

Network Working Group  
Request for Comments: 1899  
Category: Informational

J. Elliott  
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## Request for Comments Summary

### RFC Numbers 1800-1899

#### Status of This Memo

This RFC is a slightly annotated list of the 100 RFCs from RFC 1800 through RFCs 1899. This is a status report on these RFCs. This memo provides information for the Internet community. It does not specify an Internet standard of any kind. Distribution of this memo is unlimited.

#### Note

Many RFCs, but not all, are Proposed Standards, Draft Standards, or Standards. Since the status of these RFCs may change during the standards processing, we note here only that they are on the standards track. Please see the latest edition of "Internet Official Protocol Standards" for the current state and status of these RFCs. In the following, RFCs on the standards track are marked [STANDARDS-TRACK].

RFC ---	Author -----	Date ----	Title -----
1899	Elliott	Jan 97	Requests For Comments Summary
This memo.			
1898	Eastlake	Feb 96	CyberCash Credit Card Protocol Version 0.8

This document covers only the current CyberCash system which is one of the few operational systems in the rapidly evolving area of Internet payments. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1897	Hinden	Jan 96	IPv6 Testing Address Allocation
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This document describes an allocation plan for IPv6 addresses to be used in testing IPv6 prototype software. This document specifies an Experimental protocol for the Internet community.

1896	Resnick	Feb 96	The text/enriched MIME Content-type
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This document defines one particular type of MIME data, the text/enriched MIME type. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1895	Levinson	Feb 96	The Application/CALS-1840 Content-type
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This memorandum provides guidelines for using the United States Department of Defense Military Standard MIL-STD-1840, "Automated Interchange of Technical Information," with the Internet electronic mail standards, RFC 822 and RFC 1521. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1894	Moore	Jan 96	An Extensible Message Format for Delivery Status Notifications
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**This memo defines a MIME content-type that may be used by a message transfer agent (MTA) or electronic mail gateway to report the result of an attempt to deliver a message to one or more recipients. [STANDARDS-TRACK]**

**1893      Vaudreuil      Jan 96      Enhanced Mail System Status Codes**

There currently is not a standard mechanism for the reporting of mail system errors except for the limited set offered by SMTP and the system specific text descriptions sent in mail messages. There is a pressing need for a rich machine readable status code for use in delivery status notifications [DSN]. This document proposes a new set of status codes for this purpose. [STANDARDS-TRACK]

1892      Vaudreuil      Jan 96      The Multipart/Report Content Type  
for the Reporting of Mail System  
Administrative Messages

The Multipart/Report MIME content-type is a general "family" or "container" type for electronic mail reports of any kind. Although this memo defines only the use of the Multipart/Report content-type with respect to delivery status reports, mail processing programs will benefit if a single content-type is used to for all kinds of reports. [STANDARDS-TRACK]

1891      Moore              Jan 96      SMTP Service Extension for Delivery  
Status Notifications

This memo defines an extension to the SMTP service, which allows an SMTP client to specify (a) that delivery status notifications (DSNs) should be generated under certain conditions, (b) whether such notifications should return the contents of the message, and (c) additional information, to be returned with a DSN, that allows the sender to identify both the recipient(s) for which the DSN was issued, and the transaction in which the original message was sent. [STANDARDS-TRACK]

1890      A.V.T.W.G.      Jan 96      RTP Profile for Audio and Video  
Conferences with Minimal Control

This memo describes a profile for the use of the real-time transport protocol (RTP), version 2, and the associated control protocol, RTCP, within audio and video multiparticipant conferences with minimal control. [STANDARDS-TRACK]

1889      A.V.T.W.G.      Jan 96      RTP: A Transport Protocol for  
Real-Time Applications

This memorandum describes RTP, the real-time transport protocol. RTP provides end-to-end network transport functions suitable for applications transmitting real-time data, such as audio, video or simulation data, over multicast or unicast network services. [STANDARDS-TRACK]

1888      Bound              Aug 96      OSI NSAPs and IPv6

This document recommends that network implementors who have planned or deployed an OSI NSAP addressing plan, and who wish to deploy or transition to IPv6, should redesign a native IPv6 addressing plan to meet their needs. This memo defines an Experimental Protocol for the Internet community.

