices C the "changed" object parameter defines a format of <email-address> YYMMDD, and similarly in [Appendix D](#) "withdrawn" object identifier has the format of YYMMDD. Since these are only identifiers there should be little operational impact. Some application software may need to be modified.

### **[3.8](#) "Security"**

[RFC 1507](#) on Distributed Authentication Security Services (DASS) use UTCTime. Because of the imprecision of the UTC time definition there could be problems with this protocol.

RFCs 1421-1424 specifies that PEM uses UTC time formats which could have a Millennium issue.

## **[4](#). Summary of Other "Periodicity" Problems**

By far, the largest area of "period" problems occurs in the year [2038](#). Many protocols use a 32-bit field to record the number of seconds since January 1, 1970.

### **[4.1](#) "Name Services"**

DNS Security uses 32-bit timestamps which will roll over in 2038. This issue has been referred to the appropriate Working Group so that the details of rollover can be established.

### **[4.2](#) "Routing"**

IDPR suffers from the classic Year 2038 problem, by having a timestamp counter which rolls over at that time.

## **[5](#). Suggested Solutions**

The real solution to the problem is to use 4 digit year fields for applications and hardware systems. For counters that key off of a certain time (January 1, 1970 for example) need to either: define a wrapping solution, or to define a larger number space (greater than 32-bits), or to make more efficient use of the 32-bit space. However, it will be impossible to completely replace currently deployed systems, so solutions for handling problems are in order.

### **[5.1](#) Fixed Solution**

A number of organizations and groups have suggested a fixed solution to the problem of two digit years. Given a two-digit year YY, if YY

is greater than or equal to 50, the year shall be interpreted as 19YY; and where YY is less than 50, the year shall be interpreted as 20YY.

While a simple and straightforward solution, it only pushes the problem off 40 to 50 years, until the artificially generated Year **2050 problem needs to be addressed**. However, it is easy to implement and deploy, so it might be the most commonly adopted solution.

## **5.2 Sliding Window**

Another solution is the "sliding window" approach. In this approach, some value N is selected, and any two digit year that is less than or equal to the current two digit year plus N is considered the future, while any other two digit year is considered in the past.

For example, choosing N equal to 10, If the current year is 2012, and I get a two digit year that is any of 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 or 22, assume it is 20YY (i.e. the future), otherwise consider it to be in the past(1923-1999, 2000-2011).

This solution has two advantages. First, no new fixed year problems are introduced. Second, different applications and protocols could choose different values of N. The drawback is that this solution is harder to implement, and to work well the value of N will need to be constant across different implementations.

## **6. Methodology**

The first task was dividing the types of RFC's into logical groups rather than the strict numeric publishing order. Sixteen specific areas were identified. They are: "Autoconfiguration", "Directory Services", "Disk Sharing", "Games and Chat", "Information Services & File Transfer", "Network & Transport Layer", "Electronic Mail", "NTP", "Name Serving", "Network Management", "News", "Real Time Services", "Routing", "Security", "Virtual Terminal", and "Other". In addition to these categories, many hundreds of RFC's were immediately eliminated based on content. That is not to say that all Informational RFC's were not considered, many did contain some technical content or overview which demanded scrutiny.

Each area was assigned to a team for investigation. Although each team used whatever additional investigation techniques which seemed appropriate (including completely reading each RFC, and in some cases the source code for the reference implementation) at minimum each team used an automatic scanning system to search for the following items (case insensitively) in each RFC:

- date
- GMT
- UTCTime

- year
- yy (that is not part of yyyy)
- two-digit, 2-digit, 2digit
- century
- 1900 & 2000

Note that all of these strings except "UTCTime" may occur in conjunction with a date format that accommodates the Year 2000 crossing, as well as with one that does not. So "hits" on these string do not necessarily indicate Year 2000 problems: they simply identify elements that need to be examined.

After the documents were scanned, therefore, each "hit" was examined individually. Those that cause no Year 2000 problems (e.g., those that encode the year as a two-byte integer, or as a four-character display string) are not discussed here. Those that do cause Year 2000 problems are identified in this document, and the nature and impact of the problems they cause are described.

## [7. Autoconfiguration](#)

### [7.1 Summary](#)

The RFC's which were categorized into this group were primarily the BOOT Protocol (BOOTP) and the Dynamic Host Configuration Protocol (DHCP) for both IP version four and six.

Examination of the BOOTP protocols and most popular implementations show no year 2000 problems. All times are references as 32 bit integers in seconds of UTC time. An investigation of all DHCP and the IPv6 Autoconfiguration mechanisms produced no year 2000 problems. All references to time, in particular lease lengths, are 32 bit integers in seconds, allowing lease times of well over 100 years.

### [7.2 Specifics](#)

The following RFCs were examined for possible millennium problems: 906, 951, 1048, 1084, 1395, 1497, 1531, 1532, 1533, 1534, 1541, 1542, 1970, & 1971. [RFC 951](#)'s only reference to time or dates is a two-byte field in the packet, which is number of second since the hosts, was booted. RFC's 1048, 1084, 1395, 1497, 1531, & 1532 have either no references to dates and time, or they are the same as the RFCs, which obsoleted them, discussed in the next paragraph.

[RFC 1533](#) enumerates all the known DHCP field types and a number of these have to do with time. [Section 3.4](#) defines a "Time Offset" field which specifies the offset of the clients subnet in seconds from UTC. This 4 byte field has no millennium issues. [Section 9.2](#) defines the IP Address Lease Time field which is used by clients to request a

specific lease time. This four byte field is an unsigned integer containing a number of seconds. [Section 9.9](#) defines a Renewal Time Value field, [Section 9.10](#) defines a Rebinding Time Value, both of which are similarly 32 bit fields, which have no millennium issues.

[RFC 1534](#) has no references to times or dates.

[RFC 1541](#) has two mentions of times/dates. The first is the "secs" field which, similarly to [RFC 951](#), is a 16-bit field for the number of seconds since the host has booted. There is also a discussion in [section 3.3](#) about "Interpretation and Representation of Time Values" which while clearly states that there is no millennium or period problems.

[RFC 1542](#) also references the "secs" field mentioned previously.

[RFC 1970](#) mentions a number of variables, which are time related. In [section 4.2](#) "Router Advertisement Message Format" the following fields are defined: Router Lifetime, Reachable Time, & Retrans Timer. In [section 4.6.2](#) "Prefix Information" the following are defined: Valid Lifetime, & Preferred Lifetime. In [section 6.2.1](#) "Router Configuration Variables" the following are defined: MaxRtrAdvInterval, MinRtrAdvInterval, AdvReachableTime, AdvRetransTimer, AdvDefaultLifetime, AdvValidLifetime, & AdvPreferredLifetime. All of these fields specify counters of some sort which have no millennium or periodicity problems.

[RFC 1971](#) has some discussion of preferred lifetimes, depreciated lifetimes and valid lifetimes of leases, but only discusses them in an expository way.

## **8. Directory Services**

### **8.1 Summary**

The RFC's which were categorized into this group were primarily X.500 related RFC's, Whois, Rwhois, Whois++, and the Lightweight Directory Access Protocol (LDAP).

Upon review of the Directory Services related RFC's, no serious year **2000 problems were discovered**. Some minor issues were noted and explained below in the specific portion of this section.

### **8.2 Specifics**

RFCs that mentioned UTC Time or made reference to uTCTimeSyntax could fail to be Y2K compliant. These should be updated to specify the four year version of uTCTimeSyntax rather than giving the option of using a two-year date representation. The following RFCs fall into this category:

[rfc1274](#).txt - References UTC date/time



[rfc1276.txt](#) - References UTC date/time for version control.  
[rfc1488.txt](#) - References UTC Time as printable strings.  
[rfc1608.txt](#) - Refers to uTCTimeSyntax  
[rfc1609.txt](#) - Refers to uTCTimeSyntax  
[rfc1778.txt](#) - Refers to uTCTimeSyntax

Two RFC's have unusual date specifications and specify their own date format. Both of these support Y2K compliant dates.

[RFC1714](#) (RWhois) specifies date formats that are not Y2K compliant, but it also supports dates that are. Implementers of the RWhois protocol should only use the %MY4 format

[RFC1834](#) (Whois++) requires the use of dates, but it didn't specify the format, syntax, or representation of the date string to be used.

## **[9. Disk Sharing](#)**

### **[9.1 Summary](#)**

The RFC's which were categorized into this group were those related to the Network File System (NFS). Other popular disk sharing protocols like SMB and AFS were referred to their respective trustee's for review.

After careful review, NFS has no year 2000 problems.

### **[9.2 Specifics](#)**

The references to time in this protocol are the times of file data modification, file access, and file metadata change (mtime, atime, and time, respectively). These times are kept as 32 bit unsigned quantities in seconds since 1970-01-01, and so the NFS protocol will not experience an Epoch event until the year 2106.

## **[10. Games and Chat](#)**

### **[10.1 Summary](#)**

The RFC's which were categorized into this group were related to the Internet Relay Chat Protocol (IRC). No millennium problems exist in the IRC protocol.

### **[10.2 Specifics](#)**

There is only a single instance of time or date related information in the IRC protocol as specified by [RFC 1459](#). [Section 4.3.4](#) defines a

TIME message type which queries a server for its local time. No mention is made of the format of the reply or how it is parsed, the assumption being specific implementations will handle the reply and parse it appropriately.

## **11. Information Services & File Transfer**

### **11.1 Summary**

The RFC's which were categorized into this group were divided among World Wide Web (WWW) protocols and File Transfer Protocols (FTP). WWW protocols include the Hypertext Transfer Protocol (HTTP), a variety of Uniform Resource formats (URL, URAs, etc.) and the HyperText Markup Language (HTML). FTP protocols include the well known FTP protocol, the Trivial File Transfer Protocol (TFTP) and a variety of extensions to these protocols. Other information services includes the Finger Protocol and the LPD protocol.

HTTP 1.1, as defined in [RFC 2068](#), requires all newly generated date stamps to conform to [RFC 1123](#) date formats which are Year 2000 compliant, but it also requires acceptance of the older non-compliant [RFC850](#) formats. Some specific recommendations are listed below and have been passed to the HTTP WG.

HTML 2.0, as defined in [RFC 1866](#), could allow a very subtle Year 2000 problem, but once again this recommendation has been passed on the HTML WG.

[RFC 1778](#) on String Representations of Standard Attribute Syntax's define UTC Time in [Section 2.21](#) and uses that definition in [Section 2.25 on User Certificates](#). Since UTC Time is being used, there is a potential millennium issue.

[RFC 1440](#) on SIFT/UFT: Sender-Initiated/Unsolicited File Transfer defines an optional DATE command in [Section 5](#) of the form mm/dd/yy which is subject to millennium issues.

### **11.2 Specifics**

The main IETF standards-track document on the HTTP protocol is [RFC2068](#) on HTTP 1.1. It notes that historically three different date formats have been used, and that one of them uses a two-digit year field. In [section 3.3.1](#) it requires HTTP 1.1 implementations to generate this [RFC1123](#) format:

Sun, 06 Nov 1994 08:49:37 GMT ; [RFC 822](#), updated by [RFC 1123](#)

instead of this [RFC850](#) format:

Sunday, 06-Nov-94 08:49:37 GMT ; [RFC 850](#), obsoleted by [RFC 1036](#)

Unfortunately, many existing servers, serving on the order of one fifth of the current HTTP traffic, send dates in the ambiguous [RFC850](#) format.

[Section 19.3](#) of the [RFC2068](#) says this:

- o HTTP/1.1 clients and caches should assume that an [RFC-850](#) date which appears to be more than 50 years in the future is in fact in the past (this helps solve the "year 2000" problem).

This avoids a "stale cache" problem, which would cause the user to see out-of-date data.

[RFC 1986](#) documents experiments with a simple file transfer program over radio links using Enhanced Trivial FTP (ETFTP). There are a number of timers defined which are all in seconds and have no year **2000 issues**.

In [RFC 1866](#), on HTML 2.0, the <META> tag allows the embedding of recommended values for some HTTP headers, including Expires. E.g.

```
<META HTTP-EQUIV="Expires"
      CONTENT="Tue, 04 Dec 1993 21:29:02 GMT">
```

Servers should rewrite these dates into [RFC1123](#) format if necessary.

[RFC 1807](#) defines a format for bibliographic records and it specifies a DATE format, which requires 4 digit year fields.

[RFC 1788](#) defines ICMP Domain Name messages. [Section 3](#) defines a Domain Name Reply Packet, which contains a signed 32-bit integer. This timer is not Year 2000 reliant and is certainly large enough for its purposes.

[RFC 1784](#) on TFTP Timeout Intervals and Transfer Size Options uses a field for the number of seconds for the timeout. It is an ASCII value from 1 to 255 octets in length. There is no Y2K issue.

[RFC 1778](#) on String Representations of Standard Attribute Syntax's define UTC Time in [Section 2.21](#) and uses that definition in [Section 2.25 on User Certificates](#). Since UTC Time is being used, there is a potential millennium issue.

[RFC 1777](#) on LDAP defines a timelimit in [Section 4.3](#) which is expressed in seconds, but does not define any limits.

[RFC 1440](#) on SIFT/UFT: Sender-Initiated/Unsolicited File Transfer defines an optional DATE command in [Section 5](#) of the form mm/dd/yy, which is subject to millennium issues.

[RFC 1068](#) on the Background File Transfer Protocol (BFTP) defines two

commands in Sections B.2.12 and B.2.13, the Submit and Time commands.  
>From the example usage's given in [Appendix C](#) it is clear that this protocol will function correctly though the year 9999.

[RFC 1037](#) on NFILE (a file access protocol) discusses the a Date representation in [Section 7.1](#) as the number of seconds since January 1, 1900, but does not limit the field size. There should be no Y2K issues.

[RFC 998](#) on NETBLT defines a Death time in [Section 8](#), which is the sender's death time in seconds.

[RFC 978](#) on the Voice File Interchange Protocol defines the Total Time of a message to be a 32-bit number of deci-seconds. This limits the size of a message but has no millennium issues.

[RFC 969](#) was obsoleted by [RFC 998](#).

[RFC 916](#) defines the Reliable Asynchronous Transfer Protocol (RATP). Three timers are discussed in an expository manner in [Section 5.4](#) and its subsections. There are no relevant issues.

RFCs 2122, 2056, 2055, 2054, 2044, 2016, 1960, 1959, 1874, 1865, 1862, 1843, 1842, 1823, 1815, 1808, 1798, 1785, 1783, 1782, 1779, 1766, 1738, 1737, 1736, 1729, 1728, 1727, 1639, 1633, 1630, 1625, 1554, 1545, 1530, 1529, 1528, 1489, 1486, 1436, 1415, 1413, 1350, 1345, 1312, 1302, 1288, 1278, 1241, 1235, 1196, 1194, 1179, 1123, 1003, 971, 965, 959, 949, 913, 887, 866, 865, 864, 863, 862, 797, 795, 783, 775, 765, 751, 743, 742, 740, 737, 725, 722, 707, 691, 683, 662, 640, 624, 614, 607, 599, 412, 411, 410, 407, and 406 were found to have no references to dates or times, and hence no millennium issues.

RFCs 712, 697, 633, 630, 622, 610, 593, 592, 589, 573, 571, 570, 553, 551, 549, 543, 535, 532, 525, 520, 514, 506, 505, 504, 501, 499, 493, 490, 487, 486, 485, 480, 479, 478, 477, 472, 468, 467, 463, 454, 451, 448, 446, 438, 437, 436, 430, 429, 418, 414, and 409 were not available for review.

RFCs below 400 were considered too obsolete to even consider.

## **[12. Network & Transport Layer](#)**

### **[12.1 Summary](#)**

The RFC's which were categorized into this group were the Internet Protocol (IP) versions four and six, the Transmission Control Protocol (TCP), the User Datagram Protocol (UDP), the Point-to-Point Protocol (PPP) and its extensions, Internet Control Message Protocol (ICMP), the Address Resolution Protocol (ARP) and Remote Procedure Call (RPC) protocol. A variety of less known protocols were also examined.

After careful review of the nearly 400 RFC's in this category, no millennium or year 2000 problems were found.

## **12.2 Specifics**

[RFC 2125](#) on the PPP Bandwidth Allocation Protocol (BAP) in [section 5.3](#) discusses the use of mandatory timers, but gives no mention as to how they are implemented.

[RFC 2114](#) on a Data Link Switching Client Access Protocol defines a retry timer of five seconds in [Section 3.4.1](#).

[RFC 2097](#) on the PPP NetBIOS Frame Control Protocol discusses several timer and timeouts in [Section 2.1](#), none of which suffers from a year **2000** problem.

[RFC 2075](#) on the IP Echo Host Service discusses timestamps and has no millennium issues.

[RFC 2005](#) on the Applicability for Mobile IP discusses using timestamps as a security measure to avoid replay attacks ([Section 3](#)), but does not quantify them. There are no expected issues.

[RFC 2002](#) on IP Mobility Support uses a 16-bit field for the lifetime of a connection and notes the 18.2 hour limitation that this imposes. [Section 5.6.1](#) on replay protection requires the use of 64-bit time fields, of a similar format to NTP packets.

[RFC 1981](#) on Path MTU Discovery for IPv6 discusses timestamps and their potential use to purge stale information in [section 5.3](#). There is no millennium issues in this use.

[RFC 1963](#) on the PPP Serial Data Transport Protocol defines a flow expiration time in [section 4.9](#) which has no year 2000 issues.

[RFC 1833](#) on Binding Protocols for ONC RPC Version 2 defines a variable in [Section 2.2.1](#) called RPCBPROC\_GETTIME which returns the local time in seconds since 1/1/1970. Since this value is not fields width dependent, it may or may not wrap around the 32-bit value depending on the operating system parameters.

[RFC 1762](#) on the PPP DECnet Phase IV Control Protocol discusses a number of timers in [Section 5](#) (General Considerations). None of these timers experience any millennium issues.

[RFC 1761](#) on Snoop Version 2 Packet Capture File Format discusses two 32-bit timestamp values on [Section 4](#) on Packet Record Formats. The first of these may wrap in the year 2038, but should not effect anything of any import.

[RFC 1755](#) on ATM Signalling Support for IP Over ATM discusses timing

issues in [Section 3.4](#) on VC Teardown. These limited timers have no year 2000 issues.

[RFC 1692](#) on the Transport Multiplexing Protocol (TMux) defines a TTL in [Section 2.3](#) and a timer in [Section 3.3](#). Neither of these suffer from any millennium or year 2000 issues.

[RFC 1661](#) on PPP defines three timers in [Section 4.6](#), none of which have any year 2000 issues.

[RFC 1644](#) on T/TCP (TCP Extensions for Transactions) mentions [RFC 1323](#) and the extended timers recommended in it.

[RFC 1575](#) defines an echo function for CNLP discusses in the narrative the use of the Lifetime Field in [Section 5.3](#). There is nothing to suggest that there is any year 2000 issues.

[RFC 1329](#) on Dual MAC FDDI Networks discusses ARP cache administration in [Section 9.3](#) and 9.4 and various timers to expire entries.

[RFC 1256](#) on ICMP Router Discovery Messages talks about lifetime fields in [Section 2](#) and defines three router configuration variables in [Section 4.1](#). **None of these have any millennium issues.**

[RFC 792](#) on ICMP discusses Timestamps and Timestamp Reply messages which define a 32-bit timestamp which contains the number of milliseconds since midnight UT.

[RFC 791](#) on the Internet Protocol defines a packet type 68 which is an Internet Timestamp, which defines a 32-bit field which contains the number of milliseconds since midnight UT.

[RFC 781](#) defines the same option which is codified in [RFC 791](#) as a packet type 68.

RFC's 2126, 2118, 2113, 2107, 2106, 2105, 2098, 2067, 2043, 2023, 2019, 2018, 2009, 2004, 2003, 2001, 1994, 1993, 1990, 1989, 1979, 1978, 1977, 1976, 1975, 1974, 1973, 1972, 1967, 1962, 1954, 1946, 1937, 1936, 1934, 1933, 1932, 1931, 1926, 1924, 1919, 1918, 1917, 1916, 1915, 1897, 1888, 1887, 1885, 1884, 1883, 1881, 1878, 1877, 1868, 1860, 1859, 1853, 1841, 1832, 1831, 1809, 1795, 1791, 1770, 1764, 1763, 1756, 1754, 1752, 1744, 1735, 1726, 1719, 1717, 1710, 1707, 1705, 1698, 1693, 1688, 1687, 1686, 1683, 1682, 1681, 1680, 1679, 1678, 1677, 1676, 1674, 1673, 1672, 1671, 1670, 1669, 1667, 1663, 1662, 1638, 1634, 1631, 1629, 1624, 1622, 1621, 1620, 1619, 1618, 1613, 1605, 1604, 1598, 1590, 1577, 1570, 1561, 1560, 1553, 1552, 1551, 1549, 1548, 1547, 1538, 1526, 1518, 1498, 1490, 1483, 1475, 1466, 1454, 1435, 1434, 1433, 1393, 1390, 1385, 1379, 1378, 1377, 1376, 1375, 1374, 1365, 1363, 1362, 1356, 1347, 1337, 1335, 1334, 1333, 1332, 1331, 1326, 1323, 1314, 1307, 1306, 1294, 1293, 1277, 1263, 1240, 1237, 1236, 1234, 1226, 1223, 1220, 1219, 1210, 1209, 1201, 1191, 1188, 1185, 1172, 1171, 1166, 1162, 1151, 1146,

1145, 1144, 1141, 1139, 1134, 1132, 1122, 1110, 1106, 1103, 1088, 1086, 1085, 1078, 1072, 1071, 1070, 1069, 1063, 1062, 1057, 1055, 1051, 1050, 1046, 1045, 1044, 1042, 1030, 1029, 1027, 1025, 1016, 1008, 1007, 1006, 1002, 1001, 994, 986, 983, 982, 970, 964, 963, 962, 955, 948, 942, 941, 940, 936, 935, 932, 926, 925, 924, 922, 919, 917, 914, 905, 903, 896, 895, 894, 893, 892, 891, 889, 879, 877, 874, 872, 871, 848, 829, 826, 824, 815, 814, 813, 801, 793, 789, 787, 777, 768, 761, 760, 759, 730, 704, 696, 695, 692, 690, 689, 687, 685, 680, 675, 674, 660, 632, 626, 613, 611 were reviewed but were found to have no millennium references.

RFC's 594, 591, 576, 550, 548, 528, 521, 489, 488, 473, 460, 459, 450, 449, 445, 442, 434, 426, 417, 398, 395, 394, 359, 357, 348, 347, 346, 343, 312, 301, 300, 271, 241, 210, 203, 202, 197, 190, 178, 176, 175, 166, 165, 161, 151, 150, 146, 145, 143, 142, 128, 127, 123, 122, 93, 91, 80, 79, 70, 67, 65, 62, 60, 59, 56, 55, 54, 53, 41, 38, 33, 23, 22, 20, 19, 17, 12 were deemed too old to be considered for millennium investigation.

## **13. Electronic Mail**

### **13.1 Summary**

The RFC's which were categorized into this group were the Simple Mail Transfer Protocol (SMTP), Internet Mail Access Protocol (IMAP), Post Office Protocol (POP), Multipurpose Internet Mail Exchange (MIME), and [X.400](#) to SMTP interaction.

After reviewing all mail-related RFCs, it was discovered that while some obsolete standards required two-digit years, all currently used standards require four-digit years and are thus not prone to typical Year 2000 problems.

### **13.2 Specifics**

RFCs 821 and 822, the main basis for SMTP mail exchange and message format, originally required two-digit years. However, both of these RFCs were later modified by [RFC 1123](#) in 1989, which strongly recommended 4-digit years. Although there might be a few very old SMTP systems using two-digit years, it is believed that almost all mail sent over the Internet today uses four-digit years. Mail that contains two-digit years in its SMTP headers will not "fail", but might be mis-sorted in message stores and mail user agents. This problem is avoided entirely by taking the [RFC 1123](#) change as a requirement, rather than merely as a recommendation.

IMAP versions 1, 2, and 3 used two-digit years, but IMAP version 4 (defined in RFCs 1730 and 1732 in 1994) requires four-digit

years. There are still a few IMAP 2 servers and clients in use on the Internet today, but IMAP version 4 has already taken over almost all of the IMAP market. Mail stored on an IMAP server or client with two-digit years will not "fail", but could possibly be mis-sorted or prematurely expired.

[RFC 1153](#) describes a format for digests of mailing lists, and uses two-digit dates. This format is not widely used. The use of two-digit dates could possibly cause mis-sorting of stored messages.

[RFC 1327](#), which describes mapping between X.400 mail and SMTP mail, uses the UTCTime format.

[RFC 1422](#) describes the structure of certificates that were used in PEM (and are expected to be used in many other mail and non-mail services). Those certificates use dates in UTCTime format. Poorly written software might prematurely expire or validate a certificate based on comparisons of the date with the current date, although no current software is known to do this.

## **[14. Network Time Protocols](#)**

### **[14.1 Summary](#)**

The RFC's which were categorized into this group were the Network Time Protocol (NTP), and the Time Protocol.

NTP has been certified year 2000 compliant, while the Time Protocol will "roll over" at Thu Feb 07 00:54:54 2036 GMT. Since NTP is the current defacto standard for network time this does not seem to be an issue.

### **[14.2 Specifics](#)**

There is no reference anywhere in the NTP specification or implementation to any reference epoch other than 1 January 1900. In short, NTP doesn't know anything about the millennium.

>From the Time Protocol RFC (868):

S: Send the time as a 32 bit binary number.

...

The time is the number of seconds since 00:00 (midnight) 1 January 1900 GMT, such that the time 1 is 12:00:01 am on 1 January 1900 GMT; this base will serve until the year 2036.



## [15.](#) Name Services

### [15.1](#) Summary

The RFC's which were categorized into this group were the Domain Name System (DNS), it's advanced add on features (Incremental Zone Transfer, etc.).

There have been no year 2000 relayed problems found with the DNS protocols, or common implementations of them.

### [15.2](#) Specifics

One is a common practice of writing serial numbers in zone files as if they represent a date, and using only two digits of the year. That practice cannot survive into the year 2000. This is not a protocol problem, the serial number is simply an integer, and any value is OK, provided it always increases (see [rfc1982](#) for a definition of what that means). In any case, a change from 97abcd (or similar) to 00abcd would be a decrease and so is not permitted. Zone file maintainers have two choices, one easy (though irrational) one would be to continue from 99 to 100 and so on. The other, is simply to switch, at any time between now and when the serial number first needs updating after the year 2000, to use 4 digits to represent the year instead of [2](#). **As long as there are no more than 6 digits in the "abcd" part, and** this is done sometime before the year 2100, this is always an increase, and therefore always safe. Should any zone files be of the form yyabcdefg (with 7 digits after a 2-digit year) then the procedures of [section 7 of rfc2182](#) should be adopted to convert the serial number to some other value.

The other item of note is related to timestamps in DNS security. Those are represented as 32 bit counts of seconds, based in 1970, and hence have no year 2000 problems. however, they do obviously have a natural end of life, and sometime before that time is reached, the definitions of those fields need to be corrected, perhaps to allow them to represent the number of seconds elapsed since the base, modulo  $2^{32}$ , which is likely to be adequate for the purposes of DNS security (signatures and keys are unlikely to need to be valid for more than 70 years). In any case, more work is needed in this area in the not too far distant future.

## [16](#) Network Management

### [16.1](#) Summary

The RFC's which were categorized into this group were the Simple Network Management Protocol (SNMP), a large number of Management Information Bases (MIBs) and the Common Management Information Protocol over TCP/IP (CMOT).

Although a few discrepancies have been found and outlined below, none of them should have an impact on interoperability.

## **16.2 Specifics**

### **16.2.1 Use of GeneralizedTime in CMOT as defined in RFCs 1095 and 1189.**

The standards for CMOT specify an unusual use for the GeneralizedTime type. (GeneralizedTime has a four-digit representation of the year.)

If the system generating the PDU does not have the current time, yet does have the time since last boot, then GeneralizedTime can be used to encode this information. The time since last boot will be added to the base time "0001 Jan 1 00:00:00.00" using the Gregorian calendar algorithm.

This is really a "Year 0" problem rather than a Year 2000 problem, and in any case, CMOT is not currently deployed.

### **16.2.2 UTCTime in SNMP Definitions**

UTCTime is an ASN.1 type that includes a two-digit representation of the year. There are several options for UTCTime in ASN.1, that vary in precision and in local versus GMT, but these options all have two-digit years. The standards for SNMP definitions specify one particular format:

YYMMDDHHMMZ

The first usage of UTCTime in the standards for SNMP definitions goes all the way back to [RFC 1303](#). It has persisted unchanged up through the current specifications in [RFC 1902](#). The role of UTCTime in SNMP definitions is to record the history of an SNMP MIB module in the module itself, via two ASN.1 macros:

- o LAST-UPDATED
- o REVISION

Management applications that store and use MIB modules need to be smart about interpreting these UTCTimes, by prepending a "19" or a "20" as appropriate.

### **16.2.3 Objects in the Printer MIB ([RFC 1559](#))**

There are two objects in the Printer MIB that allow use of a date as an object value with no explicit guidance for formatting the value. The objects are prtInterpreterLangVersion and prtInterpreterVersion. Both are defined with a syntax of OCTET STRING. The descriptions for the objects allow the object value to contain a date, version code or other product specific information to identify the interpreter or language. The descriptions do not include an explicit statement

recommending use of a four-digit year when a date is used as the object value.

#### **16.2.4 Dates in Mobile Network Tracing Records ([RFC 2041](#))**

The RFC specifies trace headers and footers with date fields that are character arrays of size 32. While 32 characters certainly provide enough room for a four-digit year, there's no explicit statement that these years must be represented with four digits.

### **17 Network News**

#### **17.1 Summary**

The RFC's which were categorized into this group were related to the Network News Protocol (NNTP).

There does exist a problem in both NNTP, [RFC 977](#), and the Usenet News Message Format, [RFC 10336](#). They both specify two-digit year format. A working group has been formed to update the network news protocols in general, and addressing this problem is on their list of work items.

#### **17.2 Specifics**

The NNTP transfer protocols defined in [RFC 977](#). Sections [3.7.1](#), the definition of the NEWGROUPS command, and 3.8.1, the NEWNEWS command, that dates must be specified in YYMMDD format.

The format for USENET news messages is defined in [RFC 1036](#). The Date line is defined in [section 2.1.2](#) and it is specified in [RFC-822](#) format. It specifically disallows the standard UNIX ctime(3) format, which would allow for four digit years. [Section 2.2.4](#) on Expires also mandates the same two-digit year format.

### **18. Real Time Services**

#### **18.1 Summary**

The RFC's which were categorized into this group were related to IP Multicast, RTP, and Internet Stream Protocol. A Year 2000 problem does occur in the Simple Network Paging Protocol, versions 2 & 3. Both define a HOLDuntil option which uses a YYMMDDHHMMSS+/-GMT field. Version 3 also defines a MStatus command, which is required to store, dates and times as YYMMDDHHMMSS+/-GMT.

#### **18.2 Specifics**

[RFC 2102](#) discusses Multicast support for NIMROD and has no mention of dates or time. [RFC 2090](#) on TFTP Multicast options is also free from any date/time references.

[RFC 2038](#) on RTP MPEG formats has three references to time: a Presentation Time Stamp (PTS), a Decoding Time Stamp (DTS), and a System Clock (SC) reference time. Each RTP packet contains a timestamp derived from the sender 90 kHz clock reference. Each of the header fields are defined in [section 2.1](#), 3, and 3.3 are 32 bit fields. No mention is made of a "zero" start time, so it is presumed that this format will be valid until at least 2038.

Similarly [RFC 2035](#) on the RTP JPEG format defines the same timestamp in [section 3](#). [RFC 2032](#) on RTP H.261 video streams uses a calculated time based on the original frame so once again there is no millennium issue. [RFC 2029](#) on the RTP format for Sun's CellB video encoding mentions the RTP timestamp in [section 2.1](#).

[RFC 2022](#) defines support for multicast over UNI 3.0/3.1 based ATM networks. [Section 5](#). defines a timeout value for connections between one and twenty minutes. [Section 5.1.1](#) discusses several timers that are bound between five and ten seconds, while 5.1.3 requires an inactivity timer, which should also run between one and twenty minutes. Sections [5.1.5](#), [5.1.5.1](#), [5.1.5.2](#), [5.2.2](#), [5.4](#), [5.4.1](#), [5.4.2](#), [5.4.3](#), [6.1.3](#) and [Appendix E](#) all defines numerous timers, none of which have any millennium issues.

[RFC 1890](#) on RTP profiles for audio and video conferences discusses a sampling frequency which has no issues. [RFC 1889](#) on RTP discusses time formats in [section 4](#), as the same 64 bit unsigned integer format that NTP uses. There is a "period" problem, which will occur in the year 2106. [Section 5.1](#) is a more formalized discussion of the timestamp properties, while [Section 6.3.1](#) discusses a variety of different timers all using the 64 bit field format, or a compressed 32-bit version of the inner octet of bytes. [Section 8.2](#) discusses loop detection and how the various timers are used to determine if looping occurs.

[RFC 1861](#) on Version 3 of the Simple Network Paging Protocol does have a Year 2000 problem. The protocol defines a HOLDuntil command in [section 4.5.6](#) and a MStatus command in [section 4.6.10](#), both of which require dates/times to be stored as YYMMDDHHMMSS+/-GMT. Clearly this format will be invalid after the end of 1999.

[RFC 1821](#) has no date/time references. [RFC 1819](#) on Version 2 of the Internet Stream Protocol defines a HELLO message format in [section 6.1.2](#), which does contain a timer which is updated every millisecond. No year 2000 problems exist with this protocol.

[RFC 1645](#) on Version 2 of the Simple Network Paging Protocol contains the same HOLDuntil field problem as version 3. The definition is

contained [section 4.4.6](#).

[RFC 1458](#) on the Requirements of Multicast Protocols discusses a retransmission timer in [section 4.23](#), and a general discussion of timer expiration in [section 5](#), neither of which have any millennium concerns. [RFC 1301](#) on the Multicast Transport Protocol defines a heartbeat interval of time in [section 2.1](#), as well as retention and windows. Formal definitions for each are contained in sections [2.2.7](#), [2.2.8](#) and [2.2.9](#). The heartbeat is a 32 bit unsigned field, while the Window and Retention are both 16 bit unsigned fields. [Section 3.4.2](#) gives examples values for these fields, which indicate no millennium issues.

[RFC 1193](#) on Client Requirements for Real Time Services talks about time in [section 4.4](#), but there are no Year 2000 issues. [RFC 1190](#) have been obsoleted by [RFC 1819](#), but the hello timer issues are similar.

RFCs 1789, 1768, 1703, 1614, 1569, 1568, 1546, 1469, 1453, 1313, 1257, 1197, 1112, 1054, 988, 966, 947, 809, 804, 803, 798, 769, 741, 511, 508, 420, 408 and 251 contain no date or time references.

## **[19. Routing](#)**

### **[19.1 Summary](#)**

The RFC's which were categorized into this group were Routing Information Protocol (RIP), the Open Shortest Path First (OSPF) protocol, Classless InterDomain Routing (CIDR), the Border Gateway Protocol (BGP), and the InterDomain Routing Protocol (IDRP).

After careful examination both BGP and RIP have been found Year 2000 compliant.

There is a small Year 2000 issue in [RFC 1786](#) on the Representation of IP Routing Policies in the ripe-81++ Routing Registry. In Appendices C the "changed" object parameter defines a format of <email-address> YYMMDD, and similarly in [Appendix D](#) "withdrawn" object identifier has the format of YYMMDD. Since these are only identifiers there should be little operational impact. Some application software may need to be modified.

IDPR suffers from the classic Year 2038 problem, by having a timestamp counter which rolls over at that time.

### **[19.2 Specifics](#)**

[RFC 2091](#) on Extensions to RIP to Support Demand Circuits defines three required and one optional timers in [section 6](#). The Database Timer (6.1), the Hold down Timer (6.2), the Retransmission Time (6.3) and the Over-Subscription Timer (6.4) are all counters, which have no

millennium, issues. [RFC 2081](#) on the applicability of RIPng discusses deletion of routes for a variety of issues, one of which is the garbage-collection timer exceeds 120 seconds. There are no Year 2000 issues. [RFC 2080](#) on RIPng for IPv6, discusses various times in [section 2.6](#), none of which have any millennium problems.

[RFC 1987](#) on Ipsilon's General Switch Management protocol there is a Duration field defined in [section 4](#), which has no relevant problems. [Section 8.2](#) defines the procedure for dealing with timers. [RFC 1953](#) on Ipsilon's Flow Management Specification for IPv4 defines the same procedure in [section 3.2](#), as well as a lifetime field in the Redirect Message ([Section 4.1](#)). There are no millennium issues in either case.

There is a small Year 2000 issue in [RFC 1786](#) on the Representation of IP Routing Policies in the ripe-81++ Routing Registry. In Appendices C the "changed" object parameter defines a format of <email-address> YYMMDD, and similarly in [Appendix D](#) "withdrawn" object identifier has the format of YYMMDD. Since these are only identifiers there should be little operational impact. Some application software may need to be modified.

[RFC 1771](#) defines the Border Gateway Protocol (BGP). BGP does not have knowledge of absolute time, only relative time. There are five timers defined: Hold Timer, ConnectRetry Timer, KeepAlive Timer, MinRouteAdvertisementInterval and MinASOriginationInterval. There are no known issues regarding BGP and the millennium.

In [RFC 1584](#), which defines Multicast Extensions to OSPF, three timers are defined in [section 8.2](#): IGMPPollingInterval, IGMPTimeout, and IGMP polling timer. [Section 8.4](#) defines an age parameter for the local groups database and [section 9.3](#) outlines how to implement that age parameter. It is not expected that any connections lifetime will be long enough to cause any issues with these timers.

[RFC 1583](#), OSPF, there are two types of timers defined in [section 4.4](#), single-shot timers and interval timers. There are a number of timers defined in [Section 9](#) including: HelloInterval, RouterDeadInterval, InfTransDelay, Hello Timer, Wait Timer and RxmtInterval. [Section 10](#) also defines the Inactivity Timer. No millennium problem exists for any of these timers.

[RFC 1582](#) is an earlier version of [RFC 2091](#). [Section 7](#) documents the same timers as noted above, with the same lack of a millennium issue.

[RFC 1504](#) on Appletalk Update-Based Routing Protocol defines a 10-second period in [Section 3](#), and hence has no relevant issues.

[RFC 1479](#) which specifies IDPR Version 1, defines a timestamp field in [section 1.5.1](#), which is a 32 bit unsigned integer number of seconds since January 1, 1970. The authors recognize the problem of timestamp exhaustion in 2038, but feel that the protocol will not be in use for

that period. Sections [1.7](#), [2.1](#), and [4.3.1](#) also discuss the timestamp field. [RFC 1478](#) on the IDPR Architecture, also discusses the same timestamp field in [section 3.3.4](#). [RFC 1477](#) again refers to the IDPR timestamp in [section 4.2](#). Thus IDPR has no Year 2000 issue, but does have a period problem in the year 2038.

[RFC 1075](#) on Distance Vector Multicast Routing Protocol devotes [section 7 to time values](#). None of the timers have any millennium issues. [RFC 1074](#), on the NFSNET backbone SPF IGP defines several hardcoded timers values in [section 5](#).

[RFC 1058](#) on RIP discusses the 30-second timers in [section 3.3](#). There is no millennium issues related to RIP.

[RFC 995](#) on the Requirements for Internet Gateways has extensive discussions of timers in [section 7.1](#) and throughout A.1 and A.2. None of these timers suffer from the millennium problem.

[RFC 911](#) on EGP on Berkeley Unix recommend timer values of 30 and 120 seconds.

[RFC 904](#) which defines the Exterior Gateway Protocol (EGP). There are a number of timers discussed in sections [4.1.1](#) and [4.1.4](#). None of these timers suffer from any relevant problems.

RFCs 2103, 2092, 2073, 2072, 2042, 2008, 1998, 1997, 1992, 1966, 1955, 1940, 1930, 1925, 1923, 1863, 1817, 1812, 1793, 1787, 1774, 1773, 1772, 1765, 1753, 1745, 1723, 1722, 1721, 1716, 1702, 1701, 1668, 1656, 1655, 1654, 1587, 1586, 1585, 1581, 1520, 1519, 1517, 1482, 1476, 1439, 1403, 1397, 1388, 1387, 1383, 1380, 1371, 1370, 1364, 1338, 1322, 1268, 1267, 1266, 1265, 1264, 1254, 1246, 1245, 1222, 1195, 1164, 1163, 1142, 1136, 1133, 1126, 1125, 1124, 1104, 1102, 1092, 1009, 985, 981, 975, 950, 898, 890, 888, 875, and 823 contain no date or time references.

## **[20. Security](#)**

### **[20.1 Summary](#)**

The RFC's which were categorized into this group were kerberos authentication protocol, Remote Authentication Dial In User Service (RADIUS), One Time Password System (OTP), Privacy Enhanced Mail (PEM), security extensions to a variety of protocols including (but not limited to) RIPv2, HTTP, MIME, PPP, IP, Telnet and FTP. Encryption and authentication algorithms are also examined.

[RFC 1507](#) on Distributed Authentication Security Services (DASS) discusses time and secure time in an expository manner in Sections [1.2.2](#), [1.4.4](#) and [2.1](#). [Section 3.6](#) defines absolute time as an UTC time with a precision of 1 second, and [Section 4.1](#) discusses ANS.1 encoding of time values. Because of the imprecision of the UTC time

definition there could be problems with this protocol.

RFCs 1421-1424 specifies that PEM uses UTC time formats which could have a Millennium issue since the year specification only provides the last two digits of the year.

## **20.2 Specifics**

[RFC 2082](#) on RIP-2 MD5 Authentication requires storage of security keys for a specified lifetime in sections [4.1](#) and [4.2](#). There are no millennium issues in this protocol.

[RFC 2078](#) on the GSSAPI Version 2 defines numerous calls that use timers for inputs and outputs. Sections [2.1.1](#), [2.1.3](#), [2.1.4](#), [2.1.5](#), [2.2.1](#), [2.2.2](#), [2.2.5](#) and [2.2.6](#) all use the lifetime\_rec field, which is defined as an integer counter in seconds. There should be no relevant problems with this protocol.

[RFC 2069](#) on Digest Authentication for HTTP, defines a 'date' and a 'last-modified' field in [Section 2.1.2](#). Both are required to be RFC **1123 formats which is not subject to millennium issues**. [Section 3.2](#) discusses dates and times in the context of thwarting replay attacks, but have no relevant issues.

[RFC 2065](#) on DNS Security extensions first discusses time in section [2.3.3](#). **The SIG RDATA format is defined in [Section 4.1](#) discusses "time signed" field and defines it to be a 32 bit unsigned integer number of seconds since January 1, 1970. There will be a period problem in 2038 because of rollover. [Section 4.5](#) on the file representations of SIG RRs specifies the time field is expressed as YYYYMMDDHHMMSS which is clearly Year 2000 compliant.**

[RFC 2059](#) on RADIUS account formats defines a "time" attribute, which is optional which is a 32 bit unsigned integer number of seconds since January 1, 1970. Likewise [RFC 2058](#) on RADIUS also defines this optional attribute in the same way. There will be a potential period problem that occurs on 2038.

[RFC 2035](#) on the Simple Public Key GSSAPI Mechanism talks about secure timestamps in the background and overview sections only in an expository manner.

[RFC 1969](#) on the PPP DES Encryption Protocol uses time as an example in [Section 4](#) when discussing how to encrypt the first packet of a stream. It is suggested that the first 32 bits be used for the number of seconds since January 1, 1970. There could thus be a potential operations problem in 2038.

[RFC 1898](#) on the CyberCash Credit Card Protocol provides an example message in [Section 2.7](#) which uses a date field of the form YYYYMMDDHHMM that is clearly Y2K compliant.



[RFC 1510](#), which defines Kerberos Version 5, makes extensive use of times in the security model. There are discussions in the Introduction, as well as Sections [1.2](#), and [3.1.3](#). Kerberos uses ASN.1 definitions to abstract values, and hence defines a base definition for KerberosTime which is a generalized time format in [Section 5.2](#). >From the text: "Example: The only valid format for UTC time 6 minutes, **27 seconds after 9 p.m. on 6 November 1985 is 19851106210627Z.**" A side note is that the MIT reference implementation of the Kerberos, by default set the expiration of tickets to December 31, 1999. This is not protocol related but could have some operational impacts.

[RFC 1509](#) on GSSAPI C-bindings makes a single reference that all counters are in seconds and assigned as 32 bit unsigned integers. Hence GSSAPI mechanisms may have problems in 2038.

[RFC 1507](#) on Distributed Authentication Security Services (DASS) discusses time and secure time in an expository manner in Sections [1.2.2](#), [1.4.4](#) and [2.1](#). [Section 3.6](#) defines absolute time as an UTC time with a precision of 1 second, and [Section 4.1](#) discusses ANS.1 encoding of time values. Because of the imprecision of the UTC time definition there could be problems with this protocol.

[RFC 1424](#) on PEM Part IV defines a self-signed certificate request in [Section 3.1](#). The validity period start and end times are both suggested to be January 1, 1970. [RFC 1422](#) on PEM Part II defines the validity period for a certificate in [Section 3.3.6](#). It is recommended that UTC Time formats are used, and notes the lack of a century so that comparisons between different centuries must be done with care. No suggestions on how to do this are included. Sections [3.5.2](#) also discusses validity period in PEM CRLs. [RFC 1421](#) on PEM Part I discusses validity periods in an expository way. PEM as a whole could have problems after December 31, 1999 based on its use of UTC Time.

RFCs 1113, 1114, and 1115 specify the original version of PEM and have been obsoleted by 1421, 1422, 1423, & 1424.

RFCs 2104, 2085, 2084, 2057, 2040, 2015, 1984, 1968, 1964, 1961, 1949, 1948, 1938, 1929, 1928, 1858, 1852, 1851, 1829, 1828, 1827, 1826, 1825, 1824, 1760, 1751, 1750, 1704, 1675, 1579, 1535, 1511, 1492, 1457, 1455, 1423, 1416, 1412, 1411, 1409, 1408, 1321, 1320, 1319, 1281, 1244, 1186, 1170, 1156, 1108, 1004, 972, 931, 927, 912, and 644 contain no date or time references.

## [21. Virtual Terminal](#)

### [21.1 Summary](#)

The RFC's which were categorized into this group were Telnet and its many extensions, as well as the Secure SHell (SSH) protocol. The X window system was not considered since it is not an IETF protocol.

Official acknowledgement by the trustee's of the X window system was given that they will examine the protocol.

Unencrypted Telnet and TN3270 have both been found to be Year 2000 Compliant. The SSH protocols are also Year 2000 compliant.

## **[21.2 Specifics](#)**

[RFC 1013](#) on the X Windows version 11 alpha protocol defines a 32 bit unsigned integer timestamp in [Section 4](#).

RFCs 2066, 1647, 1576, 1572, 1571, 1372, 1282, 1258, 1221, 1205, 1184, 1143, 1116, 1097, 1096, 1091, 1080, 1079, 1073, 1053, 1043, 1041, 1005, 946, 933, 930, 929, 907, 885, 884, 878, 861, 860, 859, 858, 857, 856, 855, 854, 851, 818, 802, 782, 779, 764, 749, 748, 747, 746, 736, 735, 734, 732, 731, 729, 728, 727, 726, 721, 719, 718, 701, 698, 658, 657, 656, 655, 654, 653, 652, 651, 647, 636, 431, 399, 393, 386, 365, 352, 340, 339, 328, 311, 297, 231, and 215 contain no date or time references.

RFCs 703, 702, 688, 679, 669, 659, 600, 596, 595, 587, 563, 562, 560, 559, 513, 495, 470, 466, 461, 447, 435, 377, 364, 318, 296, 216, 206, 205, 177, 158, 139, 137, 110, 97 were unavailable.

## **[22. Other](#)**

### **[22.1 Summary](#)**

This grouping was a hodge-podge of informational RFCs, April Fool's Jokes, IANA lists, and experimental RFCs. None were found to have any millennium issues.

### **[22.2 Specifics](#)**

RFCs 2123, 2036, 2014, 2000, 1999, 1958, 1935, 1900, 1879, 1855, 1822, 1814, 1810, 1799, 1776, 1718, 1715, 1700, 1699, 1640, 1627, 1610, 1607, 1601, 1600, 1599, 1594, 1580, 1578, 1574, 1550, 1540, 1539, 1527, 1499, 1463, 1462, 1438, 1410, 1402, 1401, 1391, 1367, 1366, 1360, 1359, 1358, 1349, 1340, 1336, 1325, 1324, 1300, 1291, 1287, 1261, 1250, 1249, 1206, 1200, 1199, 1177, 1175, 1174, 1152, 1149, 1140, 1135, 1127, 1118, 1111, 1100, 1099, 1077, 1060, 1039, 1020, 1019, 999, 997, 992, 990, 980, 960, 945, 944, 943, 939, 909, 902, 900, 899, 873, 869, 846, 845, 844, 843, 842, 840, 839, 838, 837, 836, 835, 834, 833, 832, 831, 820, 817, 800, 776, 774, 770, 766, 762, 758, 755, 750, 745, 717, 637, 603, 602, 590, 581, 578, 529, 527, 526, 523, 519, 518, 496, 491, 432, 404, 403, 401, 372, 363, 356, 345, 330, 329, 327, 317, 316, 313, 295, 282, 263, 242, 239, 234, 232, 225, 223, 213, 209, 204, 198, 195, 173, 170, 169, 167, 154, 149, 148, 147, 140, 138, 132, 131, 130, 129, 126, 121, 112, 109, 107, 100, 95, 90, 68, 64, 57, 52,

51, 46, 43, 37, 27, 25, 21, 15, 10, and 9 were examined and none were found to have any date or time references, let alone millennium or Year [2000](#) issues.

## [23. Security Considerations](#)

Although this document does consider the implications of various security protocols, there is no need for additional security considerations. The effect of a potential year 2000 problem may cause some security problems, but those problems are more of specific applications rather than protocol deficiencies introduced in this document.

## [24. References](#)

Because of the exhaustive nature of this investigation, the reader is referred to the list of published RFC's available from the IETF Secretariat or the RFC Editor, rather than republishing them here.

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### Appendix A: List of RFC's for each Area

The following list contains the RFC's grouped by area that were searched for year 2000 problems.

Each line contains three fields are separated by '::'. The first field is the RFC number, the second field is the type of RFC (S = Standard, DS = Draft Standard, PS = Proposed Standard, E = Experimental, H = Historical, I = Informational, BC = Best Current Practice, '' = No Type), and the third field is the Title.

