

Request for Comments Summary

RFC Numbers 2900-2999

Status of This Memo

This RFC is a slightly annotated list of the 100 RFCs from RFC 2900 through RFCs 2999. 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.

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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 -----
2999	Ginoza	Aug 2001	Request for Comments Summary

This memo.

2998	Bernet	Nov 2000	A Framework for Integrated Services Operation over Diffserv Networks
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This document describes a framework by which Integrated Services may be supported over Diffserv networks. This memo provides information for the Internet community.



2993 Hain Nov 2000 Architectural Implications of NAT

This document discusses some of the architectural implications and guidelines for implementations of Network Address Translation (NAT). This memo provides information for the Internet community.

2992 Hopps Nov 2000 Analysis of an Equal-Cost Multi-Path Algorithm

Equal-cost multi-path (ECMP) is a routing technique for routing packets along multiple paths of equal cost. The forwarding engine identifies paths by next-hop. When forwarding a packet the router must decide which next-hop (path) to use. This document gives an analysis of one method for making that decision. The analysis includes the performance of the algorithm and the disruption caused by changes to the set of next-hops. This memo provides information for the Internet community.

2991 Thaler Nov 2000 Multipath Issues in Unicast and Multicast Next-Hop Selection

The effect of multipath routing on a forwarder is that the forwarder potentially has several next-hops for any given destination and must use some method to choose which next-hop should be used for a given data packet. This memo summarizes current practices, problems, and solutions. This memo provides information for the Internet community.

2990 Huston Nov 2000 Next Steps for the IP QoS Architecture

This document highlights the outstanding architectural issues relating to the deployment and use of QoS mechanisms within internet networks, noting those areas where further standards work may assist with the deployment of QoS internets. This document is the outcome of a collaborative exercise on the part of the Internet Architecture Board. This memo provides information for the Internet community.

2989 Aboba Nov 2000 Criteria for Evaluating AAA Protocols for Network Access

This document represents a summary of Authentication, Authorization, Accounting (AAA) protocol requirements for network access. This memo provides information for the Internet community.

2988 Paxson Nov 2000 Computing TCP's Retransmission Timer

This document defines the standard algorithm that Transmission Control Protocol (TCP) senders are required to use to compute and manage their retransmission timer. [STANDARDS TRACK]

2987 Hoffman Nov 2000 Registration of Charset and Languages Media Features Tags

This document contains the registration for two media feature tags: "charset" and "language". [STANDARDS TRACK]

2986 Nystrom Nov 2000 PKCS #10: Certification Request Syntax Specification Version 1.7

This memo represents a republication of PKCS #10 v1.7 from RSA Laboratories' Public-Key Cryptography Standards (PKCS) series, and change control is retained within the PKCS process. The body of this document, except for the security considerations section, is taken directly from the PKCS #9 v2.0 or the PKCS #10 v1.7 document. This memo provides information for the Internet community.

2985 Nystrom Nov 2000 PKCS #9: Selected Object Classes and Attribute Types Version 2.0

This memo represents a republication of PKCS #9 v2.0 from RSA Laboratories' Public-Key Cryptography Standards (PKCS) series, and change control is retained within the PKCS process. The body of this document, except for the security considerations section, is taken directly from that specification. This memo provides information for the Internet community.

2984 Adams Oct 2000 Use of the CAST-128 Encryption Algorithm in CMS

This document specifies how to incorporate CAST-128 into the S/MIME Cryptographic Message Syntax (CMS) as an additional algorithm for symmetric encryption. [STANDARDS TRACK]





2973 Balay Oct 2000 IS-IS Mesh Groups

This document describes a mechanism to reduce redundant packet transmissions for the Intermediate System to Intermediate System (IS-IS) Routing protocol, as described in ISO 10589. This memo provides information for the Internet community.

2972 Popp Oct 2000 Context and Goals for Common Name Resolution

This document establishes the context and goals for a Common Name Resolution Protocol. This memo provides information for the Internet community.

2971 Showalter Oct 2000 IMAP4 ID extension

This document describes an ID extension which will enable Internet Message Access Protocol - Version 4rev1 (IMAP4rev1) to advertise what program a client or server uses to provide service. The ID extension allows the server and client to exchange identification information on their implementation in order to make bug reports and usage statistics more complete. [STANDARDS TRACK]

2970 Daigle Oct 2000 Architecture for Integrated Directory Services - Result from TISDAG

Drawing from experiences with the TISDAG (Technical Infrastructure for Swedish Directory Access Gateways) project, this document outlines an approach to providing the necessary infrastructure for integrating such widely-scattered servers into a single service, rather than attempting to mandate a single protocol and schema set for all participating servers to use. This memo provides information for the Internet community.