1887      Rekhter            Dec 95      An Architecture for IPv6 Unicast  
Address Allocation

This document provides an architecture for allocating IPv6 [1] unicast addresses in the Internet. This document provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1886      Thomson            Dec 95      DNS Extensions to support IP version 6

This document defines the changes that need to be made to the Domain Name System to support hosts running IP version 6 (IPv6). [STANDARDS-TRACK]

1885      Conta                Dec 95      Internet Control Message Protocol  
(ICMPv6) for the Internet Protocol  
Version 6 (IPv6)

This document specifies a set of Internet Control Message Protocol (ICMP) messages for use with version 6 of the Internet Protocol (IPv6). [STANDARDS-TRACK]

1884      Hinden                Dec 95      IP Version 6 Addressing Architecture

This specification defines the addressing architecture of the IP Version 6 protocol [IPV6]. [STANDARDS-TRACK]

1883      Deering                Dec 95      Internet Protocol, Version 6 (IPv6)  
Specification

This document specifies version 6 of the Internet Protocol (IPv6), also sometimes referred to as IP Next Generation or IPng. [STANDARDS-TRACK]

1882      Hancock      Dec 95      The 12-Days of Technology Before Christmas

This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1881      IAB & IESG      Dec 95      IPv6 Address Allocation Management

The IPv6 address space will be managed by the IANA for the good of the Internet community, with advice from the IAB and the IESG, by delegation to the regional registries. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1880      I.A.B.      Nov 95      INTERNET OFFICIAL PROTOCOL STANDARDS

This memo describes the state of standardization of protocols used in the Internet as determined by the Internet Architecture Board (IAB).  
[STANDARDS-TRACK]

1879      Manning      Jan 96      Class A Subnet Experiment Results and Recommendations

This memo documents some experiences with the RFC 1797 [1] subnet A experiment (performed by the Net39 Test Group (see credits)) and provides a number of recommendations on future direction for both the Internet Registries and the Operations community. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1878      Pummill      Dec 95      Variable Length Subnet Table For IPv4

This memo clarifies issues surrounding subnetting IP networks by providing a standard subnet table. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1877 Cobb Dec 95 PPP Internet Protocol Control Protocol  
Extensions for Name Server Addresses

This document extends the NCP for establishing and configuring the Internet Protocol over PPP [2], defining the negotiation of primary and secondary Domain Name System (DNS) [3] and NetBIOS Name Server (NBNS) [4] addresses. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1876 Davis Jan 96 A Means for Expressing Location  
Information in the Domain Name System

This memo defines a new DNS RR type for experimental purposes. This RFC describes a mechanism to allow the DNS to carry location information about hosts, networks, and subnets. This memo defines an Experimental Protocol for the Internet community.

1875 Berge Dec 95 UNINETT PCA Policy Statements

This document provides information about policy statements submitted by the UNINETT Policy Certification Authority (UNINETT PCA). This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1874 Levinson Dec 95 SGML Media Types

This document proposes new media sub-types of Text/SGML and Application/SGML. This memo defines an Experimental Protocol for the Internet community.

1873 Levinson Dec 95 Message/External-Body Content-ID  
Access Type

The existing MIME Content-Type Message/External-Body access-types allow a MIME entity (body-part) to refer to an object that is not in the message by specifying how to access that object. The Content-ID access method described in this document provides the capability to refer to an object within the message. This memo defines an Experimental Protocol for the Internet community.

1872      Levinson      Dec 95      The MIME Multipart/Related Content-type

The Multipart/Related content-type provides a common mechanism for representing objects that are aggregates of related MIME body parts. This document defines the Multipart/Related content-type and provides examples of its use. This memo defines an Experimental Protocol for the Internet community.

1871      Postel      Nov 95      Addendum to RFC 1602 --  
Variance Procedure

This document describes a modification to the IETF procedures to allow an escape from a situation where the existing procedures are not working or do not seem to apply. This document specifies an Internet Best Current Practices for the Internet Community, and requests discussion and suggestions for improvements.