### [A.1 Autoconfiguration](#)

1971:: PS:: IPv6 Stateless Address Autoconfiguration  
1970:: PS:: Neighbor Discovery for IP Version 6 (IPv6)  
1542:: PS:: Clarifications and Extensions for the Bootstrap Protocol  
1541:: PS:: Dynamic Host Configuration Protocol  
1534:: PS:: Interoperation Between DHCP and BOOTP

1533:: PS:: DHCP Options and BOOTP Vendor Extensions  
1532:: PS:: Clarifications and Extensions for the Bootstrap Protocol  
1531:: PS:: Dynamic Host Configuration Protocol  
1497:: DS:: BOOTP Vendor Information Extensions  
1395:: DS:: BOOTP Vendor Information Extensions  
1084:: DS:: BOOTP vendor information extensions  
1048:: DS:: BOOTP vendor information extensions  
951:: DS:: Bootstrap Protocol  
906:: :: Bootstrap loading using TFTP

## **A.2 Directory Services**

2120:: E :: Managing the X.500 Root Naming Context  
2079:: PS:: Definition of X.500 Attribute Types and an Object Class  
to Hold Uniform Resource Identifiers (URIs)  
1943:: I:: Building an X.500 Directory Service in the US  
1914:: PS:: How to interact with a Whois++ mesh  
1913:: PS:: Architecture of the Whois++ Index Service  
1838:: E:: Use of the X.500 Directory to support mapping between  
X.400 and [RFC 822](#) Addresses  
1837:: E:: Representing Tables and Subtrees in the X.500 Directory  
1836:: E:: Representing the O/R Address hierarchy in the X.500  
Directory Information Tree  
1835:: PS:: Architecture of the WHOIS++ service  
1834:: I:: Whois and Network Information Lookup Service Whois++  
1781:: PS:: Using the OSI Directory to Achieve User Friendly Naming  
1714:: I:: Referral Whois Protocol (RWhois)  
1684:: I:: Introduction to White Pages services based on X.500  
1637:: E:: DNS NSAP Resource Records  
1632:: I:: A Revised Catalog of Available X.500 Implementations  
1617:: I:: Naming and Structuring Guidelines for X.500 Directory Pilots  
1609:: E:: Charting Networks in the X.500 Directory  
1608:: E:: Representing IP Information in the X.500 Directory  
1588:: I:: WHITE PAGES MEETING REPORT  
1562:: I:: Naming Guidelines for the AARNet X.500 Directory Service  
1491:: I:: A Survey of Advanced Usages of X.500  
1488:: PS:: The X.500 String Representation of Standard Attribute  
Syntaxes  
1487:: PS:: X.500 Lightweight Directory Access Protocol  
1485:: PS:: A String Representation of Distinguished Names  
1484:: E:: Using the OSI Directory to achieve User Friendly Naming  
1430:: I:: A Strategic Plan for Deploying an Internet X.500  
Directory Service  
1400:: I:: Transition and Modernization of the Internet Registration  
Service  
1384:: I:: Naming Guidelines for Directory Pilots  
1355:: I:: Privacy and Accuracy Issues in Network Information  
Center Databases  
1330:: I:: Recommendations for the Phase I Deployment of OSI  
Directory Services (X.500) and OSI Message Handling  
Services (X.400) within the ESnet Community

1309:: I:: Technical Overview of Directory Services Using the  
X.500 Protocol  
1308:: I:: Executive Introduction to Directory Services Using the  
X.500 Protocol  
1292:: I:: A Catalog of Available X.500 Implementations  
1279:: :: X.500 and Domains  
1276:: PS:: Replication and Distributed Operations extensions to  
provide an Internet Directory using X.500  
1275:: I:: Replication Requirements to provide an Internet Directory  
using X.500  
1274:: PS:: The COSINE and Internet X.500 Schema  
1255:: I:: A Naming Scheme for c=US  
1218:: :: A Naming Scheme for c=US  
1202:: I:: Directory Assistance Service  
1107:: :: Plan for Internet directory services  
954:: DS:: NICNAME/WHOIS  
953:: H:: Hostname Server  
812:: :: NICNAME/WHOIS  
756:: :: NIC name server - a datagram-based information utility  
752:: :: Universal host table

=====  
Disk Sharing

1813:: I:: NFS Version 3 Protocol Specification  
1094:: H:: NFS: Network File System Protocol specification  
=====

Games and Chat

1459:: E:: Internet Relay Chat Protocol  
=====

Information Services & File Transfer

2122:: PS:: VEMMI URL Specification  
2070:: PS:: Internationalization of the Hypertext Markup Language  
2068:: PS:: Hypertext Transfer Protocol -- HTTP/1.1  
2056:: PS:: Uniform Resource Locators for Z39.50  
2055:: I:: WebNFS Server Specification  
2054:: I:: WebNFS Client Specification  
2044:: I:: "UTF-8, a transformation format of Unicode and ISO 10646"  
2016:: E:: Uniform Resource Agents (URAs)  
1986:: E:: Experiments with a Simple File Transfer Protocol for  
Radio Links using Enhanced Trivial File Transfer  
Protocol (ETFTP)  
1980:: I:: A Proposed Extension to HTML: Client-Side Image Maps  
1960:: PS:: A String Representation of LDAP Search Filters  
1959:: PS:: An LDAP URL Format  
1945:: I:: Hypertext Transfer Protocol -- HTTP/1.0  
1942:: E:: HTML Tables  
1874:: E:: SGML Media Types  
1867:: E:: Form-based File Upload in HTML  
1866:: PS:: Hypertext Markup Language - 2.0  
1865:: I:: EDI Meets the Internet: Frequently Asked Questions  
about Electronic Data Interchange (EDI) on the Internet  
1862:: I:: "Report of the IAB Workshop on Internet Information

Infrastructure, October 12-14, 1994"

1843:: I:: HZ - A Data Format for Exchanging Files of Arbitrarily  
Mixed Chinese and ASCII characters

1842:: I:: ASCII Printable Characters-Based Chinese Character  
Encoding for Internet Messages

1823:: I:: The LDAP Application Program Interface

1815:: I:: Character Sets ISO-10646 and ISO-10646-J-1

1808:: PS:: Relative Uniform Resource Locators

1807:: I:: A Format for Bibliographic Records

1798:: PS:: Connection-less Lightweight Directory Access Protocol

1788:: E:: ICMP Domain Name Messages

1785:: I:: TFTP Option Negotiation Analysis

1784:: PS:: TFTP Timeout Interval and Transfer Size Options

1783:: PS:: TFTP Blocksize Option

1782:: PS:: TFTP Option Extension

1779:: DS:: A String Representation of Distinguished Names

1778:: DS:: The String Representation of Standard Attribute Syntaxes

1777:: DS:: Lightweight Directory Access Protocol

1766:: PS:: Tags for the Identification of Languages

1738:: PS:: Uniform Resource Locators (URL)

1737:: I:: Functional Requirements for Uniform Resource Names

1736:: I:: Functional Requirements for Internet Resource Locators

1729:: I:: Using the Z39.50 Information Retrieval Protocol in the  
Internet Environment

1728:: I:: Resource Transponders

1727:: I:: A Vision of an Integrated Internet Information Service

1639:: E:: FTP Operation Over Big Address Records (FOOBAR)

1633:: I:: Integrated Services in the Internet Architecture

1630:: I:: Universal Resource Identifiers in WWW

1625:: I:: WAIS over Z39.50-1988

1558:: I:: A String Representation of LDAP Search Filters

1554:: I:: ISO-2022-JP-2: Multilingual Extension of ISO-2022-JP

1545:: E:: FTP Operation Over Big Address Records (FOOBAR)

1530:: I:: Principles of Operation for the TPC.INT Subdomain:  
General Principles and Policy

1529:: I:: Principles of Operation for the TPC.INT Subdomain:  
Remote Printing -- Administrative Policies

1528:: E:: Principles of Operation for the TPC.INT Subdomain:  
Remote Printing -- Technical Procedures

1489:: I:: Registration of a Cyrillic Character Set

1486:: E:: An Experiment in Remote Printing

1440:: E:: SIFT/UFT: Sender-Initiated/Unsolicited File Transfer

1436:: I:: The Internet Gopher Protocol (a distributed document  
search and retrieval protocol)

1415:: PS:: FTP-FTAM Gateway Specification

1413:: PS:: Identification Protocol

1350:: S:: THE TFTP PROTOCOL (REVISION 2)

1345:: I:: Character Mnemonics & Character Sets

1312:: E:: Message Send Protocol

1302:: I:: Building a Network Information Services Infrastructure

1288:: DS:: The Finger User Information Protocol

1278:: I:: A String Encoding of Presentation Address  
 1241:: E:: A Scheme for an Internet Encapsulation Protocol: Version 1  
 1235:: E:: The Coherent File Distribution Protocol  
 1196:: DS:: The Finger User Information Protocol  
 1194:: DS:: The Finger User Information Protocol  
 1179:: I:: Line Printer Daemon Protocol  
 1123:: S:: Requirements for Internet hosts - application and support  
 1068:: :: Background File Transfer Program BFTP  
 1037:: H:: NFILE - a file access protocol  
 1003:: :: Issues in defining an equations representation standard  
 998:: E:: NETBLT: A bulk data transfer protocol  
 978:: :: Voice File Interchange Protocol VFIP  
 971:: :: Survey of data representation standards  
 969:: :: NETBLT: A bulk data transfer protocol  
 965:: :: Format for a graphical communication protocol  
 959:: S:: File Transfer Protocol  
 949:: :: FTP unique-named store command  
 916:: H:: Reliable Asynchronous Transfer Protocol RATP  
 913:: H:: Simple File Transfer Protocol  
 887:: E:: Resource Location Protocol  
 866:: S:: Active users  
 865:: S:: Quote of the Day Protocol  
 864:: S:: Character Generator Protocol  
 863:: S:: Discard Protocol  
 862:: S:: Echo Protocol  
 797:: :: Format for Bitmap files  
 795:: :: Service mappings  
 783:: DS:: TFTP Protocol revision 2  
 775:: :: Directory oriented FTP commands  
 765:: :: File Transfer Protocol specification  
 751:: :: Survey of FTP mail and MLFL  
 743:: :: FTP extension: XRSQ/XRCP  
 742:: PS:: NAME/FINGER Protocol  
 740:: H:: NETRJS Protocol  
 737:: :: FTP extension: XSEN  
 725:: :: RJE protocol for a resource sharing network  
 722:: :: Thoughts on interactions in distributed services  
 712:: :: Distributed Capability Computing System DCCS  
 707:: :: High-level framework for network-based resource sharing  
 697:: :: CWD command of FTP  
 691:: :: One more try on the FTP  
 683:: :: FTPSRV - Tenex extension for paged files  
 662:: :: Performance improvement in ARPANET file transfers  
 from Multics  
 640:: :: Revised FTP reply codes  
 633:: :: IMP/TIP preventive maintenance schedule  
 630:: :: FTP error code usage for more reliable mail service  
 624:: :: Comments on the File Transfer Protocol  
 622:: :: Scheduling IMP/TIP down time  
 614:: :: "Response to [RFC 607](#): ""Comments on the File Transfer  
 Protocol""

610:: :: Further datalanguage design concepts  
607:: :: Comments on the File Transfer Protocol  
599:: :: Update on NETRJS  
593:: :: Telnet and FTP implementation schedule change  
592:: :: Some thoughts on system design to facilitate resource sharing  
589:: :: CCN NETRJS server messages to remote user  
573:: :: Data and file transfer: Some measurement results  
571:: :: Tenex FTP problem  
570:: :: Experimental input mapping between NVT ASCII and UCSB On Line System  
553:: :: Draft design for a text/graphics protocol  
551:: :: "[Letter from Feinroth re: NYU, ANL, and LBL entering the net, and FTP protocol]"  
549:: :: "Minutes of Network Graphics Group meeting, 15-17 July 1973"  
543:: :: Network journal submission and delivery  
542:: :: File Transfer Protocol  
535:: :: Comments on File Access Protocol  
532:: :: UCSD-CC Server-FTP facility  
525:: :: MIT-MATHLAB meets UCSB-OLS -an example of resource sharing  
520:: :: Memo to FTP group: Proposal for File Access Protocol  
514:: :: Network make-work  
506:: :: FTP command naming problem  
505:: :: Two solutions to a file transfer access problem  
504:: :: Distributed resources workshop announcement  
501:: :: "Un-muddling ""free file transfer"""  
499:: :: Harvard's network RJE  
493:: :: "E.W., Jr Graphics Protocol"  
490:: :: Surrogate RJS for UCLA-CCN  
487:: :: Free file transfer  
486:: :: Data transfer revisited  
485:: :: MIX and MIXAL at UCSB  
480:: :: Host-dependent FTP parameters  
479:: :: Use of FTP by the NIC Journal  
478:: :: FTP server-server interaction - II  
477:: :: Remote Job Service at UCSB  
472:: :: Illinois' reply to Maxwell's request for graphics information NIC 14925  
468:: :: FTP data compression  
467:: :: Proposed change to Host-Host Protocol:Resynchronization of connection status  
463:: :: FTP comments and response to [RFC 430](#)  
454:: :: File Transfer Protocol - meeting announcement and a new proposed document  
451:: :: Tentative proposal for a Unified User Level Protocol  
448:: :: Print files in FTP  
446:: :: Proposal to consider a network program resource notebook  
438:: :: FTP server-server interaction  
437:: :: Data Reconfiguration Service at UCSB  
436:: :: Announcement of RJS at UCSB



430:: :: Comments on File Transfer Protocol  
 429:: :: Character generator process  
 418:: :: Server file transfer under TSS/360 at NASA Ames  
 414:: :: File Transfer Protocol FTP status and further comments  
 412:: :: User FTP documentation  
 411:: :: New MULTICS network software features  
 410:: :: Removal of the 30-second delay when hosts come up  
 409:: :: Tenex interface to UCSB's Simple-Minded File System  
 407:: H:: Remote Job Entry Protocol  
 406:: :: Scheduled IMP software releases  
 396:: :: Network Graphics Working Group meeting - second iteration  
 387:: :: Some experiences in implementing Network Graphics  
       Protocol Level 0  
 385:: :: Comments on the File Transfer Protocol  
 382:: :: Mathematical software on the ARPA Network  
 374:: :: IMP system announcement  
 373:: :: Arbitrary character sets  
 368:: :: "Comments on ""Proposed Remote Job Entry Protocol""  
 367:: :: Network host status  
 366:: :: Network host status  
 361:: :: Daemon processes on host 106  
 360:: :: Proposed Remote Job Entry Protocol  
 354:: :: File Transfer Protocol  
 351:: :: Graphics information form for the ARPANET graphics  
       resources notebook  
 342:: :: Network host status  
 338:: :: EBCDIC/ASCII mapping for network RJE  
 336:: :: Level 0 Graphic Input Protocol  
 335:: :: New interface - IMP/360  
 332:: :: Network host status  
 325:: :: Network Remote Job Entry program - NETRJS  
 324:: :: RJE Protocol meeting  
 314:: :: Network Graphics Working Group meeting  
 310:: :: Another look at Data and File Transfer Protocols  
 309:: :: Data and File Transfer workshop announcement  
 307:: :: Using network Remote Job Entry  
 306:: :: Network host status  
 299:: :: Information management system  
 298:: :: Network host status  
 294:: :: "On the use of ""set data type"" transaction in  
       File Transfer Protocol"  
 293:: :: Network host status  
 292:: :: "E.W., Jr Graphics Protocol: Level 0 only"  
 288:: :: Network host status  
 287:: :: Status of network hosts  
 286:: :: Network library information system  
 285:: :: Network graphics  
 283:: :: NETRJT: Remote Job Service Protocol for TIPS  
 281:: :: Suggested addition to File Transfer Protocol  
 268:: :: Graphics facilities information  
 267:: :: Network host status

266:: :: Network host status  
 265:: :: "File Transfer Protocol"  
 264:: :: "Data Transfer Protocol"  
 255:: :: Status of network hosts  
 252:: :: Network host status  
 250:: :: Some thoughts on file transfer  
 238:: :: Comments on DTP and FTP proposals  
 217:: :: "Specifications changes for OLS, RJE/RJOR, and SMFS"  
 199:: :: Suggestions for a network data-tablet graphics protocol  
 192:: :: Some factors which a Network Graphics Protocol must  
       consider  
 191:: :: Graphics implementation and conceptualization at  
       Augmentation Research Center  
 189:: :: Interim NETRJS specifications  
 184:: :: Proposed graphic display modes  
 183:: :: EBCDIC codes and their mapping to ASCII  
 181:: :: Modifications to [RFC 177](#)  
 174:: :: UCLA - computer science graphics overview  
 172:: :: File Transfer Protocol  
 163:: :: Data transfer protocols  
 141:: :: Comments on [RFC 114](#): A File Transfer Protocol  
 134:: :: Network Graphics meeting  
 133:: :: File transfer and recovery  
 125:: :: Response to [RFC 86](#): Proposal for network standard format  
       for a graphics data stream  
 114:: :: File Transfer Protocol  
 105:: :: Network specifications for Remote Job Entry and Remote  
       Job Output Retrieval at UCSB  
   98:: :: Logger Protocol proposal  
   94:: :: Some thoughts on network graphics  
   88:: :: NETRJS: A third level protocol for Remote JobEntry  
   86:: :: Proposal for a network standard format for a data stream  
       to control graphics display  
   83:: :: Language-machine for data reconfiguration

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#### Internet & Network Layer

2126:: PS:: ISO Transport Service on top of TCP (ITOT)  
 2125:: PS:: The PPP Bandwidth Allocation Protocol (BAP) The PPP  
       Bandwidth Allocation Control Protocol (BACP)  
 2118:: I:: Microsoft Point-To-Point Compression (MPPC) Protocol  
 2114:: I:: Data Link Switching Client Access Protocol  
 2113:: PS:: IP Router Alert Option  
 2107:: I:: Ascend Tunnel Management Protocol - ATMP  
 2106:: I:: Data Link Switching Remote Access Protocol  
 2105:: I:: Cisco Systems' Tag Switching Architecture Overview  
 2098:: I:: Toshiba's Router Architecture Extensions for ATM:Overview  
 2097:: PS:: The PPP NetBIOS Frames Control Protocol (NBFCP)  
 2075:: I:: IP Echo Host Service  
 2067:: DS:: IP over HIPPI  
 2043:: PS:: The PPP SNA Control Protocol (SNACP)  
 2023:: PS:: IP Version 6 over PPP

2019:: PS:: Transmission of IPv6 Packets Over FDDI  
 2018:: PS:: TCP Selective Acknowledgment Options  
 2009:: E:: GPS-Based Addressing and Routing  
 2005:: PS:: Applicability Statement for IP Mobility Support  
 2004:: PS:: Minimal Encapsulation within IP  
 2003:: PS:: IP Encapsulation within IP  
 2002:: PS:: IP Mobility Support  
 2001:: PS:: "TCP Slow Start, Congestion Avoidance, Fast Retransmit,  
 and Fast Recovery Algorithms"  
 1994:: DS:: PPP Challenge Handshake Authentication Protocol (CHAP)  
 1993:: I:: PPP Gandalf FZA Compression Protocol  
 1990:: DS:: The PPP Multilink Protocol (MP)  
 1989:: DS:: PPP Link Quality Monitoring  
 1981:: PS:: Path MTU Discovery for IP version 6  
 1979:: I:: PPP Deflate Protocol  
 1978:: I:: PPP Predictor Compression Protocol  
 1977:: I:: PPP BSD Compression Protocol  
 1976:: I:: PPP for Data Compression in Data Circuit-Terminating  
 Equipment (DCE)  
 1975:: I:: PPP Magnalink Variable Resource Compression  
 1974:: I:: PPP Stac LZS Compression Protocol  
 1973:: PS:: PPP in Frame Relay  
 1972:: PS:: A Method for the Transmission of IPv6 Packets over  
 Ethernet Networks  
 1967:: I:: PPP LZS-DCP Compression Protocol (LZS-DCP)  
 1963:: I:: PPP Serial Data Transport Protocol (SDTP)  
 1962:: PS:: The PPP Compression Control Protocol (CCP)  
 1954:: I:: Transmission of Flow Labelled IPv4 on ATM Data Links  
 Ipsilon Version 1.0  
 1946:: I:: Native ATM Support for ST2+  
 1937:: I:: Local/Remote Forwarding Decision in Switched Data  
 Link Subnetworks  
 1936:: I:: Implementing the Internet Checksum in Hardware  
 1934:: I:: Ascend's Multilink Protocol Plus (MP+)  
 1933:: PS:: Transition Mechanisms for IPv6 Hosts and Routers  
 1932:: I:: IP over ATM: A Framework Document  
 1931:: I:: Dynamic RARP Extensions and Administrative Support for  
 Automatic Network Address Allocation  
 1926:: I:: An Experimental Encapsulation of IP Datagrams on  
 Top of ATM  
 1924:: I:: A Compact Representation of IPv6 Addresses  
 1919:: I:: Classical versus Transparent IP Proxies  
 1918:: BC:: Address Allocation for Private Internets  
 1917:: BC:: An Appeal to the Internet Community to Return Unused  
 IP Networks (Prefixes) to the IANA  
 1916:: I:: Enterprise Renumbering  
 1915:: BC:: Variance for The PPP Connection Control Protocol and  
 The PPP Encryption Control Protocol  
 1897:: E:: IPv6 Testing Address Allocation  
 1888:: E:: OSI NSAPs and IPv6  
 1887:: I:: An Architecture for IPv6 Unicast Address Allocation

1885:: PS:: Internet Control Message Protocol (ICMPv6) for the Internet Protocol Version 6 (IPv6)

1884:: PS:: IP Version 6 Addressing Architecture

1883:: PS:: "Internet Protocol, Version 6 (IPv6) Specification"

1881:: I:: IPv6 Address Allocation Management

1878:: I:: Variable Length Subnet Table For IPv4

1877:: I:: PPP Internet Protocol Control Protocol Extensions for Name Server Addresses

1868:: E:: ARP Extension - UNARP

1860:: I:: Variable Length Subnet Table For IPv4

1859:: I:: ISO Transport Class 2 Non-use of Explicit Flow Control over TCP [RFC1006](#) extension

1853:: I:: IP in IP Tunneling

1841:: I:: PPP Network Control Protocol for LAN Extension

1833:: PS:: Binding Protocols for ONC RPC Version 2

1832:: PS:: XDR

1831:: PS:: RPC

1809:: I:: Using the Flow Label Field in IPv6

1795:: I:: "Data Link Switching

1791:: E:: TCP And UDP Over IPX Networks With Fixed Path MTU

1770:: I:: IPv4 Option for Sender Directed Multi-Destination Delivery

1764:: PS:: The PPP XNS IDP Control Protocol (XNSCP)

1763:: PS:: The PPP Banyan Vines Control Protocol (BVCP)

1762:: DS:: The PPP DECnet Phase IV Control Protocol (DNCP)

1761:: I:: Snoop Version 2 Packet Capture File Format

1756:: E:: REMOTE WRITE PROTOCOL - VERSION 1.0

1755:: PS:: ATM Signaling Support for IP over ATM

1754:: I:: IP over ATM Working Group's Recommendations for the ATM Forum's Multiprotocol BOF Version 1

1752:: PS:: The Recommendation for the IP Next Generation Protocol

1744:: I:: Observations on the Management of the Internet Address Space

1735:: E:: NBMA Address Resolution Protocol (NARP)

1726:: I:: Technical Criteria for Choosing IP

1719:: I:: A Direction for IPng

1717:: PS:: The PPP Multilink Protocol (MP)

1710:: I:: Simple Internet Protocol Plus White Paper

1707:: I:: CATNIP

1705:: I:: Six Virtual Inches to the Left

1698:: I:: Octet Sequences for Upper-Layer OSI to Support Basic Communications Applications

1693:: E:: An Extension to TCP

1692:: PS:: Transport Multiplexing Protocol (TMux)

1688:: I:: IPng Mobility Considerations

1687:: I:: A Large Corporate User's View of IPng

1686:: I:: IPng Requirements

1683:: I:: Multiprotocol Interoperability In IPng

1682:: I:: IPng BSD Host Implementation Analysis

1681:: I:: On Many Addresses per Host

1680:: I:: IPng Support for ATM Services

1679:: I:: HPN Working Group Input to the IPng Requirements

## Solicitation

1678:: I:: IPng Requirements of Large Corporate Networks  
1677:: I:: Tactical Radio Frequency Communication Requirements  
for IPng  
1676:: I:: INFN Requirements for an IPng  
1674:: I:: A Cellular Industry View of IPng  
1673:: I:: Electric Power Research Institute Comments on IPng  
1672:: I:: Accounting Requirements for IPng  
1671:: I:: IPng White Paper on Transition and Other Considerations  
1670:: I:: Input to IPng Engineering Considerations  
1669:: I:: Market Viability as a IPng Criteria  
1667:: I:: Modeling and Simulation Requirements for IPng  
1663:: PS:: PPP Reliable Transmission  
1662:: S:: PPP in HDLC-like Framing  
1661:: S:: The Point-to-Point Protocol (PPP)  
1644:: E:: T/TCP -- TCP Extensions for Transactions Functional  
Specification  
1638:: PS:: PPP Bridging Control Protocol (BCP)  
1634:: I:: Novell IPX Over Various WAN Media (IPXWAN)  
1631:: I:: The IP Network Address Translator (Nat)  
1629:: DS:: Guidelines for OSI NSAP Allocation in the Internet  
1626:: PS:: Default IP MTU for use over ATM AAL5  
1624:: I:: Computation of the Internet Checksum via Incremental  
Update  
1622:: I:: Pip Header Processing  
1621:: I:: Pip Near-term Architecture  
1620:: I:: Internet Architecture Extensions for Shared Media  
1619:: PS:: PPP over SONET/SDH  
1618:: PS:: PPP over ISDN  
1613:: I:: cisco Systems X.25 over TCP (XOT)  
1605:: I:: SONET to Sonnet Translation  
1604:: PS:: Definitions of Managed Objects for Frame Relay Service  
1598:: PS:: PPP in X.25  
1590:: I:: Media Type Registration Procedure  
1577:: PS:: Classical IP and ARP over ATM  
1575:: DS:: An Echo Function for CLNP (ISO 8473)  
1570:: PS:: PPP LCP Extensions  
1561:: E:: Use of ISO CLNP in TUBA Environments  
1560:: I:: The MultiProtocol Internet  
1553:: PS:: Compressing IPX Headers Over WAN Media (CIPX)  
1552:: PS:: The PPP Internetwork Packet Exchange Control  
Protocol (IPXCP)  
1551:: I:: Novell IPX Over Various WAN Media (IPXWAN)  
1549:: DS:: PPP in HDLC Framing  
1548:: DS:: The Point-to-Point Protocol (PPP)  
1547:: I:: Requirements for an Internet Standard  
Point-to-Point Protocol  
1538:: I:: Advanced SNA/IP  
1526:: I:: Assignment of System Identifiers for TUBA/CLNP Hosts  
1518:: PS:: An Architecture for IP Address Allocation with CIDR  
1498:: I:: On the Naming and Binding of Network Destinations

1490:: DS:: Multiprotocol Interconnect over Frame Relay  
1483:: PS:: Multiprotocol Encapsulation over ATM Adaptation Layer 5  
1475:: E:: TP/IX  
1466:: I:: Guidelines for Management of IP Address Space  
1454:: I:: Comparison of Proposals for Next Version of IP  
1435:: I:: IESG Advice from Experience with Path MTU Discovery  
1434:: I:: Data Link Switching  
1433:: E:: Directed ARP  
1393:: E:: Traceroute Using an IP Option  
1390:: S:: Transmission of IP and ARP over FDDI Networks  
1385:: I:: EIP  
1379:: I:: Extending TCP for Transactions -- Concepts  
1378:: PS:: The PPP AppleTalk Control Protocol (ATCP)  
1377:: PS:: The PPP OSI Network Layer Control Protocol (OSINLCP)  
1376:: PS:: The PPP DECnet Phase IV Control Protocol (DNCP)  
1375:: I:: Suggestion for New Classes of IP Addresses  
1374:: PS:: IP and ARP on HIPPI  
1365:: I:: An IP Address Extension Proposal  
1363:: E:: A Proposed Flow Specification  
1362:: I:: Novell IPX Over Various WAN Media (IPXWAN)  
1356:: PS:: Multiprotocol Interconnect on X.25 and ISDN in the Packet Mode  
1347:: I:: "TCP and UDP with Bigger Addresses (TUBA), A Simple Proposal for Internet Addressing and Routing"  
1337:: I:: TIME-WAIT Assassination Hazards in TCP  
1335:: : A Two-Tier Address Structure for the Internet  
1334:: PS:: PPP Authentication Protocols  
1333:: PS:: PPP Link Quality Monitoring  
1332:: PS:: The PPP Internet Protocol Control Protocol (IPCP)  
1331:: PS:: The Point-to-Point Protocol (PPP) for the Transmission of Multi-protocol Datagrams over Point-to-Point Links  
1329:: I:: Thoughts on Address Resolution for Dual MAC FDDI Networks  
1326:: I:: Mutual Encapsulation Considered Dangerous  
1323:: PS:: TCP Extensions for High Performance  
1314:: PS:: A File Format for the Exchange of Images in the Internet  
1307:: E:: Dynamically Switched Link Control Protocol  
1306:: I:: Experiences Supporting By-Request Circuit-Switched T3 Networks  
1294:: PS:: Multiprotocol Interconnect over Frame Relay  
1293:: PS:: Inverse Address Resolution Protocol  
1277:: PS:: Encoding Network Addresses to Support Operation Over Non-OSI Lower Layers  
1263:: I:: TCP Extensions Considered Harmful  
1256:: PS:: ICMP Router Discovery Messages  
1240:: PS:: OSI Connectionless Transport Services on top of UDP  
1237:: PS:: Guidelines for OSI NSAP Allocation in the Internet  
1236:: : IP to X.121 Address Mapping for DDN  
1234:: PS:: Tunneling IPX Traffic through IP Networks  
1226:: E:: Internet Protocol Encapsulation of AX.25 Frames  
1223:: : OSI CLNS and LLC1 Protocols on Network Systems HYPERchannel  
1220:: PS:: Point-to-Point Protocol Extensions for Bridging

1219:: :: On the Assignment of Subnet Numbers  
 1210:: :: "Network and Infrastructure User Requirements for  
 Transatlantic Research Collaboration - Brussels,  
 July 16-18, and Washington July 24-25, 1990"  
 1209:: DS:: The Transmission of IP Datagrams over the SMDS Service  
 1201:: H:: Transmitting IP Traffic over ARCNET Networks  
 1191:: DS:: Path MTU Discovery  
 1188:: DS:: A Proposed Standard for the Transmission of IP Datagrams  
 over FDDI Networks  
 1185:: E:: TCP Extension for High-Speed Paths  
 1172:: PS:: The Point-to-Point Protocol (PPP) Initial Configuration  
 Options  
 1171:: DS:: The Point-to-Point Protocol for the Transmission of  
 Multi-Protocol Datagrams Over Point-to-Point Links  
 1166:: :: Internet Numbers  
 1162:: :: Connectionless Network Protocol (ISO 8473) and End  
 System to Intermediate System (ISO 9542) Management  
 Information Base  
 1151:: E:: Version 2 of the Reliable Data Protocol (RDP)  
 1146:: E:: TCP Alternate Checksum Options  
 1145:: E:: TCP Alternate Checksum Options  
 1144:: PS:: Compressing TCP/IP headers for low-speed serial links  
 1141:: :: Incremental Updating of the Internet Checksum  
 1139:: PS:: Echo function for ISO 8473  
 1134:: PS:: Point-to-Point Protocol  
 1132:: S:: Standard for the transmission of 802.2 packets over  
 IPX networks  
 1122:: S:: Requirements for Internet hosts - communication layers  
 1110:: :: Problem with the TCP big window option  
 1106:: :: TCP big window and NAK options  
 1103:: PS:: Proposed standard for the transmission of IP datagrams  
 over FDDI Networks  
 1088:: S:: Standard for the transmission of IP datagrams over  
 NetBIOS networks  
 1086:: :: ISO-TP0 bridge between TCP and X.25  
 1085:: :: ISO presentation services on top of TCP/IP based internets  
 1078:: :: TCP port service Multiplexer TCPMUX  
 1072:: E:: TCP extensions for long-delay paths  
 1071:: :: Computing the Internet checksum  
 1070:: :: Use of the Internet as a subnetwork for experimentation  
 with the OSI network layer  
 1069:: :: Guidelines for the use of Internet-IP addresses in the  
 ISO Connectionless-Mode Network Protocol  
 1063:: :: IP MTU Discovery options  
 1062:: :: Internet numbers  
 1057:: I:: RPC  
 1055:: S:: Nonstandard for transmission of IP datagrams over serial  
 lines  
 1051:: S:: Standard for the transmission of IP datagrams and ARP  
 packets over ARCNET networks  
 1050:: H:: RPC



1046:: :: Queuing algorithm to provide type-of-service for IP links  
 1045:: E:: VMTP  
 1044:: S:: Internet Protocol on Network System's HYPERchannel  
 1042:: S:: Standard for the transmission of IP datagrams over  
 IEEE 802 networks  
 1030:: :: On testing the NETBLT Protocol over divers networks  
 1029:: :: More fault tolerant approach to address resolution for  
 a Multi-LAN system of Ethernets  
 1027:: :: Using ARP to implement transparent subnet gateways  
 1025:: :: TCP and IP bake off  
 1016:: :: Something a host could do with source quench  
 1008:: :: Implementation guide for the ISO Transport Protocol  
 1007:: :: Military supplement to the ISO Transport Protocol  
 1006:: S:: ISO transport services on top of the TCP  
 1002:: S:: Protocol standard for a NetBIOS service on a TCP/UDP  
 transport  
 1001:: S:: Protocol standard for a NetBIOS service on a TCP/UDP  
 transport  
 994:: :: "Final text of DIS 8473,Protocol for Providing the  
 Connectionless-mode Network Service"  
 986:: :: Guidelines for the use of Internet-IP addressesin the  
 ISO Connectionless-Mode Network Protocol [Working draft]  
 983:: :: ISO transport arrives on top of the TCP  
 982:: :: Guidelines for the specification of the structure of the  
 Domain Specific Part DSP of the ISO standard NSAP address  
 970:: :: On packet switches with infinite storage  
 964:: :: Some problems with the specification of the Military  
 Standard Transmission Control Protocol  
 963:: :: Some problems with the specification of the Military  
 Standard Internet Protocol  
 962:: :: TCP-4 prime  
 955:: :: Towards a transport service for transaction processing  
 applications  
 948:: :: Two methods for the transmission of IP datagrams over  
 IEEE 802.3 networks  
 942:: :: Transport protocols for Department of Defense data  
 networks  
 941:: :: Addendum to the networkservice definition covering  
 network layer addressing  
 940:: :: Toward an Internet standard scheme for subnetting  
 936:: :: Another Internet subnet addressing scheme  
 935:: :: Reliable link layer protocols  
 932:: :: Subnetwork addressing scheme  
 926:: :: Protocol for providing the connectionless mode network  
 services  
 925:: :: Multi-LAN address resolution  
 924:: :: Official ARPA-Internet protocols for connecting  
 personal computers to the Internet  
 922:: S:: Broadcasting Internet datagrams in the presence of subnets  
 919:: S:: Broadcasting Internet datagrams  
 917:: :: Internet subnets



914:: H:: Thinwire protocol for connecting personal computers to  
the Internet  
 905:: :: ISO Transport Protocol specification ISO DP 8073  
 903:: S:: Reverse Address Resolution Protocol  
 896:: :: Congestion control in IP/TCP internetworks  
 895:: S:: Standard for the transmission of IP datagrams over  
experimental Ethernet networks  
 894:: S:: Standard for the transmission of IP datagrams over  
Ethernet networks  
 893:: :: Trailer encapsulations  
 892:: :: ISO Transport Protocol specification [Draft]  
 891:: S:: DCN local-network protocols  
 889:: :: Internet delay experiments  
 879:: :: TCP maximum segment size and related topics  
 877:: S:: Standard for the transmission of IP datagrams over  
public data networks  
 874:: :: Critique of X.25  
 872:: :: TCP-on-a-LAN  
 871:: :: Perspective on the ARPANET reference model  
 848:: :: "Who provides the ""little"" TCP services?"  
 829:: :: Packet satellite technology reference sources  
 826:: S:: Ethernet Address Resolution Protocol  
 824:: :: CRONUS Virtual Local Network  
 815:: :: IP datagram reassembly algorithms  
 814:: :: "Name, addresses, ports, and routes"  
 813:: :: Window and acknowledgement strategy in TCP  
 801:: :: NCP/TCP transition plan  
 793:: S:: Transmission Control Protocol  
 792:: S:: Internet Control Message Protocol  
 791:: S:: Internet Protocol  
 789:: :: Vulnerabilities of network control protocols  
 787:: :: Connectionless data transmission survey/tutorial  
 781:: :: Specification of the Internet Protocol IP timestamp option  
 777:: :: Internet Control Message Protocol  
 768:: S:: User Datagram Protocol  
 761:: :: DOD Standard Transmission Control Protocol  
 760:: :: DoD standard Internet Protocol  
 759:: H:: Internet Message Protocol  
 730:: :: Extensible field addressing  
 704:: :: IMP/Host and Host/IMP Protocol change  
 696:: :: Comments on the IMP/Host and Host/IMP Protocol changes  
 695:: :: Official change in Host-Host Protocol  
 692:: :: Comments on IMP/Host Protocol changes RFCs 687 and 690  
 690:: :: Comments on the proposed Host/IMP Protocol changes  
 689:: :: Tenex NCP finite state machine for connections  
 687:: :: IMP/Host and Host/IMP Protocol changes  
 685:: :: Response time in cross network debugging  
 680:: :: Message Transmission Protocol  
 675:: :: Specification of Internet Transmission Control Program  
 674:: :: Procedure call documents - version 2  
 660:: :: Some changes to the IMP and the IMP/Host interface

632:: :: Throughput degradations for single packet messages  
626:: :: On a possible lockup condition in IMP subnet due to  
message sequencing  
613:: :: Network connectivity  
611:: :: Two changes to the IMP/Host Protocol to improve  
user/network communications  
594:: :: Speedup of Host-IMP interface  
591:: :: Addition to the Very Distant Host specifications  
576:: :: Proposal for modifying linking  
550:: :: NIC NCP experiment  
548:: :: Hosts using the IMP Going Down message  
528:: :: Software checksumming in the IMP and network reliability  
521:: :: Restricted use of IMP DDT  
489:: :: Comment on resynchronization of connection status proposal  
488:: :: NLS classes at network sites  
476:: :: IMP/TIP memory retrofit schedule rev. 2  
473:: :: MIX and MIXAL?  
460:: :: NCP survey  
459:: :: Network questionnaires  
450:: :: MULTICS sampling timeout change  
449:: :: Current flow-control scheme for IMPSYS  
445:: :: IMP/TIP preventive maintenance schedule  
442:: :: Current flow-control scheme for IMPSYS  
434:: :: IMP/TIP memory retrofit schedule  
426:: :: Reconnection Protocol  
417:: :: Link usage violation  
398:: :: ICP sockets  
395:: :: Switch settings on IMPs and TIPs  
394:: :: Two proposed changes to the IMP-Host Protocol  
359:: :: Status of the release of the new IMP System  
357:: :: Echoing strategy for satellite links  
348:: :: Discard process  
347:: :: Echo process  
346:: :: Satellite considerations  
343:: :: IMP System change notification  
312:: :: Proposed change in IMP-to-Host Protocol  
301:: :: "BBN IMP #5 and NCC schedule March 4, 1971"  
300:: :: ARPA Network mailing lists  
271:: :: IMP System change notifications  
241:: :: Connecting computers to MLC ports  
210:: :: Improvement of flow control  
203:: :: Achieving reliable communication  
202:: :: Possible deadlock in ICP  
197:: :: Initial Connection Protocol - Reviewed  
190:: :: DEC PDP-10-IMLAC communications system  
178:: :: Network graphic attention handling  
176:: :: "Comments on ""Byte size for connections"""  
175:: :: "Comments on ""Socket conventions reconsidered"""  
166:: :: Data Reconfiguration Service  
165:: :: Proffered official Initial Connection Protocol  
161:: :: Solution to the race condition in the ICP

151:: :: "Comments on a proffered official ICP  
 150:: :: Use of IPC facilities  
 146:: :: Views on issues relevant to data sharing on computer  
       networks  
 145:: :: Initial Connection Protocol control commands  
 143:: :: Regarding proffered official ICP  
 142:: :: Time-out mechanism in the Host-Host Protocol  
 128:: :: Bytes  
 127:: :: Comments on [RFC 123](#)  
 123:: :: Proffered official ICP  
 122:: :: Network specifications for UCSB's Simple-Minded File  
       System  
 93:: :: Initial Connection Protocol  
 91:: :: Proposed User-User Protocol  
 80:: :: Protocols and data formats  
 79:: :: Logger Protocol error  
 70:: :: Note on padding  
 67:: :: Proposed change to Host/IMP spec to eliminate marking  
 65:: :: Comments on Host/Host Protocol document #1  
 62:: :: Systems for interprocess communication in a resource  
       sharing computer network  
 60:: :: Simplified NCP Protocol  
 59:: :: Flow control - fixed versus demand allocation  
 56:: :: Third level protocol  
 55:: :: Prototypical implementation of the NCP  
 54:: :: Official protocol proffering  
 53:: :: Official protocol mechanism  
 41:: :: IMP-IMP teletype communication  
 38:: :: Comments on network protocol from NWG/RFC #36  
 33:: :: New Host-Host Protocol  
 23:: :: Transmission of multiple control messages  
 22:: :: Host-host control message formats  
 20:: :: ASCII format for network interchange  
 19:: :: Two protocol suggestions to reduce congestion at  
       swap bound nodes  
 17:: :: Some questions re  
 12:: :: IMP-Host interface flow diagrams

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## Mail

2112:: PS:: The MIME Multipart/Related Content-type  
 2111:: PS:: Content-ID and Message-ID Uniform Resource Locators  
 2110:: PS:: "MIME E-mail Encapsulation of Aggregate Documents, such  
       as HTML (MHTML)"  
 2109:: PS:: HTTP State Management Mechanism  
 2095:: PS:: IMAP/POP AUTHorize Extension for Simple Challenge/Response  
 2088:: PS:: IMAP4 non-synchronizing literals  
 2087:: PS:: IMAP4 QUOTA extension  
 2086:: PS:: IMAP4 ACL extension  
 2077:: PS:: The Model Primary Content Type for Multipurpose  
       Internet Mail Extensions  
 2076:: I:: Common Internet Message Headers

2062:: I:: Internet Message Access Protocol - Obsolete Syntax  
 2061:: I:: IMAP4 COMPATIBILITY WITH IMAP2BIS  
 2060:: PS:: INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4rev1  
 2049:: DS:: Multipurpose Internet Mail Extensions (MIME) Part Five  
 2048:: BC:: Multipurpose Internet Mail Extensions (MIME) Part Four  
 2047:: DS:: MIME (Multipurpose Internet Mail Extensions) Part Three  
 2046:: DS:: Multipurpose Internet Mail Extensions (MIME) Part Two  
 2045:: DS:: Multipurpose Internet Mail Extensions (MIME) Part One  
 2034:: PS:: SMTP Service Extension for Returning Enhanced Error Codes  
 2033:: I:: Local Mail Transfer Protocol  
 2017:: PS:: Definition of the URL MIME External-Body Access-Type  
 1991:: I:: PGP Message Exchange Formats  
 1985:: PS:: SMTP Service Extension for Remote Message Queue Starting  
 1957:: I:: Some Observations on Implementations of the Post Office Protocol (POP3)  
 1947:: I:: Greek Character Encoding for Electronic Mail Messages  
 1939:: S:: Post Office Protocol - Version 3  
 1927:: I:: Suggested Additional MIME Types for Associating Documents  
 1922:: I:: Chinese Character Encoding for Internet Messages  
 1911:: E:: Voice Profile for Internet Mail  
 1896:: I:: The text/enriched MIME Content-type  
 1895:: I:: The Application/CALS-1840 Content-type  
 1894:: PS:: An Extensible Message Format for Delivery Status Notifications  
 1893:: PS:: Enhanced Mail System Status Codes  
 1892:: PS:: The Multipart/Report Content Type for the Reporting of Mail System Administrative Messages  
 1891:: PS:: SMTP Service Extension for Delivery Status Notifications  
 1873:: E:: Message/External-Body Content-ID Access Type  
 1872:: E:: The MIME Multipart/Related Content-type  
 1870:: S:: SMTP Service Extension for Message Size Declaration  
 1869:: S:: SMTP Service Extensions  
 1864:: DS:: The Content-MD5 Header Field  
 1854:: PS:: SMTP Service Extension for Command Pipelining  
 1848:: PS:: MIME Object Security Services  
 1847:: PS:: Security Multiparts for MIME  
 1846:: E:: SMTP 521 reply code  
 1845:: E:: SMTP Service Extension for Checkpoint/Restart  
 1844:: I:: Multimedia E-mail (MIME) User Agent checklist  
 1830:: E:: SMTP Service Extensions for Transmission of Large and Binary MIME Messages  
 1820:: I:: Multimedia E-mail (MIME) User Agent Checklist  
 1806:: E:: Communicating Presentation Information in Internet Messages  
 1804:: E:: Schema Publishing in X.500 Directory  
 1803:: I:: Recommendations for an X.500 Production Directory Service  
 1801:: E:: MHS use of the X.500 Directory to support MHS Routing  
 1767:: PS:: MIME Encapsulation of EDI Objects  
 1741:: I:: MIME Content Type for BinHex Encoded Files  
 1740:: PS:: MIME Encapsulation of Macintosh files - MacMIME  
 1734:: PS:: POP3 AUTHentication command

1733:: I:: DISTRIBUTED ELECTRONIC MAIL MODELS IN IMAP4  
1732:: I:: IMAP4 COMPATIBILITY WITH IMAP2 AND IMAP2BIS  
1731:: PS:: IMAP4 Authentication mechanisms  
1730:: PS:: INTERNET MESSAGE ACCESS PROTOCOL - VERSION 4  
1725:: DS:: Post Office Protocol - Version 3  
1711:: I:: Classifications in E-mail Routing  
1685:: I:: Writing X.400 O/R Names  
1653:: DS:: SMTP Service Extension for Message Size Declaration  
1652:: DS:: SMTP Service Extension for 8bit-MIMEtransport  
1651:: DS:: SMTP Service Extensions  
1649:: I:: Operational Requirements for X.400 Management Domains  
in the GO-MHS Community  
1648:: PS:: Postmaster Convention for X.400 Operations  
1642:: E:: UTF-7 - A Mail-Safe Transformation Format of Unicode  
1641:: E:: Using Unicode with MIME  
1616:: I:: X.400(1988) for the Academic and Research Community  
in Europe  
1615:: I:: Migrating from X.400(84) to X.400(88)  
1563:: I:: The text/enriched MIME Content-type  
1557:: I:: Korean Character Encoding for Internet Messages  
1556:: I:: Handling of Bi-directional Texts in MIME  
1555:: I:: Hebrew Character Encoding for Internet Messages  
1544:: PS:: The Content-MD5 Header Field  
1524:: I:: A User Agent Configuration Mechanism For Multimedia  
Mail Format Information  
1523:: I:: The text/enriched MIME Content-type  
1522:: DS:: MIME (Multipurpose Internet Mail Extensions) Part Two  
1521:: DS:: MIME (Multipurpose Internet Mail Extensions) Part One  
1506:: I:: A tutorial on gatewaying between X.400 and Internet mail  
1505:: E:: Encoding Header Field for Internet Messages  
1502:: PS:: X.400 Use of Extended Character Sets  
1496:: PS:: Rules for downgrading messages from X.400/88 to X.400/84  
when MIME content-types are present in the messages  
1495:: PS:: Mapping between X.400 and [RFC-822](#) Message Bodies  
1494:: PS:: Equivalences between 1988 X.400 and [RFC-822](#) Message Bodies  
1468:: I:: Japanese Character Encoding for Internet Messages  
1465:: E:: Routing coordination for X.400 MHS services within a  
multi protocol / multi network environment Table Format  
V3 for static routing  
1460:: DS:: Post Office Protocol - Version 3  
1456:: I:: Conventions for Encoding the Vietnamese Language VISCII  
1437:: I:: The Extension of MIME Content-Types to a New Medium  
1429:: I:: Listserv Distribute Protocol  
1428:: I:: Transition of Internet Mail from Just-Send-8 to  
8Bit-SMTP/MIME  
1427:: PS:: SMTP Service Extension for Message Size Declaration  
1426:: PS:: SMTP Service Extension for 8bit-MIMEtransport  
1425:: PS:: SMTP Service Extensions  
1405:: E:: Mapping between X.400(1984/1988) and Mail-11 (DECnet mail)  
1357:: I:: A Format for E-mailing Bibliographic Records  
1344:: I:: Implications of MIME for Internet Mail Gateways

1343:: I:: A User Agent Configuration Mechanism For Multimedia  
 Mail Format Information  
 1342:: PS:: Representation of Non-ASCII Text in Internet Message  
 Headers  
 1341:: PS:: MIME (Multipurpose Internet Mail Extensions)  
 1339:: E:: Remote Mail Checking Protocol  
 1328:: PS:: X.400 1988 to 1984 downgrading  
 1327:: PS:: Mapping between X.400(1988) / ISO 10021 and [RFC 822](#)  
 1225:: DS:: Post Office Protocol - Version 3  
 1211:: :: Problems with the Maintenance of Large Mailing Lists  
 1204:: E:: Message Posting Protocol (MPP)  
 1203:: H:: Interactive Mail Access Protocol - Version 3  
 1176:: E:: Interactive Mail Access Protocol - Version 2  
 1168:: :: Intermail and Commercial Mail Relay Services  
 1159:: E:: Message Send Protocol  
 1154:: E:: Encoding Header Field for Internet Messages  
 1153:: E:: Digest Message Format  
 1148:: E:: Mapping between X.400 (1988) / ISO 10021 and [RFC 822](#)  
 1138:: I:: Mapping between X.400(1988) / ISO 10021 and [RFC 822](#)  
 1137:: E:: Mapping between full [RFC 822](#) and [RFC 822](#) with restricted  
 encoding  
 1090:: :: SMTP on X.25  
 1082:: H:: Post Office Protocol - version 3  
 1081:: PS:: Post Office Protocol - version 3  
 1064:: H:: Interactive Mail Access Protocol  
 1056:: I:: PCMAIL  
 1049:: S:: Content-type header field for Internet messages  
 1047:: :: Duplicate messages and SMTP  
 1026:: PS:: Addendum to [RFC 987](#)  
 993:: :: PCMAIL  
 987:: PS:: Mapping between X.400 and [RFC 822](#)  
 984:: :: PCMAIL  
 976:: :: UUCP mail interchange format standard  
 974:: S:: Mail routing and the domain system  
 937:: H:: Post Office Protocol - version 2  
 934:: :: Proposed standard for message encapsulation  
 918:: :: Post Office Protocol  
 915:: :: Network mail path service  
 910:: :: Multimedia mail meeting notes  
 886:: :: Proposed standard for message header munging  
 876:: :: Survey of SMTP implementations  
 841:: :: Specification for message format for Computer Based  
 Message Systems  
 822:: S:: Standard for the format of ARPA Internet text messages  
 821:: S:: Simple Mail Transfer Protocol  
 808:: :: Summary of computer mail services meeting held at BBN  
 on 10 January 1979  
 807:: :: Multimedia mail meeting notes  
 805:: :: Computer mail meeting notes  
 788:: :: Simple Mail Transfer Protocol  
 786:: :: Mail Transfer Protocol

785:: :: Mail Transfer Protocol  
 784:: :: Mail Transfer Protocol  
 780:: :: Mail Transfer Protocol  
 773:: :: Comments on NCP/TCP mail service transition strategy  
 772:: :: Mail Transfer Protocol  
 771:: :: Mail transition plan  
 767:: :: Structured format for transmission of multi-media documents  
 763:: :: Role mailboxes  
 757:: :: "Suggested solution to the naming, addressing, and delivery problem for ARPANET message systems"  
 754:: :: Out-of-net host addresses for mail  
 753:: :: Internet Message Protocol  
 744:: :: MARS - a Message Archiving and Retrieval Service  
 733:: :: Standard for the format of ARPA network text messages  
 724:: :: Proposed official standard for the format of ARPA Network messages  
 720:: :: Address specification syntax for network mail  
 714:: :: Host-Host Protocol for an ARPANET-type network  
 713:: :: MSDTP-Message Services Data Transmission Protocol  
 706:: :: On the junk mail problem  
 577:: :: Mail priority  
 574:: :: Announcement of a mail facility at UCSB  
 561:: :: Standardizing network mail headers  
 555:: :: Responses to critiques of the proposed mail protocol  
 539:: :: Thoughts on the mail protocol proposed in [RFC524](#)  
 534:: :: Lost message detection  
 533:: :: Message-ID numbers  
 524:: :: Proposed Mail Protocol  
 516:: :: Lost message detection  
 512:: :: More on lost message detection  
 510:: :: Request for network mailbox addresses  
 498:: :: On mail service to CCN  
 475:: :: FTP and network mail system  
 469:: :: Network mail meeting summary  
 458:: :: Mail retrieval via FTP  
 453:: :: Meeting announcement to discuss a network mail system  
 333:: :: Proposed experiment with a Message Switching Protocol  
 278:: :: Revision of the Mail Box Protocol  
 224:: :: Comments on Mailbox Protocol  
 221:: :: Mail Box Protocol  
 196:: :: Mail Box Protocol  
 58:: :: Logical message synchronization  
 42:: :: Message data types

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#### NTP

2030:: I:: "Simple Network Time Protocol (SNTP) Version 4 for IPv4, IPv6 and OSI"  
 1769:: I:: Simple Network Time Protocol (SNTP)  
 1708:: I:: NTP PICS PROFORMA For the Network Time Protocol Version 3



1589:: I:: A Kernel Model for Precision Timekeeping  
 1361:: I:: Simple Network Time Protocol (SNTP)  
 1305:: PS:: Network Time Protocol (v3)  
 1165:: E:: Network Time Protocol (NTP) over the OSI Remote Operations Service  
 1129:: :: Internet time synchronization  
 1128:: :: Measured performance of the Network Time Protocol in the Internet system  
 1119:: S:: Network Time Protocol version 2 specification and implementation  
 1059:: :: Network Time Protocol version 1 specification and implementation  
 958:: :: Network Time Protocol NTP  
 957:: :: Experiments in network clock synchronization  
 956:: :: Algorithms for synchronizing network clocks  
 868:: S:: Time Protocol  
 867:: S:: Daytime Protocol  
 778:: H:: DCNET Internet Clock Service  
 738:: :: Time server  
 29:: :: Response to [RFC 28](#)  
 28:: :: Time standards

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#### Name Serving

2053:: I:: The AM (Armenia) Domain  
 2052:: E:: A DNS RR for specifying the location of services (DNS SRV)  
 2010:: I:: Operational Criteria for Root Name Servers  
 1996:: PS:: A Mechanism for Prompt Notification of Zone Changes (DNS NOTIFY)  
 1995:: PS:: Incremental Zone Transfer in DNS  
 1982:: PS:: Serial Number Arithmetic  
 1956:: I:: Registration in the MIL Domain  
 1912:: I:: Common DNS Operational and Configuration Errors  
 1886:: PS:: DNS Extensions to support IP version 6  
 1876:: E:: A Means for Expressing Location Information in the Domain Name System  
 1794:: I:: DNS Support for Load Balancing  
 1713:: I:: Tools for DNS debugging  
 1712:: E:: DNS Encoding of Geographical Location  
 1706:: I:: DNS NSAP Resource Records  
 1664:: E:: Using the Internet DNS to Distribute [RFC1327](#) Mail Address Mapping Tables  
 1591:: I:: Domain Name System Structure and Delegation  
 1537:: I:: Common DNS Data File Configuration Error  
 1536:: I:: Common DNS Implementation Errors and Suggested Fixes.  
 1480:: I:: The US Domain  
 1464:: E:: Using the Domain Name System To Store Arbitrary String Attributes  
 1394:: I:: Relationship of Telex Answerback Codes to Internet Domains  
 1386:: I:: The US Domain  
 1348:: E:: DNS NSAP RRs  
 1183:: E:: New DNS RR Definitions



1101:: :: DNS encoding of network names and other types  
 1035:: S:: Domain names - implementation and specification  
 1034:: S:: Domain names - concepts and facilities  
 1033:: :: Domain administrators operations guide  
 1032:: :: Domain administrators guide  
 1031:: :: MILNET name domain transition  
 973:: :: Domain system changes and observations  
 952:: :: DoD Internet host table specification  
 921:: :: Domain name system implementation schedule - revised  
 920:: :: Domain requirements  
 897:: :: Domain name system implementation schedule  
 883:: :: Domain names  
 882:: :: Domain names  
 881:: :: Domain names plan and schedule  
 849:: :: Suggestions for improved host table distribution  
 830:: :: Distributed system for Internet name service  
 819:: :: Domain naming convention for Internet user applications  
 811:: :: Hostnames Server  
 810:: :: DoD Internet host table specification  
 799:: :: Internet name domains  
 796:: :: Address mappings  
 627:: :: ASCII text file of hostnames  
 625:: :: On-line hostnames service  
 623:: :: Comments on on-line host name service  
 620:: :: Request for monitor host table updates  
 608:: :: Host names on-line  
 606:: :: Host names on-line  
 289:: :: What we hope is an official list of host names  
 280:: :: Draft of host names  
 273:: :: More on standard host names  
 247:: :: Proffered set of standard host names  
 237:: :: NIC view of standard host names  
 236:: :: Standard host names  
 233:: :: Standardization of host call letters  
 229:: :: Standard host names  
 226:: :: Standardization of host mnemonics

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#### Network Management

2128:: PS:: Dial Control Management Information Base using SMIV2  
 2127:: PS:: ISDN Management Information Base  
 2124:: I:: Light-weight Flow Admission Protocol Specification  
 Version 1.0  
 2108:: PS:: Definitions of Managed Objects for IEEE 802.3 Repeater  
 Devices using SMIV2  
 2096:: PS:: IP Forwarding Table MIB  
 2089:: I:: V2ToV1 Mapping SNMPv2 onto SNMPv1 within a bi-lingual  
 SNMP agent  
 2074:: PS:: Remote Network Monitoring MIB Protocol Identifiers  
 2064:: E:: Traffic Flow Measurement  
 2063:: E:: Traffic Flow Measurement  
 2051:: PS:: Definitions of Managed Objects for APPC

2041:: I:: Mobile Network Tracing  
 2039:: I:: Applicability of Standards Track MIBs to Management  
 of World Wide Web Servers  
 2037:: PS:: Entity MIB  
 2024:: PS:: Definitions of Managed Objects for Data Link Switching  
 using SNMPv2  
 2021:: PS:: Remote Network Monitoring Management Information  
 Base Version 2 using SMIV2  
 2020:: PS:: Definitions of Managed Objects for IEEE 802.12 Interfaces  
 2013:: PS:: SNMPv2 Management Information Base for the User  
 Datagram Protocol using SMIV2  
 2012:: PS:: SNMPv2 Management Information Base for the  
 Transmission Control Protocol  
 2011:: PS:: SNMPv2 Management Information Base for the Internet  
 Protocol using SMIV2  
 2006:: PS:: The Definitions of Managed Objects for IP Mobility  
 Support using SMIV2  
 1944:: I:: Benchmarking Methodology for Network Interconnect Devices  
 1910:: E:: User-based Security Model for SNMPv2  
 1909:: E:: An Administrative Infrastructure for SNMPv2  
 1908:: DS:: Coexistence between Version 1 and Version 2 of the  
 Internet-standard Network Management Framework  
 1907:: DS:: Management Information Base for Version 2 of the  
 Simple Network Management Protocol (SNMPv2)  
 1906:: DS:: Transport Mappings for Version 2 of the Simple Network  
 Management Protocol (SNMPv2)  
 1905:: DS:: Protocol Operations for Version 2 of the Simple Network  
 Management Protocol (SNMPv2)  
 1904:: DS:: Conformance Statements for Version 2 of the Simple  
 Network Management Protocol (SNMPv2)  
 1903:: DS:: Textual Conventions for Version 2 of the Simple  
 Network Management Protocol (SNMPv2)  
 1902:: DS:: Structure of Management Information for Version 2 of  
 the Simple Network Management Protocol (SNMPv2)  
 1901:: E:: Introduction to Community-based SNMPv2  
 1857:: I:: A Model for Common Operational Statistics  
 1856:: I:: The Opstat Client-Server Model for Statistics Retrieval  
 1850:: DS:: OSPF Version 2 Management Information Base  
 1792:: E:: TCP/IPX Connection Mib Specification  
 1759:: PS:: Printer MIB  
 1757:: DS:: Remote Network Monitoring Management Information Base  
 1749:: PS:: IEEE 802.5 Station Source Routing MIB using SMIV2  
 1748:: DS:: IEEE 802.5 MIB using SMIV2  
 1747:: PS:: Definitions of Managed Objects for SNA Data Link Control  
 1743:: DS:: IEEE 802.5 MIB using SMIV2  
 1742:: PS:: AppleTalk Management Information Base II  
 1724:: DS:: RIP Version 2 MIB Extension  
 1697:: PS:: Relational Database Management System (RDBMS)  
 Management Information Base (MIB) using SMIV2  
 1696:: PS:: Modem Management Information Base (MIB) using SMIV2  
 1695:: PS:: Definitions of Managed Objects for ATM Management

Version 8.0 using SMIV2

1694:: DS:: Definitions of Managed Objects for SMDS Interfaces  
using SMIV2

1666:: PS:: Definitions of Managed Objects for SNA NAUs using SMIV2

1665:: PS:: Definitions of Managed Objects for SNA NAUs using SMIV2

1660:: DS:: Definitions of Managed Objects for Parallel-printer-like  
Hardware Devices using SMIV2

1659:: DS:: Definitions of Managed Objects for RS-232-like  
Hardware Devices using SMIV2

1658:: DS:: Definitions of Managed Objects for Character Stream  
Devices using SMIV2

1657:: PS:: Definitions of Managed Objects for the Fourth Version  
of the Border Gateway Protocol (BGP-4) using SMIV2

1650:: PS:: Definitions of Managed Objects for the Ethernet-like  
Interface Types using SMIV2

1643:: PS:: Definitions of Managed Objects for the Ethernet-like  
Interface Types

1628:: PS:: UPS Management Information Base

1623:: S:: Definitions of Managed Objects for the Ethernet-like  
Interface Types

1612:: PS:: DNS Resolver MIB Extensions

1611:: PS:: DNS Server MIB Extensions

1596:: PS:: Definitions of Managed Objects for Frame Relay Service

1595:: PS:: Definitions of Managed Objects for the SONET/SDH  
Interface Type

1593:: I:: SNA APPN Node MIB

1592:: E:: Simple Network Management Protocol Distributed Protocol  
Interface Version 2.0