2969 Eklof Oct 2000 Wide Area Directory Deployment  
- Experiences from TISDAG

This document catalogues some of the experiences gained in developing the necessary infrastructure for a national (i.e., multi-organizational) directory service and pilot deployment of the service in an environment with off-the-shelf directory service products. This memo provides information for the Internet community.

2968 Daigle Oct 2000 Mesh of Multiple DAG servers -  
Results from TISDAG

This document defines the basic principle for establishing a mesh, that interoperating services should exchange index objects, according to the architecture of the mesh (e.g., hierarchical, or graph-like, preferably without loops!). The Common Indexing Protocol (CIP) is designed to facilitate the creation not only of query referral indexes, but also of meshes of (loosely) affiliated referral indexes. The purpose of such a mesh of servers is to implement some kind of distributed sharing of indexing and/or searching tasks across different servers. So far, the TISDAG (Technical Infrastructure for Swedish Directory Access Gateways) project has focused on creating a single referral index; the obvious next step is to integrate that into a larger set of interoperating services. This memo provides information for the Internet community.

2967 Daigle Oct 2000 TISDAG - Technical  
Infrastructure for Swedish  
Directory Access Gateways

The overarching goal of this project is to develop the necessary technical infrastructure to provide a single-access-point service for searching for whitepages information on Swedish Internet users. This memo provides information for the Internet community.

2966 Li Oct 2000 Domain-wide Prefix  
Distribution with Two-Level  
IS-IS

This document describes extensions to the Intermediate System to Intermediate System (IS-IS) protocol to support optimal routing within a two-level domain. This memo provides information for the Internet community.



2961 Berger Apr 2001 RSVP Refresh Overhead  
Reduction Extensions

This document describes a number of mechanisms that can be used to reduce processing overhead requirements of refresh messages, eliminate the state synchronization latency incurred when an RSVP (Resource Reservation Protocol) message is lost and, when desired, refreshing state without the transmission of whole refresh messages. [STANDARDS TRACK]

2960 Stewart Oct 2000 Stream Control Transmission  
Protocol

This document describes the Stream Control Transmission Protocol (SCTP). [STANDARDS TRACK]

2959 Baugher Oct 2000 Real-Time Transport Protocol  
Management Information Base

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. [STANDARDS TRACK]

2958 Daigle Oct 2000 The application/whoispp-  
response Content-type

The intention of this document, in conjunction with RFC 2957, is to enable MIME-enabled mail software, and other systems using Internet media types, to carry out Whois++ transactions. This memo provides information for the Internet community.

2957 Daigle Oct 2000 The application/whoispp-query  
Content-Type

The intention of this document, in conjunction with RFC 2958, is to enable MIME-enabled mail software, and other systems using Internet media types, to carry out Whois++ transactions. This memo provides information for the Internet community.

2956      Kaat                      Oct 2000              Overview of 1999 IAB Network  
Layer Workshop

This document is an overview of a workshop held by the Internet Architecture Board (IAB) on the Internet Network Layer architecture hosted by SURFnet in Utrecht, the Netherlands on 7-9 July 1999. The goal of the workshop was to understand the state of the network layer and its impact on continued growth and usage of the Internet. This memo provides information for the Internet community.

2955      Rehbehn                      Oct 2000              Definitions of Managed Objects  
for Monitoring and Controlling  
the Frame Relay/ATM PVC Service  
Interworking Function

This memo defines a Management Information Base (MIB) to configure, monitor, and control a service interworking function (IWF) for Permanent Virtual Connections (PVC) between Frame Relay and Asynchronous Transfer Mode (ATM) technologies. [STANDARDS TRACK]

2954      Rehbehn                      Oct 2000              Definitions of Managed Objects  
for Frame Relay Service

This memo defines an extension to the Management Information Base (MIB) for use with network management protocols in Transmission Control Protocol/Internet Protocol-based (TCP/IP) internets. In particular, it defines objects for managing the frame relay service. [STANDARDS TRACK]

2953      Ts'o                              Sep 2000              Telnet Encryption: DES 64 bit  
Output Feedback

This document specifies how to use the data encryption standard (DES) encryption algorithm in output feedback mode with the telnet encryption option. This memo provides information for the Internet community.

2952      Ts'o                              Sep 2000              Telnet Encryption: DES 64 bit  
Cipher Feedback

This document specifies how to use the DES encryption algorithm in cipher feedback mode with the telnet encryption option. This memo provides information for the Internet community.