1870      Klensin      Nov 95      SMTP Service Extension for Message  
Size Declaration

This memo defines an extension to the SMTP service whereby an SMTP client and server may interact to give the server an opportunity to decline to accept a message (perhaps temporarily) based on the client's estimate of the message size. [STANDARDS-TRACK]

1869      Klensin      Nov 95      SMTP Service Extensions

This memo defines a framework for extending the SMTP service by defining a means whereby a server SMTP can inform a client SMTP as to the service extensions it supports. [STANDARDS-TRACK]

1868      Malkin      Nov 95      ARP Extension - UNARP

This document specifies a trivial modification to the ARP mechanism, not the packet format, which allows a node to announce that it is leaving the network and that all other nodes should modify their ARP tables accordingly. This memo defines an Experimental Protocol for the Internet community.

1867      Nebel              Nov 95      Form-based File Upload in HTML

Since file-upload is a feature that will benefit many applications, this proposes an extension to HTML to allow information providers to express file upload requests uniformly, and a MIME compatible representation for file upload responses. This memo defines an Experimental Protocol for the Internet community.

1866      Berners-Lee      Nov 95      Hypertext Markup Language - 2.0

This document defines a HTML 2.0 (to distinguish it from the previous informal specifications). [STANDARDS-TRACK]

1865      Houser              Jan 96      EDI Meets the Internet: Frequently Asked  
Questions about Electronic Data  
Interchange (EDI) on the Internet

This memo is targeted towards the EDI community that is unfamiliar with the Internet, including EDI software developers, users, and service providers. The memo introduces the Internet and assumes a basic knowledge of EDI. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1864      Myers              Oct 95      The Content-MD5 Header Field

This memo specifies an optional header field, Content-MD5, for use with MIME-conformant messages. [STANDARDS-TRACK]

1863      Haskin              Oct 95      A BGP/IDRP Route Server alternative to a  
full mesh routing

This document describes the use and detailed design of Route Servers for dissemination of routing information among BGP/IDRP speaking routers. This memo defines an Experimental Protocol for the Internet community.



1862      McCahill      Nov 95      Report of the IAB Workshop on Internet  
Information Infrastructure,  
October 12-14, 1994

This document is a report on an Internet architecture workshop, initiated by the IAB and held at MCI on October 12-14, 1994. This workshop generally focused on aspects of the information infrastructure on the Internet. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1861      Gwinn      Oct 95      Simple Network Paging Protocol -  
Version 3 - Two-Way Enhanced

This RFC suggests a simple way for delivering wireless messages, both one and two-way, to appropriate receiving devices. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1860      Pummill      Oct 95      Variable Length Subnet Table For IPv4

This document itemizes the potential values for IPv4 subnets. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1859      Pouffary      Oct 95      ISO Transport Class 2 Non-use of  
Explicit Flow Control over  
TCP RFC1006 extension

This document is an extension to STD35, RFC1006, a standard for the Internet community. The document does not duplicate the protocol definitions contained in RFC1006 and in International Standard ISO 8073. It supplements that information with the description of how to implement ISO Transport Class 2 Non-use of Explicit Flow Control on top of TCP. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1858      Ziemba            Oct 95      Security Considerations for  
   IP Fragment Filtering

IP fragmentation can be used to disguise TCP packets from IP filters used in routers and hosts. This document describes two methods of attack as well as remedies to prevent them. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1857      Lambert            Oct 95      A Model for Common Operational  
   Statistics

This memo describes a model for operational statistics in the Internet. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1856      Clark                Shpt 95      The Opstat Client-Server Model for  
   Statistics Retrieval

This document defines a model and protocol for a set of tools which could be used by NSPs and Network Operation Centers (NOCs) to share data among themselves and with customers. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1855      Hambridge           Oct 95      Netiquette Guidelines

This document provides a minimum set of guidelines for Network Etiquette (Netiquette) which organizations may take and adapt for their own use. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1854      Freed                   Oct 95      SMTP Service Extension for  
   Command Pipelining

This memo defines an extension to the SMTP service whereby a server can indicate the extent of its ability to accept multiple commands in a single TCP send operation. [STANDARDS-TRACK]

1853 Simpson Oct 95 IP in IP Tunneling

This document discusses implementation techniques for using IP Protocol/Payload number 4 Encapsulation for tunneling with IP Security and other protocols. This memo provides information for the Internet community. It does not specify an Internet standard.

1852 Metzger Spt 95 IP Authentication using Keyed SHA

This document describes the use of keyed SHA with the IP Authentication Header. This document defines an Experimental Protocol for the Internet community.

1851 Karn Spt 95 The ESP Triple DES Transform

This document describes the Triple DES-CBC security transform for the IP Encapsulating Security Payload (ESP). This document defines an Experimental Protocol for the Internet community.