1573:: PS:: Evolution of the Interfaces Group of MIB-II

1567:: PS:: X.500 Directory Monitoring MIB

1566:: PS:: Mail Monitoring MIB

1565:: PS:: Network Services Monitoring MIB

1564:: I:: DSA Metrics (OSI-DS 34 (v3))

1559:: DS:: DECnet Phase IV MIB Extensions

1525:: PS:: Definitions of Managed Objects for Source Routing Bridges

1516:: DS:: Definitions of Managed Objects for IEEE 802.3  
Repeater Devices

1515:: PS:: Definitions of Managed Objects for IEEE 802.3  
Medium Attachment Units (MAUs)

1514:: PS:: Host Resources MIB

1513:: PS:: Token Ring Extensions to the Remote Network Monitoring MIB

1512:: PS:: FDDI Management Information Base

1503:: I:: Algorithms for Automating Administration in SNMPv2  
Managers

1493:: DS:: Definitions of Managed Objects for Bridges

1474:: PS:: The Definitions of Managed Objects for the Bridge  
Network Control Protocol of the Point-to-Point Protocol

1473:: PS:: The Definitions of Managed Objects for the IP Network  
Control Protocol of the Point-to-Point Protocol

1472:: PS:: The Definitions of Managed Objects for the Security  
Protocols of the Point-to-Point Protocol

1471:: PS:: The Definitions of Managed Objects for the Link Control Protocol of the Point-to-Point Protocol

1470:: I:: FYI on a Network Management Tool Catalog

1461:: PS:: SNMP MIB extension for MultiProtocol Interconnect over X.25

1452:: PS:: Coexistence between version 1 and version 2 of the Internet-standard Network Management Framework

1451:: PS:: Manager to Manager Management Information Base

1450:: PS:: Management Information Base for version 2 of the Simple Network Management Protocol (SNMPv2)

1449:: PS:: Transport Mappings for version 2 of the Simple Network Management Protocol (SNMPv2)

1448:: PS:: Protocol Operations for version 2 of the Simple Network Management Protocol (SNMPv2)

1447:: PS:: Party MIB for version 2 of the Simple Network Management Protocol (SNMPv2)

1446:: PS:: Security Protocols for version 2 of the Simple Network Management Protocol (SNMPv2)

1445:: PS:: Administrative Model for version 2 of the Simple Network Management Protocol (SNMPv2)

1444:: PS:: Conformance Statements for version 2 of the Simple Network Management Protocol (SNMPv2)

1443:: PS:: Textual Conventions for version 2 of the Simple Network Management Protocol (SNMPv2)

1442:: PS:: Structure of Management Information for version 2 of the Simple Network Management Protocol (SNMPv2)

1441:: PS:: Introduction to version 2 of the Internet-standard Network Management Framework

1431:: I:: DUA Metrics

1420:: PS:: SNMP over IPX

1419:: PS:: SNMP over AppleTalk

1418:: PS:: SNMP over OSI

1414:: PS:: Ident MIB

1407:: PS:: Definitions of Managed Objects for the DS3/E3 Interface Type

1406:: PS:: Definitions of Managed Objects for the DS1 and E1 Interface Types

1404:: I:: A Model for Common Operational Statistics

1398:: DS:: Definitions of Managed Objects for the Ethernet-like Interface Types

1389:: PS:: RIP Version 2 MIB Extension

1382:: PS:: SNMP MIB Extension for the X.25 Packet Layer

1381:: PS:: SNMP MIB Extension for X.25 LAPB

1369:: I:: Implementation Notes and Experience for The Internet Ethernet MIB

1368:: PS:: Definitions of Managed Objects for IEEE 802.3 Repeater Devices

1354:: PS:: IP Forwarding Table MIB

1353:: H:: Definitions of Managed Objects for Administration of SNMP Parties

1352:: H:: SNMP Security Protocols

1351:: H:: SNMP Administrative Model  
 1346:: I:: "Resource Allocation, Control, and Accounting for the  
 Use of Network Resources"  
 1318:: PS:: Definitions of Managed Objects for Parallel-printer-like  
 Hardware Devices  
 1317:: PS:: Definitions of Managed Objects for RS-232-like  
 Hardware Devices  
 1316:: PS:: Definitions of Managed Objects for Character Stream  
 Devices  
 1315:: PS:: Management Information Base for Frame Relay DTEs  
 1304:: PS:: Definitions of Managed Objects for the SIP Interface Type  
 1303:: I:: A Convention for Describing SNMP-based Agents  
 1298:: I:: SNMP over IPX  
 1289:: PS:: DECnet Phase IV MIB Extensions  
 1286:: PS:: Definitions of Managed Objects for Bridges  
 1285:: PS:: FDDI Management Information Base  
 1284:: PS:: Definitions of Managed Objects for the Ethernet-like  
 Interface Types  
 1283:: E:: SNMP over OSI  
 1273:: I:: "A Measurement Study of Changes in Service-Level  
 Reachability in the Global TCP/IP Internet  
 1272:: I:: Internet Accounting  
 1271:: PS:: Remote Network Monitoring Management Information Base  
 1270:: I:: SNMP Communications Services  
 1269:: PS:: Definitions of Managed Objects for the Border Gateway  
 Protocol (Version 3)  
 1262:: :: Guidelines for Internet Measurement Activities  
 1253:: PS:: OSPF Version 2 Management Information Base  
 1252:: PS:: OSPF Version 2 Management Information Base  
 1248:: PS:: OSPF Version 2 Management Information Base  
 1247:: DS:: OSPF Version 2  
 1243:: PS:: AppleTalk Management Information Base  
 1242:: I:: Benchmarking Terminology for Network Interconnection  
 Devices  
 1239:: PS:: Reassignment of Experimental MIBs to Standard MIBs  
 1238:: E:: CLNS MIB - for use with Connectionless Network  
 Protocol (ISO 8473) and End System to Intermediate  
 System (ISO 9542)  
 1233:: H:: Definitions of Managed Objects for the DS3 Interface Type  
 1232:: H:: Definitions of Managed Objects for the DS1 Interface Type  
 1231:: DS:: IEEE 802.5 Token Ring MIB  
 1230:: H:: IEEE 802.4 Token Bus MIB  
 1229:: DS:: Extensions to the Generic-Interface MIB  
 1228:: E:: SNMP-DPI - Simple Network Management Protocol  
 Distributed Program Interface  
 1227:: E:: SNMP MUX Protocol and MIB  
 1224:: E:: Techniques for Managing Asynchronously Generated Alerts  
 1215:: I:: A Convention for Defining Traps for use with the SNMP  
 1214:: H:: OSI Internet Management  
 1213:: S:: Management Information Base for Network Management of  
 TCP/IP-based internets

1212:: S:: Concise MIB Definitions  
1189:: H:: The Common Management Information Services and Protocols  
for the Internet  
1187:: E:: Bulk Table Retrieval with the SNMP  
1161:: E:: SNMP over OSI  
1158:: PS:: Management Information Base for Network Management of  
TCP/IP-based internets  
1157:: S:: A Simple Network Management Protocol (SNMP)  
1155:: S:: Structure and Identification of Management Information  
for TCP/IP-based Internets  
1109:: :: Report of the second Ad Hoc Network Management Review  
Group  
1098:: :: Simple Network Management Protocol SNMP  
1095:: DS:: Common Management Information Services and Protocol  
over TCP/IP CMOT  
1089:: :: SNMP over Ethernet  
1067:: :: Simple Network Management Protocol  
1066:: H:: Management Information Base for network management of  
TCP/IP-based internets  
1065:: H:: Structure and identification of management information  
for TCP/IP-based internets  
1052:: :: IAB recommendations for the development of Internet  
network management standards  
1028:: H:: Simple Gateway Monitoring Protocol  
1024:: :: HEMS variable definitions  
1023:: :: HEMS monitoring and control language  
1022:: :: High-level Entity Management Protocol HEMP  
1021:: H:: High-level Entity Management System HEMS  
1012:: :: Bibliography of Request For Comments 1 through 999  
1011:: S:: Official Internet protocols  
1010:: S:: Assigned numbers  
996:: H:: Statistics server  
619:: :: Mean round-trip times in the ARPANET  
618:: :: Few observations on NCP statistics  
616:: :: Latest network maps  
615:: :: Proposed Network Standard Data Pathname Syntax  
612:: :: Traffic statistics December 1973  
601:: :: Traffic statistics November 1973  
586:: :: Traffic statistics October 1973  
579:: :: Traffic statistics September 1973  
568:: :: Response to [RFC 567](#) - cross country network bandwidth  
567:: :: Cross country network bandwidth  
566:: :: Traffic statistics August 1973  
565:: :: Storing network survey data at the datacomputer  
557:: :: Revelations in network host measurements  
546:: :: Tenex load averages for July 1973  
545:: :: Of what quality be the UCSB resources evaluators?  
538:: :: Traffic statistics June 1973  
531:: :: Feast or famine? A response to two recent RFC's about  
network information  
522:: :: Traffic statistics May 1973

509:: :: Traffic statistics April 1973  
 500:: :: Integration of data management systems on a computer  
           network  
 482:: :: Traffic statistics February 1973  
 455:: :: Traffic statistics January 1973  
 443:: :: Traffic statistics December 1972  
 423:: :: UCLA Campus Computing Network liaison staff for ARPANET  
 422:: :: Traffic statistics November 1972  
 421:: :: Software consulting service for network users  
 416:: :: ARC system will be unavailable for use during  
           Thanksgivingweek  
 415:: :: Tenex bandwidth  
 413:: :: Traffic statistics October 1972  
 400:: :: Traffic statistics September 1972  
 392:: :: Measurement of host costs for transmitting network data  
 391:: :: Traffic statistics August 1972  
 389:: :: UCLA Campus Computing Network liaison staff for ARPA  
           Network  
 388:: :: NCP statistics  
 384:: :: Official site idents for organizations in the ARPA  
           Network  
 381:: :: Three aids to improved network operation  
 378:: :: Traffic statistics July 1972  
 369:: :: "Evaluation of ARPANET services January-March, 1972"  
 362:: :: Network host status  
 353:: :: Network host status  
 344:: :: Network host status  
 326:: :: Network host status  
 323:: :: Formation of Network Measurement Group NMG  
 308:: :: ARPANET host availability data  
 304:: :: Data management system proposal for the ARPA network  
 302:: :: Exercising the ARPANET  
 274:: :: Establishing a local guide for network usage  
 227:: :: Data transfer rates Rand/UCLA  
 212:: :: NWG meeting on network usage  
 193:: :: Network checkout  
 188:: :: Data management meeting announcement  
 156:: :: Status of the Illinois site  
 153:: :: SRI ARC-NIC status  
   96:: :: Interactive network experiment to study modes of  
           access tothe Network Information Center  
   32:: :: Connecting M.I.T. computers to the  
           ARPA Computer-to-computer communication network  
   18:: :: [Link assignments]

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#### Network News

1036:: :: Standard for interchange of USENET messages  
   977:: PS:: Network News Transfer Protocol  
   850:: :: Standard for interchange of USENET messages

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## Real Time Services

:: ::

2102:: I:: Multicast Support for Nimrod  
2090:: E:: TFTP Multicast Option  
2038:: PS:: RTP Payload Format for MPEG1/MPEG2 Video  
2035:: PS:: RTP Payload Format for JPEG-compressed Video  
2032:: PS:: RTP payload format for H.261 video streams  
2029:: PS:: RTP Payload Format of Sun's CellB Video Encoding  
2022:: PS:: Support for Multicast over UNI 3.0/3.1 based ATM  
Networks  
1890:: PS:: RTP Profile for Audio and Video Conferences with Minimal  
Control  
1889:: PS:: RTP  
1861:: I:: Simple Network Paging Protocol - Version 3 - Two-Way  
Enhanced  
1821:: I:: Integration of Real-time Services in an IP-ATM Network  
Architecture  
1819:: E:: Internet Stream Protocol Version 2 (ST2) Protocol  
Specification - Version ST2+  
1789:: I:: INETPhone  
1768:: E:: Host Group Extensions for CLNP Multicasting  
1703:: I:: Principles of Operation for the TPC.INT Subdomain  
1645:: I:: Simple Network Paging Protocol - Version 2  
1614:: I:: Network Access to Multimedia Information  
1569:: I:: Principles of Operation for the TPC.INT Subdomain  
1568:: I:: Simple Network Paging Protocol - Version 1(b)  
1546:: I:: Host Anycasting Service  
1469:: PS:: IP Multicast over Token-Ring Local Area Networks  
1458:: I:: Requirements for Multicast Protocols  
1453:: I:: A Comment on Packet Video Remote Conferencing and the  
Transport/Network Layers  
1313:: I:: Today's Programming for KRFC AM 1313 Internet Talk Radio  
1301:: I:: Multicast Transport Protocol  
1257:: I:: Isochronous Applications Do Not Require  
Jitter-Controlled Networks  
1197:: I:: Using ODA for Translating Multimedia Information  
1193:: :: Client Requirements for Real-Time Communication Services  
1190:: E:: "Experimental Internet Stream Protocol, Version 2 (ST-II)"  
1112:: S:: Host extensions for IP multicasting  
1054:: :: Host extensions for IP multicasting  
988:: :: Host extensions for IP multicasting  
966:: :: Host groups  
947:: :: Multi-network broadcasting within the Internet  
809:: :: UCL facsimile system  
804:: :: CCITT draft recommendation T.4 [Standardization of  
Group 3 facsimile apparatus for document transmission]  
803:: :: Dacom 450/500 facsimile data transcoding  
798:: :: Decoding facsimile data from the Rapicom 450  
769:: :: Rapicom 450 facsimile file format  
741:: :: Specifications for the Network Voice Protocol NVP  
511:: :: Enterprise phone service to NIC from ARPANET sites



508:: :: Real-time data transmission on the ARPANET  
420:: :: CCA ICCC weather demo  
408:: :: NETBANK  
251:: :: Weather data

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## Routing

2103:: I:: Mobility Support for Nimrod  
2092:: I:: Protocol Analysis for Triggered RIP  
2091:: PS:: Triggered Extensions to RIP to Support Demand Circuits  
2081:: I:: RIPng Protocol Applicability Statement  
2080:: PS:: RIPng for IPv6  
2073:: PS:: An IPv6 Provider-Based Unicast Address Format  
2072:: I:: Router Renumbering Guide  
2042:: I:: Registering New BGP Attribute Types  
2008:: BC:: Implications of Various Address Allocation Policies for  
Internet Routing  
1998:: I:: An Application of the BGP Community Attribute in  
Multi-home Routing  
1997:: PS:: BGP Communities Attribute  
1992:: I:: The Nimrod Routing Architecture  
1987:: I:: Ipsilon's General Switch Management Protocol  
Specification Version 1.1  
1966:: E:: BGP Route Reflection An alternative to full mesh IBGP  
1965:: E:: Autonomous System Confederations for BGP  
1955:: I:: New Scheme for Internet Routing and Addressing (ENCAPS)  
for IPN  
1953:: I:: Ipsilon Flow Management Protocol Specification for  
IPv4 Version 1.0  
1940:: I:: Source Demand Routing  
1930:: BC:: "Guidelines for creation, selection, and registration  
of an Autonomous System (AS)"  
1925:: I:: The Twelve Networking Truths  
1923:: I:: RIPv1 Applicability Statement for Historic Status  
1863:: E:: A BGP/IDRP Route Server alternative to a full mesh routing  
1817:: I:: CIDR and Classful Routing  
1812:: PS:: Requirements for IP Version 4 Routers  
1793:: PS:: Extending OSPF to Support Demand Circuits  
1787:: I:: Routing in a Multi-provider Internet  
1786:: I:: Representation of IP Routing Policies in a Routing Registry  
(ripe-81++)  
1774:: I:: BGP-4 Protocol Analysis  
1773:: I:: Experience with the BGP-4 protocol  
1772:: DS:: Application of the Border Gateway Protocol in the Internet  
1771:: DS:: A Border Gateway Protocol 4 (BGP-4)  
1765:: E:: OSPF Database Overflow  
1753:: I:: IPng Technical Requirements Of the Nimrod Routing and  
Addressing Architecture  
1745:: PS:: BGP4/IDRP for IP---OSPF Interaction  
1723:: DS:: RIP Version 2 Carrying Additional Information  
1722:: DS:: RIP Version 2 Protocol Applicability Statement

1721:: I:: RIP Version 2 Protocol Analysis  
1716:: I:: Towards Requirements for IP Routers  
1702:: I:: Generic Routing Encapsulation over IPv4 networks  
1701:: I:: Generic Routing Encapsulation (GRE)  
1668:: I:: Unified Routing Requirements for IPng  
1656:: I:: BGP-4 Protocol Document Roadmap and Implementation Experience  
1655:: PS:: Application of the Border Gateway Protocol in the Internet  
1654:: PS:: A Border Gateway Protocol 4 (BGP-4)  
1587:: PS:: The OSPF NSSA Option  
1586:: I:: Guidelines for Running OSPF Over Frame Relay Networks  
1585:: I:: MOSPF  
1584:: PS:: Multicast Extensions to OSPF  
1583:: DS:: OSPF Version 2  
1582:: PS:: Extensions to RIP to Support Demand Circuits  
1581:: I:: Protocol Analysis for Extensions to RIP to Support Demand Circuits  
1520:: I:: Exchanging Routing Information Across Provider Boundaries in the CIDR Environment  
1519:: PS:: Classless Inter-Domain Routing (CIDR)  
1517:: PS:: Applicability Statement for the Implementation of Classless Inter-Domain Routing (CIDR)  
1504:: I:: Appletalk Update-Based Routing Protocol  
1482:: I:: Aggregation Support in the NSFNET Policy Routing Database  
1479:: PS:: Inter-Domain Policy Routing Protocol Specification  
1478:: PS:: An Architecture for Inter-Domain Policy Routing  
1477:: I:: IDPR as a Proposed Standard  
1476:: E:: RAP  
1439:: I:: The Uniqueness of Unique Identifiers  
1403:: PS:: BGP OSPF Interaction  
1397:: PS:: Default Route Advertisement In BGP2 And BGP3 Versions Of The Border Gateway Protocol  
1388:: PS:: RIP Version 2 Carrying Additional Information  
1387:: I:: RIP Version 2 Protocol Analysis  
1383:: I:: An Experiment in DNS Based IP Routing  
1380:: I:: IESG Deliberations on Routing and Addressing  
1371:: I:: "Choosing a "Common IGP" for the IP Internet (The IESG's Recommendation to the IAB)"  
1370:: PS:: Applicability Statement for OSPF  
1364:: PS:: BGP OSPF Interaction  
1338:: I:: Supernetting  
1322:: I:: A Unified Approach to Inter-Domain Routing  
1268:: DS:: Application of the Border Gateway Protocol in the Internet  
1267:: DS:: A Border Gateway Protocol 3 (BGP-3)  
1266:: I:: Experience with the BGP Protocol  
1265:: I:: BGP Protocol Analysis  
1264:: I:: Internet Routing Protocol Standardization Criteria  
1254:: I:: Gateway Congestion Control Survey  
1246:: I:: Experience with the OSPF Protocol  
1245:: I:: OSPF Protocol Analysis

1222:: :: Advancing the NSFNET Routing Architecture  
 1195:: PS:: Use of OSI IS-IS for Routing in TCP/IP and Dual  
           Environments  
 1164:: PS:: Application of the Border Gateway Protocol in the Internet  
 1163:: PS:: A Border Gateway Protocol (BGP)  
 1142:: I:: OSI IS-IS Intra-domain Routing Protocol  
 1136:: :: Administrative Domains and Routing Domains  
 1133:: :: Routing between the NSFNET and the DDN  
 1131:: PS:: OSPF specification  
 1126:: :: Goals and functional requirements for inter-autonomous  
           system routing  
 1125:: :: Policy requirements for inter Administrative Domain  
           routing  
 1124:: :: Policy issues in interconnecting networks  
 1105:: E:: Border Gateway Protocol BGP  
 1104:: :: Models of policy based routing  
 1102:: :: Policy routing in Internet protocols  
 1092:: :: EGP and policy based routing in the new NSFNET backbone  
 1075:: E:: Distance Vector Multicast Routing Protocol  
 1074:: :: NSFNET backbone SPF based Interior Gateway Protocol  
 1058:: S:: Routing Information Protocol  
 1009:: H:: Requirements for Internet gateways  
 995:: :: End System to Intermediate System Routing Exchange Protocol for  
 use in conjunction with ISO 8473  
 985:: :: Requirements for Internet gateways - draft  
 981:: :: Experimental multiple-path routing algorithm  
 975:: :: Autonomous confederations  
 950:: S:: Internet standard subnetting procedure  
 911:: :: EGP Gateway under Berkeley UNIX 4.2  
 904:: H:: Exterior Gateway Protocol formal specification  
 898:: :: Gateway special interest group meeting notes  
 890:: :: Exterior Gateway Protocol implementation schedule  
 888:: :: STUB Exterior Gateway Protocol  
 875:: :: "Gateways, architectures, and heffalumps"  
 827:: :: Exterior Gateway Protocol EGP  
 823:: H:: DARPA Internet gateway

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## Security

2104:: I:: HMAC  
 2085:: PS:: HMAC-MD5 IP Authentication with Replay Prevention  
 2084:: I:: Considerations for Web Transaction Security  
 2082:: PS:: RIP-2 MD5 Authentication  
 2078:: PS:: "Generic Security Service Application Program Interface,  
           Version 2"  
 2069:: PS:: An Extension to HTTP  
 2065:: PS:: Domain Name System Security Extensions  
 2059:: I:: RADIUS Accounting  
 2058:: PS:: Remote Authentication Dial In User Service (RADIUS)  
 2057:: I:: Source directed access control on the Internet.

2040:: I:: "The RC5, RC5-CBC, RC5-CBC-Pad, and RC5-CTS Algorithms"  
2025:: PS:: The Simple Public-Key GSS-API Mechanism (SPKM)  
2015:: :: MIME Security with Pretty Good Privacy (PGP)  
1984:: I:: IAB and IESG Statement on Cryptographic Technology and  
the Internet  
1969:: I:: The PPP DES Encryption Protocol (DESE)  
1968:: PS:: The PPP Encryption Control Protocol (ECP)  
1964:: PS:: The Kerberos Version 5 GSS-API Mechanism  
1961:: PS:: GSS-API Authentication Method for SOCKS Version 5  
1949:: E:: Scalable Multicast Key Distribution  
1948:: I:: Defending Against Sequence Number Attacks  
1938:: PS:: A One-Time Password System  
1929:: PS:: Username/Password Authentication for SOCKS V5  
1928:: PS:: SOCKS Protocol Version 5  
1898:: I:: CyberCash Credit Card Protocol Version 0.8  
1858:: I:: Security Considerations for IP Fragment Filtering  
1852:: E:: IP Authentication using Keyed SHA  
1851:: E:: The ESP Triple DES-CBC Transform  
1829:: PS:: The ESP DES-CBC Transform  
1828:: PS:: IP Authentication using Keyed MD5  
1827:: PS:: IP Encapsulating Security Payload (ESP)  
1826:: PS:: IP Authentication Header  
1825:: PS:: Security Architecture for the Internet Protocol  
1824:: I:: The Exponential Security System TESS  
1760:: I:: The S/KEY One-Time Password System  
1751:: I:: A Convention for Human-Readable 128-bit Keys  
1750:: I:: Randomness Recommendations for Security  
1704:: I:: On Internet Authentication  
1675:: I:: Security Concerns for IPng  
1579:: I:: Firewall-Friendly FTP  
1535:: I:: A Security Problem and Proposed Correction With Widely  
Deployed DNS Software  
1511:: I:: Common Authentication Technology Overview  
1510:: PS:: The Kerberos Network Authentication Service (V5)  
1509:: PS:: Generic Security Service API  
1508:: PS:: Generic Security Service Application Program Interface  
1507:: E:: DASS - Distributed Authentication Security Service  
1492:: I:: "An Access Control Protocol, Sometimes Called TACACS"  
1457:: I:: Security Label Framework for the Internet  
1455:: E:: Physical Link Security Type of Service  
1424:: PS:: Privacy Enhancement for Internet Electronic Mail  
1423:: PS:: "Privacy Enhancement for Internet Electronic Mail  
1422:: PS:: Privacy Enhancement for Internet Electronic Mail  
1421:: PS:: Privacy Enhancement for Internet Electronic Mail  
1416:: E:: Telnet Authentication Option  
1412:: E:: Telnet Authentication  
1411:: E:: Telnet Authentication  
1409:: E:: Telnet Authentication Option  
1408:: H:: Telnet Environment Option  
1321:: I:: The MD5 Message-Digest Algorithm  
1320:: I:: The MD4 Message-Digest Algorithm

1319:: I:: The MD2 Message-Digest Algorithm  
 1281:: I:: Guidelines for the Secure Operation of the Internet  
 1244:: I:: Site Security Handbook  
 1186:: I:: The MD4 Message Digest Algorithm  
 1170:: I:: Public Key Standards and Licenses  
 1156:: S:: Management Information Base for Network Management of  
         TCP/IP-based internets  
 1115:: H:: "Privacy enhancement for Internet electronic mail  
 1114:: H:: Privacy enhancement for Internet electronic mail  
 1113:: H:: Privacy enhancement for Internet electronic mail  
 1108:: PS:: U.S. Department of Defense Security Options for the  
         Internet Protocol  
 1040:: :: Privacy enhancement for Internet electronic mail  
 1038:: :: Draft revised IP security option  
 1004:: E:: Distributed-protocol authentication scheme  
   989:: :: Privacy enhancement for Internet electronic mail  
   972:: :: Password Generator Protocol  
   931:: E:: Authentication server  
   927:: :: TACACS user identification Telnet option  
   912:: :: Authentication service  
   644:: :: On the problem of signature authentication for  
         network mail

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 Virtual Terminal

2066:: E:: TELNET CHARSET Option  
 1647:: PS:: TN3270 Enhancements  
 1646:: I:: TN3270 Extensions for LUsername and Printer Selection  
 1576:: I:: TN3270 Current Practices  
 1572:: PS:: Telnet Environment Option  
 1571:: I:: Telnet Environment Option Interoperability Issues  
 1372:: PS:: Telnet Remote Flow Control Option  
 1282:: I:: BSD Rlogin  
 1258:: I:: BSD Rlogin  
 1221:: :: Host Access Protocol (HAP) Specification - Version 2  
 1205:: :: 5250 Telnet Interface  
 1184:: DS:: Telnet Linemode Option  
 1143:: :: The Q Method of Implementing TELNET Option Negotiation  
 1116:: PS:: Telnet Linemode option  
 1097:: :: Telnet subliminal-message option  
 1096:: :: Telnet X display location option  
 1091:: :: Telnet terminal-type option  
 1080:: :: Telnet remote flow control option  
 1079:: :: Telnet terminal speed option  
 1073:: :: Telnet window size option  
 1053:: :: Telnet X.3 PAD option  
 1043:: :: Telnet Data Entry Terminal option  
 1041:: :: Telnet 3270 regime option  
 1013:: :: "X Window System Protocol, version 11  
 1005:: :: ARPANET AHIP-E Host Access Protocol enhanced AHIP  
   946:: :: Telnet terminal location number option

933:: :: Output marking Telnet option  
930:: :: Telnet terminal type option  
929:: :: Proposed Host-Front End Protocol  
907:: S:: Host Access Protocol specification  
885:: :: Telnet end of record option  
884:: :: Telnet terminal type option  
878:: :: ARPANET 1822L Host Access Protocol  
861:: :: Telnet extended options  
860:: S:: Telnet timing mark option  
859:: S:: Telnet status option  
858:: S:: Telnet Suppress Go Ahead option  
857:: S:: Telnet echo option  
856:: S:: Telnet binary transmission  
855:: S:: Telnet option specifications  
854:: S:: Telnet Protocol specification  
851:: :: ARPANET 1822L Host Access Protocol  
818:: H:: Remote User Telnet service  
802:: :: ARPANET 1822L Host Access Protocol  
782:: :: Virtual Terminal management model  
779:: :: Telnet send-location option  
764:: :: Telnet Protocol specification  
749:: :: Telnet SUPDUP-Output option  
748:: :: Telnet randomly-lose option  
747:: :: Recent extensions to the SUPDUP Protocol  
746:: :: SUPDUP graphics extension  
736:: :: Telnet SUPDUP option  
735:: :: Revised Telnet byte macro option  
734:: H:: SUPDUP Protocol  
732:: :: Telnet Data Entry Terminal option  
731:: :: Telnet Data Entry Terminal option  
729:: :: Telnet byte macro option  
728:: :: Minor pitfall in the Telnet Protocol  
727:: :: Telnet logout option  
726:: :: Remote Controlled Transmission and Echoing Telnet option  
721:: :: Out-of-band control signals in a Host-to-Host Protocol  
719:: :: Discussion on RCTE  
718:: :: Comments on RCTE from the Tenex implementation experience  
703:: :: "July, 1975, survey of New-Protocol Telnet Servers"  
702:: :: "September, 1974, survey of New-Protocol Telnet servers"  
701:: :: "August, 1974, survey of New-Protocol Telnet servers"  
698:: :: Telnet extended ASCII option  
688:: :: Tentative schedule for the new Telnet implementation for  
the TIP  
679:: :: "February, 1975, survey of New-Protocol Telnet servers"  
669:: :: "November, 1974, survey of New-Protocol Telnet servers"  
659:: :: Announcing additional Telnet options  
658:: :: Telnet output linefeed disposition  
657:: :: Telnet output vertical tab disposition option  
656:: :: Telnet output vertical tabstops option  
655:: :: Telnet output formfeed disposition option  
654:: :: Telnet output horizontal tab disposition option

653:: :: Telnet output horizontal tabstops option  
652:: :: Telnet output carriage-return disposition option  
651:: :: Revised Telnet status option  
647:: :: Proposed protocol for connecting host computers to  
        ARPA-like networks via front end processors  
636:: :: TIP/Tenex reliability improvements  
600:: :: Interfacing an Illinois plasma terminal to the ARPANET  
596:: :: Second thoughts on Telnet Go-Ahead  
595:: :: Second thoughts in defense of the Telnet Go-Ahead  
587:: :: Announcing new Telnet options  
563:: :: Comments on the RCTE Telnet option  
562:: :: Modifications to the Telnet specification  
560:: :: Remote Controlled Transmission and Echoing Telnet option  
559:: :: Comments on the new Telnet Protocol and its implementation  
513:: :: Comments on the new Telnet specifications  
495:: :: Telnet Protocol specifications  
470:: :: Change in socket for TIP news facility  
466:: :: Telnet logger/server for host LL-67  
461:: :: Telnet Protocol meeting announcement  
447:: :: IMP/TIP memory retrofit schedule  
435:: :: Telnet issues  
431:: :: Update on SMFS login and logout  
399:: :: SMFS login and logout  
393:: :: Comments on Telnet Protocol changes  
386:: :: Letter to TIP users-2  
377:: :: Using TSO via ARPA Network Virtual Terminal  
365:: :: Letter to all TIP users  
364:: :: Serving remote users on the ARPANET  
352:: :: TIP site information form  
340:: :: Proposed Telnet changes  
339:: :: "MLTNET  
328:: :: Suggested Telnet Protocol changes  
318:: :: [Ad hoc Telnet Protocol]  
311:: :: New console attachments to the USCB host  
297:: :: TIP message buffers  
296:: :: DS-1 display system  
231:: :: Service center standards for remote usage  
230:: :: Toward reliable operation of minicomputer-based  
        terminals on a TIP  
216:: :: Telnet access to UCSB's On-Line System  
215:: :: "NCP, ICP, and Telnet  
206:: :: User Telnet - description of an initial implementation  
205:: :: NETCRT - a character display protocol  
177:: :: Device independent graphical display description  
158:: :: Telnet Protocol  
139:: :: Discussion of Telnet Protocol  
137:: :: Telnet Protocol - a proposed document  
110:: :: Conventions for using an IBM 2741 terminal as a  
        user console for access to network server hosts  
97:: :: First cut at a proposed Telnet Protocol

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## Other

2123:: I:: Traffic Flow Measurement  
2121:: I:: Issues affecting MARS Cluster Size  
2119:: BC:: Key words for use in RFCs to Indicate Requirement Levels  
2101:: I:: IPv4 Address Behaviour Today  
2100:: I:: The Naming of Hosts  
2099:: I:: Request for Comments Summary RFC Numbers 2000-2099  
2083:: I:: PNG (Portable Network Graphics) Specification Version 1.0  
2071:: I:: Network Renumbering Overview  
2050:: BC:: INTERNET REGISTRY IP ALLOCATION GUIDELINES  
2036:: I:: Observations on the use of Components of the Class  
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2031:: I:: IETF-ISOC relationship  
2028:: BC:: The Organizations Involved in the IETF Standards Process  
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2026:: BC:: The Internet Standards Process -- Revision 3  
2014:: BC:: IRTF Research Group Guidelines and Procedures  
2007:: I:: Catalogue of Network Training Materials  
2000:: S:: INTERNET OFFICIAL PROTOCOL STANDARDS  
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1988:: I:: Conditional Grant of Rights to Specific Hewlett-Packard  
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1983:: I:: Internet Users' Glossary  
1958:: I:: Architectural Principles of the Internet  
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1951:: I:: DEFLATE Compressed Data Format Specification version 1.3  
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1935:: I:: "What is the Internet, Anyway?"  
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1855:: I:: Netiquette Guidelines  
1822:: I:: A Grant of Rights to Use a Specific IBM patent with  
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1818:: S:: Best Current Practices  
1816:: I:: U.S. Government Internet Domain Names  
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1810:: I:: Report on MD5 Performance  
1805:: I:: Location-Independent Data/Software Integrity Protocol  
1802:: I:: Introducing Project Long Bud  
1800:: S:: INTERNET OFFICIAL PROTOCOL STANDARDS



1799:: I:: Request for Comments Summary RFC Numbers 1700-1799  
 1797:: E:: Class A Subnet Experiment  
 1796:: I:: Not All RFCs are Standards  
 1790:: I:: "An Agreement between the Internet Society and Sun Microsystems, Inc. in the Matter of ONC RPC and XDR Protocols"  
 1780:: S:: INTERNET OFFICIAL PROTOCOL STANDARDS  
 1776:: I:: The Address is the Message  
 1775:: I:: "To Be ""On"" the Internet"  
 1758:: I:: NADF Standing Documents  
 1746:: I:: Ways to Define User Expectations  
 1739:: I:: A Primer On Internet and TCP/IP Tools  
 1720:: S:: INTERNET OFFICIAL PROTOCOL STANDARDS  
 1718:: I:: The Tao of IETF - A Guide for New Attendees of the Internet Engineering Task Force  
 1715:: I:: The H Ratio for Address Assignment Efficiency  
 1709:: I:: K-12 Internetworking Guidelines  
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 1610:: S:: INTERNET OFFICIAL PROTOCOL STANDARDS  
 1607:: I:: A VIEW FROM THE 21ST CENTURY  
 1606:: I:: A Historical Perspective On The Usage Of IP Version 9  
 1603:: I:: IETF Working Group Guidelines and Procedures  
 1602:: I:: The Internet Standards Process -- Revision 2  
 1601:: I:: Charter of the Internet Architecture Board (IAB)  
 1600:: S:: INTERNET OFFICIAL PROTOCOL STANDARDS  
 1599:: I:: Request for Comments Summary RFC Numbers 1500 - 1599  
 1597:: I:: Address Allocation for Private Internets  
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 1580:: I:: Guide to Network Resource Tools  
 1578:: I:: FYI on Questions and Answers  
 1574:: I:: Essential Tools for the OSI Internet  
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 1462:: I:: FYI on ``What is the Internet?''  
 1438:: I:: Internet Engineering Task Force Statements Of  
 Boredom (SOBs)  
 1432:: I:: Recent Internet Books  
 1417:: I:: NADF Standing Documents  
 1410:: S:: IAB OFFICIAL PROTOCOL STANDARDS  
 1402:: I:: There's Gold in them thar Networks! Searching for  
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 1401:: I:: Correspondence between the IAB and DISA on the use  
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 1396:: I:: The Process for Organization of Internet Standards  
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 1392:: I:: Internet Users' Glossary  
 1391:: I:: The Tao of IETF  
 1367:: I:: Schedule for IP Address Space Management Guidelines  
 1366:: I:: Guidelines for Management of IP Address Space  
 1360:: S:: IAB OFFICIAL PROTOCOL STANDARDS  
 1359:: I:: Connecting to the Internet What Connecting  
 Institutions Should Anticipate  
 1358:: I:: Charter of the Internet Architecture Board (IAB)  
 1349:: PS:: Type of Service in the Internet Protocol Suite  
 1340:: S:: ASSIGNED NUMBERS  
 1336:: I:: "Who's Who in the Internet Biographies of IAB,  
 IESG and IRSG Members"  
 1325:: I:: FYI on Questions and Answers Answers to Commonly  
 asked ``New Internet User'' Questions  
 1324:: I:: A Discussion on Computer Network Conferencing  
 1311:: I:: Introduction to the STD Notes  
 1310:: I:: The Internet Standards Process  
 1300:: I:: Remembrances of Things Past  
 1299:: I:: Request for Comments Summary RFC Numbers 1200-1299  
 1297:: I:: NOC Internal Integrated Trouble Ticket System  
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 1296:: I:: Internet Growth (1981-1991)  
 1295:: I:: User Bill of Rights for entries and listings in the  
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 1291:: I:: Mid-Level Networks  
 1290:: I:: There's Gold in them thar Networks! or Searching for  
 Treasure in all the Wrong Places  
 1287:: I:: Towards the Future Internet Architecture  
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1261:: I:: Transition of NIC Services  
 1259:: I:: Building The Open Road  
 1251:: : : "Who's Who in the Internet  
 1250:: S:: IAB Official Protocol Standards  
 1249:: I:: DIXIE Protocol Specification  
 1217:: : : Memo from the Consortium for Slow Commotion Research (CSCR)  
 1216:: : : Gigabit Network Economics and Paradigm Shifts  
 1208:: : : A Glossary of Networking Terms  
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 1206:: : : FYI on Questions and Answers - Answers to Commonly  
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 1199:: I:: Request for Comments Summary RFC Numbers 1100-1199  
 1198:: I:: FYI on the X Window System  
 1192:: : : Commercialization of the Internet Summary Report  
 1181:: : : RIPE Terms of Reference  
 1180:: : : A TCP/IP Tutorial  
 1178:: : : Choosing a Name for Your Computer  
 1177:: : : FYI on Questions and Answers - Answers to Commonly  
 Asked ``New Internet User'' Questions  
 1175:: : : FYI on Where to Start - A Bibliography of  
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 1174:: I:: "IAB Recommended Policy on Distributing Internet  
 Identifier Assignment and IAB Recommended Policy Change  
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 1173:: : : "Responsibilities of Host and Network Managers  
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 1169:: : : Explaining the Role of GOSIP  
 1167:: : : Thoughts on the National Research and Education Network  
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 1149:: : : A Standard for the Transmission of IP Datagrams  
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 1140:: S:: IAB Official Protocol Standards  
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 1127:: : : Perspective on the Host Requirements RFCs  
 1121:: : : Act one - the poems  
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 1118:: : : Hitchhikers guide to the Internet  
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 1111:: : : Request for comments on Request for Comments  
 1100:: S:: IAB official protocol standards  
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 1093:: : : NSFNET routing architecture  
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1076:: :: HEMS monitoring and control language  
1060:: S:: ASSIGNED NUMBERS  
1039:: :: DoD statement on Open Systems Interconnection protocols  
1020:: :: Internet numbers  
1019:: :: Report of the Workshop on Environments for  
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1018:: :: Some comments on SQuID  
1017:: :: Network requirements for scientific research  
1015:: :: Implementation plan for interagency research Internet  
1014:: :: XDR  
1000:: :: Request For Comments reference guide  
999:: :: Requests For Comments summary notes  
997:: :: Internet numbers  
992:: :: On communication support for fault tolerant process groups  
991:: S:: Official ARPA-Internet protocols  
990:: :: Assigned numbers  
980:: :: Protocol document order information  
979:: :: PSN End-to-End functional specification  
968:: :: Twas the night before start-up  
967:: :: All victims together  
961:: S:: Official ARPA-Internet protocols  
960:: :: Assigned numbers  
945:: :: DoD statement on the NRC report  
944:: S:: Official ARPA-Internet protocols  
943:: :: Assigned numbers  
939:: :: Executive summary of the NRC report on transport  
protocols for Department of Defense data networks  
938:: E:: Internet Reliable Transaction Protocol functional  
and interface specification  
928:: :: Introduction to proposed DoD standard H-FP  
923:: :: Assigned numbers  
909:: E:: Loader Debugger Protocol  
908:: E:: Reliable Data Protocol  
902:: :: ARPA Internet Protocol policy  
901:: S:: Official ARPA-Internet protocols  
900:: :: Assigned Numbers  
899:: :: Request For Comments summary notes  
880:: S:: Official protocols  
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870:: :: Assigned numbers  
869:: H:: Host Monitoring Protocol  
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846:: :: Who talks TCP? - survey of 22 February 1983  
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843:: :: Who talks TCP? - survey of 8 February 83  
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840:: S:: Official protocols  
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838:: :: Who talks TCP?

837:: :: Who talks TCP?  
836:: :: Who talks TCP?  
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833:: :: Who talks TCP?  
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831:: :: Backup access to the European side of SATNET  
828:: :: "Data communications  
825:: :: Request for comments on Requests For Comments  
820:: :: Assigned numbers  
817:: :: Modularity and efficiency in protocol implementation  
816:: :: Fault isolation and recovery  
806:: :: Proposed Federal Information Processing Standard  
800:: :: Request For Comments summary notes  
794:: :: Pre-emption  
790:: :: Assigned numbers  
776:: :: Assigned numbers  
774:: :: Internet Protocol Handbook  
770:: :: Assigned numbers  
766:: :: Internet Protocol Handbook  
762:: :: Assigned numbers  
758:: :: Assigned numbers  
755:: :: Assigned numbers  
750:: :: Assigned numbers  
745:: :: JANUS interface specifications  
739:: :: Assigned numbers  
717:: :: Assigned network numbers  
716:: :: Interim revision to [Appendix F](#) of BBN 1822  
708:: :: Elements of a distributed programming system  
705:: :: Front-end Protocol B6700 version  
700:: :: Protocol experiment  
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694:: :: Protocol information  
686:: :: Leaving well enough alone  
684:: :: Commentary on procedure calling as a network protocol  
681:: :: Network UNIX  
678:: :: Standard file formats  
677:: :: Maintenance of duplicate databases  
672:: :: Multi-site data collection facility  
671:: :: Note on Reconnection Protocol  
667:: :: BBN host ports  
666:: :: Specification of the Unified User-Level Protocol  
663:: :: Lost message detection and recovery protocol  
661:: :: Protocol information  
645:: :: Network Standard Data Specification syntax  
643:: :: Network Debugging Protocol  
642:: :: Ready line philosophy and implementation  
638:: :: IMP/TIP preventive maintenance schedule  
637:: :: Change of network address for SU-DSL  
635:: :: Assessment of ARPANET protocols  
634:: :: Change in network address for Haskins Lab

631:: :: International meeting on minicomputers and data  
communication  
629:: :: Scenario for using the Network Journal  
628:: :: Status of RFC numbers and a note on pre-assigned  
journal numbers  
621:: :: NIC user directories at SRI ARC  
617:: :: Note on socket number assignment  
609:: :: Statement of upcoming move of NIC/NLS service  
604:: :: Assigned link numbers  
603:: :: Response to [RFC 597](#)  
602:: :: The stockings were hung by the chimney with care  
598:: :: "RFC index - December 5, 1973"  
597:: :: Host status  
590:: :: MULTICS address change  
588:: :: London node is now up  
585:: :: ARPANET users interest working group meeting  
584:: :: Charter for ARPANET Users Interest Working Group  
582:: :: Comments on [RFC 580](#)  
581:: :: Corrections to [RFC 560](#)  
580:: :: Note to protocol designers and implementers  
578:: :: Using MIT-Mathlab MACSYMA from MIT-DMS Muddle  
569:: H:: NETED  
552:: :: Single access to standard protocols  
547:: :: Change to the Very Distant Host specification  
544:: :: Locating on-line documentation at SRI-ARC  
537:: :: Announcement of NGG meeting July 16-17  
530:: :: Report on the Survey project  
529:: :: Note on protocol synch sequences  
527:: :: ARPAWOCKY  
526:: :: Technical meeting  
523:: :: SURVEY is in operation again  
519:: :: Resource evaluation  
518:: :: ARPANET accounts  
515:: :: Specifications for datalanguage  
503:: :: Socket number list  
496:: :: TNLS quick reference card is available  
494:: :: Availability of MIX and MIXAL in the Network  
492:: :: Response to [RFC 467](#)  
491:: :: "What is ""Free""?"  
483:: :: Cancellation of the resource notebook framework meeting  
474:: :: Announcement of NGWG meeting  
464:: :: Resource notebook framework  
462:: :: Responding to user needs  
457:: :: TIPUG  
456:: :: Memorandum  
441:: :: Inter-Entity Communication - an experiment  
440:: :: Scheduled network software maintenance  
439:: :: PARRY encounters the DOCTOR  
433:: :: Socket number list  
432:: :: Network logical map  
425:: :: But my NCP costs \$500 a day

419:: :: To  
405:: :: Correction to [RFC 404](#)  
404:: :: Host address changes involving Rand and ISI  
403:: :: Desirability of a network 1108 service  
402:: :: ARPA Network mailing lists  
401:: :: Conversion of NGP-0 coordinates to device specific  
coordinates  
390:: :: TSO scenario  
379:: :: Using TSO at CCN  
376:: :: Network host status  
372:: :: Notes on a conversation with Bob Kahn on the ICC  
371:: :: Demonstration at International Computer Communications  
Conference  
370:: :: Network host status  
363:: :: ARPA Network mailing lists  
356:: :: ARPA Network Control Center  
355:: :: Response to NWG/RFC 346  
350:: :: User accounts for UCSB On-Line System  
349:: :: Proposed standard socket numbers  
345:: :: Interest in mixed integer programming MPSX on NIC  
360/91 at CCN  
334:: :: Network use on May 8  
331:: :: IMP System change notification  
330:: :: Network host status  
329:: :: ARPA Network mailing lists  
327:: :: Data and File Transfer workshop notes  
322:: :: Well known socket numbers  
321:: :: CBI networking activity at MITRE  
320:: :: Workshop on hard copy line printers  
319:: :: Network host status  
317:: :: Official Host-Host Protocol modification  
316:: :: ARPA Network Data Management Working Group  
315:: :: Network host status  
313:: :: Computer based instruction  
305:: :: Unknown host numbers  
303:: :: ARPA Network mailing lists  
295:: :: "Report of the Protocol Workshop, 12 October 1971"  
291:: :: Data management meeting announcement  
290:: :: Computer networks and data sharing  
282:: :: Graphics meeting report  
276:: :: NIC course  
270:: :: Correction to BBN Report No. 1822 NIC NO 7958  
269:: :: Some experience with file transfer  
263:: :: Very Distant Host interface  
256:: :: IMPSYS change notification  
254:: :: Scenarios for using ARPANET computers  
253:: :: Second Network Graphics meeting details  
249:: :: Coordination of equipment and supplies purchase  
246:: :: Network Graphics meeting  
245:: :: Reservations for Network Group meeting  
243:: :: Network and data sharing bibliography

242:: :: Data descriptive language for shared data  
240:: :: Site status  
239:: :: Host mnemonics proposed in [RFC 226](#) NIC 7625  
235:: :: Site status  
234:: :: Network Working Group meeting schedule  
232:: :: Postponement of network graphics meeting  
228:: :: Clarification  
225:: :: Rand/UCSB network graphics experiment  
223:: :: Network Information Center schedule for network users  
219:: :: User's view of the datacomputer  
218:: :: Changing the IMP status reporting facility  
214:: :: Network checkpoint  
213:: :: IMP System change notification  
211:: :: ARPA Network mailing lists  
209:: :: Host/IMP interface documentation  
208:: :: Address tables  
207:: :: September Network Working Group meeting  
204:: :: Sockets in use  
200:: :: RFC list by number  
198:: :: Site certification - Lincoln Labs 360/67  
195:: :: Data computers-data descriptions and access language  
194:: :: Data Reconfiguration Service - compiler/interpreter  
implementation notes  
187:: :: Network/440 protocol concept  
186:: :: Network graphics loader  
185:: :: NIC distribution of manuals and handbooks  
182:: :: Compilation of list of relevant site reports  
180:: :: File system questionnaire  
179:: :: Link number assignments  
173:: :: Network data management committee meeting announcement  
171:: :: Data Transfer Protocol  
170:: :: RFC list by number  
169:: :: Computer networks  
168:: :: ARPA Network mailing lists  
167:: :: Socket conventions reconsidered  
164:: :: "Minutes of Network Working Group meeting, 5/16  
through 5/19/71 "  
162:: :: NETBUGGER3  
160:: :: RFC brief list  
157:: :: Invitation to the Second Symposium on Problems in the  
Optimization of Data Communications Systems  
155:: :: ARPA Network mailing lists  
154:: :: Exposition style  
149:: :: Best laid plans  
148:: :: Comments on [RFC 123](#)  
147:: :: Definition of a socket  
140:: :: Agenda for the May NWG meeting  
138:: :: Status report on proposed Data Reconfiguration Service  
136:: :: Host accounting and administrative procedures  
135:: :: Response to NWG/RFC 110  
132:: :: Typographical error in [RFC 107](#)



131:: :: Response to [RFC 116](#)  
130:: :: Response to [RFC 111](#)  
129:: :: Request for comments on socket name structure  
126:: :: Graphics facilities at Ames Research Center  
124:: :: Typographical error in [RFC 107](#)  
121:: :: Network on-line operators  
120:: :: Network PL1 subprograms  
119:: :: Network Fortran subprograms  
118:: :: Recommendations for facility documentation  
117:: :: Some comments on the official protocol  
116:: :: Structure of the May NWG meeting  
115:: :: Some Network Information Center policies on handling documents  
  
113:: :: Network activity report  
112:: :: User/Server Site Protocol  
111:: :: Pressure from the chairman  
109:: :: Level III Server Protocol for the Lincoln Laboratory  
NIC 360/67 Host  
108:: :: "Attendance list at the Urbana NWG meeting, February  
17-19,1971 "  
107:: :: Output of the Host-Host Protocol glitch cleaning committee  
106:: :: User/Server Site Protocol network host questionnaire  
104:: :: Link 191  
103:: :: Implementation of interrupt keys  
102:: :: Output of the Host-Host Protocol glitch cleaning committee  
101:: :: "Notes on the Network Working Group meeting,  
Urbana, Illinois, February 17, 1971"  
100:: :: Categorization and guide to NWG/RFCs  
99:: :: Network meeting  
95:: :: Distribution of NWG/RFC's through the NIC  
90:: :: CCN as a network service center  
89:: :: Some historic moments in networking  
87:: :: Topic for discussion at the next Network Working Group  
meeting  
85:: :: Network Working Group meeting  
84:: :: List of NWG/RFC's 1-80  
82:: :: Network meeting notes  
81:: :: Request for reference information  
78:: :: NCP status report  
77:: :: Network meeting report  
76:: :: Connection by name  
75:: :: Network meeting  
74:: :: Specifications for network use of the UCSB On-Line System  
73:: :: Response to NWG/RFC 67  
72:: :: Proposed moratorium on changes to network protocol  
71:: :: Reallocation in case of input error  
69:: :: Distribution list change for MIT  
68:: :: "Comments on memory allocation control commands  
66:: :: NIC - third level ideas and other noise  
64:: :: Getting rid of marking  
63:: :: Belated network meeting report

- 61:: :: Note on interprocess communication in a resource sharing computer network
- 57:: :: Thoughts and reflections on NWG/RFC 54
- 52:: :: Updated distribution list
- 51:: :: Proposal for a Network Interchange Language
- 50:: :: Comments on the Meyer proposal
- 49:: :: Conversations with S. Crocker UCLA
- 48:: :: Possible protocol plateau
- 47:: :: BBN's comments on NWG/RFC #33
- 46:: :: ARPA Network protocol notes
- 45:: :: New protocol is coming
- 44:: :: Comments on NWG/RFC 33 and 36
- 43:: :: Proposed meeting [LIL]
- 40:: :: More comments on the forthcoming protocol
- 39:: :: Comments on protocol re
- 37:: :: "Network meeting epilogue, etc"
- 36:: :: Protocol notes
- 35:: :: Network meeting
- 34:: :: Some brief preliminary notes on the Augmentation Research Center clock
- 31:: :: Binary message forms in computer
- 30:: :: Documentation conventions
- 27:: :: Documentation conventions
- 25:: :: No high link numbers
- 24:: :: Documentation conventions
- 21:: :: Network meeting
- 16:: :: M.I.T
- 15:: :: Network subsystem for time sharing hosts
- 13:: :: [Referring to NWG/RFC 11]
- 11:: :: Implementation of the Host-Host software procedures in GORDO
- 10:: :: Documentation conventions
- 9:: :: Host software
- 8:: :: Functional specifications for the ARPA Network
- 7:: :: Host-IMP interface
- 6:: :: Conversation with Bob Kahn
- 5:: :: Decode Encode Language
- 4:: :: Network timetable
- 3:: :: Documentation conventions
- 2:: :: Host software
- 1:: :: Host software

## Appendix B: Automatic Script to Implement Methodology

```
#!/usr/bin/perl
```

```
# Program to read text files (such as RFCs and Internet Drafts) and
# output items that might relate to year 2000 issues, particularly
# 2-digit years.
```

```

# Version 1.1. By Paul Hoffman (phoffman@imc.org). This is a
# quick-and-dirty hack and could be written more elegantly and
# more efficiently. There may be bugs in this software. For
# example, there was an off-by-one-line bug in version 1.0.
# Use this code at your own risk. This code may be freely
# redistributed.

# Some people like using disk files, others like STDIN and STDOUT.
# This program accomodates both types by setting the $UsageType
# variable. 'file' means input comes from the first argument on
# the command line, output goes to that filename with a ".out"
# extension; 'std' means STDIN and STDOUT.
$UsageType = 'file'; # Should be 'file' or 'std'

# @CheckWords is a list of words to look for. This list is used in
# addition to the automatic checking for "yy" on a line without "YYYY".
# You might want to add "year yyyy" to this list, but then a large
# proportion of the RFCs and drafts get selected

@CheckWords = qw(UTCTime two-digit 2-digit 2digit century 1900 2000);

if($UsageType eq 'file') {
    if($ARGV[0] eq '')
        { die "You must specify the name of the file to open.\n" }
    $InName = $ARGV[0];
    unless(-r $InName) { die "Could not read $InName.\n" }
    open(IN, $InName) or die "Could not open $InName.\n";
    $OutName = "$InName.out";
    open(OUT, ">$OutName") or die "Could not write to $OutName.\n";
    $OutStuff = ''; # Holder for what we're going to print out
} else { # Do STDIN and STDOUT
    open(IN, "-"); open(OUT, ">-");
}

# Read the whole file into an array. This is a tad wasteful of memory
# but makes the output easier.
@All = ();
while(<IN>) { push(@All, $_) }
$LastLine = $#All;

# Process the instance of "yy" not followed by "yy"
for($i = 0; $i <= $LastLine; $i += 1 ) {
    next unless(grep(/yy/i, $All[$i]));
    next if(grep(/yyyy/i, $All[$i]));
    &PrintFive($i, "'yy' on a line without 'yyyy'");
}

# Next do the words that should cause extra concern
foreach $Word (@CheckWords) {
    for($i = 0; $i <= $LastLine; $i += 1 ) {

```

```

        next unless(grep(/$Word/i, $All[$i]));
        &PrintFive($i, "$Word");
    }
}

# All done. If writing to a file, and nothing got written, delete the
# file so that you can quickly scan for the ".out" files.
# (A better-written program would have waited to do the opens
# until here so the unlink wouldn't be necessary. Oh, well.)
if($UsageType eq 'file') {
    if(length($OutStuff) > 0) {
        $OutStuff = "+++++= File $InName +=+=+=+= \n$OutStuff\n";
        print OUT $OutStuff; close(OUT);
    } else { # Nothing to put in the .out
        close(OUT);
        unlink($OutName) or die "Couldn't unlink $OutName\n";
    }
}
exit;

# Print the five lines around the word found
sub PrintFive {
    my $Where = shift(@_); my $Msg = shift(@_);
    my ($WhereRealLine, $Start, $End, $j);

    $WhereRealLine = $Where + 1;
    $OutStuff .= "$Msg found at line $WhereRealLine:\n";
    $Start = $WhereRealLine - 2; $End = $WhereRealLine + 2;
    if($Where < 2) { $Start = 0 }
    if($Where > $LastLine - 2) { $End = $LastLine }
    for($j = $Start; $j <= $End; $j += 1) { $OutStuff .= "$j: "
        . $All[$j-1] }
    $OutStuff .= "\n";
}

```

Appendix C: Output of the script in [Appendix B](#) on all RFC's from 1 through 2479

```

+++++= File rfc0052.txt +=+=+=+=
2000 found at line 141:
139:
140:      Chuck Rose                      Case University
141:      Jennings Computing Center      (216) 368-2000
142:      Case Western Reserve University x2808
143:      10900 Euclid Avenue

+++++= File rfc0090.txt +=+=+=+=
2000 found at line 71:
69:                                     consoles);
70:

```

71: j) Six data communication ports (3 dial @ 2000 baud,  
72: 1 dedicated @ 4800 baud, and 2 dedicated @ 50,000  
73: baud) for remote batch entry terminals;

+++++= File [rfc0230](#).txt ++++++=

**2000 found at line 92:**

90: as for conventional synchronous block communication, since start and  
91: stop bits for each character would need to be transmitted. This loss  
92: is not substantial and does occur now for 2000 bps TIP-terminal  
93: communication.  
94:

**2000 found at line 134:**

132: 92 transmitting sites in the U.S. and Canada were used with standard  
133: Bell System Dataphone datasets used at both ends. At both 1200 and  
134: 2000 bps, approximately 82% of the calls had error rates of 1 error in  
135:  $10^5$  bits or better, assuming an equal number of short, medium, and  
136: long hauls.