2951 Housley Sep 2000 TELNET Authentication Using  
KEA and SKIPJACK

This document defines a method to authenticate TELNET using the Key Exchange Algorithm (KEA), and encryption of the TELNET stream using SKIPJACK. This memo provides information for the Internet community.

2950 Altman Sep 2000 Telnet Encryption: CAST-128 64  
bit Cipher Feedback

This document specifies how to use the CAST-128 encryption algorithm in cipher feedback mode with the telnet encryption option. Two key sizes are defined: 40 bit and 128 bit. [STANDARDS TRACK]

2949 Altman Sep 2000 Telnet Encryption: CAST-128 64  
bit Output Feedback

This document specifies how to use the CAST-128 encryption algorithm in output feedback mode with the telnet encryption option. Two key sizes are defined: 40 bit and 128 bit. [STANDARDS TRACK]

2948 Altman Sep 2000 Telnet Encryption: DES3 64 bit  
Output Feedback

This document specifies how to use the Triple-DES (data encryption standard) encryption algorithm in output feedback mode with the telnet encryption option. [STANDARDS TRACK]

2947 Altman Sep 2000 Telnet Encryption: DES3 64 bit  
Cipher Feedback

This document specifies how to use the Triple-DES (data encryption standard) encryption algorithm in cipher feedback mode with the telnet encryption option. [STANDARDS TRACK]

2946 Ts'o Sep 2000 Telnet Data Encryption Option

This document describes a the telnet encryption option as a generic method of providing data confidentiality services for the telnet data stream. [STANDARDS TRACK]

2945 Wu Sep 2000 The SRP Authentication and Key Exchange System

This document describes a cryptographically strong network authentication mechanism known as the Secure Remote Password (SRP) protocol. [STANDARDS TRACK]

2944 Wu Sep 2000 Telnet Authentication: SRP

This document specifies an authentication scheme for the Telnet protocol under the framework described in RFC 2941, using the Secure Remote Password Protocol (SRP) authentication mechanism. [STANDARDS TRACK]

2943 Housley Sep 2000 TELNET Authentication Using DSA

This document defines a telnet authentication mechanism using the Digital Signature Algorithm (DSA). It relies on the Telnet Authentication Option. [STANDARDS TRACK]

2942 Ts'o Sep 2000 Telnet Authentication: Kerberos Version 5

This document describes how Kerberos Version 5 is used with the telnet protocol. It describes an telnet authentication suboption to be used with the telnet authentication option. [STANDARDS TRACK]

2941 Ts'o Sep 2000 Telnet Authentication Option

This document describes the authentication option to the telnet protocol as a generic method for negotiating an authentication type and mode including whether encryption should be used and if credentials should be forwarded. [STANDARDS TRACK]

2940 Smith Oct 2000 Definitions of Managed Objects for Common Open Policy Service (COPS) Protocol Clients

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 a client of the Common Open Policy Service (COPS) protocol. [STANDARDS TRACK]

2939 Droms Sep 2000 Procedures and IANA Guidelines  
for Definition of New DHCP  
Options and Message Types

This document describes the procedure for defining new DHCP options and message types. This document specifies an Internet Best Current Practices for the Internet Community, and requests discussion and suggestions for improvements.

2938 Klyne Sep 2000 Identifying Composite Media  
Features

This document describes an abbreviated format for a composite media feature set, based upon a hash of the feature expression describing that composite. [STANDARDS TRACK]

2937 Smith Sep 2000 The Name Service Search Option  
for DHCP

This document defines a new Dynamic Host Configuration Protocol (DHCP) option which is passed from the DHCP Server to the DHCP Client to specify the order in which name services should be consulted when resolving hostnames and other information. [STANDARDS TRACK]

2936 Eastlake Sep 2000 HTTP MIME Type Handler  
Detection

Entities composing web pages to provide services over the Hypertext Transfer Protocol (HTTP) frequently have the problem of not knowing what Multipurpose Internet Mail Extensions (MIME) types have handlers installed at a user's browser. This document summarizes reasonable techniques to solve this problem for most of the browsers actually deployed on the Internet as of early 2000. This memo provides information for the Internet community.

2935 Eastlake Sep 2000 Internet Open Trading Protocol  
(IOTP) HTTP Supplement

The goal of mapping to the transport layer is to ensure that the underlying XML documents are carried successfully between the various parties. This document describes that mapping for the Hyper Text Transport Protocol (HTTP), Versions 1.0 and 1.1. [STANDARDS TRACK]

2934 McCloghrie Oct 2000 Protocol Independent Multicast  
MIB for IPv4

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it describes managed objects used for managing the Protocol Independent Multicast (PIM) protocol for IPv4. This memo defines an Experimental Protocol for the Internet community.