1850 Baker Nov 95 OSPF Version 2 Management  
Information Base

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in TCP/IP-based internets. In particular, it defines objects for managing the Open Shortest Path First Routing Protocol. [STANDARDS-TRACK]

1849 Never Issued.

1848 Crocker Oct 95 MIME Object Security Services

This document defines MIME Object Security Services (MOSS), a protocol that uses the multipart/signed and multipart/encrypted framework [7] to apply digital signature and encryption services to MIME objects. [STANDARDS-TRACK]

1847 Galvin Oct 95 Security Multiparts for MIME:  
Multipart/Signed and Multipart/Encrypted

This document defines a framework within which security services may be applied to MIME body parts. [STANDARDS-TRACK]

1846      Durand              Spt 95      SMTP 521 Reply Code

This memo defines a new Simple Mail Transfer Protocol (SMTP) [1] reply code, 521, which one may use to indicate that an Internet host does not accept incoming mail. This memo defines an Experimental Protocol for the Internet community.

1845      Crocker              Spt 95      SMTP Service Extension  
   for Checkpoint/Restart

This memo defines an extension to the SMTP service whereby an interrupted SMTP transaction can be restarted at a later time without having to repeat all of the commands and message content sent prior to the interruption. This memo defines an Experimental Protocol for the Internet community.

1844      Huizer              Aug 95      Multimedia E-mail (MIME) User  
   Agent checklist

This document presents a checklist to facilitate evaluation of MIME capable User Agents. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1843      Lee                      Aug 95      HZ - A Data Format for Exchanging Files  
   of Arbitrarily Mixed Chinese and ASCII  
   characters

The content of this memo is identical to an article of the same title written by the author on September 4, 1989. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1842      Wei                      Aug 95      ASCII Printable Characters-Based Chinese  
   Character Encoding for Internet Messages

This document describes the encoding used in electronic mail [RFC822] and network news [RFC1036] messages over the Internet. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1841 Chapman Spt 95 PPP Network Control Protocol for  
LAN Extension

Telecommunications infrastructure is improving to offer higher bandwidth connections at lower cost. Access to the network is changing from modems to more intelligent devices. This informational RFC discusses a PPP Network Control Protocol for one such intelligent device. The protocol is the LAN extension interface protocol. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1840 Never Issued.

1839 Never Issued.

1838 Kille Aug 95 Use of the X.500 Directory to support  
mapping between X.400 and RFC 822  
Addresses

This document defines how to use directory to support the mapping between X.400 O/R Addresses and mailboxes defined in RFC 1327 [2]. This memo defines an Experimental Protocol for the Internet community.

1837 Kille Aug 95 Representing Tables and Subtrees in the  
X.500 Directory

This document defines techniques for representing two types of information mapping in the OSI Directory. This memo defines an Experimental Protocol for the Internet community.

1836 Kille Aug 95 Representing the O/R Address hierarchy  
in the X.500 Directory Information Tree

This document defines a representation of the O/R Address hierarchy in the Directory Information Tree [6, 1]. This memo defines an Experimental Protocol for the Internet community.

1835      Deutsch          Aug 95      Architecture of the WHOIS++ service

This document describes WHOIS++, an extension to the trivial WHOIS service described in RFC 954 to permit WHOIS-like servers to make available more structured information to the Internet. [STANDARDS-TRACK]

1834      Gargano            Aug 95      Whois and Network Information  
Lookup Service Whois++

This memo describes new features for WHOIS. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1833      Srinivasan        Aug 95      Binding Protocols for ONC RPC Version 2

This document describes the binding protocols used in conjunction with the ONC Remote Procedure Call (ONC RPC Version 2) protocols. [STANDARDS-TRACK]

1832      Srinivasan        Aug 95      XDR: External Data Representation  
Standard

This document describes the External Data Representation Standard (XDR) protocol as it is currently deployed and accepted. [STANDARDS-TRACK]

1831      Srinivasan        Aug 95      RPC: Remote Procedure Call Protocol  
Specification Version 2

This document describes the ONC Remote Procedure Call (ONC RPC Version 2) protocol as it is currently deployed and accepted. [STANDARDS-TRACK]

1830      Vaudreuil          Aug 95      SMTP Service Extensions for Transmission  
of Large and Binary MIME Messages

This memo defines two extensions to the SMTP service. The first service enables a SMTP client and server to negotiate the use of an alternate DATA command "BDAT" for efficiently sending large MIME messages. The second extension takes advantage of the BDAT command to permit the negotiated sending of unencoded binary data. This memo defines an Experimental Protocol for the Internet community.