+++++= File [rfc0241](#).txt ++++++=

**2000 found at line 32:**

30: justifiable on the basis that the IMP and Host computers were  
31: expected to be either in the same room (up to 30 feet of cable) or,  
32: via the Distant Host option, within 2000 feet on well- controlled,  
33: shielded cables. A connection through common carrier facilities is  
34: not comparably free of errors. Usage of common- carrier lines for

+++++= File [rfc0263](#).txt ++++++=

**2000 found at line 22:**

20: of the occasional desire to interface a Host to some IMP via a  
21: long-distance connection (where long-distance, in this context,  
22: is any cable run longer than 2000 feet but may typically be tens  
23: of miles) via either a hard-wire or telephone circuit. We believe  
24: that any good solution to the general problem of interfacing Hosts

+++++= File [rfc0662](#).txt ++++++=

**2000 found at line 143:**

141: by a rather short cable (approximately 100 feet long.) The CISL Multics  
is  
142: connected to the IMP number 6 (port 0) by an approximately 1500 feet long  
cable.  
143: 80th IMPs are in close physical proximity (approximately 2000 feet,) and  
are  
144: connected to each other by a 50 kilobits per second line. The results  
given  
145: above show considerable improvement in the performance with the new IMP  
DIM.

==== File [rfc0713](#).txt =====

**2000 found at line 830:**

828: succeeding bytes in the stream used to encode the object.  
829:  
830: A data object requiring 20000 (47040 octal) bytes would  
831: appear in the stream as follows.  
832:

**2000 found at line 837:**

835: 10000010 -- specifying that the next 2 bytes  
836: contain the stream length  
837: 01001110 -- first byte of number 20000  
838: 00100000 -- second byte  
839: .

**2000 found at line 845:**

843: .  
844:  
845: Interpretation of the contents of the 20000 bytes in  
846: the stream can be performed by a module which knows the  
847: specific format of the non-atomic type specified by DEFGH in

==== File [rfc0724](#).txt =====

2-digit found at line 1046:

1044: <4-digit-year>  
1045: <slash-date> ::= <numeric-month> "/" <date-of-month>  
1046: <2-digit-year>  
1047: <numeric-month> ::= <one or two decimal digits>  
1048: <day-of-month> ::= <one or two decimal digits>

2-digit found at line 1062:

1060: | "December" | "Dec"  
1061: <4-digit-year> ::= <four decimal digits>  
1062: <2-digit-year> ::= <two decimal digits>  
1063: <time> ::= <24-hour-time> "-" <time-zone>  
1064: <24-hour-time> ::= <hour> <minute>

2-digit found at line 1675:

1673: A. ALPHABETICAL LISTING OF SYNTAX RULES  
1674:  
1675: <2-digit-year> ::= <two decimal digits>  
1676: <4-digit-year> ::= <four decimal digits>  
1677: <24-hour-time> ::= <hour> <minute>

2-digit found at line 1829:

1827:  
1828: <slash-date> ::= <numeric-month> "/" <date-of-month>  
1829: <2-digit-year>  
1830: <space> ::= <TELNET ASCII space (decimal 32)>



```

966:
967: hour          = 2DIGIT [":"] 2DIGIT [ [":"] 2DIGIT ]
968:                                     ; 0000[00] - 2359[59]
969:

```

2digit found at line 1718:

```

1716: CTL          = <any TELNET ASCII control character and DEL>
1717:
1718: date           = 1*2DIGIT ["-"] month ["-"] (2DIGIT /4DIGIT)
1719: date-field     = "Date"           ":" date-time
1720: date-time      = [ day-of-week "," ] date time

```

2digit found at line 1754:

```

1752: host-indicator = 1*( "at" / "@" ) node )
1753: host-phrase    = phrase host-indicator
1754: hour           = 2DIGIT [":"] 2DIGIT [ [":"] 2DIGIT ]
1755: HTAB           = <TELNET ASCII horizontal-tab>
1756:

```

+=+=+=+= File [rfc0734](#).txt +=+=+=+=

**2000 found at line 184:**

```

182: Bit name Value          Meaning
183:
184: %TOALT          200000,,0      characters 175 and 176 are converted
to
185:                                altmode (033) on input.
186:

```

**2000 found at line 264:**

```

262:                                NORMALLY OFF.
263:
264: %TOSA1          2000,,0      characters 001-037 should be
displayed
265:                                using the Stanford/ITS extended ASCII
266:                                graphics character set instead of uparrow

```

**2000 found at line 354:**

```

352: %TXTOP      4000      This character has the [TOP] key depressed.
353:
354: %TXSFL      2000      Reserved, must be zero.
355:
356: %TXSFT      1000      Reserved, must be zero.

```

**2000 found at line 634:**

```

632: Value      Key
633:
634: 2000      Reserved
635: 1000      Reserved
636: 0400      <META>

```



+=+=+=+= File [rfc0738](#).txt +=+=+=+=

**1900 found at line 41:**

39: without sending anything.

40:

41: The time is the number of seconds since 0000 (midnight) 1 January 1900

42: GMT, such that the time 1 is 12:00:01 am on 1 January 1900 GMT; this

43: base will serve until the year 2036. As a further example, the most

**1900 found at line 42:**

40:

41: The time is the number of seconds since 0000 (midnight) 1 January 1900

42: GMT, such that the time 1 is 12:00:01 am on 1 January 1900 GMT; this

43: base will serve until the year 2036. As a further example, the most

44: recent leap year as of this writing began from the time 2,398,291,200

+=+=+=+= File [rfc0745](#).txt +=+=+=+=

**2000 found at line 562:**

560: Circuits, EIA standard RS-422," April 1975; Engineering Dept.,

561: Electronic Industries Assn., 2001 Eye St., N.W., Washington, D.C.,

562: 20006.

563:

564: REA bulletin 345-67, Rural Electrification Admin., U.S. Dept. of

+=+=+=+= File [rfc0746](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 341:

339: %TDGRF ;Enter graphics.

340: %GOCLR ;Clear the screen.

341: %GOMVA xx yy ;Set cursor.

342: %GODLA xx yy ;Draw line from there.

343: << repeat last two commands for each line >>

'yy' on a line without 'yyyy' found at line 342:

340: %GOCLR ;Clear the screen.

341: %GOMVA xx yy ;Set cursor.

342: %GODLA xx yy ;Draw line from there.

343: << repeat last two commands for each line >>

344: %TDNOP ;Exit graphics.

**2000 found at line 859:**

857: %TRGIN 0,,400000 terminal can provide graphics input.

858:

859: %TRGHC 0,,200000 terminal has a hard-copy device to which output can  
860: be diverted.

861:

+=+=+=+= File [rfc0752](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 218:

216: word 4 The name of the site in SIXBIT.

217: word 5 The user name who compiled the file, usually in SIXBIT.

218: word 6            Date of compilation as SIXBIT YYMMDD.  
219: word 7            Time of compilation as SIXBIT HHMMSS.  
220: word 8            Address in file of NAME table.

+=+=+=+=+= File [rfc0754](#).txt +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 76:

74:

75: Messages are transmitted as a character string to an address which is  
76: specified "outside" the message. The destination host ("YYY") is  
77: specified to the sending (or user) FTP as the argument of the "open  
78: connection" command, and the destination user ("XXX") is specified to

'yy' on a line without 'yyyy' found at line 81:

79: the receiving (or server) FTP as the argument of the "MAIL" (or "MLFL")  
80: command. In Tenex, when mail is queued this outside information is  
81: saved in the file name ("[--].XXX@YYY").

82:

83: The proposed solutions are briefly characterized.

'yy' on a line without 'yyyy' found at line 239:

237:

238:

239:     "[--].XXX@YYY", not anything from the header. Only the string "XXX"  
240:     is passed to the FTP server.

241:

+=+=+=+=+= File [rfc0759](#).txt +=+=+=+=+=

two-digit found at line 1414:

1412:        yyyy-mm-dd-hh:mm:ss,fff+hh:mm

1413:

1414:        Where yyyy is the four-digit year, mm is the two-digit month, dd is  
1415:        the two-digit day, hh is the two-digit hour in 24 hour time, mm is  
1416:        the two-digit minute, ss is the two-digit second, and fff is the

two-digit found at line 1415:

1413:

1414:        Where yyyy is the four-digit year, mm is the two-digit month, dd is  
1415:        the two-digit day, hh is the two-digit hour in 24 hour time, mm is  
1416:        the two-digit minute, ss is the two-digit second, and fff is the  
1417:        decimal fraction of the second. To this basic date and time is

two-digit found at line 1416:

1414:        Where yyyy is the four-digit year, mm is the two-digit month, dd is  
1415:        the two-digit day, hh is the two-digit hour in 24 hour time, mm is  
1416:        the two-digit minute, ss is the two-digit second, and fff is the  
1417:        decimal fraction of the second. To this basic date and time is  
1418:        appended the offset from Greenwich as plus or minus hh hours and mm

+=+=+=+=+= File [rfc0767](#).txt +=+=+=+=+=

two-digit found at line 710:

708:        yyyy-mm-dd-hh:mm:ss,fff+hh:mm

709:

710:        Where yyyy is the four-digit year, mm is the two-digit month, dd is

711:        the two-digit day, hh is the two-digit hour in 24 hour time, mm is

712:        the two-digit minute, ss is the two-digit second, and fff is the

two-digit found at line 711:

709:

710:        Where yyyy is the four-digit year, mm is the two-digit month, dd is

711:        the two-digit day, hh is the two-digit hour in 24 hour time, mm is

712:        the two-digit minute, ss is the two-digit second, and fff is the

713:        decimal fraction of the second. To this basic date and time is

two-digit found at line 712:

710:        Where yyyy is the four-digit year, mm is the two-digit month, dd is

711:        the two-digit day, hh is the two-digit hour in 24 hour time, mm is

712:        the two-digit minute, ss is the two-digit second, and fff is the

713:        decimal fraction of the second. To this basic date and time is

714:        appended the offset from Greenwich as plus or minus hh hours and mm

+=+=+=+= File [rfc0786](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 71:

69:

70:        The date-time will be in the default TOPS20 ODTIM format

71:        "dd-mmm-yy hh:mm:ss" (24 hour time).

72:

73:        The files will named "arbitrary.NIMAIL.-1", where "arbitrary" will

+=+=+=+= File [rfc0788](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 1592:

1590:        <daytime> ::= "at" <SP> <date> <SP> <time>

1591:

1592:        <date> ::= <dd> "-" <mon> "-" <yy>

1593:

1594:        <time> ::= <hh> ":" <mm> ":" <ss> "-" <zone>

'yy' on a line without 'yyyy' found at line 1602:

1600:        "JUL" | "AUG" | "SEP" | "OCT" | "NOV" | "DEC"

1601:

1602:        <yy> ::= the two decimal integer year of the century in the

1603:        range 01 to 99.

1604:

century found at line 1602:

1600:        "JUL" | "AUG" | "SEP" | "OCT" | "NOV" | "DEC"

1601:

1602:        <yy> ::= the two decimal integer year of the century in the

1603:        range 01 to 99.

1604:

+++++= File [rfc0809.txt](#) ++++++=

**2000 found at line 3349:**

```
3347:
3348:      #define WID      0000000    /* Write Image Data */
3349:      #define WGD      0020000    /* Write Graphic Data */
3350:      #define WAC      0022000    /* Write AlphanumCh */
3351:
```

**2000 found at line 3350:**

```
3348:      #define WID      0000000    /* Write Image Data */
3349:      #define WGD      0020000    /* Write Graphic Data */
3350:      #define WAC      0022000    /* Write AlphanumCh */
3351:
3352:      #define LWM      0024000    /* Load Write Mode */
```

**2000 found at line 3379:**

```
3377:
3378:      #define ERS      0030000    /* Erase */
3379:      #define ERL      0032000    /* Erase Line */
3380:      #define SLU      0034000    /* Special Location Update */
3381:      #define SCRL_ZAP 0100    /* unlimited scroll speed */
```

**2000 found at line 3392:**

```
3390:      #define LLB      0070000    /* Load Lb */
3391:      #define LLC      0074000    /* Load Lc */
3392:      #define LGW      02000    /* perform write */
3393:
3394:      #define NOP      0110000    /* No-Operation */
```

**2000 found at line 3396:**

```
3394:      #define NOP      0110000    /* No-Operation */
3395:
3396:      #define SPD      0120000    /* Select Special Device */
3397:      #define LPA      0130000    /* Load Peripheral Address */
3398:      #define LPR      0140000    /* Load Peripheral Register */
```

**2000 found at line 3405:**

```
3403:      #define ALPHA    06000    /* LPR - Alphanumeric data */
3404:      #define GRAPH    04000    /* LPR - Graphic data */
3405:      #define IMAGE     02000    /* LPR - Image data */
3406:      #define LTHENH   01000    /* take lo byte then hi byte */
3407:      #define DROPBYTE 0400    /* drop last byte */
```

**2000 found at line 3408:**

```
3406:      #define LTHENH   01000    /* take lo byte then hi byte */
3407:      #define DROPBYTE 0400    /* drop last byte */
3408:      #define INTERR    02000    /* SPD - Interrupt Enable */
3409:      #define TEST      04000    /* SPD - Diagnostic Test */
```

3410:

+=+=+=+= File [rfc0810](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 146:

144: , (comma) is used as a data element delimiter

145:

146: XXX/YYY indicates protocol information of the type

147: TRANSPORT/SERVICE.

148:

+=+=+=+= File [rfc0820](#).txt +=+=+=+=

**2000 found at line 674:**

672: 014.000.000.001 311031700035 00 PURDUE-TN [CXK]

673: 014.000.000.002 311060800027 00 UWISC-TN [CXK]

674: 014.000.000.003 311030200024 00 UDEL-TN [CXK]

675: 014.000.000.004 234219200149 23 UCL-VTEST [PK]

676: 014.000.000.005 234219200300 23 UCL-TG [PK]

+=+=+=+= File [rfc0821](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 1944:

1942: <daytime> ::= <SP> <date> <SP> <time>

1943:

1944: <date> ::= <dd> <SP> <mon> <SP> <yy>

1945:

1946: <time> ::= <hh> ":" <mm> ":" <ss> <SP> <zone>

'yy' on a line without 'yyyy' found at line 1954:

1952: "JUL" | "AUG" | "SEP" | "OCT" | "NOV" | "DEC"

1953:

1954: <yy> ::= the two decimal integer year of the century in the

1955: range 00 to 99.

1956:

century found at line 1954:

1952: "JUL" | "AUG" | "SEP" | "OCT" | "NOV" | "DEC"

1953:

1954: <yy> ::= the two decimal integer year of the century in the

1955: range 00 to 99.

1956:

+=+=+=+= File [rfc0822](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 1635:

1633: 5.1. SYNTAX

1634:

1635: date-time = [ day "," ] date time ; dd mm yy

1636: ; hh:mm:ss zzz

1637:

'yy' on a line without 'yyyy' found at line 2701:

```
2699:      dates      =   orig-date                ; Original
2700:                  [ resent-date ]              ; Forwarded
2701:      date-time   =   [ day "," ] date time      ; dd mm yy
2702:                  ;   hh:mm:ss zzz
2703:      day         =   "Mon" / "Tue" / "Wed" / "Thu"
```

2-digit found at line 344:

```
342:
343:      "<n>(element)" is equivalent to "<n>*<n>(element)"; that is,
344:      exactly <n> occurrences of (element). Thus 2DIGIT is a 2-digit
345:      number, and 3ALPHA is a string of three alphabetic characters.
346:
```

2digit found at line 344:

```
342:
343:      "<n>(element)" is equivalent to "<n>*<n>(element)"; that is,
344:      exactly <n> occurrences of (element). Thus 2DIGIT is a 2-digit
345:      number, and 3ALPHA is a string of three alphabetic characters.
346:
```

2digit found at line 1641:

```
1639:                  / "Fri" / "Sat" / "Sun"
1640:
1641:      date         =   1*2DIGIT month 2DIGIT      ; day month year
1642:                  ;   e.g. 20 Jun 82
1643:
```

2digit found at line 1650:

```
1648:      time        =   hour zone                  ; ANSI and Military
1649:
1650:      hour         =   2DIGIT ":" 2DIGIT [":" 2DIGIT]
1651:                  ;   00:00:00 - 23:59:59
1652:
```

2digit found at line 2697:

```
2695:      CTL         =   <any ASCII control        ; ( 0- 37,  0.- 31.)
2696:                  character and DEL>             ; ( 177, 127.)
2697:      date         =   1*2DIGIT month 2DIGIT      ; day month year
2698:                  ;   e.g. 20 Jun 82
2699:      dates        =   orig-date                ; Original
```

2digit found at line 2747:

```
2745:      field-name  =   1*<any CHAR, excluding CTLs, SPACE, and ":">
2746:      group        =   phrase ":" [#mailbox] ";"
2747:      hour         =   2DIGIT ":" 2DIGIT [":" 2DIGIT]
2748:                  ;   00:00:00 - 23:59:59
2749:      HTAB         =   <ASCII HT, horizontal-tab> ; ( 11,  9.)
```

==== File [rfc0850](#).txt =====

'yy' on a line without 'yyyy' found at line 227:  
225: network. One format that is acceptable to both is  
226:  
227: Weekday, DD-Mon-YY HH:MM:SS TIMEZONE  
228:  
229: Several examples of valid dates appear in the sample

=====  
File [rfc0867.txt](#) =====

'yy' on a line without 'yyyy' found at line 67:  
65: Another popular syntax is that used in SMTP:  
66:  
67: dd mmm yy hh:mm:ss zzz  
68:  
69: Example:

=====  
File [rfc0868.txt](#) =====

**[1900](#) found at line 19:**

17: This protocol provides a site-independent, machine readable date and  
18: time. The Time service sends back to the originating source the time in  
19: seconds since midnight on January first 1900.  
20:  
21: One motivation arises from the fact that not all systems have a

**[1900](#) found at line 83:**

81: The Time  
82:  
83: The time is the number of seconds since 00:00 (midnight) 1 January 1900  
84: GMT, such that the time 1 is 12:00:01 am on 1 January 1900 GMT; this  
85: base will serve until the year 2036.

**[1900](#) found at line 84:**

82:  
83: The time is the number of seconds since 00:00 (midnight) 1 January 1900  
84: GMT, such that the time 1 is 12:00:01 am on 1 January 1900 GMT; this  
85: base will serve until the year 2036.  
86:

=====  
File [rfc0869.txt](#) =====

**[2000](#) found at line 1639:**

1637:	400	HDH
1638:	1000	Cassette Writer
1639:	2000	Propagation Delay Measurement
1640:	4000	X25
1641:	10000	Profile Measurements

**[2000](#) found at line 1642:**

1640:	4000	X25
1641:	10000	Profile Measurements
1642:	20000	Self Authenticating Password

1643: 40000 Host traffic Matrix  
1644: 100000 Experimental/Special

**2000 found at line 1669:**

1667: 200 Trace ON  
1668: 1000 Statistics ON  
1669: 2000 Message Generator ON  
1670: 4000 Packet Trace ON  
1671: 10000 Host Data Checksum is BAD

**2000 found at line 1672:**

1670: 4000 Packet Trace ON  
1671: 10000 Host Data Checksum is BAD  
1672: 20000 Reload Location SET  
1673:  
1674:

+++++= File [rfc0884](#).txt ++++++=

**2000 found at line 236:**

234: GENERAL-TERMINAL-100A  
235: HAZELTIME-1500  
236: HAZELTIME-2000  
237: HP-2621  
238: HP-2640A

+++++= File [rfc0899](#).txt ++++++=

**1900 found at line 337:**

335: provides a site-independent, machine readable date and time. The  
336: Time service sends back to the originating source the time in seconds  
337: since midnight on January first 1900.  
338:  
339: 867 Postel May 83 Daytime Protocol

+++++= File [rfc0900](#).txt ++++++=

**2000 found at line 1595:**

1593: HAZELTIME-1510  
1594: HAZELTIME-1520  
1595: HAZELTIME-2000  
1596: HP-2621  
1597: HP-2621A

+++++= File [rfc0909](#).txt ++++++=

'yy' on a line without 'yyyy' found at line 859:

857: responses from the target. A session begins when a host opens a  
858: transport connection to a target listening on a well known port.  
859: LDP uses RDP port number zzz or TCP port number yyy. When the  
860: connection has been established, the host sends a HELLO command,  
861: and the target replies with a HELLO\_REPLY. The HELLO\_REPLY



+++++= File [rfc0923](#).txt +++++=

**2000 found at line 1769:**

1767: HAZELTIME-1510  
1768: HAZELTIME-1520  
1769: HAZELTIME-2000  
1770: HP-2621  
1771: HP-2621A

+++++= File [rfc0937](#).txt +++++=

'yy' on a line without 'yyyy' found at line 327:

325: FOLD mailbox - Error  
326: READ [n] #xxx  
327: RETR =yyy  
328: ACKS  
329: ACKD

+++++= File [rfc0943](#).txt +++++=

**2000 found at line 1829:**

1827: HAZELTIME-1510  
1828: HAZELTIME-1520  
1829: HAZELTIME-2000  
1830: HP-2621  
1831: HP-2621A

+++++= File [rfc0952](#).txt +++++=

'yy' on a line without 'yyyy' found at line 159:

157: ,(comma) is used as a data element delimiter  
158:  
159: XXX/YYY indicates protocol information of the type  
160: TRANSPORT/SERVICE.  
161:

+++++= File [rfc0956](#).txt +++++=

**1900 found at line 748:**

746:  
747: 3. The data format should be based on the UDP Time format, which  
748: specifies 32-bit time in seconds since 1 January 1900, but  
749: extended additional bits for the fractional part of a second.  
750:

**1900 found at line 826:**

824: experiment the results indicated by UDP and ICMP are compared. In  
825: the UDP Time protocol time is indicated as a 32-bit field in seconds  
826: past 0000 UT on 1 January 1900, while in the ICMP Timestamp message  
827: time is indicated as a 32-bit field in milliseconds past 0000 UT of  
828: each day.

**2000 found at line 1392:**

1390:	CU-ARPA.CS.CORNELL.EDU	-1	-514
1391:	UCI-ICSE.ARP	-1	-1896
1392:	UCI-ICSC.ARP	1	2000
1393:	DCN9.ARP	-7	-6610
1394:	TRANTOR.ARP	10	10232

==== File [rfc0958.txt](#) ===

century found at line 41:

39: NTP provides the protocol mechanisms to synchronize time in principle  
40: to precisions in the order of nanoseconds while preserving a  
41: non-ambiguous date, at least for this century. The protocol includes  
42: provisions to specify the precision and estimated error of the local  
43: clock and the characteristics of the reference clock to which it may

**1900 found at line 143:**

141:  
142: NTP timestamps are represented as a 64-bit fixed-point number, in  
143: seconds relative to 0000 UT on 1 January 1900. The integer part is  
144: in the first 32 bits and the fraction part in the last 32 bits, as  
145: shown in the following diagram.

==== File [rfc0960.txt](#) ===

**2000 found at line 1659:**

1657:	014.000.000.018	2624-522-80900 52	DFVLR5-X25	[HDC1]
1658:	014.000.000.019	2041-170-10000 00	SHAPE-X25	[JFW]
1659:	014.000.000.020	5052-737-20000 50	UQNET	[AXH]
1660:	014.000.000.021	3020-801-00057 50	DMC-CRC1	[JR17]
1661:	014.000.000.022-014.255.255.254		Unassigned	[JBP]

**2000 found at line 1984:**

1982: AEGIS  
1983: APOLLO  
1984: BS-2000  
1985: CEDAR  
1986: CGW

**2000 found at line 2350:**

2348: HAZELTINE-1510  
2349: HAZELTINE-1520  
2350: HAZELTINE-2000  
2351: HP-2621  
2352: HP-2621A

==== File [rfc0973.txt](#) ===

**2000 found at line 377:**

375: We might add the following to the parent zone:  
376:

377: 99.128.IN-ADDR.ARPA. 2000 NS Q.ISI.EDU.  
378: 2000 NS XX.MIT.EDU.  
379: Q.ISI.EDU. 2000 A <address of Q.ISI.EDU.>

**2000 found at line 378:**

376:  
377: 99.128.IN-ADDR.ARPA. 2000 NS Q.ISI.EDU.  
378: 2000 NS XX.MIT.EDU.  
379: Q.ISI.EDU. 2000 A <address of Q.ISI.EDU.>  
380: XX.MIT.EDU. 2000 A <address of XX.MIT.EDU.>

**2000 found at line 379:**

377: 99.128.IN-ADDR.ARPA. 2000 NS Q.ISI.EDU.  
378: 2000 NS XX.MIT.EDU.  
379: Q.ISI.EDU. 2000 A <address of Q.ISI.EDU.>  
380: XX.MIT.EDU. 2000 A <address of XX.MIT.EDU.>  
381:

**2000 found at line 380:**

378: 2000 NS XX.MIT.EDU.  
379: Q.ISI.EDU. 2000 A <address of Q.ISI.EDU.>  
380: XX.MIT.EDU. 2000 A <address of XX.MIT.EDU.>  
381:  
382: and the following to the child zone:

**2000 found at line 384:**

382: and the following to the child zone:  
383:  
384: 99.128.IN-ADDR.ARPA. 2000 NS Q.ISI.EDU.  
385: 2000 NS XX.MIT.EDU.  
386: 5000 SOA <SOA information>

**2000 found at line 385:**

383:  
384: 99.128.IN-ADDR.ARPA. 2000 NS Q.ISI.EDU.  
385: 2000 NS XX.MIT.EDU.  
386: 5000 SOA <SOA information>  
387: Q.ISI.EDU. 2000 A <address of Q.ISI.EDU.>

**2000 found at line 387:**

385: 2000 NS XX.MIT.EDU.  
386: 5000 SOA <SOA information>  
387: Q.ISI.EDU. 2000 A <address of Q.ISI.EDU.>  
388: XX.MIT.EDU. 2000 A <address of XX.MIT.EDU.>  
389:

**2000 found at line 388:**

386: 5000 SOA <SOA information>  
387: Q.ISI.EDU. 2000 A <address of Q.ISI.EDU.>  
388: XX.MIT.EDU. 2000 A <address of XX.MIT.EDU.>  
389:

390: SOA serials

==== File [rfc0977](#).txt =====

'yy' on a line without 'yyyy' found at line 814:

812: the same format as the LIST command.

813:

814: The date is sent as 6 digits in the format YYMMDD, where YY is the

815: last two digits of the year, MM is the two digits of the month (with

816: leading zero, if appropriate), and DD is the day of the month (with

century found at line 817:

815: last two digits of the year, MM is the two digits of the month (with

816: leading zero, if appropriate), and DD is the day of the month (with

817: leading zero, if appropriate). The closest century is assumed as

818: part of the year (i.e., 86 specifies 1986, 30 specifies 2030, 99 is

819: 1999, 00 is 2000).

**2000 found at line 819:**

817: leading zero, if appropriate). The closest century is assumed as

818: part of the year (i.e., 86 specifies 1986, 30 specifies 2030, 99 is

819: 1999, 00 is 2000).

820:

821: Time must also be specified. It must be as 6 digits HHMMSS with HH

**2000 found at line 1190:**

1188:

1189: (client asks for new newsgroups since April 3, 1985)

1190: C: NEWGROUPS 850403 020000

1191:

1192: S: 231 New newsgroups since 03/04/85 02:00:00 follow

**2000 found at line 1275:**

1273:

1274: (client asks for new newsgroups since 2 am, May 15, 1985)

1275: C: NEWGROUPS 850515 020000

1276: S: 235 New newsgroups since 850515 follow

1277: S: net.fluff

**2000 found at line 1282:**

1280:

1281: (client asks for new news articles since 2 am, May 15, 1985)

1282: C: NEWNEWS \* 850515 020000

1283: S: 230 New news since 850515 020000 follows

1284: S: <1772@foo.UUCP>

**2000 found at line 1283:**

1281: (client asks for new news articles since 2 am, May 15, 1985)

1282: C: NEWNEWS \* 850515 020000

1283: S: 230 New news since 850515 020000 follows

1284: S: <1772@foo.UUCP>

1285: S: <87623@baz.UUCP>

+++++= File [rfc0985](#).txt ++++++=

**2000 found at line 505:**

503: Very Distant Host (VDH) methods are not recommended for new  
504: implementations. The Distant Host (DH) method is used when the  
505: host and IMP are separated by not more than about 2000 feet of  
506: cable, while the HDLC Distant Host is used for greater distances  
507: where a modem is required. Retransmission, resequencing and flow

+++++= File [rfc0987](#).txt ++++++=

UTCTime found at line 1100:

1098: X.408 (sections [4.2.2](#) and [5.2.2](#)).  
1099:  
1100: 3.3.5. UTCTime  
1101:  
1102: Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year

UTCTime found at line 1102:

1100: 3.3.5. UTCTime  
1101:  
1102: Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year  
1103: (lowest two digits), Month, Day of Month, hour, minute, second  
1104: (optional), and Timezone. 822.date-time also contains an

UTCTime found at line 1107:

1105: optional day of the week, but this is redundant. Therefore a  
1106: symmetrical mapping can be made between these constructs <5>.  
1107: The UTCTime format which specifies the timezone offset should  
1108: be used, in line with CEN/CENELEC recommendations.  
1109:

UTCTime found at line 3395:

3393:  
3394: The extended syntax of zone defined in the JNT Mail Protocol  
3395: should be used in the mapping of UTCTime defined in chapter 3.  
3396:  
3397: 5. Lack of separate 822-P1 originator specification

UTCTime found at line 3910:

3908: <5> In practice, a gateway will need to parse various illegal  
3909: variants on 822.date-time. In cases where 822.date-time cannot  
3910: be parsed, it is recommended that the derived UTCTime is set to  
3911: the value at the time of translation.  
3912:

2digit found at line 2785:

2783: last-trace ";"  
2784: "ext" 1\*DIGIT

```
2785:          "flags" 2DIGIT
2786:          [ "intended" mailbox ] ";"
2787:          [ "info" printablestring ]
```

+++++= File [rfc0990](#).txt ++++++=

**2000 found at line 2265:**

```
2263:          014.000.000.018    2624-522-80900 52    DFVLR5-X25          [GB7]
2264:          014.000.000.019    2041-170-10000 00    SHAPE-X25          [JFW]
2265:          014.000.000.020    5052-737-20000 50    UQNET              [AXH]
2266:          014.000.000.021    3020-801-00057 50    DMC-CRC1           [JR17]
2267:          014.000.000.022    2624-522-80902 77    DFVLRVAX-X25       [GB7]
```

**2000 found at line 2584:**

```
2582:      AEGIS
2583:      APOLLO
2584:      BS-2000
2585:      CEDAR
2586:      CGW
```

**2000 found at line 2945:**

```
2943:      HAZELTINE-1510
2944:      HAZELTINE-1520
2945:      HAZELTINE-2000
2946:      HP-2621
2947:      HP-2621A
```

+++++= File [rfc0996](#).txt ++++++=

**2000 found at line 76:**

```
74:
75:      Process type: 000027  options: 040000
76:      Subnet: DMV  status: 376  hello: 15  timeout: 2000
77:      Foreign address: [192.5.39.87]  max size: 576
78:      Input packets      3645  Output packets  3690
```

+++++= File [rfc1000](#).txt ++++++=

**1900 found at line 3105:**

```
3103:      protocol provides a site-independent, machine readable date and
3104:      time.  The Time service sends back to the originating source the
3105:      time in seconds since midnight on January first 1900.
3106:
3107:      867      Postel      May 83      Daytime Protocol
```

+++++= File [rfc1009](#).txt ++++++=

**2000 found at line 1412:**

```
1410:      method is used when the host and IMP (the Defense Communication
1411:      Agency calls it a Packet Switch Node or PSN) are separated by not
1412:      more than about 2000 feet of cable, while the HDLC Distant Host
1413:      (HDH) is used for greater distances where a modem is required.
```

1414: Under HDH, retransmission, resequencing and flow control are

==== File [rfc1010](#).txt =====

**2000 found at line 969:**

967:	014.000.000.018	2624-522-80900	52	DFVLR5-X25	[GB7]
968:	014.000.000.019	2041-170-10000	00	SHAPE-X25	[JFW]
969:	014.000.000.020	5052-737-20000	50	UQNET	[AXH]
970:	014.000.000.021	3020-801-00057	50	DMC-CRC1	[JR17]
971:	014.000.000.022	2624-522-80902	77	DFVLRVAX-X25	[GB7]

**2000 found at line 1353:**

1351: AEGIS  
1352: APOLLO  
1353: BS-2000  
1354: CEDAR  
1355: CGW

**2000 found at line 1719:**

1717: HAZELTINE-1510  
1718: HAZELTINE-1520  
1719: HAZELTINE-2000  
1720: HP-2621  
1721: HP-2621A

==== File [rfc1024](#).txt =====

**1900 found at line 535:**

533:  
534: The local system clock, measured in milliseconds since 00:00 1  
535: January 1900 UTC. Assumed to be only a local estimate of the time.  
536: The value 0 is reserved for an uninitialized clock (For example, an  
537: uninitialized time-of-day chip.)

**1900 found at line 546:**

544: A network synchronized clock, which is assumed to be synchronized  
545: across some part of a network. The clock value is measured in  
546: milliseconds since 00:00 1 January 1900 UTC. Specific information  
547: about the synchronization protocol is found in the system variable  
548: dictionary. The value 0 is used to indicate an uninitialized clock.

==== File [rfc1036](#).txt =====

'yy' on a line without 'yyyy' found at line 196:

194: both is:

195:

196: Wdy, DD Mon YY HH:MM:SS TIMEZONE

197:

198: Several examples of valid dates appear in the sample message above.

==== File [rfc1037](#).txt =====

**1900 found at line 541:**

539:       Date                    A numeric data token. The date is expressed in  
540:                                Universal Time format, which measures a time as  
541:                                the number of seconds since January 1, 1900, at  
542:                                midnight GMT.  
543:

**1900 found at line 2544:**

2542:       The creation date of the file. The date is expressed in Universal  
2543:       Time format, which measures a time as the number of seconds since  
2544:       January 1, 1900, at midnight GMT. Creation date does not necessarily  
2545:       mean the time the file system created the directory entry or records  
2546:       of the file. For systems that support modification or appending to

+=+=+=+=+= File [rfc1038](#).txt +=+=+=+=+=

**2000 found at line 317:**

315:  
316:       The values of this field are assigned by DCA Code R130, Washington,  
317:       D.C. 20305-2000. Each value corresponds to a requestor who, once  
318:       assigned, becomes the authority for the remainder of the option  
319:       definition for that value.

+=+=+=+=+= File [rfc1050](#).txt +=+=+=+=+=

**2000 found at line 323:**

321:    7.3 Program Number Assignment  
322:  
323:       Program numbers are given out in groups of hexadecimal 20000000  
324:       (decimal 536870912) according to the following chart:  
325:

**2000 found at line 327:**

325:  
326:                    0 - 1fffffff    defined by Sun  
327:            20000000 - 3fffffff    defined by user  
328:            40000000 - 5fffffff    transient  
329:            60000000 - 7fffffff    reserved

+=+=+=+=+= File [rfc1057](#).txt +=+=+=+=+=

**2000 found at line 339:**

337:    7.3 Program Number Assignment  
338:  
339:       Program numbers are given out in groups of hexadecimal 20000000  
340:       (decimal 536870912) according to the following chart:  
341:

**2000 found at line 343:**

341:  
342:                    0 - 1fffffff    defined by Sun  
343:            20000000 - 3fffffff    defined by user



344: 40000000 - 5fffffff transient  
345: 60000000 - 7fffffff reserved

==== File [rfc1059.txt](#) ===

century found at line 142:

140: mechanisms to synchronize time in principle to precisions in the  
141: order of nanoseconds while preserving a non-ambiguous date well into  
142: the next century. The protocol includes provisions to specify the  
143: characteristics and estimate the error of the local clock and the  
144: time server to which it may be synchronized. It also includes

**1900 found at line 574:**

572: frequency to the TA time scale. At 0000 hours on 1 January 1972 the  
573: NTP time scale was set to 2,272,060,800, representing the number of  
574: TA seconds since 0000 hours on 1 January 1900. The insertion of leap  
575: seconds in UTC does not affect the oscillator itself, only the  
576: translation between TA and UTC, or conventional civil time. However,

**1900 found at line 649:**

647: main product of the protocol, a special timestamp format has been  
648: established. NTP timestamps are represented as a 64-bit unsigned  
649: fixed-point number, in seconds relative to 0000 UT on 1 January 1900.  
650: The integer part is in the first 32 bits and the fraction part in the  
651: last 32 bits, as shown in the following diagram.

**1900 found at line 690:**

688: the Integer Part) has been set and that the 64-bit field will  
689: overflow some time in 2036. Should NTP be in use in 2036, some  
690: external means will be necessary to qualify time relative to 1900 and  
691: time relative to 2036 (and other multiples of 136 years).  
692: Timestamped data requiring such qualification will be so precious

==== File [rfc1060.txt](#) ===

'yy' on a line without 'yyyy' found at line 2324:

2322: AB-00-03-00-00-00 6004 DEC Local Area Transport (LAT) - old  
2323: AB-00-04-00-xx-xx ???? Reserved DEC customer private use  
2324: AB-00-04-01-xx-yy 6007 DEC Local Area VAX Cluster groups  
2325: System Communication Architecture  
(SCA)  
2326: CF-00-00-00-00-00 9000 Ethernet Configuration Test protocol  
(Loopback)

**2000 found at line 2729:**

2727:	014.000.000.018	2624-522-80900	52	FGAN-SIEMENS-X25	[GB7]
2728:	014.000.000.019	2041-170-10000	00	SHAPE-X25	[JFW]
2729:	014.000.000.020	5052-737-20000	50	UQNET	[AXH]
2730:	014.000.000.021	3020-801-00057	50	DMC-CRC1	[VXT]
2731:	014.000.000.022	2624-522-80329	02	FGAN-FGANFFMVAX-X25	[GB7]

**2000 found at line 3155:**

3153:	AEGIS	MACOS	TP3010
3154:	APOLLO	MINOS	TRSDOS
3155:	BS-2000	MOS	ULTRIX
3156:	CEDAR	MPE5	UNIX
3157:	CGW	MSDOS	UNIX-BSD

**2000 found at line 3508:**

3506:	HAZELTIME-1520	IBM-3278-5-E
3507:	HAZELTIME-1552	IBM-3279-2-E
3508:	HAZELTIME-2000	IBM-3279-3-E
3509:	HAZELTIME-ESPRIT	IMLAC
3510:	HP-2392	INFOTON-100

+++++= File [rfc1064.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 1321:

```

1319:                "NO" SP text_line / "BAD" SP text_line)
1320:
1321:    date                ::= string in form "dd-mmm-yy hh:mm:ss-zzz"
1322:
1323:    envelope            ::= "(" env_date SP env_subject SP env_from SP

```

+++++= File [rfc1085.txt](#) +=+=+=+=

UTCTime found at line 1501:

```

1499:
1500:                commonReference
1501:                UTCTime,
1502:
1503:                additionalReferenceInformation[0]

```

+++++= File [rfc1094.txt](#) +=+=+=+=

**2000 found at line 878:**

```

876:
877:    0040000 This is a directory; "type" field should be NFDIR.
878:    0020000 This is a character special file; "type" field should
879:           be NFCHR.
880:    0060000 This is a block special file; "type" field should be

```

**2000 found at line 883:**

```

881:                NFBLK.
882:    0100000 This is a regular file; "type" field should be NFREG.
883:    0120000 This is a symbolic link file; "type" field should be
884:                NFLNK.
885:    0140000 This is a named socket; "type" field should be NFNON.

```

**2000 found at line 887:**

```

885:    0140000 This is a named socket; "type" field should be NFNON.
886:    0004000 Set user id on execution.
887:    0002000 Set group id on execution.
888:    0001000 Save swapped text even after use.

```

889: 0000400 Read permission for owner.

==== File [rfc1108](#).txt =====

**2000 found at line 187:**

185: throughout DoD common user data networks, users of these networks  
186: should submit requirements for additional Protection Authority Flags  
187: to DISA DISDB, Washington, D.C. 20305-2000, for review and approval.  
188: Such review and approval should be sought prior to design,  
189: development or deployment of any system which would make use of

**2000 found at line 774:**

772: data networks, and to maximize interoperability, each activity should  
773: submit its plans for the definition and use of an Additional Security  
774: Info Format Code to DISA DISDB, Washington, D.C. 20305-2000 for  
775: review and approval. DISA DISDB will forward plans to the Internet  
776: Activities Board for architectural review and, if required, a cleared

==== File [rfc1114](#).txt =====

UTCTime found at line 922:

920: issuer Name,  
921: list SEQUENCE RCLEntry,  
922: lastUpdate UTCTime,  
923: nextUpdate UTCTime}  
924:

UTCTime found at line 923:

921: list SEQUENCE RCLEntry,  
922: lastUpdate UTCTime,  
923: nextUpdate UTCTime}  
924:  
925: RCLEntry ::= SEQUENCE {

UTCTime found at line 927:

925: RCLEntry ::= SEQUENCE {  
926: subject CertificateSerialNumber,  
927: revocationDate UTCTime}  
928:  
929: 3.4 Certificate Definition and Usage

UTCTime found at line 1296:

1294:  
1295: Validity ::= SEQUENCE{  
1296: notBefore UTCTime,  
1297: notAfter UTCTime}  
1298:

UTCTime found at line 1297:

1295: Validity ::= SEQUENCE{  
1296: notBefore UTCTime,

```
1297:                notAfter          UTCTime}
1298:
1299:                SubjectPublicKeyInfo ::=          SEQUENCE{
```

==== File [rfc1117](#).txt =====

'yy' on a line without 'yyyy' found at line 4965:

```
4963:                jwmanly%amherst.bitnet@MITVMA.MIT.EDU
4964: [JWN10] Norris, James W                a02jwn1%niu.bitnet@CUNYVM.CUNY.EDU
4965: [JY24] Yu, Jessica                      jyy@MERIT.EDU
4966: [JY33] Yoshida, Jun                    ---none---
4967: [KA4]  Auerbach, Karl                  auerbach@CSL.SRI.COM
```

==== File [rfc1123](#).txt =====

2digit found at line 3239:

```
3237:                The syntax for the date is hereby changed to:
3238:
3239:                date = 1*2DIGIT month 2*4DIGIT
3240:
3241:
```

century found at line 3253:

```
3251:
3252:                All mail software SHOULD use 4-digit years in dates, to ease
3253:                the transition to the next century.
3254:
3255:                There is a strong trend towards the use of numeric timezone
```

==== File [rfc1133](#).txt =====

'yy' on a line without 'yyyy' found at line 493:

```
491:    Telephone:        313 936-2655
492:    Fax:               313 747-3745
493:    EMail:             jyy@merit.edu
494:
495:    Hans-Werner Braun
```

==== File [rfc1138](#).txt =====

UTCTime found at line 1471:

```
1469:    the full BNF easier to parse.
1470:
1471:    3.3.5.  UTCTime
1472:
1473:    Both UTCTime and the RFC 822 822.date-time syntax contain:  Year
```

UTCTime found at line 1473:

```
1471:    3.3.5.  UTCTime
1472:
1473:    Both UTCTime and the RFC 822 822.date-time syntax contain:  Year
1474:    (lowest two digits), Month, Day of Month, hour, minute, second
```

1475: (optional), and Timezone. 822.date-time also contains an optional

UTCTime found at line 1482:

1480: In practice, a gateway will need to parse various illegal  
1481: variants on 822.date-time. In cases where 822.date-time  
1482: cannot be parsed, it is recommended that the derived UTCTime  
1483: is set to the value at the time of translation.

1484:

UTCTime found at line 1485:

1483: is set to the value at the time of translation.

1484:

1485: The UTCTime format which specifies the timezone offset should be  
1486: used.

1487:

UTCTime found at line 4469:

4467:

4468: The extended syntax of zone defined in the JNT Mail Protocol should  
4469: be used in the mapping of UTCTime defined in Chapter 3.

4470:

4471: 6. Lack of 822-MTS originator specification

+++++= File [rfc1147](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 9715:

9713: cerns to security and management personnel at DDN facili-  
9714: ties. It is available online, via kermit or anonymous FTP,  
9715: from nic.ddn.mil, in SCC:DDN-SECURITY-yy-nn.TXT (where "yy"  
9716: is the year and "nn" is the bulletin number). The SCC pro-  
9717: vides immediate assistance with DDN-related host security

century found at line 1096:

1094: "NETMON." These tools were independently developed, are  
1095: functionally different, run in different environments, and  
1096: are no more related than Richard Burton the 19th century  
1097: explorer and Richard Burton the 20th century actor. BYU's  
1098: tool "NETMON" is listed as "NETMON (I)," MITRE's as "NETMON

century found at line 1097:

1095: functionally different, run in different environments, and  
1096: are no more related than Richard Burton the 19th century  
1097: explorer and Richard Burton the 20th century actor. BYU's  
1098: tool "NETMON" is listed as "NETMON (I)," MITRE's as "NETMON  
1099: (II)," and the tool from SNMP Research as "NETMON (III)."

**2000** found at line 4134:

4132: libraries), but this has not been done. Curses is very  
4133: slow and cpu intensive on VMS, but the tool has been  
4134: run in a window on a VAXstation 2000. Just don't try  
4135: to run it on a terminal connected to a 11/750.

4136:

==== File [rfc1148](#).txt =====

UTCTime found at line 1475:

1473: the full BNF easier to parse.

1474:

1475: 3.3.5. UTCTime

1476:

1477: Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year

UTCTime found at line 1477:

1475: 3.3.5. UTCTime

1476:

1477: Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year

1478: (lowest two digits), Month, Day of Month, hour, minute, second

1479: (optional), and Timezone. 822.date-time also contains an optional

UTCTime found at line 1486:

1484: In practice, a gateway will need to parse various illegal

1485: variants on 822.date-time. In cases where 822.date-time

1486: cannot be parsed, it is recommended that the derived UTCTime

1487: is set to the value at the time of translation.

1488:

UTCTime found at line 1489:

1487: is set to the value at the time of translation.

1488:

1489: The UTCTime format which specifies the timezone offset should be

1490: used.

1491:

UTCTime found at line 4566:

4564:

4565: The extended syntax of zone defined in the JNT Mail Protocol should

4566: be used in the mapping of UTCTime defined in Chapter 3.

4567:

4568: 6. Lack of 822-MTS originator specification

==== File [rfc1152](#).txt =====

'yy' on a line without 'yyyy' found at line 937:

935: Reservation Multiple-Access).

936:

937: Finally, Yechiam Yemeni (YY, Columbia University) discussed his work

938: on a protocol silicon compiler. In order to exploit the potential

939: parallelism, he is planning to use one processor per connection.

==== File [rfc1153](#).txt =====

'yy' on a line without 'yyyy' found at line 119:

117:

118:  
119: Date: ddd, dd mmm yy hh:mm:ss zzz  
120: From: listname-REQUEST@fqhn  
121: Reply-To: listname@fqhn

'yy' on a line without 'yyyy' found at line 122:

120: From: listname-REQUEST@fqhn  
121: Reply-To: listname@fqhn  
122: Subject: listname Digest Vyy #nn  
123: To: listname@fqhn  
124:

'yy' on a line without 'yyyy' found at line 125:

123: To: listname@fqhn  
124:  
125: listname Digest ddd, dd mmm yy Volume yy : Issue nn  
126:  
127: Today's Topics:

'yy' on a line without 'yyyy' found at line 137:

135: -----  
136:  
137: Date: ddd, dd mmm yy hh:mm:ss zzz  
138: From: Joe User <username@fqhn>  
139: Subject: Message One Subject

'yy' on a line without 'yyyy' found at line 147:

145: -----  
146:  
147: Date: ddd, dd mmm yy hh:mm:ss zzz  
148: From: Jane User <username@fqhn>  
149: Subject: Message Two Subject

'yy' on a line without 'yyyy' found at line 157:

155: -----  
156:  
157: End of listname Digest Vyy Issue #nn  
158: \*\*\*\*\*  
159:

+=+=+=+= File [rfc1161](#).txt +=+=+=+=

**1900 found at line 322:**

320: on the protocol-ID  
321:  
322: 03019000  
323:  
324: 5. Acknowledgements

**2000 found at line 210:**

208: (1) <nsap> is a hex string defining the nsap, e.g.,

```
209:
210:         "snmp"/NS+4900590800200038bafe00
211:
212:     Similarly, SNMP traps are, by convention, sent to a manager listening
```

```

289:      (1) <nsap> is a hex string defining the nsap, e.g.,
290:
291:          "snmp"/NS+4900590800200038bafe00
292:
293:      Similarly, SNMP traps are, by convention, sent to a manager listening

```

```
'yy' on a line without 'yyyy' found at line 1267:
```

```
1266:
1267:     Email:  JYY@MERIT.EDU
1268:
1269:
```

```
'yy' on a line without 'yyyy' found at line 8270:
```

8269:		a02jwn1%niu.bitnet@CUNYVM.CUNY.EDU	
8270:	[JY24]	Yu, Jessica	jyy@MERIT.EDU
8271:	[JY33]	Yoshida, Jun	---none---
8272:	[JY35]	Young, Jeff	---none---

**2000** found at line 89:

```

===== File rfc1173.txt =====

```

```
70:    only choice; I don't see any prospect of either the government or
71:    private enterprise building a monolithic, centralized, ubiquitous "Ma
72:    Datagram" network provider in this century.
73:
74: 2. Responsibilities of Network Managers
```

```
'yy' on a line without 'yyyy' found at line 1435:
```



```
1434:
1435:     date                ::= string in form "dd-mmm-yy hh:mm:ss-zzz"
1436:
1437:     envelope             ::= "(" env_date SP env_subject SP env_from SP
```

+=+=+=+=+= File [rfc1185](#).txt +=+=+=+=+=

**2000 found at line 208:**

```
206:     1.1Mbps, no matter how high the theoretical transfer rate of the
207:     path. This corresponds to cycling the sequence number space in
208:     Twrap= 2000 secs, which is safe in today's Internet.
209:
210:     Based on this reasoning, an earlier RFC [McKenzie89] has cautioned
```

+=+=+=+=+= File [rfc1190](#).txt +=+=+=+=+=

**2000 found at line 7630:**

```
7628:                                     link failure
7629:
7630:     2000  DefaultRecoveryTimeout Interval between successive
7631:          HELLOs to/from active neighbors
7632:
```

+=+=+=+=+= File [rfc1191](#).txt +=+=+=+=+=

**2000 found at line 925:**

```
923:     65535  Hyperchannel                                RFC 1044
924:     65535
925:     32000           Just in case
926:     17914  16Mb IBM Token Ring                        ref. [6]
927:     17914
```

+=+=+=+=+= File [rfc1203](#).txt +=+=+=+=+=

```
'yy' on a line without 'yyyy' found at line 2102:
2100:     "NO" SP text_line / "BAD" SP text_line)
2101:
2102:     date                ::= string in form "dd-mmm-yy hh:mm:ss-zzz"
2103:
2104:     envelope             ::= "(" env_date SP env_subject SP env_from SP
```

**2000 found at line 2614:**

```
2612:     question. For example:
2613:
2614:     tag42 FETCH 197 BODY 2000:3999
2615:
2616:     would fetch the second two thousand bytes of the body of message
```

+=+=+=+=+= File [rfc1207](#).txt +=+=+=+=+=

```
'yy' on a line without 'yyyy' found at line 136:
134:     directory. Information includes packet counts by NSS and byte
```

135: counts for type of use (ftp, smtp, telnet, etc.). Filenames are  
136: of the form 'NSFyy-mm.type'.  
137:  
138: Files are available for anonymous ftp; use 'guest' as the

+=+=+=+= File [rfc1210](#).txt +=+=+=+=

**[2000](#) found at line 1548:**

1546: Franci Bigi (1)  
1547: CEC  
1548: Rue de la Loi 2000  
1549: B-1049  
1550: Brussels

**[2000](#) found at line 1756:**

1754: Rolf Speth (1)  
1755: CEC  
1756: Rue de la Loi 2000  
1757: B-1049  
1758: Brussels

**[2000](#) found at line 1773:**

1771: Jose Torcato (1), (2)  
1772: CEC, TR 61 0/10  
1773: Rue de la Loi 2000  
1774: B-1049  
1775: Brussels

**[2000](#) found at line 1801:**

1799: Karel De Vriendt (1)  
1800: CEC  
1801: Rue de la Loi 2000  
1802: B-1049  
1803: Brussels

**[2000](#) found at line 1837:**

1835: Rosalie Zobel (1) (2)  
1836: CEC  
1837: Rue de la Loi 2000  
1838: B-1049  
1839: Brussels

+=+=+=+= File [rfc1211](#).txt +=+=+=+=

**[1900](#) found at line 1591:**

1589:  
1590: westine 49% mconnect OSI3.NCSL.NIST.GOV  
1591: connecting to host OSI3.NCSL.NIST.GOV (0x6c300681), port 0x1900  
1592: connection open  
1593: 220 osi3.ncsl.nist.gov sendmail 4.0/NIST(rbj/dougmn) ready at

**[2000](#) found at line 2363:**

2361: Office Automation Division  
2362: Code H610  
2363: Washington, DC 20305-2000  
2364:  
2365: Hostname: DCA-EMS.DCA.MIL

==== File [rfc1218](#).txt =====

**2000 found at line 1249:**

1247: Rapport Communication, Inc.  
1248: 3055 Q Street NW  
1249: Washington, DC 20007  
1250:  
1251: Tel: +1 202-342-2727

==== File [rfc1224](#).txt =====

**2000 found at line 983:**

981: and placed in an ethernet packet). 120 request packets are sent  
982: each cycle (3 for each of 40 nodes), and 120 response packets are  
983: expected. 72000 bytes (240 packets at 300 bytes each) must be  
984: transferred during each poll cycle, merely to determine that the  
985: network is fine.