2933 McCloghrie Oct 2000 Internet Group Management  
Protocol MIB

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it describes objects used for managing the Internet Group Management Protocol (IGMP). [STANDARDS TRACK]

2932 McCloghrie Oct 2000 IPv4 Multicast Routing MIB

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it describes managed objects used for managing IP Multicast Routing for IPv4, independent of the specific multicast routing protocol in use. [STANDARDS TRACK]

2931 Eastlake Sep 2000 DNS Request and Transaction  
Signatures ( SIG(0)s )

This document describes the minor but non-interoperable changes in Request and Transaction signature resource records ( SIG(0)s ) that implementation experience has deemed necessary. [STANDARDS TRACK]

2930 Eastlake Sep 2000 Secret Key Establishment for  
DNS (TKEY RR)

This document describes a Transaction Key (TKEY) RR that can be used in a number of different modes to establish shared secret keys between a DNS resolver and server. [STANDARDS TRACK]

2929 Eastlake Sep 2000 Domain Name System (DNS) IANA Considerations

This document discusses the Internet Assigned Number Authority (IANA) parameter assignment considerations given for the allocation of Domain Name System (DNS) classes, Resource Record (RR) types, operation codes, error codes, etc. This document specifies an Internet Best Current Practices for the Internet Community, and requests discussion and suggestions for improvements.

2928 Hinden Sep 2000 Initial IPv6 Sub-TLA ID Assignments

This document defines initial assignments of IPv6 Sub-Top-Level Aggregation Identifiers (Sub-TLA ID) to the Address Registries. This memo provides information for the Internet community.

2927 Wahl Sep 2000 MIME Directory Profile for LDAP Schema

This document defines a multipurpose internet mail extensions (MIME) directory profile for holding a lightweight directory access protocol (LDAP) schema. This memo provides information for the Internet community.

2926 Kempf Sep 2000 Conversion of LDAP Schemas to and from SLP Templates

This document describes a procedure for mapping between Service Location Protocol (SLP) service advertisements and lightweight directory access protocol (LDAP) descriptions of services. This memo provides information for the Internet community.

2925 White Sep 2000 Definitions of Managed Objects for Remote Ping, Traceroute, and Lookup Operations

This memo defines Management Information Bases (MIBs) for performing remote ping, traceroute and lookup operations at a remote host.  
[STANDARDS TRACK]

2924      Brownlee                  Sep 2000                  Accounting Attributes and  
Record Formats

This document summarises Internet Engineering Task Force (IETF) and International Telecommunication Union (ITU-T) documents related to Accounting. This memo provides information for the Internet community.

2923      Lahey                          Sep 2000                  TCP Problems with Path MTU  
Discovery

This memo catalogs several known Transmission Control Protocol (TCP) implementation problems dealing with Path Maximum Transmission Unit Discovery (PMTUD), including the long-standing black hole problem, stretch acknowledgements (ACKs) due to confusion between Maximum Segment Size (MSS) and segment size, and MSS advertisement based on PMTU. This memo provides information for the Internet community.

2922      Bierman                         Sep 2000                  Physical Topology MIB

This memo defines a portion of the Management Information Base (MIB) for use with network management protocols in the Internet community. In particular, it describes managed objects used for managing physical topology identification and discovery. This memo provides information for the Internet community.

2921      Fink                               Sep 2000                  6BONE pTLA and pNLA Formats  
(pTLA)

This memo defines how the 6bone uses the 3FFE::/16 IPv6 address prefix, allocated in RFC 2471, "IPv6 Testing Address Allocation", to create pseudo Top-Level Aggregation Identifiers (pTLA's) and pseudo Next-Level Aggregation Identifiers (pNLA's). This memo provides information for the Internet community.

2920      Freed                              Sep 2000                  SMTP Service Extension for  
Command Pipelining

This memo defines an extension to the Simple Mail Transfer Protocol (SMTP) service whereby a server can indicate the extent of its ability to accept multiple commands in a single Transmission Control Protocol (TCP) send operation. [STANDARDS TRACK]

2919 Chandhok Mar 2001 List-Id: A Structured Field and Namespace for the Identification of Mailing Lists

Software that handles electronic mailing list messages (servers and user agents) needs a way to reliably identify messages that belong to a particular mailing list. With the advent of list management headers, it has become even more important to provide a unique identifier for a mailing list regardless of the particular host that serves as the list processor at any given time. [STANDARDS TRACK]

2918 Chen Sep 2000 Route Refresh Capability for BGP-4

This document defines a new Border Gateway Protocol (BGP) capability termed 'Route Refresh Capability', which would allow the dynamic exchange of route refresh request between BGP speakers and subsequent re-advertisement of the respective Adj-RIB-Out. [STANDARDS TRACK]

2917 Muthukrishnan Sep 2000 A Core MPLS IP VPN Architecture

This memo presents an approach for building core Virtual Private Network (VPN) services in a service provider's MPLS backbone. This memo provides information for the Internet community.