1829      Karn              Aug 95      The ESP DES-CBC Transform

This document describes the DES-CBC security transform for the IP Encapsulating Security Payload (ESP). [STANDARDS-TRACK]

1828      Metzger            Aug 95      IP Authentication using Keyed MD5

This document describes the use of keyed MD5 with the IP Authentication Header. [STANDARDS-TRACK]

1827      Atkinson            Aug 95      IP Encapsulating Security Payload (ESP)

This document describes the IP Encapsulating Security Payload (ESP). ESP is a mechanism for providing integrity and confidentiality to IP datagrams. [STANDARDS-TRACK]

1826      Atkinson            Aug 95      IP Authentication Header

This document describes a mechanism for providing cryptographic authentication for IPv4 and IPv6 datagrams. [STANDARDS-TRACK]

1825      Atkinson            Aug 95      Security Architecture for the Internet Protocol

This memo describes the security mechanisms for IP version 4 (IPv4) and IP version 6 (IPv6) and the services that they provide. [STANDARDS-TRACK]

1824      Danisch              Aug 95      The Exponential Security System TESS:  
   An Identity-Based Cryptographic Protocol  
   for Authenticated Key-Exchange  
   (E.I.S.S.-Report 1995/4)

This informational RFC describes the basic mechanisms and functions of an identity based system for the secure authenticated exchange of cryptographic keys, the generation of signatures, and the authentic distribution of public keys. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.







**1813      Callaghan      Jun 95      NFS Version 3 Protocol Specification**

This paper describes the NFS version 3 protocol. This paper is provided so that people can write compatible implementations. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

**1812      Baker              Jun 95      Requirements for IP Version 4 Routers**

This memo defines and discusses requirements for devices that perform the network layer forwarding function of the Internet protocol suite. [STANDARDS-TRACK]

**1811      F.N.C.              Jun 95      U.S. Government Internet Domain Names**

This document describes the registration policies for the top-level domain ".GOV". This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

**1810      Touch              Jun 95      Report on MD5 Performance**

This RFC addresses how fast MD5 can be implemented in software and hardware, and whether it supports currently available IP bandwidth. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

**1809      Partridge      Jun 95      Using the Flow Label Field in IPv6**

The purpose of this memo is to distill various opinions and suggestions of the End-to-End Research Group regarding the handling of Flow Labels into a set of suggestions for IPv6. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

**1808      Fielding      Jun 95      Relative Uniform Resource Locators**

In situations where the base URL is well-defined and known to the parser (human or machine), it is useful to be able to embed URL references which inherit that context rather than re-specifying it in every instance. This document defines the syntax and semantics for such Relative Uniform Resource Locators. [STANDARDS-TRACK]



1802      Alvestrand      Jun 95      Introducing Project Long Bud: Internet Pilot Project for the Deployment of X.500 Directory Information in Support of X.400 Routing

This memo describes a proposed Internet Pilot Project that seeks to prove the MHS-DS approach on a larger scale. This memo provides information for the Internet community. This memo does not specify an Internet standard of any kind.

1801      Kille              Jun 95      X.400-MHS use of the X.500 Directory to support X.400-MHS Routing

The key problem in routing is to map from an O/R Address onto an MTA (next hop). This shall be an MTA which in some sense is "nearer" to the destination UA. This is done repeatedly until the message can be directly delivered to the recipient UA. This memo defines an Experimental Protocol for the Internet community.

1800      I.A.B.              Jul 95      INTERNET OFFICIAL PROTOCOL STANDARDS

This memo describes the state of standardization of protocols used in the Internet as determined by the Internet Architecture Board (IAB).  
[STANDARDS-TRACK]

## Security Considerations

Security issues are not discussed in this memo.

## Author's Address

Josh Elliott  
University of Southern California  
Information Sciences Institute  
4676 Admiralty Way  
Marina del Rey, CA 90292

Phone: (310) 822-1511

EMail: [elliott@isi.edu](mailto:elliott@isi.edu)