==== File [rfc1244](#).txt =====

'yy' on a line without 'yyyy' found at line 2481:

2479: and concerns to security and management personnel at DDN  
2480: facilities. It is available online, via kermit or anonymous  
2481: FTP, from the host NIC.DDN.MIL, in SCC:DDN-SECURITY-yy-  
2482: nn.TXT (where "yy" is the year and "nn" is the bulletin  
2483: number). The SCC provides immediate assistance with DDN-

'yy' on a line without 'yyyy' found at line 2482:

2480: facilities. It is available online, via kermit or anonymous  
2481: FTP, from the host NIC.DDN.MIL, in SCC:DDN-SECURITY-yy-  
2482: nn.TXT (where "yy" is the year and "nn" is the bulletin  
2483: number). The SCC provides immediate assistance with DDN-  
2484: related host security problems; call (800) 235-3155 (6:00

==== File [rfc1251](#).txt =====

**2000 found at line 316:**

314: where growing above 100 network numbers seemed excessive.  
315: Today's number of networks in the global infrastructure  
316: exceeds 2000 connected networks, and many more if isolated  
317: network islands get included.  
318:

==== File [rfc1254](#).txt =====

**2000 found at line 592:**

590: number of packet arrivals, over which packets are dropped with  
591: uniform probability. For instance, in a sample implementation, if  
592: this interval spanned 2000 packet arrivals, and a suitable  
593: probability of drop was 0.001, then two random variables would be  
594: drawn in a uniform distribution in the range of 1 to 2,000. The

**2000 found at line 859:**

857: indicates that to get good, consistent performance, we may need to  
858: have up to 5 to 10 times the number of active source-destination  
859: pairs. In a typical gateway, this may require around 1000 to 2000  
860: queues.  
861:

+++++= File [rfc1255.txt](#) +=+=+=+=

**2000 found at line 1361:**

1359: Rapport Communication, Inc.  
1360: 3055 Q Street NW  
1361: Washington, DC 20007  
1362:  
1363: Tel: +1 202-342-2727

+++++= File [rfc1259.txt](#) +=+=+=+=

**century found at line 345:**

343: should never go back to any monopoly arrangement like the pre-  
344: divestiture AT&T which held back market-driven innovation in  
345: telecommunications for half a century. Given the interconnection  
346: technology now available, we should never again have to accept the  
347: argument that we have to sacrifice interoperability for efficiency,

**century found at line 594:**

592:  
593: In light of the possibilities for new service offerings by the  
594: 21st century, as well as the growing importance of  
595: telecommunications and information services to US economic and  
596: social development, limiting our concept of universal service to

**century found at line 744:**

742: If we have the vision and commitment to try this, the transformation  
743: of the network frontier from wilderness to civilization need not  
744: display the brutality of 19th century imperialism. As commercial  
745: opportunities to offer applications and services develop,  
746: entrepreneurs will discover that ease of use sells. The normal,

**2000 found at line 1115:**

1113: California v. FCC (9th Cir. 1990).  
1114:  
1115: 18. NTIA Telecomm 2000 at 79.  
1116:  
1117: 19. Committee on Energy and Commerce, Subcommittee on

+++++= File [rfc1270](#).txt ++++++=

**2000 found at line 594:**

592: Hopkinton, Mass. 01748  
593:  
594: Phone: (508) 435-2000  
595:  
596: Email: kasten@europa.clearpoint.com

+++++= File [rfc1274](#).txt ++++++=

UTCTime found at line 1051:

1049: lastModifiedTime ATTRIBUTE  
1050: WITH ATTRIBUTE-SYNTAX  
1051: uTCTimeSyntax  
1052: ::= {pilotAttributeType 23}  
1053:

UTCTime found at line 2990:

2988: lastModifiedTime ATTRIBUTE  
2989: WITH ATTRIBUTE-SYNTAX  
2990: uTCTimeSyntax  
2991: ::= {pilotAttributeType 23}  
2992:

+++++= File [rfc1276](#).txt ++++++=

UTCTime found at line 558:

556: }  
557:  
558: EDBVersion ::= UTCTime 40  
559:  
560: \_\_\_\_\_Figure\_2:\_\_\_Replication\_Protocol\_\_\_\_\_

UTCTime found at line 938:

936: }  
937:  
938: EDBVersion ::= UTCTime  
939: END  
940:

+++++= File [rfc1283](#).txt ++++++=

**1900 found at line 317:**

315: on the protocol-ID  
316:  
317: 03019000  
318:  
319: This is an X.25 protocol-ID assigned for local purposes.

**2000 found at line 206:**

```
204:      (1) <nsap> is a hex string defining the nsap, e.g.,
205:
206:          "snmp"/NS+4900590800200038bafe00
207:
208:      Similarly, SNMP traps are, by convention, sent to a manager listening
```

**2000 found at line 278:**

```
276:      (1) <nsap> is a hex string defining the nsap, e.g.,
277:
278:          "snmp"/NS+4900590800200038bafe00
279:
280:
```

+++++= File [rfc1284.txt](#) +=+=+=+=

**2000 found at line 1146:**

```
1144:      Hopkinton Mass 01748
1145:
1146:      Phone: 508-435-2000
1147:      EMail: kasten@europa.clearpoint.com
1148:
```

+++++= File [rfc1285.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 219:

```
217:      -- The unique identifier for the FDDI station. This is a
218:      -- string of 8 octets, represented as
219:      --                               X' yy yy xx xx xx xx xx xx'
220:      -- with the low order 6 octet (xx) from a unique IEEE
221:      -- assigned address. The high order two bits of the IEEE
```

'yy' on a line without 'yyyy' found at line 232:

```
230:
231:      -- (Universal/Local) bit should both be zero. The first two
232:      -- octets, the yy octets, are implementor-defined.
233:      --
234:      -- The representation of the address portion of the station id
```

+++++= File [rfc1290.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 549:

```
547:      Anonymous FTP to nis.nsf.net
548:      cd stats
549:      get nsfyy-mm.pttraffic  where yy is year, 91 and mm is month, 06
550:      get nsf91-06.pttraffic  ptraffic is the packet traffic
551:
```

'yy' on a line without 'yyyy' found at line 552:

```
550:      get nsf91-06.pttraffic  ptraffic is the packet traffic
551:
552:      get nsfyy-mm.btraffic  where yy is year, 91 and mm is month, 06
```

553: get nsf91-06.btraffic btraffic is the byte traffic  
554:

+++++= File [rfc1292](#).txt +++++=

UTCTime found at line 3648:

3646:

3647:

3648: When comparing attributes of UTCTime syntax, if the seconds field  
3649: is omitted, QUIPU does not perform the match correctly (i.e., the  
3650: seconds field in the attribute values should be ignored, but  
are

**2000 found at line 4158:**

4156:

4157: UCOM.X 500 runs on: Sun 3, Sun 4, IBM RS 6000, Philips P 9000, DEC  
4158: machines, Bull DPX 2000, HP 9000/300, Siemens IN 6000 and 386-based  
4159: PCs. It can easily be ported to any UNIX machine.  
4160:

**2000 found at line 4803:**

4801: HARDWARE PLATFORMS

4802:

4803: 3Com's OSI/TCP CS/2000 and CS/2100.

4804:

4805: SOFTWARE PLATFORMS

**2000 found at line 4807:**

4805: SOFTWARE PLATFORMS

4806:

4807: The "SW/2000-OT Vers 1.0" software runs on 3Com's OSI/TCP CS/2000  
and

4808: CS/2100, both stand-alone systems.

4809:

**2000 found at line 4812:**

4810: AVAILABILITY

4811:

4812: The dual-stack OSI/TCP terminal server and its "SW/2000-OT Vers 1.0"  
4813: software is available from:

4814:

+++++= File [rfc1295](#).txt +++++=

**2000 found at line 98:**

96: Rapport Communication

97: 3055 Q Street NW

98: Washington, DC 20007

99:

100: Phone: +1 202-342-2727

+=+=+=+= File [rfc1303.txt](#) +=+=+=+=

UTCTime found at line 189:

```
187:          TYPE NOTATION ::=
188:                                "LAST-UPDATED"
189:                                value(update      UTCTime)
190:                                "PRODUCT-RELEASE"
191:                                value(release    DisplayString)
```

+=+=+=+= File [rfc1305.txt](#) +=+=+=+=

century found at line 428:

```
426: mechanisms to synchronize time in principle to precisions in the order
427: of nanoseconds while preserving a non-ambiguous date well into the next
428: century. The protocol includes provisions to specify the characteristics
429: and estimate the error of the local clock and the time server to which
430: it may be synchronized. It also includes provisions for operation with a
```

century found at line 4529:

```
4527: political and ritual needs characteristic of the societies in which they
4528: flourished. Astronomical observations to establish the winter and summer
4529: solstices were in use three to four millennia ago. By the 14th century
4530: BC the Shang Chinese had established the solar year as 365.25 days and
4531: the lunar month as 29.5 days. The lunisolar calendar, in which the
```

century found at line 4548:

```
4546: with the Shang Chinese, the ancient Egyptians had thus established the
4547: solar year at 365.25 days, or within about 11 minutes of the present
4548: measured value. In 432 BC, about a century after the Chinese had done
4549: so, the Greek astronomer Meton calculated there were 110 lunar months of
4550: 29 days and 125 lunar months of 30 days for a total of 235 lunar months
```

century found at line 4565:

```
4563: not complete until 8 AD.
4564:
4565: The seven-day Sumerian week was introduced only in the fourth century AD
4566: by Emperor Constantine I. During the Roman era a 15-year census cycle,
4567: called the Indiction cycle, was instituted for taxation purposes. The
```

century found at line 4588:

```
4586: but 14 of these were removed in the Gregorian calendar. While the
4587: Gregorian calendar is in use throughout most of the world today, some
4588: countries did not adopt it until early in the twentieth century.
4589: While it remains a fascinating field for time historians, the above
4590: narrative provides conclusive evidence that conjugating calendar dates
```

century found at line 4620:

```
4618: sometimes used to represent dates near our own era in conventional time
4619: and with fewer digits, is defined as MJD = JD <196> 2,400,000.5.
4620: Following the convention that our century began at 0h on 1 January 1900,
4621: at which time the tropical year was already 12h old, that eclectic
4622: instant corresponds to MJD 15,020.0. Thus, the Julian timescale ticks in
```



century found at line 4640:

4638: through observations of the Sun, Moon and planets. In 1958 the standard  
4639: second was defined as  $1/31,556,925.9747$  of the tropical year that began  
4640: this century. On this scale the tropical year is 365.2421987 days and  
4641: the lunar month - one complete revolution of the Moon around the Earth -  
4642: is 29.53059 days; however, the actual tropical year can be determined

**1900 found at line 851:**

849: product of the protocol, a special timestamp format has been  
850: established. NTP timestamps are represented as a 64-bit unsigned fixed-  
851: point number, in seconds relative to 0h on 1 January 1900. The integer  
852: part is in the first 32 bits and the fraction part in the last 32 bits.  
853: This format allows convenient multiple-precision arithmetic and

**1900 found at line 873:**

871: integer part) has been set and that the 64-bit field will overflow some  
872: time in 2036. Should NTP be in use in 2036, some external means will be  
873: necessary to qualify time relative to 1900 and time relative to 2036  
874: (and other multiples of 136 years). Timestamped data requiring such  
875: qualification will be so precious that appropriate means should be

**1900 found at line 4620:**

4618: sometimes used to represent dates near our own era in conventional time  
4619: and with fewer digits, is defined as  $MJD = JD <196> 2,400,000.5$ .  
4620: Following the convention that our century began at 0h on 1 January 1900,  
4621: at which time the tropical year was already 12h old, that eclectic  
4622: instant corresponds to  $MJD 15,020.0$ . Thus, the Julian timescale ticks in

**1900 found at line 4724:**

4722: always coincident with it. At 0h on 1 January 1972 ( $MJD 41,317.0$ ), the  
4723: first tick of the UTC Era, the NTP clock was set to 2,272,060,800,  
4724: representing the number of standard seconds since 0h on 1 January 1900  
4725: ( $MJD 15,020.0$ ). The insertion of leap seconds in UTC and subsequently  
4726: into NTP does not affect the UTC or NTP oscillator, only the conversion

**2000 found at line 4489:**

4487: the Mid-Continent Chain, the deployment of LORAN-C transmitters now  
4488: provides complete coverage of the U.S. LORAN-C timing receivers, such as  
4489: the Austron 2000, are specialized and extremely expensive (up to  
4490: \$20,000). They are used primarily to monitor local cesium clocks and are  
4491: not suited for unattended, automatic operation. While the LORAN-C system

+++=+++= File [rfc1309.txt](#) +=+=+++=

century found at line 48:

46:

47: As the pace of industry, science, and technological development  
48: quickened over the past century, it became increasingly probable that  
49: someone in a geographically distant location would be trying to solve  
50: the same problems you were trying to solve, or that someone in a

+=+=+=+= File [rfc1314](#).txt +=+=+=+=

**2000 found at line 1109:**

1107:	00DE	YPosition	011F	0005	00000001	0000016C
1108:	00EA	Group4Options	0125	0004	00000001	00000002
1109:	00F6	ResolutionUnit	0128	0003	00000001	00020000
1110:	0102	Software	0131	0002	00000008	00000174
1111:	010E	DateTime	0132	0002	00000014	0000017C

+=+=+=+= File [rfc1323](#).txt +=+=+=+=

**2000 found at line 320:**

318: 1.1Mbps, no matter how high the theoretical transfer rate of the  
319: path. This corresponds to cycling the sequence number space in  
320: Twrap= 2000 secs, which is safe in today's Internet.  
321:  
322: It is important to understand that the culprit is not the larger

+=+=+=+= File [rfc1325](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 611:

609: In addition, back issues of the Report are available for anonymous  
610: FTP from the host NIS.NSF.NET in the 'imr' directory with the file  
611: names in the form IMRYY-MM.TXT, where YY is the last two digits of  
612: the year and MM two digits for the month. For example, the June  
613: 1991 Report is in the file IMR91-06.TXT.

+=+=+=+= File [rfc1327](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 2618:

2616: attributes remaining in the O/R address shall be encoded on  
2617: the LHS. This is to ensure a reversible mapping. For  
2618: example, if the is an addres /S=XX/O=YY/ADMD=A/C=NN/ and a  
2619: mapping for /ADMD=A/C=NN/ is used, then /S=XX/O=YY/ is  
2620: encoded on the LHS.

'yy' on a line without 'yyyy' found at line 2619:

2617: the LHS. This is to ensure a reversible mapping. For  
2618: example, if the is an addres /S=XX/O=YY/ADMD=A/C=NN/ and a  
2619: mapping for /ADMD=A/C=NN/ is used, then /S=XX/O=YY/ is  
2620: encoded on the LHS.  
2621:

'yy' on a line without 'yyyy' found at line 2665:

2663:  
2664: C = "XX"  
2665: ADMD = "YY"  
2666: O = "ZZ"  
2667: "[RFC-822](#)" = "Smith(a)ZZ.YY.XX"

'yy' on a line without 'yyyy' found at line 2667:

2665: ADMD = "YY"

2666:           0           = "ZZ"  
2667:           "[RFC-822](#)"   = "Smith(a)ZZ.YY.XX"  
2668:  
2669:       This is mapped first to an [RFC 822](#) address, and then back to the

'yy' on a line without 'yyyy' found at line 2673:

2671:  
2672:           C           = "XX"  
2673:           ADMD       = "YY"  
2674:           0           = "ZZ"  
2675:           Surname     = "Smith"

UTCTime found at line 1483:

1481:       the full BNF easier to parse.  
1482:  
1483:   3.3.5.   UTCTime  
1484:  
1485:       Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year

UTCTime found at line 1485:

1483:   3.3.5.   UTCTime  
1484:  
1485:       Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year  
1486:       (lowest two digits), Month, Day of Month, hour, minute, second  
1487:       (optional), and Timezone. 822.date-time also contains an optional

UTCTime found at line 1494:

1492:       In practice, a gateway will need to parse various illegal  
1493:       variants on 822.date-time. In cases where 822.date-time  
1494:       cannot be parsed, it is recommended that the derived UTCTime  
1495:       is set to the value at the time of translation.  
1496:

UTCTime found at line 1497:

1495:       is set to the value at the time of translation.  
1496:  
1497:       When mapping to X.400, the UTCTime format which specifies the  
1498:       timezone offset shall be used.  
1499:

UTCTime found at line 5143:

5141:  
5142:       The extended syntax of zone defined in the JNT Mail Protocol shall  
5143:       be used in the mapping of UTCTime defined in Chapter 3.  
5144:  
5145:   7.   Lack of 822-MTS originator specification

=====  
File [rfc1330](#).txt =====

**[2000](#) found at line 1770:**

1768:       While ESnet will provide X.400 routing service for systems, it cannot

1769: provide routing via commercial X.400 carriers at this time. The  
1770: FTS-2000 charge for routing X.400 messages is \$.45 (US) plus X.25  
1771: packet charges. This could result in a charge of several dollars for  
1772: large messages, a real possibility with the multi-media capacity of

+=+=+=+= File [rfc1336](#).txt +=+=+=+=

**2000 found at line 378:**

376: where growing above 100 network numbers seemed excessive.  
377: Todays number of networks in the global infrastructure  
378: exceeds 2000 connected networks, and many more if isolated  
379: network islands get included.  
380:

+=+=+=+= File [rfc1338](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 401:

399: 3.2. Historic growth rates

400:

MM/YY	ROUTES	MM/YY	ROUTES
	ADVERTISED		ADVERTISED
-----		-----	

'yy' on a line without 'yyyy' found at line 1060:

1058: 1071 Beal Ave.  
1059: Ann Arbor, MI 48109  
1060: email: jyy@merit.edu  
1061:  
1062:

+=+=+=+= File [rfc1340](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 3390:

3388:	AB-00-03-00-00-00	6004	DEC Local Area Transport (LAT) - old
3389:	AB-00-04-00-xx-xx	????	Reserved DEC customer private use
3390:	AB-00-04-01-xx-yy	6007	DEC Local Area VAX Cluster groups
3391:			Sys. Communication Architecture (SCA)
3392:	CF-00-00-00-00-00	9000	Ethernet Configuration Test protocol

**1900 found at line 4066:**

4064:	014.000.000.063	2422-650-23500 00	Tollpost-Globe AS
[OXG]			
4065:	014.000.000.064	2422-330-02500 00	Tollpost-Globe AS
[OXG]			
4066:	014.000.000.065	2422-350-01900 00	Tollpost-Globe AS
[OXG]			
4067:	014.000.000.066	2422-410-00700 00	Tollpost-Globe AS
[OXG]			
4068:	014.000.000.067	2422-539-06200 00	Tollpost-Globe AS
[OXG]			

**2000 found at line 1300:**

1298:	nkd	1650/tcp
1299:	nkd	1650/udp
1300:	callbook	2000/tcp
1301:	callbook	2000/udp
1302:	dc	2001/tcp

**2000 found at line 1301:**

1299:	nkd	1650/udp	
1300:	callbook	2000/tcp	
1301:	callbook	2000/udp	
1302:	dc	2001/tcp	
1303:	wizard	2001/udp	curry

**2000 found at line 4013:**

4011:	014.000.000.018	2624-522-80900 52	FGAN-SIEMENS-X25
[GB7]			
4012:	014.000.000.019	2041-170-10000 00	SHAPE-X25
[JFW]			
4013:	014.000.000.020	5052-737-20000 50	UQNET
[AXH]			
4014:	014.000.000.021	3020-801-00057 50	DMC-CRC1
[VXT]			
4015:	014.000.000.022	2624-522-80329 02	FGAN-FGANFFMVAX-X25
[GB7]			

**2000 found at line 4838:**

4836:	AIX/370	LOCUS	SWIFT
4837:	AIX-PS/2	MACOS	TAC
4838:	BS-2000	MINOS	TANDEM
4839:	CEDAR	MOS	TENEX
4840:	CGW	MPE5	TOPS10

**2000 found at line 5188:**

5186:	HAZELTINE-1520	IBM-3278-3
5187:	HAZELTINE-1552	IBM-3278-4
5188:	HAZELTINE-2000	IBM-3278-5
5189:	HAZELTINE-ESPRIT	IBM-3279-2
5190:	HITACHI-5601	IBM-3279-3

+=+=+=+= File [rfc1348](#).txt +=+=+=+=

**2000 found at line 143:**

141:	Or in net 11110031f67293.nsap-in-addr.arpa:
142:	
143:	67894444333322220000 NSAP-PTR host.school.de.
144:	
145:	The RR data is the ASCII representation of the digits. It is encoded

+=+=+=+= File [rfc1357](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 260:

258:

259: ID (M) -- This is the second field of any record. It is also a  
260: mandatory field. Its format is "ID:: XXX//YYY", where XXX is  
261: the publisher-ID (the controlled symbol of the publisher)  
262: and YYY is the ID (e.g., report number) of the publication as

'yy' on a line without 'yyyy' found at line 262:

260: mandatory field. Its format is "ID:: XXX//YYY", where XXX is  
261: the publisher-ID (the controlled symbol of the publisher)  
262: and YYY is the ID (e.g., report number) of the publication as  
263: assigned by the publisher. This ID is typically printed on  
264: the cover, and may contain slashes.

'yy' on a line without 'yyyy' found at line 682:

680:

681: In order to avoid conflicts among the symbols of the publishing  
682: organizations (the XXX part of the "ID:: XXX//YYY") it is suggested  
683: that the various organizations that publish reports (such as  
684: universities, departments, and laboratories) register their

2-digit found at line 291:

289:

290: The format for ENTRY date is "Month Day, Year". The month must  
291: be alphabetic (spelled out). The "Day" is a 1- or 2-digit  
292: number. The "Year" is a 4-digit number.  
293:

2-digit found at line 457:

455: DATE (O) -- The publication date. The formats are "Month Year" and  
456: "Month Day, Year". The month must be alphabetic (spelled out).  
457: The "Day" is a 1- or 2-digit number. The "Year" is a 4-digit  
458: number.  
459:

+=+=+=+= File [rfc1361](#).txt +=+=+=+=

**1900 found at line 132:**

130: main product of the protocol, a special timestamp format has been  
131: established. NTP timestamps are represented as a 64-bit unsigned  
132: fixed-point number, in seconds relative to 0h on 1 January 1900. The  
133: integer part is in the first 32 bits and the fraction part in the  
134: last 32 bits. This format allows convenient multiple-precision

**1900 found at line 145:**

143: overflow some time in 2036. Should NTP or SNTP be in use in 2036,  
144: some external means will be necessary to qualify time relative to  
145: 1900 and time relative to 2036 (and other multiples of 136 years).  
146: Timestamped data requiring such qualification will be so precious  
147: that appropriate means should be readily available. There will exist

==== File [rfc1379](#).txt =====

**2000 found at line 847:**

845:  
846:  
847: objective an MSL of at least 2000 seconds. If there were no TIME-  
848: WAIT delay, the ultimate limit on transaction rate would be set by  
849: speed-of-light delays in the network and by the latency of host

**2000 found at line 988:**

986: the official delay of 240 seconds, formula [1] implies a upper  
987: bound (as  $RTT \rightarrow 0$ ) of  $TR_{max} = 268$  Tps; with our target MSL of  
988: 2000 sec,  $TR_{max} = 32$  Tps. These values are unacceptably low.  
989:  
990: To improve this transaction rate, we could use TCP timestamps to

**2000 found at line 1079:**

1077: segment lifetime MSL. For reasonable limiting values of  $R$ ,  $T_s$ ,  
1078: and MSL, formula [6] leads to a very low value of  $TR_{max}$ . For  
1079: example, with  $MSL = 2000$  secs,  $R = 10^9$  Bps, and  $T_s = 0.5$  sec,  $TR_{max}$   
1080:  $< 2 \cdot 10^{-3}$  Tps.  
1081:

**2000 found at line 1136:**

1134:  $TR_{max} * MSL < 2^{31}$   
1135:  
1136: For example, if  $MSL = 2000$  seconds then  $TR_{max} < 10^6$  Tp. These  
1137: are acceptable limits for transaction processing. However, if  
1138: they are not, we could augment CC with TCP timestamps to obtain

**2000 found at line 1276:**

1274:  
1275: (a) no timestamps  $2^{31}/MSL$  MSL 3rd sequence  
1276: e.g.,  $MSL = 2000$  sec space  
1277:  $TR_{max} = 10^6$   
1278:

==== File [rfc1405](#).txt =====

'yy' on a line without 'yyyy' found at line 378:

376: maps into  
377:  
378: C=xx; ADMD=yyy; PRMD=zzz; O=ooo; OU=uuu; DD.Dnet=net;  
379: DD.Mail-11=route::node::localpart;  
380:

'yy' on a line without 'yyyy' found at line 384:

382:  
383: xx = country code of the gateway performing the conversion  
384: yyy = Admd of the gateway performing the conversion  
385: zzz = Prmd of the gateway performing the conversion

```

386:          ooo = Organisation of the gateway performing the conversion

'yy' on a line without 'yyyy' found at line 474:
472:          it is connected to. In this case the mapping is trivial:
473:
474:          C=xx; ADMD=yyy; PRMD=zzz; O=ooo; OU=uuu; DD.Dnet=net;
475:          DD.Mail-11=route::node::localpart;
476:

'yy' on a line without 'yyyy' found at line 477:
475:          DD.Mail-11=route::node::localpart;
476:
477:          (see sect. 5.2 for explication of 'xx','yyy','zzz','ooo','uuu','net')
478:
479:          maps into

'yy' on a line without 'yyyy' found at line 487:
485:          described into section 5.4 apply:
486:
487:          C=xx; ADMD=yyy; PRMD=www; DD.Dnet=net;
488:          DD.Mail-11=route::node::localpart;
489:

'yy' on a line without 'yyyy' found at line 492:
490:          maps into
491:
492:          gwnode::gw%"C=xx;ADMD=yyy;PRMD=www;DD.Dnet=net;
493:          DD.Mail-11=route::node::localpart;"
494:

'yy' on a line without 'yyyy' found at line 595:
593:          maps into
594:
595:          C=xx; ADMD=yyy; DD.Dnet=net;
596:          DD.Mail-11=route::gwnode::gw(p)(q)x400-text-address(q);
597:

+==+==+==+ File rfc1409.txt +==+==+==+
'yy' on a line without 'yyyy' found at line 311:
309:          IAC SB AUTHENTICATION REPLY
310:          KERBEROS_V4 CLIENT|MUTUAL
311:          RESPONSE yy yy yy yy yy yy yy yy
312:          IAC SE
313:

+==+==+==+ File rfc1411.txt +==+==+==+
'yy' on a line without 'yyyy' found at line 163:
161:          IAC SB AUTHENTICATION REPLY
162:          KERBEROS_V4 CLIENT|MUTUAL

```



163: RESPONSE yy yy yy yy yy yy yy yy  
164: IAC SE  
165:

==== File [rfc1415](#).txt =====

**2000 found at line 2814:**

2812:	2	1016 Grouping threshold violation		503
2813:	2	1017 Inconsistent PDU request		503
2814:	2	2000 Association with user not allowed		532
2815:	2	2002 Unsupported service class		504
2816:	0	2003 Unsupported functional unit		211

==== File [rfc1416](#).txt =====

'yy' on a line without 'yyyy' found at line 318:

316: IAC SB AUTHENTICATION REPLY  
317: KERBEROS\_V4 CLIENT|MUTUAL  
318: RESPONSE yy yy yy yy yy yy yy yy  
319: IAC SE  
320:

==== File [rfc1417](#).txt =====

**2000 found at line 156:**

154: c/o Rapport Communication  
155: 3055 Q Street NW  
156: Washington, DC 20007  
157: US  
158:

**2000 found at line 198:**

196: Rapport Communication  
197: 3055 Q Street NW  
198: Washington, DC 20007  
199:  
200: Phone: +1 202-342-2727

==== File [rfc1421](#).txt =====

'yy' on a line without 'yyyy' found at line 1148:

1146: BAoTF1JTQSBEXRhIFNlY3VyaXR5LCBjbMuMQ8wDQYDVQQLEwZCZXRhIDExDTAL  
1147: BgNVBAsTBFRMQ0EwHhcNOTeWOTAxMDgwMDAwWhcNOTIwOTAxMDc1OTU5WjBRMQsw  
1148: CQYDVQQGEwJVUzEgMB4GA1UEChMXU1NBIERhdGEgU2VjdXJpdHksIEluYy4xDzAN  
1149: BgNVBAsTBkjlGEgMTEPMA0GA1UECXMGTk9UQVJZMHAwCgYEVQgBAQICArwDYgAw  
1150: XwJYCsnp6lQCxYyKNl0DwutF/jMJ3kL+3PjYyH0wk+/9rLg6X65B/LD4bJHt05XW

'yy' on a line without 'yyyy' found at line 1150:

1148: CQYDVQQGEwJVUzEgMB4GA1UEChMXU1NBIERhdGEgU2VjdXJpdHksIEluYy4xDzAN  
1149: BgNVBAsTBkjlGEgMTEPMA0GA1UECXMGTk9UQVJZMHAwCgYEVQgBAQICArwDYgAw  
1150: XwJYCsnp6lQCxYyKNl0DwutF/jMJ3kL+3PjYyH0wk+/9rLg6X65B/LD4bJHt05XW  
1151: cqAz/7R7XhjYcm0PcqbdbzoACZtIIETrKrcJiDYOP+DkZ8k1gCk7hQHpbIwIDAQAB

1152: MA0GCSqGSIB3DQEBAgUAA38AAICPv4f9Gx/tY4+p+4DB7MV+tKZnvBoy8zgoMG0x

'yy' on a line without 'yyyy' found at line 1256:

1254: BAoTF1JTQSBEXRhIFNlY3VyaXR5LCBjbMUMQ8wDQYDVQQLewZCZXRhIDExDTAL  
1255: BgNVBAsTBFRMQ0EwHhcNOTeWOTAxMDgwMDAwWhcNOTIwOTAxMDc1OTU5WjBRMQsw  
1256: CQYDVQQGEwJVUzEgMB4GA1UEChMXU1NBIERhdGEgU2VjdXJpdHksIEluYy4xDzAN  
1257: BgNVBAsTBKJldGEgMTEPMA0GA1UECXMGTk9UQVJZMHAwCgYEVQgBAQICArwDYgAw  
1258: XwJYCsnp6lQCxYyknL0DwutF/jMJ3kL+3PjYyH0wk+/9rLg6X65B/LD4bJHt05XW

'yy' on a line without 'yyyy' found at line 1258:

1256: CQYDVQQGEwJVUzEgMB4GA1UEChMXU1NBIERhdGEgU2VjdXJpdHksIEluYy4xDzAN  
1257: BgNVBAsTBKJldGEgMTEPMA0GA1UECXMGTk9UQVJZMHAwCgYEVQgBAQICArwDYgAw  
1258: XwJYCsnp6lQCxYyknL0DwutF/jMJ3kL+3PjYyH0wk+/9rLg6X65B/LD4bJHt05XW  
1259: cqAz/7R7XhjYcm0PcqbldzoACZtIleTrKrcJiDYOP+DkZ8k1gCk7hQHpbIwIDAQAB  
1260: MA0GCSqGSIB3DQEBAgUAA38AAICPv4f9Gx/tY4+p+4DB7MV+tKZnvBoy8zgoMG0x

+=+=+=+= File [rfc1422.txt](#) +=+=+=+=

UTCTime found at line 1596:

1594:  
1595:     Validity ::=     SEQUENCE{  
1596:             notBefore         UTCTime,  
1597:             notAfter          UTCTime}  
1598:

UTCTime found at line 1597:

1595:     Validity ::=     SEQUENCE{  
1596:             notBefore         UTCTime,  
1597:             notAfter          UTCTime}  
1598:  
1599:     SubjectPublicKeyInfo ::=         SEQUENCE{

UTCTime found at line 1640:

1638:             signature         AlgorithmIdentifier,  
1639:             issuer             Name,  
1640:             lastUpdate         UTCTime,  
1641:             nextUpdate         UTCTime,  
1642:             revokedCertificates

UTCTime found at line 1641:

1639:             issuer             Name,  
1640:             lastUpdate         UTCTime,  
1641:             nextUpdate         UTCTime,  
1642:             revokedCertificates  
1643:             SEQUENCE OF CRLEntry OPTIONAL}

UTCTime found at line 1647:

1645:     CRLEntry ::= SEQUENCE{  
1646:             userCertificate SerialNumber,  
1647:             revocationDate UTCTime}  
1648:

1649: References

century found at line 463:

461: confusion relating to daylight savings time. Note that UTCT  
462: expresses the value of a year modulo 100 (with no indication of  
463: century), hence comparisons involving dates in different centuries  
464: must be performed with care.

465:

==== File [rfc1432](#).txt =====

**2000 found at line 711:**

709: Digital Press  
710: buddehagen@cecv01.enet.dec.com McGraw-Hill  
711: 617-276-1498 212-512-2000  
712: fax: 617-276-4314 1221 Ave. of the Americas  
713: Digital Equipment Corporation New York, NY 10020

==== File [rfc1437](#).txt =====

**2000 found at line 185:**

183: generation of the X.400 specification, X.400-1996. This will give  
184: the community ample time to define a more complete specification for  
185: matter transport as part of X.400-2000, and possibly even a readily-  
186: implementable specification as part of X.400-2004, although some will  
187: no doubt argue that this would be too strong a break with tradition.

==== File [rfc1440](#).txt =====

'yy' on a line without 'yyyy' found at line 332:

330: The time stamp on the file as it appears at the sending site may be  
331: sent and applied to the copy at the receiving site. The form is US  
332: mm/dd/yy and hh:mm:ss. A time zone is optional. If the time zone is  
333: omitted, local time is assumed. If the DATE command is omitted, time  
334: and date of arrival are assumed.

==== File [rfc1442](#).txt =====

UTCTime found at line 362:

360: BEGIN  
361: TYPE NOTATION ::=  
362: "LAST-UPDATED" value(Update UTCTime)  
363: "ORGANIZATION" Text  
364: "CONTACT-INFO" Text

UTCTime found at line 378:

376: | Revisions Revision  
377: Revision ::=  
378: "REVISION" value(Update UTCTime)  
379: "DESCRIPTION" Text  
380:

+=+=+=+= File [rfc1453](#).txt +=+=+=+=

**1900 found at line 516:**

514:

515: [XTP92] Xpress Transfer Protocol, version 3.6, XTP Forum,  
516: 1900 State Street, Suite D, Santa Barbara, California  
517: 93101 USA, January 11, 1992.

518:

+=+=+=+= File [rfc1458](#).txt +=+=+=+=

**2000 found at line 1026:**

1024: Reading, MA 01867

1025:

1026: Phone: (617) 942-2000

1027: EMail: rebraudes@tasc.com

1028:

**2000 found at line 1035:**

1033: Reading, MA 01867

1034:

1035: Phone: (617) 942-2000

1036: EMail: gszabele@tasc.com

1037:

+=+=+=+= File [rfc1465](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 499:

497: Switzerland

498:

499: <Update-info> ::= "Update: FORMAT=V3; DATE=" 'yymmdd' \

500: "; START=" 'yymmdd' \

501: ["; END=" 'yymmdd'] <CR>

'yy' on a line without 'yyyy' found at line 500:

498:

499: <Update-info> ::= "Update: FORMAT=V3; DATE=" 'yymmdd' \

500: "; START=" 'yymmdd' \

501: ["; END=" 'yymmdd'] <CR>

502: The <Update-info> contains also the format identifier.

'yy' on a line without 'yyyy' found at line 501:

499: <Update-info> ::= "Update: FORMAT=V3; DATE=" 'yymmdd' \

500: "; START=" 'yymmdd' \

501: ["; END=" 'yymmdd'] <CR>

502: The <Update-info> contains also the format identifier.

503:

'yy' on a line without 'yyyy' found at line 512:

510:

511: The date of the last update of a document is given in

512: the form 'yymmdd'.  
513: A start date must be set. A document can be published  
514: this way before the information in it is valid. (This

'yy' on a line without 'yyyy' found at line 1673:

1671: | <DirectoryName> )  
1672:  
1673: <Update-info> ::= "Update: FORMAT=V3; DATE=" 'yymmdd' \  
1674: "; START=" 'yymmdd' \  
1675: ["; END=" 'yymmdd'] <CR>

'yy' on a line without 'yyyy' found at line 1674:

1672:  
1673: <Update-info> ::= "Update: FORMAT=V3; DATE=" 'yymmdd' \  
1674: "; START=" 'yymmdd' \  
1675: ["; END=" 'yymmdd'] <CR>  
1676:

'yy' on a line without 'yyyy' found at line 1675:

1673: <Update-info> ::= "Update: FORMAT=V3; DATE=" 'yymmdd' \  
1674: "; START=" 'yymmdd' \  
1675: ["; END=" 'yymmdd'] <CR>  
1676:  
1677: <window-size> ::= "RTS-window-size: " \

+=+=+=+= File [rfc1467.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 408:

406:  
407: [6] Solensky, F., Internet Growth Charts, "big-internet" mailing  
408: list, munnari.oz.au:big-internet/nsf-netnumbers-<yymm>.ps  
409:  
410: 9. Other relevant documents

+=+=+=+= File [rfc1470.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 247:

245:  
246: DATE OF MOST RECENT UPDATE TO THIS CATALOG ENTRY  
247: <YYMMDD>  
248:  
249: Keywords

**2000** found at line 4696:

4694: libraries), but this has not been done. Curses is very  
4695: slow and cpu intensive on VMS, but the tool has been  
4696: run in a window on a VAXstation 2000. Just don't try  
4697: to run it on a terminal connected to a 11/750.  
4698:

+=+=+=+= File [rfc1479.txt](#) +=+=+=+=

century found at line 752:

750: We note that none of the IDPR protocols contain explicit provisions  
751: for dealing with an exhausted timestamp space. As timestamp space  
752: exhaustion will not occur until well into the next century, we expect  
753: timestamp space viability to outlast the IDPR protocols.  
754:

==== File [rfc1486](#).txt =====

**2000** found at line 745:

743: Date: Sun, 11 Apr 1993 20:34:12 -0800  
744: Subject: Comments on "An Experiment in Remote Printing"  
745: Message-ID: <19930411203412000.123@tpd.org>  
746: MIME-Version: 1.0  
747: Content-Type: text/plain; charset=us-ascii

==== File [rfc1488](#).txt =====

UTCTime found at line 302:

300: 2.21. UTC Time  
301:  
302: Values of type uTCTimeSyntax are encoded as if they were Printable  
303: Strings with the strings containing a UTCTime value.  
304:

UTCTime found at line 303:

301:  
302: Values of type uTCTimeSyntax are encoded as if they were Printable  
303: Strings with the strings containing a UTCTime value.  
304:  
305: 2.22. Guide (search guide)

UTCTime found at line 377:

375: <algorithm-id> ::= <oid> '#' <algorithm-parameters>  
376:  
377: <utc-time> ::= an encoded UTCTime value  
378:  
379: <hex-string> ::= <hex-digit> | <hex-digit> <hex-string>

==== File [rfc1500](#).txt =====

'yy' on a line without 'yyyy' found at line 1950:

1948: The text version is sent.  
1949:  
1950: file /ftp/rfc/rfcnnnnn.yyy where 'nnnn' is the RFC number.  
1951: and 'yyy' is 'txt' or 'ps'.  
1952:

'yy' on a line without 'yyyy' found at line 1951:

1949:  
1950: file /ftp/rfc/rfcnnnnn.yyy where 'nnnn' is the RFC number.

1951: and 'yyy' is 'txt' or 'ps'.  
1952:  
1953: help to get information on how to use

==== File [rfc1507](#).txt =====

UTCTime found at line 5111:

```
5109:
5110:     Validity ::= SEQUENCE {
5111:         NotBefore      UTCTime,
5112:         NotAfter       UTCTime
5113:     }
```

UTCTime found at line 5112:

```
5110:     Validity ::= SEQUENCE {
5111:         NotBefore      UTCTime,
5112:         NotAfter       UTCTime
5113:     }
5114:
```

UTCTime found at line 6297:

```
6295:     Version ::= INTEGER { 1988(0) } SerialNumber ::= INTEGER Validity
6296:     ::= SEQUENCE{
6297:         notBefore      UTCTime,
6298:         notAfter       UTCTime}
6299:
```

UTCTime found at line 6298:

```
6296:     ::= SEQUENCE{
6297:         notBefore      UTCTime,
6298:         notAfter       UTCTime}
6299:
6300:     SubjectPublicKeyInfo ::= SEQUENCE {
```

==== File [rfc1512](#).txt =====

'yy' on a line without 'yyyy' found at line 243:

```
241:     FddiSMTStationIdType ::= OCTET STRING (SIZE (8))
242:     -- The unique identifier for the FDDI station. This is a
243:     -- string of 8 octets, represented as X' yy yy xx xx xx xx
244:     -- xx xx' with the low order 6 octet (xx) from a unique IEEE
245:     -- assigned address. The high order two bits of the IEEE
```

'yy' on a line without 'yyyy' found at line 248:

```
246:     -- address, the group address bit and the administration bit
247:     -- (Universal/Local) bit should both be zero. The first two
248:     -- octets, the yy octets, are implementor-defined.
249:     --
250:     -- The representation of the address portion of the station id
```

==== File [rfc1519](#).txt =====

'yy' on a line without 'yyyy' found at line 401:

399: 3.2 Historic growth rates

400:

MM/YY	ROUTES	MM/YY	ROUTES
	ADVERTISED		ADVERTISED

403: -----

'yy' on a line without 'yyyy' found at line 1318:

1316: Ann Arbor, MI 48109

1317:

1318: EMail: jyy@merit.edu

1319:

1320:

+=+=+=+= File [rfc1527.txt](#) +=+=+=+=

century found at line 793:

791: ubiquitous as the current telephone network and provides all

792: Americans with access to information in much the same way as public

793: libraries were created for a similar purpose a century ago.

794:

795: Congress must understand that the NREN is not just a new technology

century found at line 875:

873: regulated companies from becoming viable players. We must realize

874: that we are about to enter a power struggle for the control of the

875: information resources of the 21st century that promises to be every

876: bit as harsh and bruising as the power struggle for natural resources

877: was at the end of the last century.

century found at line 877:

875: information resources of the 21st century that promises to be every

876: bit as harsh and bruising as the power struggle for natural resources

877: was at the end of the last century.

878:

879: While the intentions of most appear to be good, as this study has

+=+=+=+= File [rfc1537.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 165:

163: Example: zone file for foo.xx:

164:

165: pqr MX 100 relay.yy.

166: xyz MX 100 relay.yy (no trailing dot!)

167:

'yy' on a line without 'yyyy' found at line 166:

164:

165: pqr MX 100 relay.yy.

166: xyz MX 100 relay.yy (no trailing dot!)

167:



168:

'yy' on a line without 'yyyy' found at line 177:

175:       When fully written out this stands for:

176:

177:       pqr.foo.xx.   MX 100   relay.yy.

178:       xyz.foo.xx.   MX 100   relay.yy.foo.xx.   (name extension!)

179:

'yy' on a line without 'yyyy' found at line 178:

176:

177:       pqr.foo.xx.   MX 100   relay.yy.

178:       xyz.foo.xx.   MX 100   relay.yy.foo.xx.   (name extension!)

179:

180:   6. Missing secondary servers

'yy' on a line without 'yyyy' found at line 256:

254:

255:       foo.xx.       MX 100   gateway.xx.

256:                   MX 200   fallback.yy.

257:       \*.foo.xx.     MX 100   gateway.xx.

258:                   MX 200   fallback.yy.

'yy' on a line without 'yyyy' found at line 258:

256:                   MX 200   fallback.yy.

257:       \*.foo.xx.     MX 100   gateway.xx.

258:                   MX 200   fallback.yy.

259:   8. Hostnames

260:

**2000 found at line 89:**

87:       86400 ; Refresh     24 hours

88:       7200 ; Retry        2 hours

89:       2592000 ; Expire    30 days

90:       345600 ; Minimum TTL 4 days

91:

+=+=+=+=+= File [rfc1540.txt](#) +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 1838:

1836:                               The text version is sent.

1837:

1838:       file /ftp/rfc/rfcnnnnn.yyy   where 'nnnn' is the RFC number.

1839:                               and 'yyy' is 'txt' or 'ps'.

1840:

'yy' on a line without 'yyyy' found at line 1839:

1837:

1838:       file /ftp/rfc/rfcnnnnn.yyy   where 'nnnn' is the RFC number.

1839:                               and 'yyy' is 'txt' or 'ps'.

1840:

1841:                   help                                   to get information on how to use

==== File [rfc1555](#).txt =====

'yy' on a line without 'yyyy' found at line 155:

153:       In addition, Listserv usually maintains automatic archives of all  
154:       postings to a list. These archives, contained in the file "listname  
155:       LOGgymm", do not contain the MIME headers, so all encoding  
156:       information will be lost. This is a limitation of the Listserv  
157:       software.

==== File [rfc1564](#).txt =====

'yy' on a line without 'yyyy' found at line 811:

809:  
810:       The following searches should be tried. Unless otherwise stated, the  
811:       "XXX" or "YYY" part of the search filter should be chosen in such a  
812:       way as to return a single result. Unless stated otherwise the  
813:       results should return all attributes for the entry.

'yy' on a line without 'yyyy' found at line 848:

846:  
847:               objectClass=person AND  
848:               (commonName=XXX\* OR telephoneNumber=\*YYY)  
849:  
850:       75. Search returning all entries (i.e., 100 entries in the single

**2000 found at line 527:**

525:  
526:       42. If the DSA runs as a static server, state the start-up time for a  
527:       DSA with a database of 20000 entries. If this varies widely  
528:       according to configuration options, give figures for the various  
529:       options. ....

**2000 found at line 709:**

707:  
708:       i. The tests should be made against an organisational database of  
709:       20000 entries. Some tests are against subsets of this data, and  
710:       so the database should be set up according to the following  
711:       instructions.

**2000 found at line 713:**

711:       instructions.  
712:  
713:       Create an organisational DSA with 20000 entries below the  
714:       organisation node. Sub-divide this data into a number of  
715:       organisational units, one of which should contain 1000 entries,

**2000 found at line 808:**

806:       unit.  
807:  
808:       ii. An organisation subtree search, on the subtree of 20000 entries.



'yy' on a line without 'yyyy' found at line 380:

```
378:
379:         file /ftp/rfc/rfcnnnnn.yyy      where 'nnnn' is the RFC number.
380:                                         and 'yyy' is 'txt' or 'ps'.
381:
382:         help                               to get information on how to use
```

'yy' on a line without 'yyyy' found at line 574:

```
572:         In addition, back issues of the Report are available for anonymous
573:         FTP from the host ftp.isi.edu in the in-notes/imr directory, with
574:         the file names in the form imryymm.txt, where yy is the last two
575:         digits of the year and mm two digits for the month. For example,
576:         the July 1992 Report is in the file imr9207.txt.
```

+=+=+=+=+= File [rfc1595](#).txt +=+=+=+=+=

**2000** found at line 300:

```
298:
299:         ifSpeed                Speed of line rate for SONET/SDH,
300:                                (e.g., 155520000 bps).
301:
302:         ifPhysAddress          The value of the Circuit Identifier.
```

**2000** found at line 357:

```
355:         ifSpeed                set to speed of SONET/SDH path
356:                                (e.g., an STS-1 path has a
357:                                rate of 50112000 bps.)
358:
359:         ifPhysAddress          Circuit Identifier or OCTET STRING of
```

+=+=+=+=+= File [rfc1600](#).txt +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 1950:

```
1948:                                The text version is sent.
1949:
1950:         file /ftp/rfc/rfcnnnnn.yyy      where 'nnnn' is the RFC number.
1951:                                         and 'yyy' is 'txt' or 'ps'.
1952:
```

'yy' on a line without 'yyyy' found at line 1951:

```
1949:
1950:         file /ftp/rfc/rfcnnnnn.yyy      where 'nnnn' is the RFC number.
1951:                                         and 'yyy' is 'txt' or 'ps'.
1952:
1953:         help                               to get information on how to use
```

+=+=+=+=+= File [rfc1607](#).txt +=+=+=+=+=

century found at line 12:

```
10:
11:
```

12: A VIEW FROM THE 21ST CENTURY

13:

14: Status of this Memo

century found at line 60:

58: Cerf

[Page 1]

59:  
60: [RFC 1607](#) A View from the 21st Century 1 April 1994  
61:  
62:

century found at line 116:

114: Cerf

[Page 2]

115:  
116: [RFC 1607](#) A View from the 21st Century 1 April 1994  
117:  
118:

century found at line 172:

170: Cerf [Page 3]

171:  
172: [RFC 1607](#) A View from the 21st Century 1 April 1994  
173:  
174:

century found at line 228:  
226: Cerf

[Page 4]



227:  
228: [RFC 1607](#) A View from the 21st Century 1 April 1994  
229:  
230:

century found at line 284:

282: Cerf

[Page 5]

283:  
284: [RFC 1607](#) A View from the 21st Century 1 April 1994  
285:  
286:

century found at line 340:

338: Cerf [Page 6]

339:  
340: [RFC 1607](#) A View from the 21st Century 1 April 1994  
341:  
342:

century found at line 396:

394: Cerf [Page 7]

395:  
396: [RFC 1607](#) A View from the 21st Century 1 April 1994  
397:  
398:

century found at line 452:  
450: Cerf

[Page 8]

451:  
452: [RFC 1607](#) A View from the 21st Century 1 April 1994  
453:  
454:

century found at line 508:

506: Cerf

[Page 9]

507:  
508: [RFC 1607](#) A View from the 21st Century 1 April 1994  
509:  
510:

century found at line 564:

562: Cerf [Page 10]

563:  
564: [RFC 1607](#) A View from the 21st Century 1 April 1994  
565:  
566:

century found at line 620:  
618: Cerf

[Page 11]

619:  
620: [RFC 1607](#) A View from the 21st Century 1 April 1994  
621:  
622:

century found at line 676:

674: Cerf

[Page 12]



675:  
676: [RFC 1607](#) A View from the 21st Century 1 April 1994  
677:  
678:

century found at line 732:  
730: Cerf

[Page 13]

731:  
732: [RFC 1607](#) A View from the 21st Century 1 April 1994  
733:  
734:

**[2000](#) found at line 663:**

661: transmission, switching and computing in a cost-effective  
662: way. For a long time, this technology involved rather  
663: bulky equipment - some of the early 3DV clips from 2000-  
664: 2005 showed rooms full of gear required to steer beams  
665: around. A very interesting combination of fiber optics and

==== File [rfc1608.txt](#) ===

UTCTime found at line 240:

238: provider :: DistinguishedNameSyntax,  
239: /\* points to network provider \*/  
240: onlineDate :: uTCTimeSyntax  
241: /\* date when network got connected to the Internet \*/  
242:

UTCTime found at line 370:

368: asGuardian :: DistinguishedNameSyntax, \*/  
369: /\* DN of guardian of this AS \*/  
370: lastModifiedDate :: UTCTimeSyntax \*/  
371: /\* important as routes change frequently \*/  
372:

UTCTime found at line 423:

421: that the number was assigned to. This does not  
422: imply that assTo "owns" this number now. \*/  
423: assDate :: uTCTimeSyntax,  
424: /\* date of assignment for this number \*/  
425: nicHandle :: CaseIgnoreStringSyntax,

UTCTime found at line 1048:

1046:	speed:	id-nw-at.10	:numericString
1047:	traffic:	id-nw-at.11	:numericString
1048:	configurationDate:	id-nw-at.12	:utcTime
1049:	configurationHistory:	id-nw-at.13	:caseIgnoreString
1050:	nodeName,nd:	id-nw-at.14	:caseIgnoreString

UTCTime found at line 1071:

1069:			
1070:			
1071:	onlineDate:	id-nw-at.27	:utcTime
1072:	ipNodeName,IPnd:	id-nw-at.28	:caseIgnoreString
1073:	protocol:	id-nw-at.29	:caseIgnoreString

UTCTime found at line 1083:

1081:	assBy:	id-nw-at.37	:DN
-------	--------	-------------	-----

```
1082:      assTo:                        id-nw-at.38      :DN
1083:      assDate:                      id-nw-at.39      :utcTime
1084:      nicHandle:                    id-nw-at.40      :caseIgnoreString
1085:      relNwElement:                  id-nw-at.41      :DN
```

+=+=+=+=+= File [rfc1609](#).txt +=+=+=+=+=

UTCTime found at line 588:

```
586:      /* (average) use in percent of nominal bandwidth
587:      [ this needs more specification later ] */
588:      configurationDate :: uTCTimeSyntax,
589:      /* date when network was configured in current
590:      shape */
```

+=+=+=+=+= File [rfc1610](#).txt +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 1950:

```
1948:                                The text version is sent.
1949:
1950:      file /ftp/rfc/rfcnnnnn.yyy      where 'nnnn' is the RFC number.
1951:                                and 'yyy' is 'txt' or 'ps'.
1952:
```

'yy' on a line without 'yyyy' found at line 1951:

```
1949:
1950:      file /ftp/rfc/rfcnnnnn.yyy      where 'nnnn' is the RFC number.
1951:                                and 'yyy' is 'txt' or 'ps'.
1952:
1953:      help                            to get information on how to use
```

century found at line 926:

```
924:      An Experimental protocol.
925:
926:      1607 - A View from the 21st Century
927:
928:      This is an information document and does not specify any
```

+=+=+=+=+= File [rfc1614](#).txt +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 1565:

```
1563:      The general format of a Gopher+ view descriptor is:
1564:
1565:      xxx/yyy zzz: <nnnK>
1566:
1567:
```

'yy' on a line without 'yyyy' found at line 1575:

```
1573:
1574:
1575:      where xxx is a general type-of-information advisory, yyy is what
1576:      information format you need understand to interpret this information,
```

1577: zzz is a language advisory (coded using POSIX definitions), and nnn  
'yy' on a line without 'yyyy' found at line 1584:  
1582: the need to be consistent in the use of type/encoding attributes with  
1583: the MIME specification. The Gopher+ Type Registry may thus  
1584: eventually disappear, together with the set of xxx/yyy values it  
1585: currently contains.)  
1586:

==== File [rfc1625.txt](#) ====

**2000 found at line 255:**

253: ( use = "wb", relation = "ro", term = 0 )  
254: AND  
255: ( use = "wb", relation = "ro", term = 2000 )  
256: )  
257:

==== File [rfc1632.txt](#) ====

UTCTime found at line 3795:

3793: association is rejected. However, if a chain operation is required  
3794: to check the DN, the bind IS allowed.  
3795: - When comparing attributes of UTCTime syntax, if the seconds field  
3796: is omitted, QUIPU does not perform the match correctly (i.e., the  
3797: seconds field in the attribute values should be ignored, but are

**2000 found at line 1214:**

1212: 1-800-257-OPEN (U.S. and Canada)  
1213: 1-612-482-6736 (worldwide)  
1214: FAX: 1-612-482-2000 (worldwide)  
1215: EMAIL: info@cdc.com  
1216: or

==== File [rfc1635.txt](#) ====

**1900 found at line 605:**

603: Most archive machines perform other functions as well. Please  
604: respect the needs of their primary users and restrict your FTP access  
605: to non-prime hours (generally between 1900 and 0600 hours local time  
606: for that site) whenever possible. It is especially important to  
607: remember this for sites located on another continent or across a

==== File [rfc1645.txt](#) ====

'yy' on a line without 'yyyy' found at line 590:

588: 554 Error, failed (technical reason)  
589:  
590: 4.4.6 HOLDuntil <YYMMDDHHMMSS> [+/-GMTdifference]  
591:  
592: The HOLDuntil command allows for the delayed delivery of a message,

+=+=+=+= File [rfc1646](#).txt +=+=+=+=

**2000** found at line 428:

426:		
427:	Command Rejected	0X10030000
428:	Intervention Required	0X08020000
429:	Data Check	0X10010000
430:	Operation Check	0X10050000

**2000** found at line 431:

429:	Data Check	0X10010000
430:	Operation Check	0X10050000
431:	Component Disconnected (LU)	0X08020000
432:		
433:	Note 2*: Device End - A positive response to the Server's data	

+=+=+=+= File [rfc1647](#).txt +=+=+=+=

**2000** found at line 1355:

1353:	0x00	Command Reject	0x10030000
1354:			
1355:	0x01	Intervention Required	0x08020000
1356:			
1357:	0x02	Operation Check	0x10050000

+=+=+=+= File [rfc1671](#).txt +=+=+=+=

**1900** found at line 410:

408:	Phone: +41 22 767-4967
409:	Fax: +41 22 767-7155
410:	Telex: 419000 cer ch
411:	EMail: brian@dxcoms.cern.ch
412:	

+=+=+=+= File [rfc1679](#).txt +=+=+=+=

century found at line 95:

93:	examined below. The time frame for design, development, and
94:	deployment of HPN based systems and subsystems is 1996 into the
95:	twenty first century.
96:	
97:	Three general problem domains have been identified by the HPN working

+=+=+=+= File [rfc1689](#).txt +=+=+=+=

century found at line 6899:

6897:	vision of how information management must change in the 1990s to meet
6898:	the social and economic opportunities and challenges of the 21st
6899:	century. Members of the Coalition Task Force include, among others,
6900:	higher education institutions, publishers, network service providers,
6901:	computer hardware, software, and systems companies, library networks

**2000 found at line 421:**

419:       archie did for the world of ftp. A central server periodically  
420:       scans the complete menu hierarchies of Gopher servers appearing on  
421:       an ever-expanding list (over 2000 sites as of November 1993). The  
422:       resulting index is provided by a veronica server and can be  
423:       accessed by any gopher client.

**2000 found at line 471:**

469:  
470:       There are currently (as of November 1993) some 500 registered WAIS  
471:       databases with an estimated 2000 additional databases that are not  
472:       yet registered. There are approximately another 100 commercial  
473:       WAIS databases.

