IPv6 Working Group
Internet Draft

Rahul Banerjee
Sumeshwar Paul Malhotra
Mahaveer M
BITS, Pilani (India)
April 2002

A Modified Specification for use of the IPv6 Flow Label for providing An efficient Quality of Service using a hybrid approach.

draft-banerjee-flowlabel-ipv6-qos-03.txt

Obsoletes 00, 01, 02 versions of this draft.

Status of This Memo

This document is an Internet Draft and is subject to all provisions of Section 10 of RFC 2026. Internet Drafts are working documents of the Internet Engineering Task Force (IETF), its areas, and its working groups. Note that other groups may also distribute working documents as Internet Drafts.

Internet Drafts are draft documents valid for a maximum of 6 months and may be updated, replaced, or obsoleted by other documents at any time. It is inappropriate to use Internet Drafts as reference material or to cite them other than as a "work in progress".

The list of current Internet Drafts can be accessed at http://www.ietf.org/lid-abstracts.html

The list of Internet Draft Shadow Directories can be accessed at http://www.ietf.org/shadow.html

Copyright(C) The Internet Society (2002). All Rights Reserved.

Abstract

This memo suggests a pragmatic specification for defining the 20-bit Flow Label field using a hybrid approach that includes options to provide IntServ as well as DiffServ based support for IPv6 Quality of Service. It also compares various suggested approaches for defining the 20-bit Flow Label field in IPv6 Base Header based on RFC 2460 (December 1998) and few other drafts. Addressing the IPv6-Multicast-QoS issues also becomes possible as a consequence. This draft clearly specifies exactly when and how various options are to be used; and in case of the MFC, exactly how a specific action might be taken by the suggested implementation. Thus the resultant mechanism is fully implementable and unambiguous as even the lower-level details have been worked out as may be required for actual implementations. The draft also has a pointer to an experimental QoS scheme called MultServ.