2916 Faltstrom Sep 2000 E.164 number and DNS

This document discusses the use of the Domain Name System (DNS) for storage of E.164 numbers. [Standards Track]

2915 Mealling Sep 2000 The Naming Authority Pointer (NAPTR) DNS Resource Record

This document describes a Domain Name System (DNS) resource record which specifies a regular expression based rewrite rule that, when applied to an existing string, will produce a new domain label or Uniform Resource Identifier (URI). [STANDARDS TRACK]

2914 Floyd Sep 2000 Congestion Control Principles

The goal of this document is to explain the need for congestion control in the Internet, and to discuss what constitutes correct congestion control. This document specifies an Internet Best Current Practices for the Internet Community, and requests discussion and suggestions for improvements.

2913 Klyne Sep 2000 MIME Content Types in Media Feature Expressions

This memo defines a media feature tag whose value is a Multipurpose Internet Mail Extensions (MIME) content type. [STANDARDS TRACK]

2912 Klyne Sep 2000 Indicating Media Features for MIME Content

This memo defines a Multipurpose Internet Mail Extensions (MIME) 'Content-features:' header that can be used to annotate a MIME message part using this expression format, and indicates some ways it might be used. [STANDARDS TRACK]

2911 Hastings Sep 2000 Internet Printing Protocol/1.1: Model and Semantics

This document is one of a set of documents, which together describe all aspects of a new Internet Printing Protocol (IPP). [STANDARDS TRACK]

2910 Herriot Sep 2000 Internet Printing Protocol/1.1: Encoding and Transport

This document is one of a set of documents, which together describe all aspects of a new Internet Printing Protocol (IPP). [STANDARDS TRACK]

2909 Radoslavov Sep 2000 The Multicast Address-Set Claim (MASC) Protocol

This document describes the Multicast Address-Set Claim (MASC) protocol which can be used for inter-domain multicast address set allocation. This memo defines an Experimental Protocol for the Internet community.

2908 Thaler Sep 2000 The Internet Multicast Address Allocation Architecture

This document proposes a multicast address allocation architecture (MALLOC) for the Internet. This memo provides information for the Internet community.

2907 Kermode Sep 2000 MADCAP Multicast Scope Nesting State Option

This document defines a new option to the Multicast Address Dynamic Client Allocation Protocol (MADCAP) to support nested scoping. [STANDARDS TRACK]

2906 Farrell Aug 2000 AAA Authorization Requirements

This document specifies the requirements that Authentication Authorization Accounting (AAA) protocols must meet in order to support authorization services in the Internet. This memo provides information for the Internet community.

2905 Vollbrecht Aug 2000 AAA Authorization Application Examples

This memo describes several examples of applications requiring authorization. This memo provides information for the Internet community.

2904 Vollbrecht Aug 2000 AAA Authorization Framework

This memo serves as the base requirements for Authorization of Internet Resources and Services (AIRS). It presents an architectural framework for understanding the authorization of Internet resources and services and derives requirements for authorization protocols. This memo provides information for the Internet community.

2903 de Laat Aug 2000 Generic AAA Architecture

This memo proposes an Authentication, Authorization, Accounting (AAA) architecture that would incorporate a generic AAA server along with an application interface to a set of Application Specific Modules that could perform application specific AAA functions. This memo defines an Experimental Protocol for the Internet community.

2902 Deering Aug 2000 Overview of the 1998 IAB  
Routing Workshop

This document is an overview of a Routing workshop held by the Internet Architecture Board (IAB) during March 25-27, 1998. This memo provides information for the Internet community.

2901 Wenzel Aug 2000 Guide to Administrative  
Procedures of the Internet  
Infrastructure

This document describes the administrative procedures for networks seeking to connect to the global Internet. This memo provides information for the Internet community.

2900 Reynolds Aug 2001 Internet Official Protocol  
Standards

This memo contains a snapshot of the state of standardization of protocols used in the Internet as of July 17, 2001. It lists official protocol standards and Best Current Practice RFCs; it is not a complete index to the RFC series. This memo is an Internet Standard.

#### Security Considerations

This memo does not affect the technical security of the Internet, but may cite important security specifications.

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