+=+=+=+=+= File [rfc1693](#).txt +=+=+=+=+=

**2000 found at line 574:**

572:	4	Baker	Boston	\$849	Sportswear
573:	5	Baker	Washington	\$3,100	Weights
574:	6	Baker	Washington	\$2000	Camping Gear
575:	7	Baker	Atlanta	\$290	Baseball Gloves
576:	8	Baker	Boston	\$1,500	Sportswear

+=+=+=+=+= File [rfc1696](#).txt +=+=+=+=+=

**2000 found at line 109:**

107:  
108:   mdmMIB MODULE-IDENTITY  
109:       LAST-UPDATED "9406120000Z"  
110:       ORGANIZATION "IETF Modem Management Working Group"  
111:

+=+=+=+=+= File [rfc1698](#).txt +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 513:

511:    31 80 {1       - RDN, [SET OF]  
512:    30 80 {2       - AttributeValueAssertion, [SEQUENCE]  
513:    06 03 5504yy   -- OID identifying an attribute named in  
514:                    -- the Directory standard  
515:                    -- which one is determined by yy

'yy' on a line without 'yyyy' found at line 515:

513:    06 03 5504yy   -- OID identifying an attribute named in  
514:                    -- the Directory standard  
515:                    -- which one is determined by yy  
516:    13 La xxxxxx    -- [Printable string]  
517:                    -- could be T61 string, with tag 14

'yy' on a line without 'yyyy' found at line 522:

520:  
521:       The most likely attributes for an RDN have the following hex values  
522:       for yy.

```

523:
524:      CommonName      03

'yy' on a line without 'yyyy' found at line 903:
901:
902:
903:      yy is exactly one octet (i.e., one hex digit per y) holding part
904:      of the length
905:

'yy' on a line without 'yyyy' found at line 918:
916:      innermost nest of construction)
917:
918:      yy - as part of a value - a variable value, each y represents one
919:      hex digit
920:


+==+==+==+ File rfc1699.txt +==+==+==+
century found at line 1050:
1048:
1049:
1050: 1607      Cerf      Apr 94      A VIEW FROM THE 21ST CENTURY
1051:
1052: This document is a composition of letters discussing a possible future.


+==+==+==+ File rfc1700.txt +==+==+==+
'yy' on a line without 'yyyy' found at line 9905:
9903: AB-00-03-00-00-00      6004      DEC Local Area Transport (LAT) - old
9904: AB-00-04-00-xx-xx      ?????      Reserved DEC customer private use
9905: AB-00-04-01-xx-yy      6007      DEC Local Area VAX Cluster groups
9906:                               Sys. Communication Architecture (SCA)
9907: CF-00-00-00-00-00      9000      Ethernet Configuration Test protocol


1900 found at line 10173:
10171: 014.000.000.063      2422-650-23500 00      Tollpost-Globe AS      [OXG]
10172: 014.000.000.064      2422-330-02500 00      Tollpost-Globe AS      [OXG]
10173: 014.000.000.065      2422-350-01900 00      Tollpost-Globe AS      [OXG]
10174: 014.000.000.066      2422-410-00700 00      Tollpost-Globe AS      [OXG]
10175: 014.000.000.067      2422-539-06200 00      Tollpost-Globe AS      [OXG]


1900 found at line 10255:
10253:
10254:
10255: 014.000.000.131      2422-190-41900 00      T-G Airfreight AS      [OXG]
10256: 014.000.000.132      2422-616-16100 00      Tollpost-Globe AS      [OXG]
10257: 014.000.000.133      2422-150-50700-00      Tollpost-Globe Int.    [OXG]


1900 found at line 11112:
11110: 1569      621      ??      Something from Emulex

```

11111:	1571	623	UNKNOWN???	Running on a Novell Server
11112:	1900	076C	Xerox	
11113:	2857	0b29	Site Lock	
11114:	3113	0c29	Site Lock Applications	

**2000 found at line 2822:**

2820:	tcp-id-port	1999/tcp	cisco identification port
2821:	tcp-id-port	1999/udp	cisco identification port
2822:	callbook	2000/tcp	
2823:	callbook	2000/udp	
2824:	dc	2001/tcp	

**2000 found at line 2823:**

2821:	tcp-id-port	1999/udp	cisco identification port
2822:	callbook	2000/tcp	
2823:	callbook	2000/udp	
2824:	dc	2001/tcp	
2825:	wizard	2001/udp	curry

**2000 found at line 10120:**

10118:	014.000.000.018	2624-522-80900	52	FGAN-SIEMENS-X25	[GB7]
10119:	014.000.000.019	2041-170-10000	00	SHAPE-X25	[JFW]
10120:	014.000.000.020	5052-737-20000	50	UQNET	[AXH]
10121:	014.000.000.021	3020-801-00057	50	DMC-CRC1	[VXT]
10122:	014.000.000.022	2624-522-80329	02	FGAN-FGANFFMVAX-X25	[GB7]

**2000 found at line 11572:**

11570:	AMIGA-1200/LC040
11571:	AMIGA-1200/040
11572:	AMIGA-2000
11573:	AMIGA-2000/010
11574:	AMIGA-2000/020

**2000 found at line 11573:**

11571:	AMIGA-1200/040
11572:	AMIGA-2000
11573:	AMIGA-2000/010
11574:	AMIGA-2000/020
11575:	AMIGA-2000/EC030

**2000 found at line 11574:**

11572:	AMIGA-2000
11573:	AMIGA-2000/010
11574:	AMIGA-2000/020
11575:	AMIGA-2000/EC030
11576:	AMIGA-2000/030

**2000 found at line 11575:**

11573:	AMIGA-2000/010
11574:	AMIGA-2000/020
11575:	AMIGA-2000/EC030



11576: AMIGA-2000/030  
11577: AMIGA-2000/LC040

**2000 found at line 11576:**

11574: AMIGA-2000/020  
11575: AMIGA-2000/EC030  
11576: AMIGA-2000/030  
11577: AMIGA-2000/LC040  
11578: AMIGA-2000/EC040

**2000 found at line 11577:**

11575: AMIGA-2000/EC030  
11576: AMIGA-2000/030  
11577: AMIGA-2000/LC040  
11578: AMIGA-2000/EC040  
11579: AMIGA-2000/040

**2000 found at line 11578:**

11576: AMIGA-2000/030  
11577: AMIGA-2000/LC040  
11578: AMIGA-2000/EC040  
11579: AMIGA-2000/040  
11580: AMIGA-3000

**2000 found at line 11579:**

11577: AMIGA-2000/LC040  
11578: AMIGA-2000/EC040  
11579: AMIGA-2000/040  
11580: AMIGA-3000  
11581: AMIGA-3000/EC040

**2000 found at line 12014:**

12012: AIX/370  
12013: AIX-PS/2  
12014: BS-2000  
12015: CEDAR  
12016: CGW

**2000 found at line 12356:**

12354: HAZELTINE-1520  
12355: HAZELTINE-1552  
12356: HAZELTINE-2000  
12357: HAZELTINE-ESPRIT  
12358: HITACHI-5601

+=+=+=+=+= File [rfc1705.txt](#) +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 1166:

1164: will be made.

1165:

1166: node.sub.domain.name IN TA xx.yy.zz.aa.bb.cc.dd.ee

1167:  
1168: ee.dd.cc.bb.aa.zz.yy.aa.in-addr.tcp IN PTR node.sub.domain.name.  
  
'yy' on a line without 'yyyy' found at line 1168:  
1166: node.sub.domain.name IN TA xx.yy.zz.aa.bb.cc.dd.ee  
1167:  
1168: ee.dd.cc.bb.aa.zz.yy.aa.in-addr.tcp IN PTR node.sub.domain.name.  
1169:  
1170: Using these entries, along with the existing DNS A records, a  
  
'yy' on a line without 'yyyy' found at line 1172:  
1170: Using these entries, along with the existing DNS A records, a  
1171: requesting node can determine where the remote node is located. The  
1172: format xx.yy.zz is the IEEE assigned portion and aa.bb.cc.dd.ee is  
1173: the encoded machine serial number as described in [section 4.1](#).  
1174:

==== File [rfc1712](#).txt ====  
'yy' on a line without 'yyyy' found at line 208:  
206: @ IN SOA marsh.cs.curtin.edu.au. postmaster.cs.curtin.edu.au.  
207: (  
208: 94070503 ; Serial (yymmddnn)  
209: 10800 ; Refresh (3 hours)  
210: 3600 ; Retry (1 hour)

==== File [rfc1713](#).txt ====  
'yy' on a line without 'yyyy' found at line 104:  
102: University, but then Eric Wassenaar from Nikhef did a major rewrite  
103: and still seems to be actively working on improving it. The program  
104: is available from [ftp://ftp.nikhef.nl/pub/network/host\\_YYMMDD.tar.Z](ftp://ftp.nikhef.nl/pub/network/host_YYMMDD.tar.Z)  
105: (YYMMDD is the date of the latest release).  
106:

'yy' on a line without 'yyyy' found at line 105:  
103: and still seems to be actively working on improving it. The program  
104: is available from [ftp://ftp.nikhef.nl/pub/network/host\\_YYMMDD.tar.Z](ftp://ftp.nikhef.nl/pub/network/host_YYMMDD.tar.Z)  
105: (YYMMDD is the date of the latest release).  
106:  
107: By default, host just maps host names to Internet addresses, querying

==== File [rfc1714](#).txt ====  
**2000 found at line 414:**  
412: Example of use:  
413:  
414: -limit 2000  
415:  
416: 2.3.3 schema

+=+=+=+= File [rfc1718](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 969:

967: mailing list. File names beginning with "1" (one) contain general  
968: IETF information. This is only a partial list of the available  
969: files. (The 'yymm' below refers to the year and month.)  
970:

971: o 0mtg-agenda.txt Agenda for the meeting

'yy' on a line without 'yyyy' found at line 972:

970:

971: o 0mtg-agenda.txt Agenda for the meeting

972: o 0mtg-at-a-glance-yymm.txt Logistics information for the  
meeting

973: o 0mtg-rsvp.txt Meeting registration form

974: o 0mtg-sites.txt Future meeting sites and dates

'yy' on a line without 'yyyy' found at line 975:

973: o 0mtg-rsvp.txt Meeting registration form

974: o 0mtg-sites.txt Future meeting sites and dates

975: o 0mtg-multicast-guide-yymm.txt Schedule for MBone-multicast  
sessions

976: o 0mtg-traveldirections-yymm.txt Directions to the meeting site

977: o 0tao.txt This document

'yy' on a line without 'yyyy' found at line 976:

974: o 0mtg-sites.txt Future meeting sites and dates

975: o 0mtg-multicast-guide-yymm.txt Schedule for MBone-multicast  
sessions

976: o 0mtg-traveldirections-yymm.txt Directions to the meeting site

977: o 0tao.txt This document

978:

+=+=+=+= File [rfc1720](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 2230:

2228: The text version is sent.

2229:

2230: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.  
2231: and 'yyy' is 'txt' or 'ps'.  
2232:

'yy' on a line without 'yyyy' found at line 2231:

2229:

2230: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.  
2231: and 'yyy' is 'txt' or 'ps'.  
2232:

2232:

2233: help to get information on how to use

+=+=+=+= File [rfc1730](#).txt +=+=+=+=

2digit found at line 3334:

```
3332:      date          ::= date_text / "<"> date_text "<">
3333:
3334:      date_day        ::= 1*2digit
3335:                        ;; Day of month
3336:
```

2digit found at line 3337:

```
3335:                        ;; Day of month
3336:
3337:      date_day_fixed   ::= (SPACE digit) / 2digit
3338:                        ;; Fixed-format version of date_day
3339:
```

2digit found at line 3348:

```
3346:      date_year        ::= 4digit
3347:
3348:      date_year_old    ::= 2digit
3349:                        ;; OBSOLETE, (year - 1900)
3350:
```

2digit found at line 3657:

```
3655:      TEXT_CHAR        ::= <any CHAR except CR and LF>
3656:
3657:      time              ::= 2digit ":" 2digit ":" 2digit
3658:                        ;; Hours minutes seconds
3659:
```

**1900** found at line 3349:

```
3347:
3348:      date_year_old    ::= 2digit
3349:                        ;; OBSOLETE, (year - 1900)
3350:
3351:      date_time         ::= "<"> (date_time_new / date_time_old) "<">
```

+=+=+=+=+= File [rfc1732.txt](#) +=+=+=+=+=

century found at line 254:

```
252:
253:      The format of dates and times has changed due to the impending end
254:      of the century.  Clients that fail to accept a four-digit year or
255:      a signed four-digit timezone value will not work properly with
256:      IMAP4.
```

+=+=+=+=+= File [rfc1733.txt](#) +=+=+=+=+=

**2000** found at line 94:

```
92:      message or part of a message.  For example, a user connected to an
93:      IMAP4 server via a dialup link can determine that a message has a
94:      2000 byte text segment and a 40 megabyte video segment, and elect to
95:      fetch only the text segment.
96:
```

==== File [rfc1739.txt](#) =====

century found at line 1044:

```
1042:          1.EDU          Reserved Domain
1043:          2.EDU          Reserved Domain
1044:          22CF.EDU       22nd Century Foundation
1045:          3.EDU          Reserved Domain
1046:      ** There are 1499 more matches.  Show them? N
```

==== File [rfc1740.txt](#) =====

**2000** found at line 383:

```
381:      This field denotes the version of AppleSingle format in the event
382:      the format evolves (more fields may be added to the header).  The
383:      version described in this note is version $00020000 or
384:      0x00020000.
385:
```

**2000** found at line 384:

```
382:      the format evolves (more fields may be added to the header).  The
383:      version described in this note is version $00020000 or
384:      0x00020000.
385:
386:      Filler
```

**2000** found at line 590:

```
588:      #define F_fStationary    0x0800 /* file is a stationary pad */
589:      #define F_fNameLocked     0x1000 /* file can't be renamed by Finder */
590:      #define F_fHasBundle      0x2000 /* file has a bundle */
591:      #define F_fInvisible      0x4000 /* file's icon is invisible */
592:      #define F_fAlias          0x8000 /* file is an alias file (System 7) */
```

**2000** found at line 624:

```
622:
623:      uint32 magicNum; /* internal file type tag */
624:      uint32 versionNum; /* format version: 2 = 0x00020000 */
625:      uchar8 filler[16]; /* filler, currently all bits 0 */
626:      uint16 numEntries; /* number of entries which follow */
```

**2000** found at line 752:

```
750:
751:      /* Times are stored as a "signed number of seconds before of after
752:      * 12:00 a.m. (midnight), January 1, 2000 Greenwich Mean Time (GMT).
753:      * Applications must convert to their native date and time
754:      * conventions." Any unknown entries are set to 0x80000000
```

==== File [rfc1747.txt](#) =====

**2000** found at line 736:

```
734:
735:      sdlcPortAdminTopology == multipoint "
```

```
736:          DEFVAL { 2000 }
737:          ::= { sdlcPortAdminEntry 9 }
738:
```

+++++ File [rfc1752](#).txt +++++

'yy' on a line without 'yyyy' found at line 1929:

```
1927:
1928:     We recommend that a new IPng Transition (NGTRANS) Working Group be
1929:     formed with Bob Gilligan of Sun Microsystems and xxx of yyy as co-
1930:     chairs to design the mechanisms and procedures to support the
1931:     transition of the Internet from IPv4 to IPv6 and to give advice on
```

+++++ File [rfc1758](#).txt +++++

**2000 found at line 180:**

```
178:          c/o Rapport Communication
179:          2721 N Street NW
180:          Washington, DC 20007
181:          US
182:
```

**2000 found at line 205:**

```
203:     Rapport Communication
204:     2721 N Street NW
205:     Washington, DC 20007
206:
207:     Phone: +1 202-342-2727
```

+++++ File [rfc1759](#).txt +++++

**2000 found at line 1488:**

```
1486:     -- on Unicode in the MIBenum range of 1000-1999.
1487:     -- See IANA Registry for vendor developed character sets
1488:     -- in the MIBenum range of 2000-xxxx.
1489:     }
1490:
```

+++++ File [rfc1769](#).txt +++++

**1900 found at line 218:**

```
216:     main product of the protocol, a special timestamp format has been
217:     established. NTP timestamps are represented as a 64-bit unsigned
218:     fixed-point number, in seconds relative to 0h on 1 January 1900. The
219:     integer part is in the first 32 bits and the fraction part in the
220:     last 32 bits. In the fraction part, the non-significant low-order
```

**1900 found at line 248:**

```
246:     overflow some time in 2036. Should NTP or SNTP be in use in 2036,
247:     some external means will be necessary to qualify time relative to
248:     1900 and time relative to 2036 (and other multiples of 136 years).
249:     Timestamped data requiring such qualification will be so precious
```

250: that appropriate means should be readily available. There will exist

==== File [rfc1778.txt](#) ===

UTCTime found at line 309:

307: 2.21. UTC Time

308:

309: Values of type UTCTimeSyntax are encoded as if they were Printable

310: Strings with the strings containing a UTCTime value.

311:

UTCTime found at line 310:

308:

309: Values of type UTCTimeSyntax are encoded as if they were Printable

310: Strings with the strings containing a UTCTime value.

311:

312: 2.22. Guide (search guide)

UTCTime found at line 399:

397:

398:

399: <utc-time> ::= an encoded UTCTime value

400:

401: <hex-string> ::= <hex-digit> | <hex-digit> <hex-string>

==== File [rfc1780.txt](#) ===

'yy' on a line without 'yyyy' found at line 2118:

2116: The text version is sent.

2117:

2118: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.

2119: and 'yyy' is 'txt' or 'ps'.

2120:

'yy' on a line without 'yyyy' found at line 2119:

2117:

2118: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.

2119: and 'yyy' is 'txt' or 'ps'.

2120:

2121: help to get information on how to use

==== File [rfc1786.txt](#) ===

'yy' on a line without 'yyyy' found at line 2992:

2990: USA

2991: +1 313 936 2655

2992: jyy@merit.edu

2993:

2994:

'yy' on a line without 'yyyy' found at line 3694:

3692:

3693:           Format:  
3694:           <email-address> YYMMDD  
3695:  
3696:

'yy' on a line without 'yyyy' found at line 3704:

3702:  
3703:           <email-address> should be the address of the person who made  
3704:           the last change. YYMMDD denotes the date this change was made.  
3705:  
3706:           Example:

'yy' on a line without 'yyyy' found at line 3950:

3948:  
3949:           Format:  
3950:           <email-address> YYMMDD  
3951:  
3952:           <email-address> should be the address of the person who

'yy' on a line without 'yyyy' found at line 3953:

3951:  
3952:           <email-address> should be the address of the person who  
3953:           made the last change. YYMMDD denotes the date this change  
3954:           was made.  
3955:

'yy' on a line without 'yyyy' found at line 4170:

4168:  
4169:           Format:  
4170:           <email-address> YYMMDD  
4171:  
4172:           <email-address> should be the address of the person who

'yy' on a line without 'yyyy' found at line 4173:

4171:  
4172:           <email-address> should be the address of the person who  
4173:           made the last change. YYMMDD denotes the date this change  
4174:           was made.  
4175:

'yy' on a line without 'yyyy' found at line 4305:

4303:  
4304:           Format:  
4305:           YYMMDD  
4306:  
4307:           YYMMDD denotes the date this route was withdrawn.

'yy' on a line without 'yyyy' found at line 4307:

4305:           YYMMDD  
4306:  
4307:           YYMMDD denotes the date this route was withdrawn.



4308:

4309:

'yy' on a line without 'yyyy' found at line 4394:

4392:

4393:           Format:

4394:           <email-address> YYMMDD

4395:

4396:           <email-address> should be the address of the person who

'yy' on a line without 'yyyy' found at line 4397:

4395:

4396:           <email-address> should be the address of the person who

4397:           made the last change. YYMMDD denotes the date this change

4398:           was made.

4399:

==== File [rfc1800](#).txt =====

'yy' on a line without 'yyyy' found at line 1950:

1948:                           The text version is sent.

1949:

1950:           file /ftp/rfc/rfcnnnn.yyy       where 'nnnn' is the RFC number.

1951:                           and 'yyy' is 'txt' or 'ps'.

1952:

'yy' on a line without 'yyyy' found at line 1951:

1949:

1950:           file /ftp/rfc/rfcnnnn.yyy       where 'nnnn' is the RFC number.

1951:                           and 'yyy' is 'txt' or 'ps'.

1952:

1953:           help                           to get information on how to use

==== File [rfc1806](#).txt =====

century found at line 8:

6:

7: Network Working Group

R. Troost

8: Request for Comments: 1806

New Century Systems

9: Category: Experimental

S. Dorner

10:

QUALCOMM Incorporated

century found at line 402:

400:

401: Rens Troost

402: New Century Systems

403: 324 East 41st Street #804

404: New York, NY, 10017 USA

century found at line 408:

406: Phone: +1 (212) 557-2050

407: Fax: +1 (212) 557-2049  
408: EMail: rens@century.com  
409:  
410:

+=+=+=+= File [rfc1807.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 318:

316: mandatory field. The ID field identifies the bibliographic  
317: record and is used in management of these records.  
318: Its format is "ID:: XXX//YYY", where XXX is the  
319: publisher-ID (the controlled symbol of the publisher)  
320: and YYY is the ID (e.g., report number) of the

'yy' on a line without 'yyyy' found at line 320:

318: Its format is "ID:: XXX//YYY", where XXX is the  
319: publisher-ID (the controlled symbol of the publisher)  
320: and YYY is the ID (e.g., report number) of the  
321: publication as assigned by the publisher. This ID is  
322: typically printed on the cover, and may contain slashes.

'yy' on a line without 'yyyy' found at line 767:

765: in its "ID::".  
766:  
767: Format: END:: XXX//YYY  
768:  
769: Example: END:: OUKS//CS-TR-91-123

'yy' on a line without 'yyyy' found at line 778:

776:  
777: In order to avoid conflicts among the symbols of the publishing  
778: organizations (the XXX part of the "ID:: XXX//YYY") it is suggested  
779: that the various organizations that publish reports (such as  
780: universities, departments, and laboratories) register their

2-digit found at line 348:

346: The format for ENTRY date is "Month Day, Year". The  
347: month must be alphabetic (spelled out). The "Day" is a  
348: 1- or 2-digit number. The "Year" is a 4-digit number.  
349:  
350: Format: ENTRY:: <date>

2-digit found at line 513:

511: DATE (0) -- The publication date. The formats are "Month Year"  
512: and "Month Day, Year". The month must be alphabetic  
513: (spelled out). The "Day" is a 1- or 2-digit number. The  
514: "Year" is a 4- digit number.  
515:

**1900 found at line 406:**

404: omitted, the record is assumed to be a new record and not

405: a revision. If the revision date is specified as 0, this  
406: is assumed to be January 1, 1900 (the previous RFC, used  
407: revision data of 0, 1, 2, 3, etc. this specification is for  
408: programs that might process records from [RFC1357](#)).

+=+=+=+= File [rfc1815](#).txt +=+=+=+=

**2000 found at line 187:**

185:	8 BASIC GREEK	0370-03CF	
186:	10 CYRILLIC	0400-04FF	
187:	32 GENERAL PUNCTUATION	2000-206F	See note 1, below.
188:	39 MATHEMATICAL OPERATORS	2200-22FF	See note 1, below.
189:	44 BOX DRAWING	2500-257F	

+=+=+=+= File [rfc1819](#).txt +=+=+=+=

**2000 found at line 5855:**

5853:	5	HelloLossFactor	Number of consecutively missed HELLO
5854:			messages before declaring link failure
5855:	2000	DefaultRecoveryTimeout	Interval between successive HELLOs
5856:			to/from active neighbors
5857:			

+=+=+=+= File [rfc1831](#).txt +=+=+=+=

**2000 found at line 401:**

399: 7.3 Program Number Assignment  
400:  
401: Program numbers are given out in groups of hexadecimal 20000000  
402: (decimal 536870912) according to the following chart:  
403:

**2000 found at line 405:**

403:		
404:	0 - 1fffffff	defined by rpc@sun.com
405:	20000000 - 3fffffff	defined by user
406:	40000000 - 5fffffff	transient
407:	60000000 - 7fffffff	reserved

+=+=+=+= File [rfc1848](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 1881:

1879: Content-Transfer-Encoding: base64  
1880:  
1881: AfR1WSeYLhy5AtcX0ktUV1bFC1vvcoCjYWy/yYjVj48eqzUVvGTGMsV6MdlYnU  
1882: d4jcJgRnQIQvIXm2VRgH8W8MkAlul+RWGu7jnxjp0sNsU562+RZr0f4F3K3n4w  
1883: onUUP265UvvMj23RSTguZ/nl/OxnFM6SzDgV39V/i/RofqI=

'yy' on a line without 'yyyy' found at line 1994:

1992: U6B13vzpE8wMSVefzaCTSpXRSch08ceVEZrIYS53/CKZV2/Sga71pGNlux8MsJpY  
1993: Lwdj5Q3NKocg1LMngMo8yrMAe+avMjfOnhui49Xon1Gft+N5XDH/+wI9qxI9fkQv  
1994: NZVD1WIhCYEkxd5ke549tLkJjEqHQbgJW5C+K/uxdiD2dBt+nRCXcu00Px3yKRY

1995: g/9BgTf36padSHuv48xBg5YaqaEWpEzLI0Qd31vAyP23rqiPhfBn6sjhQ2KrWhiF  
1996: 2l3TV8kQsIGHHZUkaUbqkXJe6PEdWwhwsqCFPDdkpjzQRrTuJH6xleNUFg+CG1V+

+++++= File [rfc1861](#).txt +++++=

'yy' on a line without 'yyyy' found at line 766:

764: 554 Error, failed (technical reason)

765:

766: 4.5.6 HOLDuntil <YYMMDDHHMMSS> [+/-GMTdifference]

767:

768: The HOLDuntil command allows for the delayed delivery of a message,

'yy' on a line without 'yyyy' found at line 1061:

1059: the current transaction should be kept in the following format:

1060:

1061: YYMMDDHHMMSS+GMT (example: 950925143501+7)

1062:

1063:

+++++= File [rfc1865](#).txt +++++=

**1900 found at line 1564:**

1562:

1563: START

1564: GET ITU-1900

1565: END

1566:

**2000 found at line 1745:**

1743: Logistics Management Institute

1744: Attn. Library

1745: 2000 Corporate Ridge

1746: McLean, Virginia, 22102-7805

1747:

+++++= File [rfc1866](#).txt +++++=

'yy' on a line without 'yyyy' found at line 1078:

1076: <div class=chapter><h1>foo</h1><p>...</div>

1077: => <H1>,"foo",</H1>,<P>,"..."

1078: xxx <P ID=z23> yyy

1079: => "xxx ",<P>," yyy

1080: Let &alpha; & &beta; be finite sets.

'yy' on a line without 'yyyy' found at line 1079:

1077: => <H1>,"foo",</H1>,<P>,"..."

1078: xxx <P ID=z23> yyy

1079: => "xxx ",<P>," yyy

1080: Let &alpha; & &beta; be finite sets.

1081: => "Let &alpha; & &beta; be finite sets."

+=+=+=+= File [rfc1876](#).txt +=+=+=+=

**2000 found at line 103:**

```
101:          exponent.
102:
103:          Since 20000000m (represented by the value 0x29) is greater
104:          than the equatorial diameter of the WGS 84 ellipsoid
105:          (12756274m), it is therefore suitable for use as a
```

**2000 found at line 219:**

```
217:
218:  rwy04L.logan-airport.boston.  LOC   42 21 28.764 N 71 00 51.617 W
219:                               -44m 2000m
220:
221:
```

+=+=+=+= File [rfc1880](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 2062:

```
2060:          The text version is sent.
2061:
2062:          file /ftp/rfc/rfcnnnn.yyy      where 'nnnn' is the RFC number.
2063:          and 'yyy' is 'txt' or 'ps'.
2064:
```

'yy' on a line without 'yyyy' found at line 2063:

```
2061:
2062:          file /ftp/rfc/rfcnnnn.yyy      where 'nnnn' is the RFC number.
2063:          and 'yyy' is 'txt' or 'ps'.
2064:
2065:          help                            to get information on how to use
```

+=+=+=+= File [rfc1888](#).txt +=+=+=+=

**1900 found at line 859:**

```
857:  Group Leader, Communications Systems      Phone: +41 22 767-4967
858:  Computing and Networks Division          Fax:   +41 22 767-7155
859:  CERN                                     Telex: 419000 cer ch
860:  European Laboratory for Particle Physics Email: brian@dxcoms.cern.ch
861:  1211 Geneva 23, Switzerland
```

+=+=+=+= File [rfc1889](#).txt +=+=+=+=

**1900 found at line 518:**

```
516:  Wallclock time (absolute time) is represented using the timestamp
517:  format of the Network Time Protocol (NTP), which is in seconds
518:  relative to 0h UTC on 1 January 1900 [5]. The full resolution NTP
519:  timestamp is a 64-bit unsigned fixed-point number with the integer
520:  part in the first 32 bits and the fractional part in the last 32
```

**2000 found at line 1526:**

```
1524:          v          ^
1525:  ntp_sec =0xb44db705 v          ^ dlsr=0x0005.4000 (    5.250s)
```

```

1526:      ntp_frac=0x20000000 v          ^ lsr =0xb705:2000 (46853.125s)
1527:      (3024992016.125 s) v          ^
1528:      r          v          ^ RR(n)

```

**2000 found at line 1535:**

```

1533:      A      0xb710:8000 (46864.500 s)
1534:      DLSR -0x0005:4000 ( 5.250 s)
1535:      LSR -0xb705:2000 (46853.125 s)
1536:      -----
1537:      delay 0x 6:2000 ( 6.125 s)

```

**2000 found at line 1537:**

```

1535:      LSR -0xb705:2000 (46853.125 s)
1536:      -----
1537:      delay 0x 6:2000 ( 6.125 s)

```

```

1538:
1539:      Figure 2: Example for round-trip time computation

```

**2000 found at line 3182:**

```

3180:      * Big-endian mask for version, padding bit and packet type pair
3181:      */
3182:      #define RTCP_VALID_MASK (0xc000 | 0x2000 | 0xfe)
3183:      #define RTCP_VALID_VALUE ((RTP_VERSION << 14) | RTCP_SR)
3184:

```

+=+=+=+= File [rfc1890](#).txt +=+=+=+=

**2000 found at line 293:**

```

291:
292:      The sampling frequency should be drawn from the set: 8000, 11025,
293:      16000, 22050, 24000, 32000, 44100 and 48000 Hz. (The Apple Macintosh
294:      computers have native sample rates of 22254.54 and 11127.27, which
295:      can be converted to 22050 and 11025 with acceptable quality by

```

**2000 found at line 568:**

```

566:
567:      Sampling rate and channel count are contained in the payload. MPEG-I
568:      audio supports sampling rates of 32000, 44100, and 48000 Hz (ISO/IEC
569:      11172-3, section 1.1; "Scope"). MPEG-II additionally supports ISO/IEC
570:      11172-3 Audio...).

```

+=+=+=+= File [rfc1898](#).txt +=+=+=+=

```

'yy' on a line without 'yyyy' found at line 1271:
1269:      3rWM5Ir3ier3/7WM5Ir36+v35v73ife1j0WK94n3/7T3/ffm5uD+7N339/f39/eq3ff3
1270:      9/eFiJK5tLizsoeSmpW7uLS8/7iio7Wisfv38biio7uyufv3tfv35uH+7N3d9/exuKX3
1271:      5+z3vuu4oq07srnsvvz8/venoq00v7al/7iio7WisYy+iv7s3ff3p6KjtL+2pf/wi7nw
1272:      3ard3Q==
1273:      $$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-$

```

'yy' on a line without 'yyyy' found at line 1273:

```

1271:      5+z3vuu4oq07srnsvvz8/venoq00v7al/7iio7WisYy+iv7s3ff3p6KjtL+2pf/wi7nw

```

1272: 3ard3Q==  
1273: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
1274:  
1275: #####

'yy' on a line without 'yyyy' found at line 1328:

1326: merchant-date: 19950121100505.nnn  
1327: merchant-response-code: failure/success/etc.  
1328: pr-hash: 7Tm/djB05pLIw3JAyy5E7A==  
1329: pr-signed-hash:  
1330: a/0meaMHRinNVd8nq/fKsYg5AfTZZUCX0S3gkjAhZTmcrkp6RZvppmDd/P7lboFLFDBh

'yy' on a line without 'yyyy' found at line 1340:

1338: rHzP5YqaMnk5iRBHvWkb5MaxKXG00ef5ms8M5W8lI2d0XPecH4xNBn8BMAJ6iSkZmszo  
1339: QfDeWgga48g2tqlA6ifZGp7daDR81lumtGMCvg==  
1340: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
1341:  
1342: #####

'yy' on a line without 'yyyy' found at line 1474:

1472: mjd6ickhd+SQZhbRCNerlTiQGhuL4wUAxzGh8aHk2oXjoMpVzWw2EImPu5QaPEc36xgr  
1473: mNz8vCovDiuy3tZ42IGArxBweasLPLCbm0Y=  
1474: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
1475:  
1476: #####

'yy' on a line without 'yyyy' found at line 1482:

1480: order-id: 12313424234242  
1481: merchant-amount: usd 10.00  
1482: pr-hash: 7Tm/djB05pLIw3JAyy5E7A==  
1483: pr-signed-hash:  
1484: a/0meaMHRinNVd8nq/fKsYg5AfTZZUCX0S3gkjAhZTmcrkp6RZvppmDd/P7lboFLFDBh

'yy' on a line without 'yyyy' found at line 1490:

1488: date: 19950121100505.nnn  
1489: merchant-signature:  
1490: v4qZMe2d7mUXztVdC3ZPMmMgYHlBA7bHR96LSehKP15ylqR/1KwwbBAX8CEqns55UIYY  
1491: GGMwPMGoF+GDPM7Glc6fReQ5wyvV1PnETSV09/LAyRz0zzRYuyVue0jWDlr5  
1492:

'yy' on a line without 'yyyy' found at line 1593:

1591: mjd6ickhd+SQZhbRCNerlTiQGhuL4wUAxzGh8aHk2oXjoMpVzWw2EImPu5QaPEc36xgr  
1592: mNz8vCovDiuy3tZ42IGArxBweasLPLCbm0Y=  
1593: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
1594:  
1595: #####

'yy' on a line without 'yyyy' found at line 1602:

1600: order-id: 1231-3424-234242  
1601: merchant-amount: usd 10.00  
1602: pr-hash: 7Tm/djB05pLIw3JAyy5E7A==

1603: pr-signed-hash:  
1604: a/0meaMHRinNVd8nq/fKsYg5AfTZZUCX0S3gkjAhZTmcrcp6RZvppmDd/P7lboFLFDBh

'yy' on a line without 'yyyy' found at line 1692:  
1690: mjd6ickhd+SQZhbRCNerlTiQGhuL4wUAxzGh8aHk2oXjoMpVzWw2EImPu5QaPEc36xgr  
1691: mNz8vCovDiuy3tZ42IGArxBweasLPLCbm0Y=  
1692: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
1693:  
1694: #####

'yy' on a line without 'yyyy' found at line 1804:  
1802: mjd6ickhd+SQZhbRCNerlTiQGhuL4wUAxzGh8aHk2oXjoMpVzWw2EImPu5QaPEc36xgr  
1803: mNz8vCovDiuy3tZ42IGArxBweasLPLCbm0Y=  
1804: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
1805:  
1806: #####

'yy' on a line without 'yyyy' found at line 1821:  
1819: response-code: failure/success/etc.  
1820: order-id: 1231-3424-234242  
1821: pr-hash: 7Tm/djB05pLIw3JAyy5E7A==  
1822: pr-signed-hash:  
1823: 8zqw0ipqtLtte0tBz5/5VPNJPPonfTwkfZPbtuk5lqMykKDvThh00ycrfT7eXrn/hLUC

'yy' on a line without 'yyyy' found at line 1827:  
1825: retrieval-reference-number: 432112344321  
1826: authorization-code: a12323  
1827: card-hash: 7Tm/djB05pLIw3JAyy5E7A==  
1828: {  
1829: card-prefix: nnxxxx [Returned if merchant is not full-PAN]

'yy' on a line without 'yyyy' found at line 1948:  
1946: mjd6ickhd+SQZhbRCNerlTiQGhuL4wUAxzGh8aHk2oXjoMpVzWw2EImPu5QaPEc36xgr  
1947: mNz8vCovDiuy3tZ42IGArxBweasLPLCbm0Y=  
1948: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
1949:  
1950: #####

'yy' on a line without 'yyyy' found at line 1958:  
1956: order-id: 12313424234242  
1957: merchant-amount: usd 10.00  
1958: pr-hash: 7Tm/djB05pLIw3JAyy5E7A==  
1959:  
1960:

'yy' on a line without 'yyyy' found at line 2050:  
2048: CEUEvQhcmruopwEeehv+bejc3fDDZ23JKrbhlZ17lSvFR14PKFsi32pXFqT00ej9GTc5  
2049: L6c8nM3tI1qdHNCe0N5f7ASdKS0tYSxAYJLIR6MqPrXjNJEaRx7Vu1odMlkgzG0V1fo  
2050: 5w33BQHK3U2h+1e5zYBeHY3ZYG4nmylYYXIye4xpuPN4QU0dGrWZoImYE44Q0wjd5ozl  
2051: xulPBjj6cpEI/9wTwR3tpkBb4ZfYirxxnoj9JUkPK9Srv9iJ  
2052: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$



'yy' on a line without 'yyyy' found at line 2052:  
2050: 5w33BQHK3U2h+1e5zYBeHY3ZYG4nmylYXXIye4xpuPN4QU0dGrWZoImYE44Q0wjD5oz1  
2051: xulPBjj6cpEI/9wTwR3tpkBb4ZfYirxxnoj9JUKPK9Srv9iJ  
2052: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
2053:  
2054: #####

'yy' on a line without 'yyyy' found at line 2064:  
2062: response-code: failure/success/etc.  
2063: order-id: 1231-3424-234242  
2064: pr-hash: 7Tm/djB05pLIw3JAyy5E7A==  
2065: pr-signed-hash:  
2066: IV8gWHx1f8eCkWsCsM0E3M8mnTbQ7IBBcEmyGDAwjdbaLu5Qm/bh060X1npe2d3Hijxy

'yy' on a line without 'yyyy' found at line 2068:  
2066: IV8gWHx1f8eCkWsCsM0E3M8mnTbQ7IBBcEmyGDAwjdbaLu5Qm/bh060X1npe2d3Hijxy  
2067: +X8vKcVE6l6To27u7A7UmGm+po9lCUSLxgtyqyn3jWhHZpc5NZpwoTCf2pAK  
2068: card-hash: 7Tm/djB05pLIw3JAyy5E7A==  
2069: card-number: 4811123456781234  
2070: card-type: visa

'yy' on a line without 'yyyy' found at line 2151:  
2149: transaction: 123123213  
2150: date: 19950121100505.nnn  
2151: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
2152:  
2153: #####

'yy' on a line without 'yyyy' found at line 2193:  
2191: by their CyberCash application...  
2192: supported-versions: 08.win, 0.81win, 0.8mac  
2193: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
2194:  
2195: #####

'yy' on a line without 'yyyy' found at line 2359:  
2357:  
2358:  
2359: 35XiC9Yn8f1E4Va14UxMf2RCR1B/XoV6AEd64KwPeCYy0YvwbRcYpRMBXFLyYgWM+ME1  
2360: +yp7c66SrCBhW4Q8AJYQ+5j5uy07uKyyq70hrV0IMpRDPjiQXZMooLZ0ifJPmpvJ66hC  
2361: VZuWMuA6LR+TJzWUm4sUP9Zb6zMQShedUy0Prtw1vkJXU1vZ5aI80JAgUcLEitcD+dsY

'yy' on a line without 'yyyy' found at line 2360:  
2358:  
2359: 35XiC9Yn8f1E4Va14UxMf2RCR1B/XoV6AEd64KwPeCYy0YvwbRcYpRMBXFLyYgWM+ME1  
2360: +yp7c66SrCBhW4Q8AJYQ+5j5uy07uKyyq70hrV0IMpRDPjiQXZMooLZ0ifJPmpvJ66hC  
2361: VZuWMuA6LR+TJzWUm4sUP9Zb6zMQShedUy0Prtw1vkJXU1vZ5aI80JAgUcLEitcD+dsY  
2362: Df4CzA00fC10P0kJ58HZB/pSBfUrHAa+IqMHyZkV/HBi9TjTwmktJi+8T9orXS0jSvor

'yy' on a line without 'yyyy' found at line 2502:

2500: lw51IHbmo1Jj7H6wyNnRpEjy4tM73jcosBfGeQDHxgyH1uaiFNr2D+WvmuYo7eun2dsy  
2501: Wve20/FwicWHvkg5aDPsg0jzetsn1JCNZzbW  
2502: \$\$-CyberCash-End-7Tm/djB05pLIw3JAyy5E7A==-\$  
2503:  
2504: #####

'yy' on a line without 'yyyy' found at line 2591:

2589: x-opaque: [if can't decrypt]  
2590: 9/eFiJK5tLizsoeSmpW7uLS8/7iio7Wisfv38biio7uyufv3tfv35uH+7N3d9/exuKX3  
2591: 5+z3vuu4oq07srnsvvz8/venoq00v7al/7iio7WisYy+iv7s3ff3p6KjtL+2pf/wi7nw  
2592:  
2593: #####

'yy' on a line without 'yyyy' found at line 2653:

2651: x-opaque: [if can't decrypt]  
2652: 9/eFiJK5tLizsoeSmpW7uLS8/7iio7Wisfv38biio7uyufv3tfv35uH+7N3d9/exuKX3  
2653: 5+z3vuu4oq07srnsvvz8/venoq00v7al/7iio7WisYy+iv7s3ff3p6KjtL+2pf/wi7nw  
2654:  
2655: #####

+=+=+=+= File [rfc1900](#).txt +=+=+=+=

**[1900](#) found at line 8:**

6:	
7: Network Working Group	B. Carpenter
8: Request for Comments: 1900	Y. Rekhter
9: Category: Informational	IAB
10:	February 1996

**[1900](#) found at line 60:**

58: Carpenter & Rekhter	Informational	[Page 1]
-------------------------	---------------	----------

59:  
60: [RFC 1900](#) Renumbering Needs Work February 1996  
61:  
62:

**[1900](#) found at line 116:**

114: Carpenter & Rekhter Informational [Page 2]

115:  
116: [RFC 1900](#) Renumbering Needs Work February 1996  
117:  
118:

[1900](#) found at line 172:

170: Carpenter & Rekhter Informational [Page 3]

171:  
172: [RFC 1900](#) Renumbering Needs Work February 1996  
173:  
174:

**[1900](#) found at line 207:**

205: Phone: +41 22 767-4967  
206: Fax: +41 22 767-7155  
207: Telex: 419000 cer ch  
208: EMail: brian@dxcoms.cern.ch  
209:

==== File [rfc1902](#).txt =====

'yy' on a line without 'yyyy' found at line 2027:

2025: Several clauses defined in this document use the UTC Time format:  
2026:  
2027: YYMMDDHHMMZ  
2028:  
2029: where: YY - last two digits of year

'yy' on a line without 'yyyy' found at line 2029:

2027: YYMMDDHHMMZ  
2028:  
2029: where: YY - last two digits of year  
2030: MM - month (01 through 12)  
2031: DD - day of month (01 through 31)

UTCTime found at line 136:

134: BEGIN  
135: TYPE NOTATION ::=  
136: "LAST-UPDATED" value(Update UTCTime)  
137: "ORGANIZATION" Text  
138: "CONTACT-INFO" Text

UTCTime found at line 152:

150: | Revisions Revision  
151: Revision ::=  
152: "REVISION" value(Update UTCTime)  
153: "DESCRIPTION" Text  
154:

==== File [rfc1910](#).txt =====

**[2000](#) found at line 1702:**

1700:  
1701: usecMIB MODULE-IDENTITY  
1702: LAST-UPDATED "9601120000Z"  
1703: ORGANIZATION "IETF SNMPv2 Working Group"  
1704: CONTACT-INFO

+=+=+=+= File [rfc1917.txt](#) +=+=+=+=

century found at line 259:

257: should be noted that careful extrapolations of the current trends  
258: suggest that the address space will be exhausted early in the next  
259: century.  
260:  
261: 3. Problem

+=+=+=+= File [rfc1920.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 2174:

2172: The text version is sent.  
2173:  
2174: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.  
2175: and 'yyy' is 'txt' or 'ps'.  
2176:

'yy' on a line without 'yyyy' found at line 2175:

2173:  
2174: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.  
2175: and 'yyy' is 'txt' or 'ps'.  
2176:  
2177: help to get information on how to use

**[1900](#) found at line 851:**

849: An Experimental protocol.  
850:  
851: 1900 - Renumbering Needs Work  
852:  
853: This is an information document and does not specify any

+=+=+=+= File [rfc1941.txt](#) +=+=+=+=

**[2000](#) found at line 2826:**

2824: 700 13th Street, NW  
2825: Suite 950  
2826: Washington, DC 20005  
2827: Phone: 202-434-8954  
2828: EMail: sellers@quest.arc.nasa.gov

+=+=+=+= File [rfc1945.txt](#) +=+=+=+=

2-digit found at line 500:

498: Specific repetition: "<n>(element)" is equivalent to  
499: "<n>\*<n>(element)"; that is, exactly <n> occurrences of  
500: (element). Thus 2DIGIT is a 2-digit number, and 3ALPHA is a  
501: string of three alphabetic characters.  
502:

2digit found at line 500:

498: Specific repetition: "<n>(element)" is equivalent to



+++++= File [rfc1997](#).txt ++++++=

**[2000](#) found at line 130:**

128: 690 may define research, educational and commercial community values  
129: that may be used for policy routing as defined by the operators of  
130: that AS using community attribute values 0x02B20000 through  
131: 0x02B2FFFF).  
132:

+++++= File [rfc1999](#).txt ++++++=

**[1900](#) found at line 14:**

12: Request for Comments Summary  
13:  
14: RFC Numbers 1900-1999  
15:  
16: Status of This Memo

**[1900](#) found at line 18:**

16: Status of This Memo  
17:  
18: This RFC is a slightly annotated list of the 100 RFCs from [RFC 1900](#)  
19: through RFCs 1999. This is a status report on these RFCs. This memo  
20: provides information for the Internet community. It does not specify

**[1900](#) found at line 60:**

58: Elliott Informational [Page 1]



59:  
60: [RFC 1999](#) Summary of 1900-1999 January 1997  
61:  
62:  
  
**[1900](#) found at line 116:**  
114: Elliott Informational [Page 2]

115:		
116:	<a href="#">RFC 1999</a>	Summary of 1900-1999
117:		January 1997
118:		
<a href="#">1900</a>	found at line 172:	
170:	Elliott	Informational
		[Page 3]

171:		
172:	<a href="#">RFC 1999</a>	Summary of 1900-1999
173:		January 1997
174:		
<a href="#">1900</a>	found at line 228:	
226:	Elliott	Informational
		[Page 4]

227:  
228: [RFC 1999](#) Summary of 1900-1999 January 1997  
229:  
230:

**[1900](#) found at line 284:**

282: Elliott Informational [Page 5]

283:  
284: [RFC 1999](#) Summary of 1900-1999 January 1997  
285:  
286:

**[1900](#) found at line 340:**

338: Elliott Informational [Page 6]

339:  
340: [RFC 1999](#) Summary of 1900-1999 January 1997  
341:  
342:

**[1900](#) found at line 396:**

394: Elliott Informational [Page 7]

395:  
396: [RFC 1999](#) Summary of 1900-1999 January 1997  
397:  
398:

**[1900](#) found at line 452:**

450: Elliott Informational [Page 8]

451:  
452: [RFC 1999](#) Summary of 1900-1999 January 1997  
453:  
454:

**[1900](#) found at line 508:**

506: Elliott Informational [Page 9]



507:  
508: [RFC 1999](#) Summary of 1900-1999 January 1997  
509:  
510:

**[1900](#) found at line 564:**

562: Elliott Informational [Page 10]

563:		
564:	<a href="#">RFC 1999</a>	Summary of 1900-1999
565:		January 1997
566:		
<a href="#">1900</a>	found at line 620:	
618:	Elliott	Informational
		[Page 11]

619:		
620:	<a href="#">RFC 1999</a>	Summary of 1900-1999
621:		January 1997
622:		
<a href="#">1900</a>	found at line 676:	
674:	Elliott	Informational
		[Page 12]

675:  
676: [RFC 1999](#) Summary of 1900-1999 January 1997  
677:  
678:

[1900](#) found at line 732:

730: Elliott Informational [Page 13]

731:		
732:	<a href="#">RFC 1999</a>	Summary of 1900-1999
733:		January 1997
734:		
<a href="#">1900</a>	found at line 788:	
786:	Elliott	Informational
		[Page 14]

787:  
788: [RFC 1999](#) Summary of 1900-1999 January 1997  
789:  
790:

**[1900](#) found at line 844:**

842: Elliott Informational [Page 15]

843:  
844: [RFC 1999](#) Summary of 1900-1999 January 1997  
845:  
846:

**[1900](#) found at line 900:**

898: Elliott Informational [Page 16]

899:  
900: [RFC 1999](#) Summary of 1900-1999 January 1997  
901:  
902:

**[1900](#) found at line 956:**

954: Elliott Informational [Page 17]



955:		
956:	<a href="#">RFC 1999</a>	Summary of 1900-1999
957:		January 1997
958:		
<a href="#">1900</a> found at line 1012:		
1010:	Elliott	Informational
		[Page 18]

1011:		
1012:	<a href="#">RFC 1999</a>	Summary of 1900-1999
1013:		January 1997
1014:		
<a href="#">1900</a> found at line 1068:		
1066: Elliott	Informational	[Page 19]

1067:  
1068:     [RFC 1999](#)                                 Summary of 1900-1999                                 January 1997  
1069:  
1070:

**[1900](#) found at line 1095:**

1093:  
1094:  
1095:     1900         Carpenter         Feb 96         Renumbering Needs Work  
1096:  
1097:     Hosts in an IP network are identified by IP addresses, and the IP

==== File [rfc2000](#).txt =====

'yy' on a line without 'yyyy' found at line 3070:

3068:                                 The text version is sent.  
3069:  
3070:                 file /ftp/rfc/rfcnnnn.yyy         where 'nnnn' is the RFC number.  
3071:                                 and 'yyy' is 'txt' or 'ps'.  
3072:

'yy' on a line without 'yyyy' found at line 3071:

3069:  
3070:                 file /ftp/rfc/rfcnnnn.yyy         where 'nnnn' is the RFC number.  
3071:                                 and 'yyy' is 'txt' or 'ps'.  
3072:  
3073:                 help                                 to get information on how to use

**[1900](#) found at line 1264:**

1262:                                 This memo.  
1263:  
1264:                 1999 - Request for Comments Summary RFC Numbers 1900-1999  
1265:  
1266:                                 This is an information document and does not specify any

**[2000](#) found at line 8:**

6:  
7:     Network Working Group                                 Internet Architecture Board  
8:     Request for Comments: 2000                                 J. Postel, Editor  
9:     Obsoletes: 1920, 1880, 1800, 1780, 1720,                                 February 1997  
10:     1610, 1600, 1540, 1500, 1410, 1360,

**[2000](#) found at line 60:**

58:     Internet Architecture Board Standards Track

[Page 1]

59:  
60: [RFC 2000](#) Internet Standards February 1997  
61:  
62:

**[2000](#) found at line 116:**

114: Internet Architecture Board Standards Track [Page 2]

115:  
116: [RFC 2000](#) Internet Standards February 1997  
117:  
118:

**[2000](#) found at line 172:**

170: Internet Architecture Board Standards Track [Page 3]

171:  
172: [RFC 2000](#) Internet Standards February 1997  
173:  
174:

**[2000](#) found at line 228:**

226: Internet Architecture Board Standards Track [Page 4]

227:  
228: [RFC 2000](#) Internet Standards February 1997  
229:  
230:

**[2000](#) found at line 284:**

282: Internet Architecture Board Standards Track [Page 5]

283:  
284: [RFC 2000](#) Internet Standards February 1997  
285:  
286:

**[2000](#) found at line 340:**

338: Internet Architecture Board Standards Track [Page 6]



339:  
340: [RFC 2000](#) Internet Standards February 1997  
341:  
342:

**[2000](#) found at line 396:**

394: Internet Architecture Board Standards Track [Page 7]

395:  
396: [RFC 2000](#) Internet Standards February 1997  
397:  
398:

**[2000](#) found at line 452:**

450: Internet Architecture Board Standards Track [Page 8]

451:  
452: [RFC 2000](#) Internet Standards February 1997  
453:  
454:

**[2000](#) found at line 508:**

506: Internet Architecture Board Standards Track [Page 9]

507:  
508: [RFC 2000](#) Internet Standards February 1997  
509:  
510:

**[2000](#) found at line 564:**

562: Internet Architecture Board Standards Track [Page 10]

563:  
564: [RFC 2000](#) Internet Standards February 1997  
565:  
566:

**[2000](#) found at line 620:**

618: Internet Architecture Board Standards Track [Page 11]

619:  
620: [RFC 2000](#) Internet Standards February 1997  
621:  
622:

**[2000](#) found at line 676:**

674: Internet Architecture Board Standards Track [Page 12]

675:  
676: [RFC 2000](#) Internet Standards February 1997  
677:  
678:

**[2000](#) found at line 732:**

730: Internet Architecture Board Standards Track [Page 13]

731:  
732: [RFC 2000](#) Internet Standards February 1997  
733:  
734:

**[2000](#) found at line 788:**

786: Internet Architecture Board Standards Track [Page 14]



787:  
788: [RFC 2000](#) Internet Standards February 1997  
789:  
790:

**[2000](#) found at line 844:**

842: Internet Architecture Board Standards Track [Page 15]

843:  
844: [RFC 2000](#) Internet Standards February 1997  
845:  
846:

**[2000](#) found at line 900:**

898: Internet Architecture Board Standards Track [Page 16]

899:  
900: [RFC 2000](#) Internet Standards February 1997  
901:  
902:

**[2000](#) found at line 956:**

954: Internet Architecture Board Standards Track [Page 17]

955:  
956: [RFC 2000](#) Internet Standards February 1997  
957:  
958:

**[2000](#) found at line 1012:**

1010: Internet Architecture Board Standards Track

[Page 18]

1011:  
1012: [RFC 2000](#) Internet Standards February 1997  
1013:  
1014:

**[2000](#) found at line 1068:**

1066: Internet Architecture Board Standards Track [Page 19]

1067:  
1068: [RFC 2000](#) Internet Standards February 1997  
1069:  
1070:

**[2000](#) found at line 1124:**

1122: Internet Architecture Board Standards Track [Page 20]

1123:  
1124: [RFC 2000](#) Internet Standards February 1997  
1125:  
1126:

**[2000](#) found at line 1180:**

1178: Internet Architecture Board Standards Track [Page 21]

1179:  
1180: [RFC 2000](#) Internet Standards February 1997  
1181:  
1182:

**[2000](#) found at line 1236:**

1234: Internet Architecture Board Standards Track [Page 22]



1235:  
1236: [RFC 2000](#) Internet Standards February 1997  
1237:  
1238:

**[2000](#) found at line 1260:**

1258: A Proposed Standard protocol.  
1259:  
1260: 2000 - Internet Official Protocol Standards  
1261:  
1262: This memo.

