

INTERNET PROTOCOL
DARPA INTERNET PROGRAM
PROTOCOL SPECIFICATION

September 1981

prepared for
Defense Advanced Research Projects Agency
Information Processing Techniques Office
1400 Wilson Boulevard
Arlington, Virginia 22209

by
Information Sciences Institute
University of Southern California
4676 Admiralty Way
Marina del Rey, California 90291

TABLE OF CONTENTS

PREFACE iii

1. INTRODUCTION 1

 1.1 Motivation 1

 1.2 Scope 1

 1.3 Interfaces 1

 1.4 Operation 2

2. OVERVIEW 5

 2.1 Relation to Other Protocols 9

 2.2 Model of Operation 5

 2.3 Function Description 7

 2.4 Gateways 9

3. SPECIFICATION 11

 3.1 Internet Header Format 11

 3.2 Discussion 23

 3.3 Interfaces 31

APPENDIX A: Examples & Scenarios 34

APPENDIX B: Data Transmission Order 39

GLOSSARY 41

REFERENCES 45

PREFACE

This document specifies the DoD Standard Internet Protocol. This document is based on six earlier editions of the ARPA Internet Protocol Specification, and the present text draws heavily from them. There have been many contributors to this work both in terms of concepts and in terms of text. This edition revises aspects of addressing, error handling, option codes, and the security, precedence, compartments, and handling restriction features of the internet protocol.

Jon Postel

Editor

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.