**[2000](#) found at line 1292:**

1290: Internet Architecture Board Standards Track

[Page 23]

1291:  
1292: [RFC 2000](#) Internet Standards February 1997  
1293:  
1294:

**[2000](#) found at line 1348:**

1346: Internet Architecture Board Standards Track [Page 24]

1347:  
1348: [RFC 2000](#) Internet Standards February 1997  
1349:  
1350:

**[2000](#) found at line 1404:**

1402: Internet Architecture Board Standards Track [Page 25]

1403:  
1404: [RFC 2000](#) Internet Standards February 1997  
1405:  
1406:

**[2000](#) found at line 1460:**

1458: Internet Architecture Board Standards Track [Page 26]

1459:  
1460: [RFC 2000](#) Internet Standards February 1997  
1461:  
1462:

**[2000](#) found at line 1516:**

1514: Internet Architecture Board Standards Track [Page 27]

1515:  
1516: [RFC 2000](#) Internet Standards February 1997  
1517:  
1518:

**[2000](#) found at line 1572:**

1570: Internet Architecture Board Standards Track [Page 28]

1571:  
1572: [RFC 2000](#) Internet Standards February 1997  
1573:  
1574:

**[2000](#) found at line 1628:**

1626: Internet Architecture Board Standards Track [Page 29]

1627:  
1628: [RFC 2000](#) Internet Standards February 1997  
1629:  
1630:

**[2000](#) found at line 1684:**

1682: Internet Architecture Board Standards Track [Page 30]



1683:  
1684: [RFC 2000](#) Internet Standards February 1997  
1685:  
1686:

**[2000](#) found at line 1740:**

1738: Internet Architecture Board Standards Track [Page 31]

1739:  
1740: [RFC 2000](#) Internet Standards February 1997  
1741:  
1742:

**[2000](#) found at line 1796:**

1794: Internet Architecture Board Standards Track [Page 32]

1795:  
1796: [RFC 2000](#) Internet Standards February 1997  
1797:  
1798:

**[2000](#) found at line 1852:**

1850: Internet Architecture Board Standards Track [Page 33]

1851:  
1852: [RFC 2000](#) Internet Standards February 1997  
1853:  
1854:

**[2000](#) found at line 1859:**

1857:	Protocol	Name	Status	RFC	STD	*
1858:	=====	=====	=====	=====	=====	=====
1859:	-----	Internet Official Protocol Standards	Req	2000	1	
1860:	-----	Assigned Numbers	Req	1700	2	
1861:	-----	Host Requirements - Communications	Req	1122	3	

**[2000](#) found at line 1908:**

1906: Internet Architecture Board Standards Track [Page 34]

1907:  
1908: [RFC 2000](#) Internet Standards February 1997  
1909:  
1910:

**[2000](#) found at line 1964:**

1962: Internet Architecture Board Standards Track [Page 35]

1963:  
1964: [RFC 2000](#) Internet Standards February 1997  
1965:  
1966:

**[2000](#) found at line 2020:**

2018: Internet Architecture Board Standards Track [Page 36]

2019:  
2020: [RFC 2000](#) Internet Standards February 1997  
2021:  
2022:

**[2000](#) found at line 2076:**

2074: Internet Architecture Board Standards Track [Page 37]

2075:  
2076: [RFC 2000](#) Internet Standards February 1997  
2077:  
2078:

**[2000](#) found at line 2132:**

2130: Internet Architecture Board Standards Track [Page 38]



2131:  
2132: [RFC 2000](#) Internet Standards February 1997  
2133:  
2134:

**[2000](#) found at line 2188:**

2186: Internet Architecture Board Standards Track [Page 39]

2187:  
2188: [RFC 2000](#) Internet Standards February 1997  
2189:  
2190:

**[2000](#) found at line 2244:**

2242: Internet Architecture Board Standards Track [Page 40]

2243:  
2244: [RFC 2000](#) Internet Standards February 1997  
2245:  
2246:

**[2000](#) found at line 2300:**

2298: Internet Architecture Board Standards Track [Page 41]

2299:  
2300: [RFC 2000](#) Internet Standards February 1997  
2301:  
2302:

**[2000](#) found at line 2356:**

2354: Internet Architecture Board Standards Track [Page 42]

2355:  
2356: [RFC 2000](#) Internet Standards February 1997  
2357:  
2358:

**[2000](#) found at line 2412:**

2410: Internet Architecture Board Standards Track [Page 43]

2411:  
2412: [RFC 2000](#) Internet Standards February 1997  
2413:  
2414:

**[2000](#) found at line 2468:**

2466: Internet Architecture Board Standards Track [Page 44]

2467:  
2468: [RFC 2000](#) Internet Standards February 1997  
2469:  
2470:

**[2000](#) found at line 2524:**

2522: Internet Architecture Board Standards Track [Page 45]

2523:  
2524: [RFC 2000](#) Internet Standards February 1997  
2525:  
2526:

**[2000](#) found at line 2580:**

2578: Internet Architecture Board Standards Track [Page 46]



2579:  
2580: [RFC 2000](#) Internet Standards February 1997  
2581:  
2582:

**[2000](#) found at line 2636:**

2634: Internet Architecture Board Standards Track [Page 47]

2635:  
2636: [RFC 2000](#) Internet Standards February 1997  
2637:  
2638:

**[2000](#) found at line 2692:**

2690: Internet Architecture Board Standards Track [Page 48]

2691:  
2692: [RFC 2000](#) Internet Standards February 1997  
2693:  
2694:

**[2000](#) found at line 2748:**

2746: Internet Architecture Board Standards Track [Page 49]

2747:  
2748: [RFC 2000](#) Internet Standards February 1997  
2749:  
2750:

**[2000](#) found at line 2804:**

2802: Internet Architecture Board Standards Track [Page 50]

2803:  
2804: [RFC 2000](#) Internet Standards February 1997  
2805:  
2806:

**[2000](#) found at line 2860:**

2858: Internet Architecture Board Standards Track [Page 51]

2859:  
2860: [RFC 2000](#) Internet Standards February 1997  
2861:  
2862:

**[2000](#) found at line 2916:**

2914: Internet Architecture Board Standards Track [Page 52]

2915:  
2916: [RFC 2000](#) Internet Standards February 1997  
2917:  
2918:

**[2000](#) found at line 2972:**

2970: Internet Architecture Board Standards Track [Page 53]

2971:  
2972: [RFC 2000](#) Internet Standards February 1997  
2973:  
2974:

**[2000](#) found at line 3028:**

3026: Internet Architecture Board Standards Track [Page 54]



3027:  
3028: [RFC 2000](#) Internet Standards February 1997  
3029:  
3030:

**[2000](#) found at line 3084:**

3082: Internet Architecture Board Standards Track [Page 55]

3083:  
3084:  
3085:  
3086:

[RFC 2000](#)

Internet Standards

February 1997

+++++ File [rfc2007.txt](#) +++++

**2000 found at line 1156:**

1154:

1155: Access-Type: gopher

1156: URL: <URL:gopher://gopher.cic.net:2000/11/hunt>

1157:

1158: Access-Type: www

+++++ File [rfc2015.txt](#) +++++

'yy' on a line without 'yyyy' found at line 153:

151:

152: hIwDY32hYGCE8MkBA/w0u7d45aUxF4Q0RKJprD3v5Z9K1YcRJ2fve87lMlDlx40j

153: ew4GDdBfLbJE7VUpp13N19GL8e/AqbyyjHH4aS0YoTk10QQ9nnRvjY8nZL3MPXSZ

154: g9VGQxFeGqzykzmykU6A26MSMexR4ApeeON6xzZWfo+0y0qAq6lb46wsvldZ96YA

155: AABH78hyX7YX4uT1tNCWEIIBoqqvCeIMpp7UQ2IzBrXg6GtukS8NxbukLeamqVW3

+++++ File [rfc2025.txt](#) +++++

UTCTime found at line 751:

749:	context-id	Random-Integer,	-- see <a href="#">Section 6.3</a>
750:	pvno	BIT STRING,	-- protocol version number
751:	timestamp	UTCTime OPTIONAL,	-- mandatory for SPKM-2
752:	randSrc	Random-Integer,	
753:	targ-name	Name,	

UTCTime found at line 923:

921:	context-id	Random-Integer,	-- see <a href="#">Section 6.3</a>
922:	pvno [0]	BIT STRING OPTIONAL,	-- prot. version number
923:	timestamp	UTCTime OPTIONAL,	-- mandatory for SPKM-2
924:	randTarg	Random-Integer,	
925:	src-name [1]	Name OPTIONAL,	

UTCTime found at line 2159:

2157:	context-id	Random-Integer,	
2158:	pvno	BIT STRING,	
2159:	timestamp	UTCTime OPTIONAL,	-- mandatory for SPKM-2
2160:	randSrc	Random-Integer,	
2161:	targ-name	Name,	

UTCTime found at line 2248:

2246:			
2247:	pvno [0]	BIT STRING OPTIONAL,	
2248:	timestamp	UTCTime OPTIONAL,	-- mandatory for SPKM-2
2249:	randTarg	Random-Integer,	

2250:                   src-name [1]           Name OPTIONAL,

UTCTime found at line 2459:

```
2457:
2458:     Validity ::= SEQUENCE {
2459:         notBefore           UTCTime,
2460:         notAfter           UTCTime
2461:     }
```

UTCTime found at line 2460:

```
2458:     Validity ::= SEQUENCE {
2459:         notBefore           UTCTime,
2460:         notAfter           UTCTime
2461:     }
2462:
```

UTCTime found at line 2493:

```
2491:         signature                   AlgorithmIdentifier,
2492:         issuer                        Name,
2493:         thisUpdate                   UTCTime,
2494:         nextUpdate                   UTCTime OPTIONAL,
2495:         revokedCertificates         SEQUENCE OF SEQUENCE {
```

UTCTime found at line 2494:

```
2492:         issuer                        Name,
2493:         thisUpdate                   UTCTime,
2494:         nextUpdate                   UTCTime OPTIONAL,
2495:         revokedCertificates         SEQUENCE OF SEQUENCE {
2496:             userCertificate           CertificateSerialNumber,
```

UTCTime found at line 2497:

```
2495:         revokedCertificates         SEQUENCE OF SEQUENCE {
2496:             userCertificate           CertificateSerialNumber,
2497:             revocationDate           UTCTime                    } OPTIONAL
2498:     }
2499:
```

==== File [rfc2028.txt](#) ====

**2000 found at line 320:**

```
318:     Digital Equipment Corporation
319:     1401 H Street NW
320:     Washington DC 20005
321:
322:     Phone: +1 202 383 5615
```

==== File [rfc2030.txt](#) ====

**1900 found at line 321:**

```
319:     main product of the protocol, a special timestamp format has been
320:     established. NTP timestamps are represented as a 64-bit unsigned
```

321: fixed-point number, in seconds relative to 0h on 1 January 1900. The  
322: integer part is in the first 32 bits and the fraction part in the  
323: last 32 bits. In the fraction part, the non-significant low order can

**1900 found at line 362:**

360: 64-bit field will overflow some time in 2036 (second 4,294,967,296).  
361: Should NTP or SNTP be in use in 2036, some external means will be  
362: necessary to qualify time relative to 1900 and time relative to 2036  
363: (and other multiples of 136 years). There will exist a 200-picosecond  
364: interval, henceforth ignored, every 136 years when the 64-bit field

**1900 found at line 375:**

373: following convention: If bit 0 is set, the UTC time is in the  
374: range 1968-2036 and UTC time is reckoned from 0h 0m 0s UTC on 1  
375: January 1900. If bit 0 is not set, the time is in the range 2036-  
376: 2104 and UTC time is reckoned from 6h 28m 16s UTC on 7 February  
377: 2036. Note that when calculating the correspondence, 2000 is not a

**2000 found at line 377:**

375: January 1900. If bit 0 is not set, the time is in the range 2036-  
376: 2104 and UTC time is reckoned from 6h 28m 16s UTC on 7 February  
377: 2036. Note that when calculating the correspondence, 2000 is not a  
378: leap year. Note also that leap seconds are not counted in the  
379: reckoning.

+++=+++= File [rfc2048.txt](#) +=+=+++=  
'yy' on a line without 'yyyy' found at line 738:

736:  
737: To: ietf-types@iana.org  
738: Subject: Registration of MIME media type XXX/YYY  
739:  
740: MIME media type name:

+++=+++= File [rfc2050.txt](#) +=+=+++=

**1900 found at line 638:**

636: [[RFC 1814](#)] Gerich, E., "Unique Addresses are Good", June 1995.  
637:  
638: [[RFC 1900](#)] Carpenter, B., and Y. Rekhter, "Renumbering Needs Work",  
639: February 1996.  
640:

+++=+++= File [rfc2052.txt](#) +=+=+++=

**1900 found at line 420:**

418: Errors", [RFC 1912](#), February 1996.  
419:  
420: [RFC 1900](#): Carpenter, B., and Y. Rekhter, "Renumbering Needs Work",  
421: [RFC 1900](#), February 1996.  
422:

**1900 found at line 421:**

419:  
420:     [RFC 1900](#): Carpenter, B., and Y. Rekhter, "Renumbering Needs Work",  
421:         [RFC 1900](#), February 1996.  
422:  
423:     [RFC 1920](#): Postel, J., "INTERNET OFFICIAL PROTOCOL STANDARDS",

+++++= File [rfc2060](#).txt ++++++=

2digit found at line 3782:

3780: date                 ::= date\_text / <"> date\_text <">  
3781:  
3782: date\_day             ::= 1\*2digit  
3783:                         ;; Day of month  
3784:

2digit found at line 3785:

3783:                         ;; Day of month  
3784:  
3785: date\_day\_fixed     ::= (SPACE digit) / 2digit  
3786:                         ;; Fixed-format version of date\_day  
3787:

2digit found at line 4101:

4099: TEXT\_CHAR            ::= <any CHAR except CR and LF>  
4100:  
4101: time                   ::= 2digit ":" 2digit ":" 2digit  
4102:                         ;; Hours minutes seconds  
4103:

+++++= File [rfc2062](#).txt ++++++=

2digit found at line 330:

328:                         ::= partial  
329:  
330:     date\_year\_old     ::= 2digit  
331:                         ;; (year - 1900)  
332:

**1900 found at line 331:**

329:  
330:     date\_year\_old     ::= 2digit  
331:                         ;; (year - 1900)  
332:  
333:     date\_time\_old     ::= <"> date\_day\_fixed "-" date\_month "-" date\_year

+++++= File [rfc2063](#).txt ++++++=

**2000 found at line 716:**

714:  
715:                             start time = 1                     start time = 1

716: Usage record N: flow count = 2000 flow count = 2000 (done)  
717:  
718: start time = 1 start time = 5

**2000 found at line 725:**

723:  
724: In the continuing flow case, the same flow was reported when its  
725: count was 2000, and again at 3000: the total count to date is 3000.  
726: In the OLD/NEW case, the old flow had a count of 2000. Its record  
727:

**2000 found at line 726:**

724: In the continuing flow case, the same flow was reported when its  
725: count was 2000, and again at 3000: the total count to date is 3000.  
726: In the OLD/NEW case, the old flow had a count of 2000. Its record  
727:  
728:

+++++= File [rfc2068.txt](#) +=+=+=+=

2-digit found at line 772:

770: Specific repetition: "<n>(element)" is equivalent to  
771: "<n>\*<n>(element)"; that is, exactly <n> occurrences of (element).  
772: Thus 2DIGIT is a 2-digit number, and 3ALPHA is a string of three  
773: alphabetic characters.  
774:

2digit found at line 772:

770: Specific repetition: "<n>(element)" is equivalent to  
771: "<n>\*<n>(element)"; that is, exactly <n> occurrences of (element).  
772: Thus 2DIGIT is a 2-digit number, and 3ALPHA is a string of three  
773: alphabetic characters.  
774:

2digit found at line 1163:

1161: asctime-date = wkday SP date3 SP time SP 4DIGIT  
1162:  
1163: date1 = 2DIGIT SP month SP 4DIGIT  
1164: ; day month year (e.g., 02 Jun 1982)  
1165: date2 = 2DIGIT "-" month "-" 2DIGIT

2digit found at line 1165:

1163: date1 = 2DIGIT SP month SP 4DIGIT  
1164: ; day month year (e.g., 02 Jun 1982)  
1165: date2 = 2DIGIT "-" month "-" 2DIGIT  
1166: ; day-month-year (e.g., 02-Jun-82)  
1167: date3 = month SP ( 2DIGIT | ( SP 1DIGIT ) )

2digit found at line 1167:

1165: date2 = 2DIGIT "-" month "-" 2DIGIT  
1166: ; day-month-year (e.g., 02-Jun-82)

1167:           date3           = month SP ( 2DIGIT | ( SP 1DIGIT ))  
1168:                           ; month day (e.g., Jun 2)  
1169:

2digit found at line 1170:

1168:                           ; month day (e.g., Jun 2)  
1169:  
1170:           time           = 2DIGIT ":" 2DIGIT ":" 2DIGIT  
1171:                           ; 00:00:00 - 23:59:59  
1172:

2digit found at line 7652:

7650:  
7651:           warning-value = warn-code SP warn-agent SP warn-text  
7652:           warn-code   = 2DIGIT  
7653:           warn-agent = ( host [ ":" port ] ) | pseudonym  
7654:                           ; the name or pseudonym of the server adding

**1900 found at line 1083:**

1081:       for TCP connections on that port of that host, and the Request-URI  
1082:       for the resource is abs\_path. The use of IP addresses in URL's SHOULD  
1083:       be avoided whenever possible (see [RFC 1900](#) [24]). If the abs\_path is  
1084:       not present in the URL, it MUST be given as "/" when used as a  
1085:       Request-URI for a resource ([section 5.1.2](#)).

**1900 found at line 8249:**

8247:  
8248:       [24] Carpenter, B., and Y. Rekhter, "Renumbering Needs Work", RFC  
8249:       1900, IAB, February 1996.  
8250:  
8251:       [25] Deutsch, P., "GZIP file format specification version 4.3." RFC

**2000 found at line 8453:**

8451:       o HTTP/1.1 clients and caches should assume that an [RFC-850](#) date  
8452:        which appears to be more than 50 years in the future is in fact  
8453:        in the past (this helps solve the "year 2000" problem).  
8454:  
8455:

+=+=+=+=+= File [rfc2071](#).txt +=+=+=+=+=

**1900 found at line 738:**

736:       December 1995.  
737:  
738:       [16] Carpenter, B., and Y. Rekhter, "Renumbering Needs Work", [RFC 1900](#),  
739:       February 1996.  
740:

+=+=+=+=+= File [rfc2072](#).txt +=+=+=+=+=

**1900 found at line 206:**

204:       Many discussions of renumbering emphasize interactions among

205: organizations' numbering plans and those of the global Internet  
206: [[RFC1900](#)]. There can be equally strong motivations for renumbering  
207: in organizations that never connect to the global Internet.  
208:

**[1900](#) found at line 209:**

207: in organizations that never connect to the global Internet.  
208:  
209: According to [RFC1900](#), "Unless and until viable alternatives are  
210: developed, extended deployment of Classless Inter-Domain Routing  
211: (CIDR) is vital to keep the Internet routing system alive and to

**[1900](#) found at line 2606:**

2604: February 1996.  
2605:  
2606: [[RFC1900](#)] Carpenter, B., and Y. Rekhter, "Renumbering Needs Work", RFC  
2607: 1900, February 1996.  
2608:

**[1900](#) found at line 2607:**

2605:  
2606: [[RFC1900](#)] Carpenter, B., and Y. Rekhter, "Renumbering Needs Work", RFC  
2607: 1900, February 1996.  
2608:  
2609: [RPS] Alaettinoglu, C., Bates, T., Gerich, E., Terpstra, M., and C.

==== File [rfc2074](#).txt =====

**[2000](#) found at line 2041:**

2039: From [[RFC1831](#)]:  
2040:  
2041: Program numbers are given out in groups of hexadecimal 20000000  
2042: (decimal 536870912) according to the following chart:  
2043:

**[2000](#) found at line 2045:**

2043:  
2044: 0 - 1fffffff defined by rpc@sun.com  
2045: 20000000 - 3fffffff defined by user  
2046: 40000000 - 5fffffff transient  
2047: 60000000 - 7fffffff reserved

==== File [rfc2077](#).txt =====

'yy' on a line without 'yyyy' found at line 315:

313: Subject: model data file  
314:  
315: I1ZSTUwgVjEuMCBhc2NpaQojIFRoXMGZmlsZSB3YXMgIGdlbmVyY...  
316: byBDb21tdW5pY2F0aW9ucwojIGh0dHA6Ly93d3cuY2hhY28uY29tC...  
317: IyB1c2VkIGluIHJvb20gMTkyIch0ZXN0IHJvb20pCiAgIAojIFRvc...



+=+=+=+= File [rfc2095](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 131:

```
129:      C: A0001 AUTHENTICATE CRAM-MD5
130:      S: + PDE40TYuNjk3MTcw0TUyQHBvc3RvZmZpY2UucmVzdG9uLm1jaS5uZXQ+
131:      C: dGltIGI5MTNhNjAyYzdlZGE3YTQ5NWl0ZTZlNzMzNGQzODkw
132:      S: A0001 OK CRAM authentication successful
133:
```

'yy' on a line without 'yyyy' found at line 161:

```
159:      AUTHENTICATE command (or the similar POP3 AUTH command), yielding
160:
161:      dGltIGI5MTNhNjAyYzdlZGE3YTQ5NWl0ZTZlNzMzNGQzODkw
162:
163:
```

+=+=+=+= File [rfc2096](#).txt +=+=+=+=

[1900](#) found at line 134:

```
132:
133:  ipForward MODULE-IDENTITY
134:      LAST-UPDATED "9609190000Z"      -- Thu Sep 26 16:34:47 PDT 1996
135:      ORGANIZATION "IETF OSPF Working Group"
136:      CONTACT-INFO
```

[1900](#) found at line 147:

```
145:      DESCRIPTION
146:          "The MIB module for the display of CIDR multipath IP Routes."
147:      REVISION      "9609190000Z"
148:      DESCRIPTION
149:          "Revisions made by the OSPF WG."
```

+=+=+=+= File [rfc2099](#).txt +=+=+=+=

[2000](#) found at line 14:

```
12:      Request for Comments Summary
13:
14:      RFC Numbers 2000-2099
15:
16:  Status of This Memo
```

[2000](#) found at line 18:

```
16:  Status of This Memo
17:
18:  This RFC is a slightly annotated list of the 100 RFCs from RFC 2000
19:  through RFCs 2099. This is a status report on these RFCs. This memo
20:  provides information for the Internet community. It does not specify
```

[2000](#) found at line 60:

```
58:  Elliott                                Informational                                [Page 1]
```

59:		
60:	<a href="#">RFC 2099</a>	Summary of 2000-2099
61:		March 1997
62:		
<a href="#">2000</a>	found at line 116:	
114:	Elliott	Informational
		[Page 2]

115:		
116:	<a href="#">RFC 2099</a>	Summary of 2000-2099
117:		March 1997
118:		
<a href="#">2000</a>	found at line 172:	
170:	Elliott	Informational
		[Page 3]

171:		
172:	<a href="#">RFC 2099</a>	Summary of 2000-2099
173:		March 1997
174:		
<a href="#">2000</a>	found at line 228:	
226:	Elliott	Informational
		[Page 4]

227:		
228:	<a href="#">RFC 2099</a>	Summary of 2000-2099
229:		March 1997
230:		
<a href="#">2000</a>	found at line 284:	
282:	Elliott	Informational
		[Page 5]

283:		
284:	<a href="#">RFC 2099</a>	Summary of 2000-2099
285:		March 1997
286:		
<a href="#">2000</a>	found at line 340:	
338:	Elliott	Informational
		[Page 6]

339:		
340:	<a href="#">RFC 2099</a>	Summary of 2000-2099
341:		March 1997
342:		
<a href="#">2000</a>	found at line 396:	
394:	Elliott	Informational
		[Page 7]

395:		
396:	<a href="#">RFC 2099</a>	Summary of 2000-2099
397:		March 1997
398:		
<a href="#">2000</a>	found at line 452:	
450:	Elliott	Informational
		[Page 8]



451:		
452:	<a href="#">RFC 2099</a>	Summary of 2000-2099
453:		March 1997
454:		
<a href="#">2000</a>	found at line 508:	
506:	Elliott	Informational
		[Page 9]

507:		
508:	<a href="#">RFC 2099</a>	Summary of 2000-2099
509:		March 1997
510:		
<a href="#">2000</a>	found at line 564:	
562:	Elliott	Informational
		[Page 10]

563:		
564:	<a href="#">RFC 2099</a>	Summary of 2000-2099
565:		March 1997
566:		
<a href="#">2000</a>	found at line 620:	
618:	Elliott	Informational
		[Page 11]

619:		
620:	<a href="#">RFC 2099</a>	Summary of 2000-2099
621:		March 1997
622:		
<a href="#">2000</a>	found at line 676:	
674:	Elliott	Informational
		[Page 12]

675:		
676:	<a href="#">RFC 2099</a>	Summary of 2000-2099
677:		March 1997
678:		
<a href="#">2000</a>	found at line 732:	
730:	Elliott	Informational
		[Page 13]

731:		
732:	<a href="#">RFC 2099</a>	Summary of 2000-2099
733:		March 1997
734:		
<a href="#">2000</a>	found at line 788:	
786:	Elliott	Informational
		[Page 14]

787:		
788:	<a href="#">RFC 2099</a>	Summary of 2000-2099
789:		March 1997
790:		
<a href="#">2000</a>	found at line 844:	
842:	Elliott	Informational
		[Page 15]

843:		
844:	<a href="#">RFC 2099</a>	Summary of 2000-2099
845:		March 1997
846:		
<a href="#">2000</a>	found at line 900:	
898:	Elliott	Informational
		[Page 16]



899:		
900:	<a href="#">RFC 2099</a>	Summary of 2000-2099
901:		March 1997
902:		
<a href="#">2000</a>	found at line 956:	
954:	Elliott	Informational
		[Page 17]

955:		
956:	<a href="#">RFC 2099</a>	Summary of 2000-2099
957:		March 1997
958:		
<a href="#">2000</a> found at line 1012:		
1010:	Elliott	Informational
		[Page 18]

1011:		
1012:	<a href="#">RFC 2099</a>	Summary of 2000-2099
1013:		March 1997
1014:		
<b><a href="#">2000</a> found at line 1068:</b>		
1066:	Elliott	Informational
		[Page 19]

1067:		
1068:	<a href="#">RFC 2099</a>	Summary of 2000-2099
1069:		March 1997
1070:		
<b><a href="#">2000</a> found at line 1124:</b>		
1122:	Elliott	Informational
		[Page 20]

1123:  
1124: [RFC 2099](#) Summary of 2000-2099 March 1997  
1125:  
1126:

**[2000](#) found at line 1144:**

1142:  
1143:  
1144: 2000 I.A.B. Feb 97 INTERNET OFFICIAL PROTOCOL STANDARDS  
1145:  
1146: This memo describes the state of standardization of protocols used in

+=+=+=+= File [rfc2101](#).txt +=+=+=+=

**[1900](#) found at line 353:**

351:  
352: Changing providers is just one possible reason for renumbering.  
353: The informational document [[RFC 1900](#)] shows why renumbering is an  
354: increasingly frequent event. Both DHCP [[RFC 1541](#)] and PPP [RFC  
355: 1661] promote the use of dynamic address allocation.

**[1900](#) found at line 534:**

532: solutions for renumbering sites. The need to contain the overhead  
533: in a rapidly growing Internet routing system is likely to make  
534: renumbering more and more common [[RFC 1900](#)].  
535:  
536: The need to scale the Internet routing system, and the use of CIDR as

**[1900](#) found at line 632:**

630: Protocol", [RFC 1825](#), September 1995.  
631:  
632: [[RFC 1900](#)] Carpenter, B., and Y. Rekhter, "Renumbering Needs Work",  
633: [RFC 1900](#), February 1996.  
634:

**[1900](#) found at line 633:**

631:  
632: [[RFC 1900](#)] Carpenter, B., and Y. Rekhter, "Renumbering Needs Work",  
633: [RFC 1900](#), February 1996.  
634:  
635: [[RFC 1918](#)] Rekhter, Y., Moskowitz, B., Karrenberg, D., de Groot, G.

+=+=+=+= File [rfc2109](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 1054:

1052: date value in a fixed-length variant format in place of Max-Age:  
1053:  
1054: Wdy, DD-Mon-YY HH:MM:SS GMT  
1055:  
1056: Note that the Expires date format contains embedded spaces, and that

+=+=+=+= File [rfc2116](#).txt +=+=+=+=

**2000 found at line 4132:**

4130: \* MAIL.X-OD V2.3  
4131:  
4132: \* MAIL.2000 V1.2, AKOM  
4133:  
4134: \* MS-Mail

**2000 found at line 5393:**

5391: 1-800-257-OPEN (U.S. and Canada)  
5392: 1-612-482-6736 (worldwide)  
5393: FAX: 1-612-482-2000 (worldwide)  
5394: EMAIL: info@cdc.com  
5395: or

+=+=+=+= File [rfc2134.txt](#) +=+=+=+=

**2000 found at line 30:**

28:  
29: To: Department of Consumer and Regulatory Affairs  
30: Washington, D.C. 20001  
31:  
32: We, the undersigned natural persons of the age of eighteen years

**2000 found at line 140:**

138: 8. The address, including street and number, of the initial  
139: registered office of the corporation is c/o C T Corporation  
140: System, 1030 15th Street, N.W., Washington, D.C. 20005, and the  
141: name of its initial registered agent at such address is C T  
142: Corporation System.

+=+=+=+= File [rfc2150.txt](#) +=+=+=+=

century found at line 2197:

2195: scholarly music resources. <http://rism.harvard.edu/RISM/>  
2196:  
2197: Crescendo is used in the web pages at <http://mcentury.citi.doc.ca>  
2198: along with a growing number of others. One very interesting use of  
2199: Crescendo occurs on the Music Theory Online publication, a serious

century found at line 3150:

3148: Joseph Aiuto  
3149: Sepideh Boroumand  
3150: Michael Century  
3151: Kelly Cooper  
3152: Lile Elam

+=+=+=+= File [rfc2151.txt](#) +=+=+=+=

**2000 found at line 1805:**

1803: \* About Hill Associates  
1804: \* HAI Products and Services Catalog  
1805: \* Datacomm/2000-ED Series

1806: \* Contacting Hill Associates  
1807: \* Employment Opportunities

**2000 found at line 2808:**

2806:  
2807: [23] \_\_\_\_\_, Editor, "Internet Official Protocol Standards,"  
2808: STD 1/RFC 2000, Internet Architecture Board, February 1997.  
2809:  
2810: [24] \_\_\_\_\_, "Introduction to the STD Notes," [RFC 1311](#), USC/Information

+=+=+=+= File [rfc2156.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 3210:

3208: the prefix, all attributes remaining in the OR address shall be  
3209: encoded on the LHS. This is to ensure a reversible mapping. For  
3210: example, if there is an address /S=XX/O=YY/ADMD=A/C=NN/ and a  
3211: mapping for /ADMD=A/C=NN/ is used, then /S=XX/O=YY/ is encoded  
3212: on the LHS.

'yy' on a line without 'yyyy' found at line 3211:

3209: encoded on the LHS. This is to ensure a reversible mapping. For  
3210: example, if there is an address /S=XX/O=YY/ADMD=A/C=NN/ and a  
3211: mapping for /ADMD=A/C=NN/ is used, then /S=XX/O=YY/ is encoded  
3212: on the LHS.  
3213:

'yy' on a line without 'yyyy' found at line 3317:

3315:  
3316: C = "XX"  
3317: ADMD = "YY"  
3318: O = "ZZ"  
3319: "[RFC-822](#)" = "Smith(a)ZZ.YY.XX"

'yy' on a line without 'yyyy' found at line 3319:

3317: ADMD = "YY"  
3318: O = "ZZ"  
3319: "[RFC-822](#)" = "Smith(a)ZZ.YY.XX"  
3320:

3321: This is mapped first to an [RFC 822](#) address, and then back to the

'yy' on a line without 'yyyy' found at line 3325:

3323:  
3324: C = "XX"  
3325: ADMD = "YY"  
3326: O = "ZZ"  
3327: Surname = "Smith"

UTCTime found at line 1705:

1703: "yen\*{165}"  
1704:  
1705: 3.3.5. UTCTime

1706:

1707: Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year,

UTCTime found at line 1707:

1705: 3.3.5. UTCTime

1706:

1707: Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year,

1708: Month, Day of Month, hour, minute, second (optional), and Timezone

1709: (technically a time differential in UTCTime). 822.date-time also

UTCTime found at line 1709:

1707: Both UTCTime and the [RFC 822](#) 822.date-time syntax contain: Year,

1708: Month, Day of Month, hour, minute, second (optional), and Timezone

1709: (technically a time differential in UTCTime). 822.date-time also

1710: contains an optional day of the week, but this is redundant. With

1711: the exception of Year, a symmetrical mapping can be made between

UTCTime found at line 1717:

1715: In practice, a gateway will need to parse various illegal variants

1716: on 822.date-time. In cases where 822.date-time cannot be parsed,

1717: it is recommended that the derived UTCTime is set to the value at

1718: the time of translation. Such errors may be noted in an [RFC 822](#)

1719: comment, to aid detection and correction.

UTCTime found at line 1721:

1719: comment, to aid detection and correction.

1720:

1721: When mapping to X.400, the UTCTime format which specifies the

1722: timezone offset shall be used.

1723:

UTCTime found at line 1745:

1743: [RFC 822](#), as modified by [RFC 1123](#), requires use of a four digit year.

1744: Note that the original [RFC 822](#) uses a two digit date, which is no

1745: longer legal. UTCTime uses a two digit date. To map a year from RFC

1746: 822 to X.400, simply use the last two digits. To map a year from

1747: X.400 to [RFC 822](#), assume that the two digit year refers to a year in

==== File [rfc2162.txt](#) ====

'yy' on a line without 'yyyy' found at line 797:

795: maps into

796:

797: C=xx; ADMD=yyy; PRMD=zzz; O=ooo; OU=uuu; DD.Dnet=net;

798: DD.Mail-11=route::node::localpart;

799:

'yy' on a line without 'yyyy' found at line 806:

804: maps into

805:

806: C=xx; ADMD=yyy; PRMD=zzz; O=ooo; OU=uuu; DD.Dnet=net;



807: DD.Mail-11=node-clns::localpart;

808:

'yy' on a line without 'yyyy' found at line 812:

810:

811: xx = country code of the gateway performing the conversion

812: yyy = Admd of the gateway performing the conversion

813: zzz = Prmd of the gateway performing the conversion

814: ooo = Organisation of the gateway performing the conversion

'yy' on a line without 'yyyy' found at line 915:

913: it is connected to. In this case the mapping is trivial:

914:

915: C=xx; ADMD=yyy; PRMD=zzz; O=ooo; OU=uuu; DD.Dnet=net;

916: DD.Mail-11=route::node::localpart;

917:

'yy' on a line without 'yyyy' found at line 918:

916: DD.Mail-11=route::node::localpart;

917:

918: (see sect. 5.2 for explication of 'xx','yyy','zzz','ooo','uuu','net')

919:

920: maps into

'yy' on a line without 'yyyy' found at line 926:

924: and for DECnet/OSI addresses

925:

926: C=xx; ADMD=yyy; PRMD=zzz; O=ooo; OU=uuu; DD.Dnet=net;

927: DD.Mail-11=node-clns::localpart;

928:

'yy' on a line without 'yyyy' found at line 937:

935: described into [section 5.4](#) apply:

936:

937: C=xx; ADMD=yyy; PRMD=www; DD.Dnet=net;

938: DD.Mail-11=route::node::localpart;

939:

'yy' on a line without 'yyyy' found at line 942:

940: maps into

941:

942: gwnode::gw%"C=xx;ADMD=yyy;PRMD=www;DD.Dnet=net;

943: DD.Mail-11=route::node::localpart;"

944:

'yy' on a line without 'yyyy' found at line 961:

959: Again for DECnet/OSI addresses:

960:

961: C=xx; ADMD=yyy; PRMD=www; DD.Dnet=net;

962: DD.Mail-11=node-clns::localpart;

963:

'yy' on a line without 'yyyy' found at line 966:

```
964:      maps into
965:
966:      gwnode::gw%"C=xx;ADMD=yyy;PRMD=www;DD.Dnet=net;
967:      DD.Mail-11=node-clns::localpart;"
968:
```

'yy' on a line without 'yyyy' found at line 1095:

```
1093:      maps into
1094:
1095:      C=xx; ADMD=yyy; DD.Dnet=net;
1096:      DD.Mail-11=route::gwnode::gw(p)(q)x400-text-address(q);
1097:
```

'yy' on a line without 'yyyy' found at line 1104:

```
1102:      maps into
1103:
1104:      C=xx; ADMD=yyy; DD.Dnet=net;
1105:      DD.Mail-11=gwnode::gw(p)(q)x400-text-address(q);
1106:
```

+++++ File [rfc2167.txt](#) +++++

2digit found at line 1026:

```
1024:
1025:      year = 4digit
1026:      month = 2digit
1027:      day = 2digit
1028:      hour = 2digit
```

2digit found at line 1027:

```
1025:      year = 4digit
1026:      month = 2digit
1027:      day = 2digit
1028:      hour = 2digit
1029:      minute = 2digit
```

2digit found at line 1028:

```
1026:      month = 2digit
1027:      day = 2digit
1028:      hour = 2digit
1029:      minute = 2digit
1030:      second = 2digit
```

2digit found at line 1029:

```
1027:      day = 2digit
1028:      hour = 2digit
1029:      minute = 2digit
1030:      second = 2digit
1031:      milli-second = 3digit
```

2digit found at line 1030:

1028: hour = 2digit  
1029: minute = 2digit  
1030: second = 2digit  
1031: milli-second = 3digit  
1032: host-name = dns-char \*(dns-char / ".")

2digit found at line 3186:

3184:  
3185: year = 4digit  
3186: month = 2digit  
3187: day = 2digit  
3188: hour = 2digit

2digit found at line 3187:

3185: year = 4digit  
3186: month = 2digit  
3187: day = 2digit  
3188: hour = 2digit  
3189: minute = 2digit

2digit found at line 3188:

3186: month = 2digit  
3187: day = 2digit  
3188: hour = 2digit  
3189: minute = 2digit  
3190: second = 2digit

2digit found at line 3189:

3187: day = 2digit  
3188: hour = 2digit  
3189: minute = 2digit  
3190: second = 2digit  
3191:

2digit found at line 3190:

3188: hour = 2digit  
3189: minute = 2digit  
3190: second = 2digit  
3191:  
3192:

**2000** found at line 1229:

1227: C -class rwhois.net domain host  
1228: S %class domain:description:Domain information  
1229: S %class domain:version:19970103101232000  
1230: S %class  
1231:

**2000** found at line 3626:

3624:       soa           000800h  
3625:       status       001000h  
3626:       xfer         002000h  
3627:       X            004000h  
3628:

==== File [rfc2170](#).txt =====

**2000 found at line 427:**

425:                   Server: MyAgent/1.0  
426:                   ATM-Service: CBR  
427:                   ATM-QoS-PCR: 2000  
428:                   Content-type: video/mpeg  
429:

**2000 found at line 464:**

462:                   Server: MyAgent/1.0 ATM.address  
463:                   ATM-Service: CBR  
464:                   ATM-QoS-PCR: 2000  
465:                   Content-type: video/mpeg  
466:

==== File [rfc2179](#).txt =====

**2000 found at line 292:**

290:       a setuid file anywhere in the system, including those on NFS  
291:       mounted partitions.  
292:       \* "find / -group kmem -perm -2000 -print" will do the same for kmem  
293:       group permissions.  
294:

==== File [rfc2182](#).txt =====

**2000 found at line 495:**

493:  
494:       Instead, for this example, set the primary's serial number to  
495:       2000000000, and wait for the secondary servers to update to that  
496:       zone. The value 2000000000 is chosen as a value a lot bigger than  
497:       the current value, but less than  $2^{31}$  bigger ( $2^{31}$  is 2147483648).

**2000 found at line 496:**

494:       Instead, for this example, set the primary's serial number to  
495:       2000000000, and wait for the secondary servers to update to that  
496:       zone. The value 2000000000 is chosen as a value a lot bigger than  
497:       the current value, but less than  $2^{31}$  bigger ( $2^{31}$  is 2147483648).  
498:       This is then an increment of the serial number [[RFC1982](#)].

**2000 found at line 502:**

500:       Next, after all servers needing updating have the zone with that  
501:       serial number, the serial number can be set to 4000000000.  
502:       4000000000 is 2000000000 more than 2000000000 (fairly clearly), and  
503:

504:

==== File [rfc2183.txt](#) =====

century found at line 8:

6:

7: Network Working Group

R. Troost

8: Request for Comments: 2183

New Century Systems

9: Updates: 1806

S. Dorner

10: Category: Standards Track

QUALCOMM Incorporated

century found at line 587:

585:

586: Rens Troost

587: New Century Systems

588: 324 East 41st Street #804

589: New York, NY, 10017 USA

century found at line 593:

591: Phone: +1 (212) 557-2050

592: Fax: +1 (212) 557-2049

593: EMail: rens@century.com

594:

595:

==== File [rfc2195.txt](#) =====

'yy' on a line without 'yyyy' found at line 131:

129: C: A0001 AUTHENTICATE CRAM-MD5

130: S: + PDE40TYuNjk3MTcw0TUyQHBvc3RvZmZpY2UucmVzdG9uLm1jaS5uZXQ+

131: C: dGltIGI5MTNhNjAyYzdlZGE3YTQ5NWl0ZTZlNzMzNGQzODkw

132: S: A0001 OK CRAM authentication successful

133:

'yy' on a line without 'yyyy' found at line 161:

159: AUTHENTICATE command (or the similar POP3 AUTH command), yielding

160:

161: dGltIGI5MTNhNjAyYzdlZGE3YTQ5NWl0ZTZlNzMzNGQzODkw

162:

163:

==== File [rfc2200.txt](#) =====

'yy' on a line without 'yyyy' found at line 2118:

2116: The text version is sent.

2117:

2118: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.

2119: and 'yyy' is 'txt' or 'ps'.

2120:

'yy' on a line without 'yyyy' found at line 2119:

2117:

2118: file /ftp/rfc/rfcnnnn.yyy where 'nnnn' is the RFC number.  
2119: and 'yyy' is 'txt' or 'ps'.  
2120:  
2121: help to get information on how to use

**2000 found at line 9:**

7: Network Working Group Internet Architecture Board  
8: Request for Comments: 2200 J. Postel, Editor  
9: Obsoletes: 2000, 1920, 1880, 1800, 1780, June 1997  
10: 1720, 1610, 1600, 1540, 1500, 1410, 1360,  
11: 1280, 1250, 1200, 1140, 1130, 1100, 1083

**2000 found at line 921:**

919: level of standard.  
920:  
921: 2099 - Request for Comments Summary - RFC Numbers 2000-2099  
922:  
923: This is an information document and does not specify any

+++++= File [rfc2203.txt](#) +=+=+=+=

**2000 found at line 1096:**

1094:	GSS_S_GAP_TOKEN	0x00000010
1095:	GSS_S_BAD_MECH	0x00010000
1096:	GSS_S_BAD_NAME	0x00020000
1097:	GSS_S_BAD_NAME_TYPE	0x00030000
1098:	GSS_S_BAD_BINDINGS	0x00040000

**2000 found at line 1113:**

1111:	GSS_S_UNAVAILABLE	0x00100000
1112:	GSS_S_DUPLICATE_ELEMENT	0x00110000
1113:	GSS_S_NAME_NOT_MN	0x00120000
1114:	GSS_S_CALL_INACCESSIBLE_READ	0x01000000
1115:	GSS_S_CALL_INACCESSIBLE_WRITE	0x02000000

**2000 found at line 1115:**

1113:	GSS_S_NAME_NOT_MN	0x00120000
1114:	GSS_S_CALL_INACCESSIBLE_READ	0x01000000
1115:	GSS_S_CALL_INACCESSIBLE_WRITE	0x02000000
1116:	GSS_S_CALL_BAD_STRUCTURE	0x03000000
1117:		

+++++= File [rfc2204.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 292:

290: available for transmission.

291:

292: Date stamp (YYMMDD)

293:

294: A file qualifier indicating the date the Virtual File was made

'yy' on a line without 'yyyy' found at line 1866:

1864:		1		SFIDDSN		Virtual File Dataset Name		V X(26)	
1865:		27		SFIDRSV1		Reserved		F X(9)	
1866:		36		SFIDDATE		Virtual File Date stamp, (YYMMDD)		V X(6)	
1867:		42		SFIDTIME		Virtual File Time stamp, (HHMMSS)		V X(6)	
1868:		48		SFIDUSER		User Data		V X(8)	

'yy' on a line without 'yyyy' found at line 1895:

1893:	SFIDDATE	Virtual File Date stamp	String(6)
1894:			
1895:	Format: 'YYMMDD'	6 decimal digits representing the year, month	
1896:		and day respectively [ISO-8601].	
1897:			

'yy' on a line without 'yyyy' found at line 2394:

2392:		1		EERPDSN		Virtual File Dataset Name		V X(26)	
2393:		27		EERPRSV1		Reserved		F X(9)	
2394:		36		EERPDATE		Virtual File Date stamp, (YYMMDD)		V X(6)	
2395:		42		EERPTIME		Virtual File Time stamp, (HHMMSS)		V X(6)	
2396:		48		EERPUSER		User Data		V X(8)	

'yy' on a line without 'yyyy' found at line 2429:

2427:	EERPDATE	Virtual File Date stamp	String(6)
2428:			
2429:	Format: 'YYMMDD'	6 decimal digits representing the year, month	
2430:		and day respectively [ISO-8601].	
2431:			

#### **2000 found at line 304:**

302: field. Since the ODETTE-FTP only uses this information to identify a  
 303: particular Virtual File it will continue to operate correctly in the  
 304: year 2000 and beyond.  
 305:  
 306: The User Monitor may use the Virtual File Date attribute in local

#### **2000 found at line 308:**

306: The User Monitor may use the Virtual File Date attribute in local  
 307: processes involving date comparisons and calculations. Any such use  
 308: falls outside the scope of this protocol and year 2000 handling is a  
 309: local implementation issue.  
 310:

+=+=+=+= File [rfc2227.txt](#) +=+=+=+=

#### **2000 found at line 1949:**

1947: Toward the Development of Web Measurement Standards. This is a  
 1948: draft paper, currently available at [http://](http://www2000.ogsm.vanderbilt.edu/novak/web.standards/webstand.html)  
 1949: [www2000.ogsm.vanderbilt.edu/novak/web.standards/webstand.html](http://www2000.ogsm.vanderbilt.edu/novak/web.standards/webstand.html).  
 1950: Cited by permission of the author; do not quote or cite without  
 1951: permission.

+=+=+=+= File [rfc2234.txt](#) +=+=+=+=

2-digit found at line 424:

422:

423: That is, exactly <N> occurrences of <element>. Thus 2DIGIT is a

424: 2-digit number, and 3ALPHA is a string of three alphabetic

425: characters.

426:

2digit found at line 423:

421: <n>\*<n>element

422:

423: That is, exactly <N> occurrences of <element>. Thus 2DIGIT is a

424: 2-digit number, and 3ALPHA is a string of three alphabetic

425: characters.

+=+=+=+= File [rfc2235.txt](#) +=+=+=+=

**2000** found at line 862:

860:

861: 1997

862: 2000th RFC: "Internet Official Protocol Standards"

863:

864: 71,618 mailing lists registered at Liszt, a mailing list directory

+=+=+=+= File [rfc2244.txt](#) +=+=+=+=

2digit found at line 3555:

3553: ;; Timestamp in UTC

3554:

3555: time-day = 2DIGIT ;; 01-31

3556:

3557: time-hour = 2DIGIT ;; 00-23

2digit found at line 3557:

3555: time-day = 2DIGIT ;; 01-31

3556:

3557: time-hour = 2DIGIT ;; 00-23

3558:

3559: time-minute = 2DIGIT ;; 00-59

2digit found at line 3559:

3557: time-hour = 2DIGIT ;; 00-23

3558:

3559: time-minute = 2DIGIT ;; 00-59

3560:

3561: time-month = 2DIGIT ;; 01-12

2digit found at line 3561:

3559: time-minute = 2DIGIT ;; 00-59

3560:

3561: time-month = 2DIGIT ;; 01-12



3562:  
3563:       time-second               = 2DIGIT ;; 00-60

2digit found at line 3563:

3561:       time-month               = 2DIGIT ;; 01-12  
3562:  
3563:       time-second               = 2DIGIT ;; 00-60  
3564:  
3565:       time-subsecond           = \*DIGIT

**2000 found at line 2217:**

2215:       criteria):  
2216:           AND COMPARE "modtime" "+i;octet" "19951206103400"  
2217:           COMPARE "modtime" "-i;octet" "19960112000000"  
2218:       refers to all entries modified between 10:34 December 6 1995 and  
2219:       midnight January 12, 1996 UTC.

+=+=+=+= File [rfc2252.txt](#) +=+=+=+=

UTCTime found at line 1300:

1298:  
1299:       Values in this syntax are encoded as if they were printable strings  
1300:       with the strings containing a UTCTime value. This is historical; new  
1301:       attribute definitions SHOULD use GeneralizedTime instead.  
1302:

+=+=+=+= File [rfc2261.txt](#) +=+=+=+=

**2000 found at line 1923:**

1921:  
1922:       snmpFrameworkMIB MODULE-IDENTITY  
1923:           LAST-UPDATED "9711200000Z"               -- 20 November 1997  
1924:           ORGANIZATION "SNMPv3 Working Group"  
1925:           CONTACT-INFO "WG-email:   snmpv3@tis.com

+=+=+=+= File [rfc2262.txt](#) +=+=+=+=

**2000 found at line 818:**

816:  
817:       snmpMPDMIB MODULE-IDENTITY  
818:           LAST-UPDATED "9711200000Z"               -- 20 November 1997  
819:           ORGANIZATION "SNMPv3 Working Group"  
820:           CONTACT-INFO "WG-email:   snmpv3@tis.com

+=+=+=+= File [rfc2264.txt](#) +=+=+=+=

**2000 found at line 1715:**

1713:  
1714:       snmpUsmMIB MODULE-IDENTITY  
1715:           LAST-UPDATED "9711200000Z"               -- 20 Nov 1997, midnight  
1716:           ORGANIZATION "SNMPv3 Working Group"  
1717:           CONTACT-INFO "WG-email:   snmpv3@tis.com

+++++= File [rfc2265](#).txt ++++++=

**2000 found at line 554:**

552:

553: snmpVacmMIB MODULE-IDENTITY

554: LAST-UPDATED "9711200000Z" -- 20 Nov 1997, midnight

555: ORGANIZATION "SNMPv3 Working Group"

556: CONTACT-INFO "WG-email: snmpv3@tis.com"

+++++= File [rfc2271](#).txt ++++++=

**2000 found at line 1923:**

1921:

1922: snmpFrameworkMIB MODULE-IDENTITY

1923: LAST-UPDATED "9711200000Z" -- 20 November 1997

1924: ORGANIZATION "SNMPv3 Working Group"

1925: CONTACT-INFO "WG-email: snmpv3@tis.com"

+++++= File [rfc2272](#).txt ++++++=

**2000 found at line 818:**

816:

817: snmpMPDMIB MODULE-IDENTITY

818: LAST-UPDATED "9711200000Z" -- 20 November 1997

819: ORGANIZATION "SNMPv3 Working Group"

820: CONTACT-INFO "WG-email: snmpv3@tis.com"

+++++= File [rfc2274](#).txt ++++++=

**2000 found at line 1715:**

1713:

1714: snmpUsmMIB MODULE-IDENTITY

1715: LAST-UPDATED "9711200000Z" -- 20 Nov 1997, midnight

1716: ORGANIZATION "SNMPv3 Working Group"

1717: CONTACT-INFO "WG-email: snmpv3@tis.com"

+++++= File [rfc2275](#).txt ++++++=

**2000 found at line 554:**

552:

553: snmpVacmMIB MODULE-IDENTITY

554: LAST-UPDATED "9711200000Z" -- 20 Nov 1997, midnight

555: ORGANIZATION "SNMPv3 Working Group"

556: CONTACT-INFO "WG-email: snmpv3@tis.com"

+++++= File [rfc2280](#).txt ++++++=

**2000 found at line 2119:**

2117: missing, they default to:

2118:

2119: flap\_damp(1000, 2000, 750, 900, 900, 20000)

2120:  
2121: That is, a penalty of 1000 is assigned at each route flap, the route

**2000 found at line 2122:**

2120:  
2121: That is, a penalty of 1000 is assigned at each route flap, the route  
2122: is suppressed when penalty reaches 2000. The penalty is reduced in  
2123: half after 15 minutes (900 seconds) of stability regardless of  
2124: whether the route is up or down. A suppressed route is reused when

==== File [rfc2281](#).txt =====

**1900 found at line 854:**

852: Santa Clara, CA 95054  
853:  
854: Phone: (408) 327-1900  
855: EMail: tli@juniper.net  
856:

**1900 found at line 863:**

861: Santa Clara, CA 95054  
862:  
863: Phone: (408) 327-1900  
864: EMail: cole@juniper.net  
865:

==== File [rfc2287](#).txt =====

'yy' on a line without 'yyyy' found at line 1439:

1437: DESCRIPTION  
1438: "The full path and filename of the process.  
1439: For example, '/opt/MYYpkg/bin/myyproc' would  
1440: be returned for process 'myyproc' whose execution  
1441: path is '/opt/MYYpkg/bin/myyproc'."

'yy' on a line without 'yyyy' found at line 1440:

1438: "The full path and filename of the process.  
1439: For example, '/opt/MYYpkg/bin/myyproc' would  
1440: be returned for process 'myyproc' whose execution  
1441: path is '/opt/MYYpkg/bin/myyproc'."  
1442: ::= { sysAppElmtRunEntry 7 }

'yy' on a line without 'yyyy' found at line 1441:

1439: For example, '/opt/MYYpkg/bin/myyproc' would  
1440: be returned for process 'myyproc' whose execution  
1441: path is '/opt/MYYpkg/bin/myyproc'."  
1442: ::= { sysAppElmtRunEntry 7 }  
1443:

'yy' on a line without 'yyyy' found at line 1706:

1704: DESCRIPTION

```
1705:          "The full path and filename of the process.
1706:          For example, '/opt/MYYpkg/bin/myyproc' would
1707:          be returned for process 'myyproc' whose execution
1708:          path was '/opt/MYYpkg/bin/myyproc'."
```

'yy' on a line without 'yyyy' found at line 1707:

```
1705:          "The full path and filename of the process.
1706:          For example, '/opt/MYYpkg/bin/myyproc' would
1707:          be returned for process 'myyproc' whose execution
1708:          path was '/opt/MYYpkg/bin/myyproc'."
1709:          ::= { sysApplElmtPastRunEntry 6 }
```

'yy' on a line without 'yyyy' found at line 1708:

```
1706:          For example, '/opt/MYYpkg/bin/myyproc' would
1707:          be returned for process 'myyproc' whose execution
1708:          path was '/opt/MYYpkg/bin/myyproc'."
1709:          ::= { sysApplElmtPastRunEntry 6 }
1710:
```

**2000** found at line 402:

```
400:
401:      sysApplMIB MODULE-IDENTITY
402:          LAST-UPDATED "9710200000Z"
403:          ORGANIZATION "IETF Applications MIB Working Group"
404:          CONTACT-INFO
```

+=+=+=+=+= File [rfc2292](#).txt +=+=+=+=+=

**2000** found at line 547:

```
545:      #define ND_NA_FLAG_ROUTER          0x80000000
546:      #define ND_NA_FLAG_SOLICITED        0x40000000
547:      #define ND_NA_FLAG_OVERRIDE         0x20000000
548:      #else /* BYTE_ORDER == LITTLE_ENDIAN */
549:      #define ND_NA_FLAG_ROUTER          0x00000080
```

+=+=+=+=+= File [rfc2298](#).txt +=+=+=+=+=

**2000** found at line 1310:

```
1308:      Date: Wed, 20 Sep 1995 00:19:00 (EDT) -0400
1309:      From: Joe Recipient <Joe_Recipient@mega.edu>
1310:      Message-Id: <199509200019.12345@mega.edu>
1311:      Subject: Disposition notification
1312:      To: Jane Sender <Jane_Sender@huge.com>
```

+=+=+=+=+= File [rfc2300](#).txt +=+=+=+=+=

**2000** found at line 9:

```
7:  Network Working Group                                Internet Architecture Board
8:  Request for Comments: 2300                            J. Postel, Editor
9:  Obsoletes: 2200, 2000, 1920, 1880, 1800,              May 1998
10:  1780, 1720, 1610, 1600, 1540, 1500, 1410,
11:  1360, 1280, 1250, 1200, 1140, 1130, 1100, 1083
```



+=+=+=+= File [rfc2311](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 269:

267: Sending agents MUST encode signing time through the year 2049 as  
268: UTCTime; signing times in 2050 or later MUST be encoded as  
269: GeneralizedTime. Agents MUST interpret the year field (YY) as  
270: follows: if YY is greater than or equal to 50, the year is  
271: interpreted as 19YY; if YY is less than 50, the year is interpreted

'yy' on a line without 'yyyy' found at line 270:

268: UTCTime; signing times in 2050 or later MUST be encoded as  
269: GeneralizedTime. Agents MUST interpret the year field (YY) as  
270: follows: if YY is greater than or equal to 50, the year is  
271: interpreted as 19YY; if YY is less than 50, the year is interpreted  
272: as 20YY.

'yy' on a line without 'yyyy' found at line 271:

269: GeneralizedTime. Agents MUST interpret the year field (YY) as  
270: follows: if YY is greater than or equal to 50, the year is  
271: interpreted as 19YY; if YY is less than 50, the year is interpreted  
272: as 20YY.  
273:

'yy' on a line without 'yyyy' found at line 272:

270: follows: if YY is greater than or equal to 50, the year is  
271: interpreted as 19YY; if YY is less than 50, the year is interpreted  
272: as 20YY.  
273:  
274: 2.5.2 S/MIME Capabilities Attribute

UTCTime found at line 268:

266:  
267: Sending agents MUST encode signing time through the year 2049 as  
268: UTCTime; signing times in 2050 or later MUST be encoded as  
269: GeneralizedTime. Agents MUST interpret the year field (YY) as  
270: follows: if YY is greater than or equal to 50, the year is

**[1900](#) found at line 1972:**

1970: Mountain View, CA 94043  
1971:  
1972: Phone: (415) 254-1900  
1973: EMail: repka@netscape.com  
1974:

+=+=+=+= File [rfc2312](#).txt +=+=+=+=

**[1900](#) found at line 1049:**

1047: Mountain View, CA 94043  
1048:  
1049: Phone: (415) 254-1900

1050: EMail: jsw@netscape.com

1051:

+++++= File [rfc2326](#).txt +++++=

2digit found at line 906:

904: smpte-type = "smpte" | "smpte-30-drop" | "smpte-25"  
905: ; other timecodes may be added  
906: smpte-time = 1\*2DIGIT ":" 1\*2DIGIT ":" 1\*2DIGIT [ ":" 1\*2DIGIT ]  
907: [ "." 1\*2DIGIT ]  
908:

2digit found at line 907:

905: ; other timecodes may be added  
906: smpte-time = 1\*2DIGIT ":" 1\*2DIGIT ":" 1\*2DIGIT [ ":" 1\*2DIGIT ]  
907: [ "." 1\*2DIGIT ]  
908:  
909: Examples:

2digit found at line 940:

938: npt-hhmmss = npt-hh ":" npt-mm ":" npt-ss [ "." \*DIGIT ]  
939: npt-hh = 1\*DIGIT ; any positive number  
940: npt-mm = 1\*2DIGIT ; 0-59  
941: npt-ss = 1\*2DIGIT ; 0-59  
942:

2digit found at line 941:

939: npt-hh = 1\*DIGIT ; any positive number  
940: npt-mm = 1\*2DIGIT ; 0-59  
941: npt-ss = 1\*2DIGIT ; 0-59  
942:  
943: Examples:

+++++= File [rfc2332](#).txt +++++=

**1900** found at line 2839:

2837:	1620 Tuckerstown Road	3260 Jay St.
2838:	Dresher, PA 19025 USA	Santa Clara, CA 95054
2839:	Phone: +1 215 830 0692	Phone: +1 408 327 1900
2840:	EMail: dave@corecom.com	EMail: bcole@jnx.com
2841:		

+++++= File [rfc2353](#).txt +++++=

**2000** found at line 211:

209: native IP DLC, this field is not used to convey a port number for  
210: replies; moreover, the zero setting is not used. IANA has registered  
211: port numbers 12000 through 12004 for use in these two fields by the  
212: native IP DLC; use of these port numbers allows prioritization in the  
213: IP network. For more details of the use of these fields, see 2.6.1,

**2000** found at line 1694:

1692:  
1693: At an intermediate HPR node, link activation failure can be reported  
1694: with sense data X'08010000' or X'80020000'. At a node with route-  
1695: selection responsibility, such failure can be reported with sense  
1696: data X'80140001'.

**2000 found at line 1841:**

```
1839: | the same connection network. | |
1840: +-----+-----+-----+-----+
1841: | Link failure | X'80020000' |
1842: +-----+-----+-----+-----+
1843: | Route selection services has determined that no path | X'80140001' |
```

**2000 found at line 1868:**

1866: will be able to exploit routers that provide priority function.  
1867:  
1868: The 5 UDP port numbers, 12000-12004 (decimal), have been assigned by  
1869: the Internet Assigned Number Authority (IANA). Four of these port  
1870: numbers are used for ANR-routed network layer packets (NLPs) and

**2000 found at line 1872:**

1870: numbers are used for ANR-routed network layer packets (NLPs) and  
1871: correspond to the APPN transmission priorities (network, 12001; high,  
1872: 12002; medium, 12003; and low, 12004), and one port number (12000) is  
1873: used for a set of LLC commands (i.e., XID, TEST, DISC, and DM) and  
1874: function-routed NLPs (i.e., XID\_DONE\_RQ and XID\_DONE\_RSP). These

**2000 found at line 2417:**

2415: the source port number is not relevant. That is, the firewall should  
2416: accept traffic with the IP addresses of the HPR/IP nodes and with  
2417: destination port numbers in the range 12000 to 12004. Second, the  
2418: possibility exists for an attack using forged UDP datagrams; such  
2419: attacks could cause the RTP connection to fail or even introduce

+=+=+=+= File [rfc2355](#).txt +=+=+=+=

**2000 found at line 1488:**

1486:	0x00	Command Reject	0x10030000
1487:			
1488:	0x01	Intervention Required	0x08020000
1489:			
1490:	0x02	Operation Check	0x10050000

+=+=+=+= File [rfc2361](#).txt +=+=+=+=

'yy' on a line without 'yyyy' found at line 30:

28: \* video/vnd.avi; codec=XXX identifies a specific video codec (i.e.,  
29: XXX) within the AVI Registry.  
30: \* audio/vnd.wave; codec=YYY identifies a specific audio codec  
31: (i.e., YYY) within the WAVE Registry.  
32:



'yy' on a line without 'yyyy' found at line 31:  
29: XXX) within the AVI Registry.  
30: \* audio/vnd.wave; codec=YYY identifies a specific audio codec  
31: (i.e., YYY) within the WAVE Registry.  
32:  
33: [Appendix A](#) and [Appendix B](#) provides an authoritative reference for the

**[2000](#) found at line 354:**

352: Compaq Computer Corporation  
353: 20555 SH 249  
354: Houston, TX 77269-2000 USA  
355:  
356: A.6 IBM CVSD

**[2000](#) found at line 1474:**

1472: PO Box 582  
1473: Stellenbosch Stellenbosch South Africa  
1474: 27 21 888 2000  
1475:  
1476: A.75 DF GSM610

**[2000](#) found at line 1487:**

1485: PO Box 582  
1486: Stellenbosch 7600 South Africa  
1487: 27 21 888 2000  
1488:  
1489: A.76 ISIAudio

**[2000](#) found at line 1545:**

1543: 4900 Old Ironsides Drive  
1544: Santa Clara, California 95054 USA  
1545: (408) 492-2000  
1546:  
1547: A.79 Dolby AC3 SPDIF

**[2000](#) found at line 1993:**

1991: A.104 DVM  
1992:  
1993: WAVE form Registration Number (hex): 0x2000  
1994: Codec ID in the IANA Namespace: audio/vnd.wave;codec=2000  
1995: WAVE form wFormatTag ID: WAVE\_FORMAT\_DVM

**[2000](#) found at line 1994:**

1992:  
1993: WAVE form Registration Number (hex): 0x2000  
1994: Codec ID in the IANA Namespace: audio/vnd.wave;codec=2000  
1995: WAVE form wFormatTag ID: WAVE\_FORMAT\_DVM  
1996: Contact:

**[2000](#) found at line 3180:**

3178: 707 California Street

3179: Mountain View, California 94041 USA  
3180: 650-526-2000  
3181:  
3182:

**2000 found at line 3211:**

3209: 707 California Street  
3210: Mountain View, California 94041 USA  
3211: 650-526-2000  
3212:  
3213: B.83 TrueMotion 2.0

**2000 found at line 3239:**

3237: 707 California Street  
3238: Mountain View, California 94041 USA  
3239: 650-526-2000  
3240:  
3241:

+=+=+=+= File [rfc2368](#).txt +=+=+=+=

two-digit found at line 240:

238: scheme is not a problem: those characters may appear in mailto URLs,  
239: they just may not appear in unencoded form. The standard URL encoding  
240: mechanisms ("% followed by a two-digit hex number) must be used in  
241: certain cases.  
242:

+=+=+=+= File [rfc2373](#).txt +=+=+=+=

2digit found at line 1192:

1190: IPv4address = 1\*3DIGIT "." 1\*3DIGIT "." 1\*3DIGIT "." 1\*3DIGIT  
1191:  
1192: IPv6prefix = hexpart "/" 1\*2DIGIT  
1193:  
1194: hexpart = hexseq | hexseq ":" [ hexseq ] | ":" [ hexseq ]

+=+=+=+= File [rfc2378](#).txt +=+=+=+=

2digit found at line 1078:

1076: response = code [index] [field] text CRLF  
1077:  
1078: code = [-] LDIG 2DIGIT ":"  
1079: index = number ":"  
1080: field = 1\*SPACE attribute ":" 1\*SPACE

+=+=+=+= File [rfc2389](#).txt +=+=+=+=

2digit found at line 133:

131:  
132: error-response = error-code SP \*TCHAR CRLF  
133: error-code = ("4" / "5") 2DIGIT

```
134:
135:     Note that in ABNF, strings literals are case insensitive.  That
```

```

+=+=+=+=+= File rfc2397.txt +=+=+=+=+=
'yy' on a line without 'yyyy' found at line 107:
105:      a/TPg7JpJHxyendzWTBfX0cx0nKPjgBzi4diinWGdkF8kjdfnycQZXZeYGejmJl
106:      ZeGl9i2icVqanVailT6F5iJ90m6mvuTS40K05M0vDk0Q4XUtwvK0zrcd3iq9uis
107:      F81M10IcR7lEewwcLp7tuNNkM3uNna3F2JQFo97Vriy/Xl4/f1cf5VwzXyym7PH
108:      hhx4dbgYKAAA7"
109:      ALT="Larry">

```

```

===== File rfc2400.txt =====
2000 found at line 9:
7: Network Working Group                                Internet Architecture Board
8: Request for Comments: 2400                            J. Postel
9: Obsoletes: 2300, 2200, 2000, 1920, 1880,              J. Reynolds
10: 1800, 1780, 1720, 1610, 1600, 1540, 1500, 1410,      Editors
11: 1360, 1280, 1250, 1200, 1140, 1130, 1100, 1083       September 1998

```

```

+=+=+=+=+= File rfc2407.txt +=+=+=+=+=
2000 found at line 832:
830:
831:     Attribute #2:
832:         0x00020004 (AF = 0, type = SA Duration, length = 4 bytes)
833:         0x00015180 (value = 0x15180 = 86400 seconds = 24 hours)
834:

```

```
2000 found at line 848:
846:
847:     Attribute #4:
848:         0x00020004 (AF = 0, type = SA Duration, length = 4 bytes)
849:         0x000186A0 (value = 0x186A0 = 100000KB = 100MB)
850:
```

[illegible]

```

+==+==+==+ File rfc2412.txt +==+==+==+
2000 found at line 1689:
1687:      As of early 1996, it appears that for 90 bits of cryptographic
1688:      strength, one should use a modular exponentiation group modulus of
1689:      2000 bits.  For 128 bits of strength, a 3000 bit modulus is required.

```

1690:  
1691: 3. Specifying and Deriving Security Associations

**2000 found at line 2761:**

2759: Length (32 bit words): 6  
2760: Data (hex):  
2761: 02000000 00000000 00000000 00000020 00000000 00000001  
2762: Generator:  
2763: X coordinate: 22 (decimal)

**2000 found at line 2976:**

2974:  
2975: [Stinson] Stinson, Douglas, Cryptography Theory and Practice. CRC  
2976: Press, Inc., 2000, Corporate Blvd., Boca Raton, FL,  
2977: 33431-9868, ISBN 0-8493-8521-0, 1995  
2978:

+=+=+=+= File [rfc2425.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 1106:

1104: 9ucyBDb3JwLjEYMBYGA1UEAxMPVGltb3RoeSBBIehvd2VzMSEwHwYJKoZIhvcNAQkBF  
1105: hJob3dlc0BuZXRzY2FwZS5jb20xFTATBgoJkiaJk/IsZAEBEwVob3dlczBcMA0GCSqG  
1106: SIb3DQEBAQUAA0sAMEgCQQC0JZf6wkg8pLMXHHCUvMfL5H6zjSk4vTTXZpYyrdN2dXc  
1107: oX49LKioMgeJSzoiFKHtLOIboyludF90CgqcxtwKnAgMBAAGjNjA0MBEGCWCGSAGG+E  
1108: IBAQQEAWIAoDAfBgNVHSMEGDAWgBT84FToB/GV3jr3mcau+hUMbsQukjANBgqhkiG9

+=+=+=+= File [rfc2426.txt](#) +=+=+=+=

'yy' on a line without 'yyyy' found at line 1479:

1477: MPVGltb3RoeSBBIehvd2VzMSEwHwYJKoZIhvcNAQkBFhJob3dlc0BuZXRz  
1478: Y2FwZS5jb20xFTATBgoJkiaJk/IsZAEBEwVob3dlczBcMA0GCSqGSiB3DQ  
1479: EBAQUAA0sAMEgCQQC0JZf6wkg8pLMXHHCUvMfL5H6zjSk4vTTXZpYyrdN2  
1480: dXcoX49LKioMgeJSzoiFKHtLOIboyludF90CgqcxtwKnAgMBAAGjNjA0MB  
1481: EGWCWSAGG+EIBAQQEAWIAoDAfBgNVHSMEGDAWgBT84FToB/GV3jr3mcau

2-digit found at line 372:

370: and minutes (e.g., +hh:mm). The time is specified as a 24-hour clock.  
371: Hour values are from 00 to 23, and minute values are from 00 to 59.  
372: Hour and minutes are 2-digits with high order zeroes required to  
373: maintain digit count. The extended format for ISO 8601 UTC offsets  
374: MUST be used. The extended format makes use of a colon character as a

2digit found at line 379:

377: The value is defined by the following notation:

378:  
379: time-hour = 2DIGIT ;00-23  
380: time-minute = 2DIGIT ;00-59  
381: utc-offset = ("+" / "-") time-hour ":" time-minute

2digit found at line 380:

378:

```
379:         time-hour          = 2DIGIT          ;00-23
380:         time-minute        = 2DIGIT          ;00-59
381:         utc-offset         = ("+" / "-") time-hour ":" time-minute
382:
```

2digit found at line 2051:

```
2049:
2050:         utc-offset-value = ("+" / "-") time-hour ":" time-minute
2051:         time-hour       = 2DIGIT              ;00-23
2052:         time-minute     = 2DIGIT              ;00-59
2053:
```

2digit found at line 2052:

```
2050:         utc-offset-value = ("+" / "-") time-hour ":" time-minute
2051:         time-hour       = 2DIGIT              ;00-23
2052:         time-minute     = 2DIGIT              ;00-59
2053:
2054: 5. Differences From vCard v2.1
```

+=+=+=+=+= File [rfc2440](#).txt +=+=+=+=+=

**2000** found at line 3227:

```
3225:         Encryption Standard. This algorithm will work with (at least) 128,
3226:         192, and 256-bit keys. We expect that this algorithm will be selected
3227:         from the candidate algorithms in the year 2000.
3228:
3229: 12.8. OpenPGP CFB mode
```

+=+=+=+=+= File [rfc2445](#).txt +=+=+=+=+=

'yy' on a line without 'yyyy' found at line 2234:

```
2232:         ( ";" "BYDAY" "=" byweekdaylist )      /
2233:         ( ";" "BYMONTHDAY" "=" bymodaylist )    /
2234:         ( ";" "BYYEARDAY" "=" byyrdaylist )     /
2235:         ( ";" "BYWEEKNO" "=" bywkno list )      /
2236:         ( ";" "BYMONTH" "=" bymolist )          /
```

'yy' on a line without 'yyyy' found at line 2288:

```
2286:         ordmoday   = 1DIGIT / 2DIGIT           ;1 to 31
2287:
2288:         byyrdaylist = yeardaynum / ( yeardaynum *("," yeardaynum) )
2289:
2290:         yeardaynum = ([plus] ordyrday) / (minus ordyrday)
```

'yy' on a line without 'yyyy' found at line 2388:

```
2386:         the month.
2387:
2388:         The BYYEARDAY rule part specifies a COMMA character (US-ASCII decimal
2389:         44) separated list of days of the year. Valid values are 1 to 366 or
2390:         -366 to -1. For example, -1 represents the last day of the year
```

'yy' on a line without 'yyyy' found at line 2461:  
2459: specified FREQ and INTERVAL rule parts, the BYxxx rule parts are  
2460: applied to the current set of evaluated occurrences in the following  
2461: order: BYMONTH, BYWEEKNO, BYYEARDAY, BYMONTHDAY, BYDAY, BYHOUR,  
2462: BYMINUTE, BYSECOND and BYSETPOS; then COUNT and UNTIL are evaluated.  
2463:

'yy' on a line without 'yyyy' found at line 6804:  
6802: (2000 9:00 AM EDT)June 10;July 10  
6803: (2001 9:00 AM EDT)June 10;July 10  
6804: Note: Since none of the BYDAY, BYMONTHDAY or BYYEARDAY components  
6805: are specified, the day is gotten from DTSTART  
6806:

'yy' on a line without 'yyyy' found at line 6820:  
6818:  
6819: DTSTART;TZID=US-Eastern:19970101T090000  
6820: RRULE:FREQ=YEARLY;INTERVAL=3;COUNT=10;BYYEARDAY=1,100,200  
6821:  
6822: ==> (1997 9:00 AM EST)January 1

two-digit found at line 1919:  
1917: of values. The format for the value type is expressed as the [ISO  
1918: 8601] complete representation, basic format for a calendar date. The  
1919: textual format specifies a four-digit year, two-digit month, and  
1920: two-digit day of the month. There are no separator characters between  
1921: the year, month and day component text.

two-digit found at line 1920:  
1918: 8601] complete representation, basic format for a calendar date. The  
1919: textual format specifies a four-digit year, two-digit month, and  
1920: two-digit day of the month. There are no separator characters between  
1921: the year, month and day component text.  
1922:

two-digit found at line 2610:  
2608: of day. The format is based on the [ISO 8601] complete  
2609: representation, basic format for a time of day. The text format  
2610: consists of a two-digit 24-hour of the day (i.e., values 0-23), two-  
2611: digit minute in the hour (i.e., values 0-59), and two-digit seconds  
2612: in the minute (i.e., values 0-60). The seconds value of 60 MUST only

two-digit found at line 2611:  
2609: representation, basic format for a time of day. The text format  
2610: consists of a two-digit 24-hour of the day (i.e., values 0-23), two-  
2611: digit minute in the hour (i.e., values 0-59), and two-digit seconds  
2612: in the minute (i.e., values 0-60). The seconds value of 60 MUST only  
2613: to be used to account for "leap" seconds. Fractions of a second are

two-digit found at line 4583:  
4581: Values for latitude and longitude shall be expressed as decimal

4582: fractions of degrees. Whole degrees of latitude shall be represented  
4583: by a two-digit decimal number ranging from 0 through 90. Whole  
4584: degrees of longitude shall be represented by a decimal number ranging  
4585: from 0 through 180. When a decimal fraction of a degree is specified,

2digit found at line 1911:

1909:

1910:

1911: date-month = 2DIGIT ;01-12

1912: date-mday = 2DIGIT ;01-28, 01-29, 01-30, 01-31

1913: ;based on month/year

2digit found at line 1912:

1910:

1911: date-month = 2DIGIT ;01-12

1912: date-mday = 2DIGIT ;01-28, 01-29, 01-30, 01-31

1913: ;based on month/year

1914:

2digit found at line 2258:

2256: byseclist = seconds / ( seconds \*(", " seconds) )

2257:

2258: seconds = 1DIGIT / 2DIGIT ;0 to 59

2259:

2260: byminlist = minutes / ( minutes \*(", " minutes) )

2digit found at line 2262:

2260: byminlist = minutes / ( minutes \*(", " minutes) )

2261:

2262: minutes = 1DIGIT / 2DIGIT ;0 to 59

2263:

2264: byhrlist = hour / ( hour \*(", " hour) )

2digit found at line 2266:

2264: byhrlist = hour / ( hour \*(", " hour) )

2265:

2266: hour = 1DIGIT / 2DIGIT ;0 to 23

2267:

2268: byweekdaylist = weekdaynum / ( weekdaynum \*(", " weekdaynum) )

2digit found at line 2276:

2274: minus = "-"

2275:

2276: ordwk = 1DIGIT / 2DIGIT ;1 to 53

2277:

2278: weekday = "SU" / "MO" / "TU" / "WE" / "TH" / "FR" / "SA"

2digit found at line 2286:

2284: monthdaynum = ([plus] ordmoday) / (minus ordmoday)

2285:

2286: ordmoday = 1DIGIT / 2DIGIT ;1 to 31

2287:  
2288:       byyrdaylist = yeardaynum / ( yeardaynum \*(", " yeardaynum) )

2digit found at line 2292:

2290:       yeardaynum = ([plus] ordyrday) / (minus ordyrday)  
2291:  
2292:       ordyrday    = 1DIGIT / 2DIGIT / 3DIGIT       ;1 to 366  
2293:  
2294:       bywknolist = weeknum / ( weeknum \*(", " weeknum) )

2digit found at line 2307:

2305:       bymolist   = monthnum / ( monthnum \*(", " monthnum) )  
2306:  
2307:       monthnum   = 1DIGIT / 2DIGIT       ;1 to 12  
2308:  
2309:       bysplist   = setposday / ( setposday \*(", " setposday) )

2digit found at line 2595:

2593:       time               = time-hour time-minute time-second [time-utc]  
2594:  
2595:       time-hour         = 2DIGIT       ;00-23  
2596:       time-minute       = 2DIGIT       ;00-59  
2597:       time-second       = 2DIGIT       ;00-60

2digit found at line 2596:

2594:  
2595:       time-hour         = 2DIGIT       ;00-23  
2596:       time-minute       = 2DIGIT       ;00-59  
2597:       time-second       = 2DIGIT       ;00-60  
2598:       ;The "60" value is used to account for "leap" seconds.

2digit found at line 2597:

2595:       time-hour         = 2DIGIT       ;00-23  
2596:       time-minute       = 2DIGIT       ;00-59  
2597:       time-second       = 2DIGIT       ;00-60  
2598:       ;The "60" value is used to account for "leap" seconds.  
2599:

**1900 found at line 2988:**

2986:       DTSTAMP:19970901T1300Z  
2987:       DTSTART:19970903T163000Z  
2988:       DTEND:19970903T190000Z  
2989:       SUMMARY:Annual Employee Review  
2990:       CLASS:PRIVATE

**2000 found at line 1716:**

1714:       The following are examples of this property parameter:  
1715:  
1716:       DTSTART;TZID=US-Eastern:19980119T020000  
1717:  
1718:       DTEND;TZID=US-Eastern:19980119T030000



**2000 found at line 2029:**

2027: New York on January 19, 1998:  
2028:  
2029: DTSTART;TZID=US-Eastern:19980119T020000  
2030:  
2031: Example: The following represents July 14, 1997, at 1:30 PM in New

**2000 found at line 2822:**

2820: Property names, parameter names and enumerated parameter values are  
2821: case insensitive. For example, the property name "DUE" is the same as  
2822: "due" and "Due", DTSTART;TZID=US-Eastern:19980714T120000 is the same  
2823: as DtStart;TzID=US-Eastern:19980714T120000.  
2824:

**2000 found at line 2823:**

2821: case insensitive. For example, the property name "DUE" is the same as  
2822: "due" and "Due", DTSTART;TZID=US-Eastern:19980714T120000 is the same  
2823: as DtStart;TzID=US-Eastern:19980714T120000.  
2824:  
2825: 4.6 Calendar Components

**2000 found at line 3566:**

3564: Time took effect in Fall 1967 for New York City:  
3565:  
3566: DTSTART:19671029T020000  
3567:  
3568: TZOFFSETFROM:-0400

**2000 found at line 3631:**

3629: LAST-MODIFIED:19870101T000000Z  
3630: BEGIN:STANDARD  
3631: DTSTART:19971026T020000  
3632: RDATE:19971026T020000  
3633: TZOFFSETFROM:-0400

**2000 found at line 3632:**

3630: BEGIN:STANDARD  
3631: DTSTART:19971026T020000  
3632: RDATE:19971026T020000  
3633: TZOFFSETFROM:-0400  
3634: TZOFFSETTO:-0500

**2000 found at line 3638:**

3636: END:STANDARD  
3637: BEGIN:DAYLIGHT  
3638: DTSTART:19971026T020000  
3639:  
3640:

**2000 found at line 3647:**

3645:  
3646:  
3647: RDATE:19970406T020000  
3648: TZOFFSETFROM: -0500  
3649: TZOFFSETTO: -0400

**2000 found at line 3665:**

3663: TZURL:http://zones.stds\_r\_us.net/tz/US-Eastern  
3664: BEGIN:STANDARD  
3665: DTSTART:19671029T020000  
3666: RRULE:FREQ=YEARLY;BYDAY=-1SU;BYMONTH=10  
3667: TZOFFSETFROM: -0400

**2000 found at line 3672:**

3670: END:STANDARD  
3671: BEGIN:DAYLIGHT  
3672: DTSTART:19870405T020000  
3673: RRULE:FREQ=YEARLY;BYDAY=1SU;BYMONTH=4  
3674: TZOFFSETFROM: -0500

**2000 found at line 3688:**

3686: LAST-MODIFIED:19870101T000000Z  
3687: BEGIN:STANDARD  
3688: DTSTART:19671029T020000  
3689: RRULE:FREQ=YEARLY;BYDAY=-1SU;BYMONTH=10  
3690: TZOFFSETFROM: -0400

**2000 found at line 3704:**

3702:  
3703: BEGIN:DAYLIGHT  
3704: DTSTART:19870405T020000  
3705: RRULE:FREQ=YEARLY;BYDAY=1SU;BYMONTH=4;UNTIL=19980404T070000Z  
3706: TZOFFSETFROM: -0500

**2000 found at line 3721:**

3719: LAST-MODIFIED:19870101T000000Z  
3720: BEGIN:STANDARD  
3721: DTSTART:19671029T020000  
3722: RRULE:FREQ=YEARLY;BYDAY=-1SU;BYMONTH=10  
3723: TZOFFSETFROM: -0400

**2000 found at line 3728:**

3726: END:STANDARD  
3727: BEGIN:DAYLIGHT  
3728: DTSTART:19870405T020000  
3729: RRULE:FREQ=YEARLY;BYDAY=1SU;BYMONTH=4;UNTIL=19980404T070000Z  
3730: TZOFFSETFROM: -0500

**2000 found at line 3735:**

3733: END:DAYLIGHT  
3734: BEGIN:DAYLIGHT

3735: DTSTART:19990424T020000  
3736: RRULE:FREQ=YEARLY;BYDAY=-1SU;BYMONTH=4  
3737: TZOFFSETFROM: -0500

**2000 found at line 5352:**

5350: FREEBUSY;FBTYPE=BUSY-UNAVAILABLE:19970308T160000Z/PT8H30M  
5351:  
5352: FREEBUSY;FBTYPE=FREE:19970308T160000Z/PT3H,19970308T200000Z/PT1H  
5353:  
5354: FREEBUSY;FBTYPE=FREE:19970308T160000Z/PT3H,19970308T200000Z/PT1H,

**2000 found at line 5354:**

5352: FREEBUSY;FBTYPE=FREE:19970308T160000Z/PT3H,19970308T200000Z/PT1H  
5353:  
5354: FREEBUSY;FBTYPE=FREE:19970308T160000Z/PT3H,19970308T200000Z/PT1H,  
5355: 19970308T230000Z/19970309T000000Z  
5356:

**2000 found at line 6069:**

6067: RECURRENCE-ID;VALUE=DATE:19960401  
6068:  
6069: RECURRENCE-ID;RANGE=THISANDFUTURE:19960120T120000Z  
6070:  
6071: 4.8.4.5 Related To

**2000 found at line 6507:**

6505: RDATE;TZID=US-EASTERN:19970714T083000  
6506:  
6507: RDATE;VALUE=PERIOD:19960403T020000Z/19960403T040000Z,  
6508: 19960404T010000Z/PT3H  
6509:

**2000 found at line 6623:**

6621:  
6622: DTSTART;TZID=US-Eastern:19980101T090000  
6623: RRULE:FREQ=YEARLY;UNTIL=20000131T090000Z;  
6624: BYMONTH=1;BYDAY=SU,MO,TU,WE,TH,FR,SA  
6625: or

**2000 found at line 6626:**

6624: BYMONTH=1;BYDAY=SU,MO,TU,WE,TH,FR,SA  
6625: or  
6626: RRULE:FREQ=DAILY;UNTIL=20000131T090000Z;BYMONTH=1  
6627:  
6628: ==> (1998 9:00 AM EDT)January 1-31

**2000 found at line 6630:**

6628: ==> (1998 9:00 AM EDT)January 1-31  
6629: (1999 9:00 AM EDT)January 1-31  
6630: (2000 9:00 AM EDT)January 1-31  
6631:

6632: Weekly for 10 occurrences

**2000 found at line 6802:**

6800: (1998 9:00 AM EDT)June 10;July 10  
6801: (1999 9:00 AM EDT)June 10;July 10  
6802: (2000 9:00 AM EDT)June 10;July 10  
6803: (2001 9:00 AM EDT)June 10;July 10  
6804: Note: Since none of the BYDAY, BYMONTHDAY or BYYEARDAY components

**2000 found at line 6824:**

6822: ==> (1997 9:00 AM EST)January 1  
6823: (1997 9:00 AM EDT)April 10;July 19  
6824: (2000 9:00 AM EST)January 1  
6825: (2000 9:00 AM EDT)April 9;July 18  
6826: (2003 9:00 AM EST)January 1

**2000 found at line 6825:**

6823: (1997 9:00 AM EDT)April 10;July 19  
6824: (2000 9:00 AM EST)January 1  
6825: (2000 9:00 AM EDT)April 9;July 18  
6826: (2003 9:00 AM EST)January 1  
6827: (2003 9:00 AM EDT)April 10;July 19

**2000 found at line 6897:**

6895: ==> (1998 9:00 AM EST)February 13;March 13;November 13  
6896: (1999 9:00 AM EDT)August 13  
6897: (2000 9:00 AM EDT)October 13  
6898: ...  
6899:

**2000 found at line 6920:**

6918:  
6919: ==> (1996 9:00 AM EST)November 5  
6920: (2000 9:00 AM EST)November 7  
6921: (2004 9:00 AM EST)November 2  
6922: ...

**2000 found at line 7612:**

7610:  
7611: BEGIN:VCALENDAR PRODID:-//xyz Corp//NONSGML PDA Calendar Verson  
7612: 1.0//EN VERSION:2.0 BEGIN:VEVENT DTSTAMP:19960704T120000Z  
7613: UID:uid1@host.com ORGANIZER:MAILTO:jsmith@host.com  
7614: DTSTART:19960918T143000Z DTEND:19960920T220000Z STATUS:CONFIRMED

**2000 found at line 7614:**

7612: 1.0//EN VERSION:2.0 BEGIN:VEVENT DTSTAMP:19960704T120000Z  
7613: UID:uid1@host.com ORGANIZER:MAILTO:jsmith@host.com  
7614: DTSTART:19960918T143000Z DTEND:19960920T220000Z STATUS:CONFIRMED  
7615:  
7616:

**2000 found at line 7640:**

7638: TZID:US-Eastern  
7639: BEGIN:STANDARD  
7640: DTSTART:19981025T020000  
7641: RDATE:19981025T020000  
7642: TZOFFSETFROM:-0400

**2000 found at line 7641:**

7639: BEGIN:STANDARD  
7640: DTSTART:19981025T020000  
7641: RDATE:19981025T020000  
7642: TZOFFSETFROM:-0400  
7643: TZOFFSETTO:-0500

**2000 found at line 7647:**

7645: END:STANDARD  
7646: BEGIN:DAYLIGHT  
7647: DTSTART:19990404T020000  
7648: RDATE:19990404T020000  
7649: TZOFFSETFROM:-0500

**2000 found at line 7648:**

7646: BEGIN:DAYLIGHT  
7647: DTSTART:19990404T020000  
7648: RDATE:19990404T020000  
7649: TZOFFSETFROM:-0500  
7650: TZOFFSETTO:-0400

**2000 found at line 7740:**

7738: BEGIN:VALARM  
7739: ACTION:AUDIO  
7740: TRIGGER:19980403T120000  
7741: ATTACH;FMTTYPE=audio/basic:http://host.com/pub/audio-  
7742: files/ssbanner.aud

**2000 found at line 7755:**

7753: PRODID:-//ABC Corporation//NONSGML My Product//EN  
7754: BEGIN:VJOURNAL  
7755: DTSTAMP:19970324T120000Z  
7756: UID:uid5@host1.com  
7757: ORGANIZER:MAILTO:jsmith@host.com

+=+=+=+= File [rfc2446.txt](#) +=+=+=+=

**1900 found at line 3347:**

3345: ORGANIZER:mailto:a@example.com  
3346: DTSTART:19970701T200000Z  
3347: DTSTAMP:19970611T190000Z  
3348: SUMMARY:ST. PAUL SAINTS -VS- DULUTH-SUPERIOR DUKES  
3349: UID:0981234-1234234-23@example.com

**1900 found at line 3373:**

3371: BEGIN:VEVENT  
3372: ORGANIZER:mailto:a@example.com  
3373: DTSTAMP:19970612T190000Z  
3374: DTSTART:19970701T210000Z  
3375: DTEND:19970701T230000Z

**1900 found at line 3410:**

3408: SEQUENCE:2  
3409: UID:0981234-1234234-23@example.com  
3410: DTSTAMP:19970613T190000Z  
3411: END:VEVENT  
3412: END:VCALENDAR

**1900 found at line 3461:**

3459: DTEND;TZID=America-Chicago:19970701T180000  
3460: DTSTART;TZID=America-Chicago:19970702T160000  
3461: DTSTAMP:19970614T190000Z  
3462: STATUS:CONFIRMED  
3463: LOCATION;VALUE=URI:http://www.midwaystadium.com/

**1900 found at line 3505:**

3503: BEGIN:VEVENT  
3504: ORGANIZER:mailto:a@example.com  
3505: DTSTAMP:19970614T190000Z  
3506: UID:0981234-1234234-23@example.com  
3507: DTSTART;VALUE=DATE:19970714

**1900 found at line 3594:**

3592: ATTENDEE;RSVP=FALSE;TYPE=ROOM:conf\_Big@example.com  
3593: ATTENDEE;ROLE=NON-PARTICIPANT;RSVP=FALSE:Mailto:E@example.com  
3594: DTSTAMP:19970611T190000Z  
3595: DTSTART:19970701T200000Z  
3596: DTEND:19970701T200000Z

**1900 found at line 3618:**

3616: SEQUENCE:0  
3617: REQUEST-STATUS:2.0;Success  
3618: DTSTAMP:19970612T190000Z  
3619: END:VEVENT  
3620: END:VCALENDAR

**1900 found at line 3655:**

3653: ATTENDEE;ROLE=NON-PARTICIPANT;RSVP=FALSE:Mailto:E@example.com  
3654: DTSTART:19970701T180000Z  
3655: DTEND:19970701T190000Z  
3656: SUMMARY:Phone Conference  
3657: UID:calsrv.example.com-873970198738777@example.com

**1900 found at line 3659:**

3657: UID:calsrv.example.com-873970198738777@example.com

3658: SEQUENCE:1  
3659: DTSTAMP:19970613T190000Z  
3660: STATUS:CONFIRMED  
3661: END:VEVENT

**1900 found at line 3680:**

3678: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:Mailto:B@example.com  
3679: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:Mailto:C@example.com  
3680: DTSTART:19970701T190000Z  
3681: DTEND:19970701T200000Z  
3682: SUMMARY:Discuss the Merits of the election results

**1900 found at line 3686:**

3684: UID:calsrv.example.com-873970198738777a@example.com  
3685: SEQUENCE:0  
3686: DTSTAMP:19970611T190000Z  
3687: STATUS:CONFIRMED  
3688: END:VEVENT

**1900 found at line 3713:**

3711: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:Mailto:C@example.com  
3712: DTSTART:19970701T160000Z  
3713: DTEND:19970701T190000Z  
3714: DTSTAMP:19970612T190000Z  
3715: SUMMARY:Discuss the Merits of the election results

**1900 found at line 3714:**

3712: DTSTART:19970701T160000Z  
3713: DTEND:19970701T190000Z  
3714: DTSTAMP:19970612T190000Z  
3715: SUMMARY:Discuss the Merits of the election results  
3716: LOCATION:Green Conference Room

**1900 found at line 3721:**

3719: UID:calsrv.example.com-873970198738777a@example.com  
3720: SEQUENCE:0  
3721: DTSTAMP:19970611T190000Z  
3722: END:VEVENT  
3723: END:VCALENDAR

**1900 found at line 3738:**

3736: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:Mailto:B@example.com  
3737: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:Mailto:C@example.com  
3738: DTSTAMP:19970613T190000Z  
3739: DTSTART:19970701T160000Z  
3740: DTEND:19970701T190000Z

**1900 found at line 3740:**

3738: DTSTAMP:19970613T190000Z  
3739: DTSTART:19970701T160000Z  
3740: DTEND:19970701T190000Z

3741: SUMMARY:Discuss the Merits of the election results - changed to  
3742: meet B's schedule

**1900 found at line 3769:**

3767: UID:calsrv.example.com-873970198738777@example.com  
3768: SEQUENCE:0  
3769: DTSTAMP:19970614T190000Z  
3770: END:VEVENT  
3771: END:VCALENDAR

**1900 found at line 3884:**

3882: SEQUENCE:0  
3883: REQUEST-STATUS:2.0;Success  
3884: DTSTAMP:19970611T190000Z  
3885: END:VEVENT  
3886: END:VCALENDAR

**1900 found at line 3906:**

3904: SEQUENCE:0  
3905: STATUS:CONFIRMED  
3906: DTSTAMP:19970611T190000Z  
3907: END:VEVENT  
3908: END:VCALENDAR

**1900 found at line 3936:**

3934: SEQUENCE:0  
3935: REQUEST-STATUS:2.0;Success  
3936: DTSTAMP:19970614T190000Z  
3937: END:VEVENT  
3938: END:VCALENDAR

**1900 found at line 3967:**

3965: SEQUENCE:0  
3966: REQUEST-STATUS:2.0;Success  
3967: DTSTAMP:19970614T190000Z  
3968: END:VEVENT  
3969: END:VCALENDAR

**1900 found at line 4072:**

4070: SEQUENCE:1  
4071: STATUS:CANCELLED  
4072: DTSTAMP:19970613T190000Z  
4073: END:VEVENT  
4074: END:VCALENDAR

**1900 found at line 4157:**

4155: ATTENDEE;ROLE=NON-PARTICIPANT;  
4156: RSVP=FALSE:Mailto:E@example.com  
4157: DTSTAMP:19970611T190000Z  
4158: DTSTART:19970701T200000Z  
4159: DTEND:19970701T203000Z



**1900 found at line 4193:**

4191: ATTENDEE;TYPE=INDIVIDUAL:Mailto:C@example.com  
4192: ATTENDEE;TYPE=INDIVIDUAL:Mailto:D@example.com  
4193: DTSTAMP:19970611T190000Z  
4194: DTSTART:19970701T200000Z  
4195: DTEND:19970701T203000Z

**1900 found at line 4232:**

4230: DTSTART:19980101T124200Z  
4231: DTEND:19980107T124200Z  
4232: FREEBUSY:19980101T180000Z/19980101T190000Z  
4233: FREEBUSY:19980103T020000Z/19980103T050000Z  
4234: FREEBUSY:19980107T020000Z/19980107T050000Z

**1900 found at line 4236:**

4234: FREEBUSY:19980107T020000Z/19980107T050000Z  
4235: FREEBUSY:19980113T000000Z/19980113T010000Z  
4236: FREEBUSY:19980115T190000Z/19980115T200000Z  
4237: FREEBUSY:19980115T220000Z/19980115T230000Z  
4238: FREEBUSY:19980116T013000Z/19980116T043000Z

**1900 found at line 4288:**

4286: ATTENDEE:Mailto:B@example.com  
4287: ATTENDEE:Mailto:C@example.com  
4288: DTSTAMP:19970613T190000Z  
4289: DTSTART:19970701T080000Z  
4290: DTEND:19970701T200000

**1900 found at line 4319:**

4317:  
4318:  
4319: DTSTAMP:19970613T190030Z  
4320: END:VFREEBUSY  
4321: END:VCALENDAR

**1900 found at line 4359:**

4357: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:B@example.fr  
4358: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:c@example.jp  
4359: DTSTAMP:19970613T190030Z  
4360: DTSTART;TZID=America-SanJose:19970701T140000  
4361: DTEND;TZID=America-SanJose:19970701T150000

**1900 found at line 5193:**

5191: to each of the start of each recurring instance. Hence, if the  
5192: initial "VTOD0" calendar component specifies a "DTSTART" property  
5193: value of "19970701T190000Z" and a "DUE" property value of  
5194: "19970801T190000Z" the interval of one day which is applied to each  
5195: recurring instance of the "VTOD0" calendar component to determine the

**1900 found at line 5194:**

5192: initial "VTOD0" calendar component specifies a "DTSTART" property  
5193: value of "19970701T190000Z" and a "DUE" property value of  
5194: "19970801T190000Z" the interval of one day which is applied to each  
5195: recurring instance of the "VTOD0" calendar component to determine the  
5196: "DUE" date of the instance.

**2000 found at line 3346:**

3344: BEGIN:VEVENT  
3345: ORGANIZER:mailto:a@example.com  
3346: DTSTART:19970701T200000Z  
3347: DTSTAMP:19970611T190000Z  
3348: SUMMARY:ST. PAUL SAINTS -VS- DULUTH-SUPERIOR DUKES

**2000 found at line 3437:**

3435: TZURL:http://zones.stds\_r\_us.net/tz/America-Chicago  
3436: BEGIN:STANDARD  
3437: DTSTART:19671029T020000  
3438: RRULE:FREQ=YEARLY;BYDAY=-1SU;BYMONTH=10  
3439: TZOFFSETFROM:-0500

**2000 found at line 3444:**

3442: END:STANDARD  
3443: BEGIN:DAYLIGHT  
3444: DTSTART:19870405T020000  
3445: RRULE:FREQ=YEARLY;BYDAY=1SU;BYMONTH=4  
3446: TZOFFSETFROM:-0600

**2000 found at line 3595:**

3593: ATTENDEE;ROLE=NON-PARTICIPANT;RSVP=FALSE:Mailto:E@example.com  
3594: DTSTAMP:19970611T190000Z  
3595: DTSTART:19970701T200000Z  
3596: DTEND:19970701T200000Z  
3597: SUMMARY:Conference

**2000 found at line 3596:**

3594: DTSTAMP:19970611T190000Z  
3595: DTSTART:19970701T200000Z  
3596: DTEND:19970701T200000Z  
3597: SUMMARY:Conference  
3598: UID:calsrv.example.com-873970198738777@example.com

**2000 found at line 3681:**

3679: ATTENDEE;RSVP=TRUE;TYPE=INDIVIDUAL:Mailto:C@example.com  
3680: DTSTART:19970701T190000Z  
3681: DTEND:19970701T200000Z  
3682: SUMMARY:Discuss the Merits of the election results  
3683: LOCATION:Green Conference Room

**2000 found at line 3901:**

3899: DELEGATED-FROM="Mailto:C@example.com":Mailto:E@example.com  
3900: DTSTART:19970701T180000Z

3901: DTEND:19970701T200000Z  
3902: SUMMARY:Phone Conference  
3903: UID:calsrv.example.com-873970198738777@example.com

**2000 found at line 3996:**

3994: SUMMARY:Phone Conference  
3995: DTSTART:19970701T180000Z  
3996: DTEND:19970701T200000Z  
3997: DTSTAMP:19970614T200000Z  
3998: COMMENT:DELEGATE (ATTENDEE Mailto:E@example.com) DECLINED YOUR

**2000 found at line 3997:**

3995: DTSTART:19970701T180000Z  
3996: DTEND:19970701T200000Z  
3997: DTSTAMP:19970614T200000Z  
3998: COMMENT:DELEGATE (ATTENDEE Mailto:E@example.com) DECLINED YOUR  
3999: INVITATION

**2000 found at line 4158:**

4156: RSVP=FALSE:Mailto:E@example.com  
4157: DTSTAMP:19970611T190000Z  
4158: DTSTART:19970701T200000Z  
4159: DTEND:19970701T203000Z  
4160: SUMMARY:Phone Conference

**2000 found at line 4194:**

4192: ATTENDEE;TYPE=INDIVIDUAL:Mailto:D@example.com  
4193: DTSTAMP:19970611T190000Z  
4194: DTSTART:19970701T200000Z  
4195: DTEND:19970701T203000Z  
4196: RRULE:FREQ=WEEKLY

**2000 found at line 4233:**

4231: DTEND:19980107T124200Z  
4232: FREEBUSY:19980101T180000Z/19980101T190000Z  
4233: FREEBUSY:19980103T020000Z/19980103T050000Z  
4234: FREEBUSY:19980107T020000Z/19980107T050000Z  
4235: FREEBUSY:19980113T000000Z/19980113T010000Z

**2000 found at line 4234:**

4232: FREEBUSY:19980101T180000Z/19980101T190000Z  
4233: FREEBUSY:19980103T020000Z/19980103T050000Z  
4234: FREEBUSY:19980107T020000Z/19980107T050000Z  
4235: FREEBUSY:19980113T000000Z/19980113T010000Z  
4236: FREEBUSY:19980115T190000Z/19980115T200000Z

**2000 found at line 4236:**

4234: FREEBUSY:19980107T020000Z/19980107T050000Z  
4235: FREEBUSY:19980113T000000Z/19980113T010000Z  
4236: FREEBUSY:19980115T190000Z/19980115T200000Z  
4237: FREEBUSY:19980115T220000Z/19980115T230000Z

4238: FREEBUSY:19980116T013000Z/19980116T043000Z

**2000 found at line 4237:**

4235: FREEBUSY:19980113T000000Z/19980113T010000Z  
4236: FREEBUSY:19980115T190000Z/19980115T200000Z  
4237: FREEBUSY:19980115T220000Z/19980115T230000Z  
4238: FREEBUSY:19980116T013000Z/19980116T043000Z  
4239: END:VFREEBUSY

**2000 found at line 4290:**

4288: DTSTAMP:19970613T190000Z  
4289: DTSTART:19970701T080000Z  
4290: DTEND:19970701T200000  
4291: UID:calsrv.example.com-873970198738777@example.com  
4292: END:VFREEBUSY

**2000 found at line 4308:**

4306: ATTENDEE:Mailto:B@example.com  
4307: DTSTART:19970701T080000Z  
4308: DTEND:19970701T200000Z  
4309: UID:calsrv.example.com-873970198738777@example.com  
4310: FREEBUSY:19970701T090000Z/PT1H,19970701T140000Z/PT30M

**2000 found at line 4340:**

4338: TZURL:http://zones.stds\_r\_us.net/tz/America-SanJose  
4339: BEGIN:STANDARD  
4340: DTSTART:19671029T020000  
4341: RRULE:FREQ=YEARLY;BYDAY=-1SU;BYMONTH=10  
4342: TZOFFSETFROM:-0700

**2000 found at line 4347:**

4345: END:STANDARD  
4346: BEGIN:DAYLIGHT  
4347: DTSTART:19870405T020000  
4348: RRULE:FREQ=YEARLY;BYDAY=1SU;BYMONTH=4  
4349: TZOFFSETFROM:-0800

**2000 found at line 4446:**

4444: SUMMARY:IETF Calendaring Working Group Meeting  
4445: DTSTART:19970601T210000Z  
4446: DTEND:19970601T220000Z  
4447: LOCATION:Conference Call  
4448: DTSTAMP:19970526T083000Z

**2000 found at line 4473:**

4471: SUMMARY:IETF Calendaring Working Group Meeting  
4472: DTSTART:19970703T210000Z  
4473: DTEND:19970703T220000Z  
4474: LOCATION:Conference Call  
4475: DTSTAMP:19970626T093000Z

**2000 found at line 4565:**

4563: SUMMARY:IETF Calendaring Working Group Meeting  
4564: DTSTART:19970901T210000Z  
4565: DTEND:19970901T220000Z  
4566: LOCATION:Building 32, Microsoft, Seattle, WA  
4567: DTSTAMP:19970526T083000Z

**2000 found at line 4601:**

4599: SUMMARY:IETF Calendaring Working Group Meeting  
4600: DTSTART:19970715T210000Z  
4601: DTEND:19970715T220000Z  
4602: LOCATION:Conference Call  
4603: DTSTAMP:19970629T093000Z

**2000 found at line 4631:**

4629: SUMMARY:Review Accounts  
4630: DTSTART:19980303T210000Z  
4631: DTEND:19980303T220000Z  
4632: LOCATION:The White Room  
4633: DTSTAMP:19980301T093000Z

**2000 found at line 4664:**

4662: SUMMARY:Review Accounts  
4663: DTSTART:19980303T210000Z  
4664: DTEND:19980303T220000Z  
4665: DTSTAMP:19980303T193000Z  
4666: LOCATION:The Usual conference room

**2000 found at line 4690:**

4688: SUMMARY:Review Accounts  
4689: DTSTART:19980303T210000Z  
4690: DTEND:19980303T220000Z  
4691: DTSTAMP:19980303T193000Z  
4692: LOCATION:The White Room

**2000 found at line 4730:**

4728: SUMMARY:Review Accounts  
4729: DTSTART:19980304T180000Z  
4730: DTEND:19980304T200000Z  
4731: DTSTAMP:19980303T193000Z  
4732: LOCATION:Conference Room A

**2000 found at line 4781:**

4779: SUMMARY:Review Accounts  
4780: DTSTART:19980315T180000Z  
4781: DTEND:19980315T200000Z  
4782: DTSTAMP:19980307T193000Z  
4783: LOCATION:Conference Room A

**2000 found at line 4811:**

4809: SUMMARY:Review Accounts

4810: DTSTART:19980304T180000Z  
4811: DTEND:19980304T200000Z  
4812: DTSTAMP:19980303T193000Z  
4813: LOCATION:Conference Room A

**2000 found at line 4863:**

4861: CLASS:PUBLIC  
4862: SUMMARY:IETF Calendaring Working Group Meeting  
4863: DTSTART:19970715T220000Z  
4864: DTEND:19970715T230000Z  
4865: LOCATION:Conference Call

**2000 found at line 4903:**

4901: SUMMARY:IETF Calendaring Working Group Meeting  
4902: DTSTART:19970601T210000Z  
4903: DTEND:19970601T220000Z  
4904: DTSTAMP:19970602T094000Z  
4905: LOCATION:Conference Call

**2000 found at line 5018:**

5016: UID:calsrv.example.com-873970198738777-00@example.com  
5017: SEQUENCE:0  
5018: DTSTAMP:19970717T200000Z  
5019: STATUS:Needs Action  
5020: END:VTODO

**2000 found at line 5179:**

5177: UID:calsrv.example.com-873970198738777-00@example.com  
5178: SEQUENCE:0  
5179: DTSTAMP:19970717T200000Z  
5180: STATUS:NEEDS ACTION  
5181: PRIORITY:1

**2000 found at line 5236:**

5234: VERSION:2.0  
5235: BEGIN:VJOURNAL  
5236: DTSTART:19971002T200000Z  
5237: ORGANIZER:MAILTO:A@Example.com  
5238: SUMMARY:Phone conference minutes

**2000 found at line 5358:**

5356: SEQUENCE:3  
5357: RRULE:FREQ=WEEKLY  
5358: RDATE;VALUE=PERIOD:19970819T210000Z/19970819T220000Z  
5359: ORGANIZER:Mailto:A@example.com  
5360: ATTENDEE;ROLE=CHAIR;PARTSTAT=ACCEPTED:Mailto:A@example.com

**2000 found at line 5365:**

5363: SUMMARY:IETF Calendaring Working Group Meeting  
5364: DTSTART:19970801T210000Z  
5365: DTEND:19970801T220000Z

5366: RECURRENT-ID:19970809T210000Z  
5367: DTSTAMP:19970726T083000

+++++= File [rfc2447](#).txt ++++++=

**1900 found at line 421:**

419: ATTENDEE;ROLE=CHAIR;ATTSTAT=ACCEPTED:mailto:sman@netscape.com  
420: ATTENDEE;RSVP=YES:mailto:stevesil@microsoft.com  
421: DTSTAMP:19970611T190000Z  
422: DTSTART:19970701T210000Z  
423: DTEND:19970701T230000Z

**1900 found at line 475:**

473: ATTENDEE;ROLE=CHAIR;ATTSTAT=ACCEPTED:mailto:foo1@example.com  
474: ATTENDEE;RSVP=YES;TYPE=INDIVIDUAL:mailto:foo2@example.com  
475: DTSTAMP:19970611T190000Z  
476: DTSTART:19970701T170000Z  
477: DTEND:19970701T173000Z

**1900 found at line 523:**

521: ATTENDEE;ROLE=CHAIR;ATTSTAT=ACCEPTED:mailto:foo1@example.com  
522: ATTENDEE;RSVP=YES;TYPE=INDIVIDUAL:mailto:foo2@example.com  
523: DTSTAMP:19970611T190000Z  
524: DTSTART:19970701T180000Z  
525: DTEND:19970701T183000Z

**1900 found at line 584:**

582: BEGIN:VEVENT  
583: ORGANIZER:MAILTO:F001@EXAMPLE.COM  
584: DTSTAMP:19970611T190000Z  
585: DTSTART:19970715T150000Z  
586: DTEND:19970715T230000Z

**1900 found at line 631:**

629: ATTENDEE;ROLE=CHAIR;ATTSTAT=ACCEPTED:mailto:foo1@example.com  
630: ATTENDEE;RSVP=YES;TYPE=INDIVIDUAL:mailto:foo2@example.com  
631: DTSTAMP:19970611T190000Z  
632: DTSTART:19970701T210000Z  
633: DTEND:19970701T230000Z

**1900 found at line 722:**

720: ATTENDEE;RSVP=YES;TYPE=INDIVIDUAL:mailto:foo2@example.com  
721: ATTENDEE;RSVP=YES;TYPE=INDIVIDUAL:mailto:foo3@example.com  
722: DTSTAMP:19970611T190000Z  
723: DTSTART:19970621T170000Z  
724: DTEND:19970621T173000Z

+++++= File [rfc2455](#).txt ++++++=

2-digit found at line 7166:

7164:

7165: Since this object incorporates the Year 2000-unfriendly

7166: 2-digit year specified in SMI for the LAST-UPDATED field, and  
7167:  
7168:

**2000 found at line 7165:**

7163: determining the level of the MIB supported by an agent.  
7164:  
7165: Since this object incorporates the Year 2000-unfriendly  
7166: 2-digit year specified in SMI for the LAST-UPDATED field, and  
7167:

+=+=+=+= File [rfc2461](#).txt +=+=+=+=

**2000 found at line 2347:**

2345: consecutive advertisements.  
2346:  
2347: Default: 2592000 seconds (30 days), fixed  
2348: (i.e., stays the same in consecutive  
2349: advertisements).

+=+=+=+= File [rfc2470](#).txt +=+=+=+=

**2000 found at line 65:**

63: rely on manual configuration or router advertisements [DISC] to  
64: determine actual MTU sizes. Common default values include  
65: approximately 2000, 4000, and 8000 octets.  
66:  
67: In the absence of any other information, an implementation should use

## Appendix D: Discussion of HTTP 1.0 Issues

### HTTP:

The main IETF standards-track document on the HTTP protocol is [RFC2068](#) on HTTP 1.1. It notes that historically three different date formats have been used, and that one of them uses a two-digit year field. In [section 3.3.1](#) it requires HTTP 1.1 implementations to generate this [RFC1123](#) format:

Sun, 06 Nov 1994 08:49:37 GMT ; [RFC 822](#), updated by [RFC 1123](#)

instead of this [RFC850](#) format:

Sunday, 06-Nov-94 08:49:37 GMT ; [RFC 850](#), obsoleted by [RFC 1036](#)

Unfortunately, many existing servers, serving on the order of one fifth of the current HTTP traffic, send dates in the ambiguous [RFC850](#) format.



[Section 19.3](#) of the [RFC2068](#) says this:

- o HTTP/1.1 clients and caches should assume that an [RFC-850](#) date which appears to be more than 50 years in the future is in fact in the past (this helps solve the "year 2000" problem).

This avoids a "stale cache" problem, which would cause the user to see out-of-date data.

But to avoid unnecessary delays and bandwidth indicated in Scenario 2 below, this should be extended to say that a date which appears to be more than 50 years in the past may be assumed to be in the future, if a future date is legal for that field.

Scenario 3 indicates that servers may also want to follow these rules.

Here is some more background and justification for these arguments.

The following headers use full dates:

HTTP/1.0:

Date:	
Expires:	# can be in the future
If-Modified-Since:	# required to be in the past
Last-Modified:	# required to be in the past
Retry-After:	# can be in the future, also takes # relative time - number of seconds

HTTP/1.1:

If-Range:	
If-Unmodified-Since:	# required to be in the past

Note that clock skew between hosts can lead to confusion here - see the RFC for details.

Here are some scenarios of the implications of [RFC850](#) dates, which include stale caches, unnecessary requests for things, which are validly cached, delays for the user, extra bandwidth, and presenting incorrect information to the user.

Some cases involve comparisons with the current time, and others may involve comparisons between dates from different sources. The abbreviation "/99" is used to imply an [RFC850](#) date with the value "99" for the year.

[RFC850](#) date from server

Scenario 1:

If a client gets an Expires /99 date after the year 2000, it

should interpret it as 1999, to avoid ending up with a stale cache entry.

This is as already specified in [RFC2068](#).

Scenario 2:

If a client gets an Expires /00 date before the year 2000, and subsequently is faced with a choice to either retrieve the document from its cache or look for an updated copy, it may interpret it as the year 2000, to avoid the unnecessary delay and bandwidth of an extra request.

[RFC850](#) date from client

Scenario 3:

If a server gets an If-Modified-Since /99 date from a client after the year 2000, it should interpret it as 1999 when comparing with the local modification date, in order to possibly avoid sending a full GET response rather than a HEAD response.

Note that an If-Modified-Since header must never be in the future.