RFC: 793

TRANSMISSION CONTROL 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

September 1981

Transmission Control Protocol



TABLE OF CONTENTS

PRE	EFACE <u>i</u>	<u>ii</u>
<u>1</u> . INT	TRODUCTION	1
1.1 1.2 1.3 1.4 1.5	Motivation	2 2 3
<u>2</u> . PH]	ILOSOPHY	7
2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10	Elements of the Internetwork System Model of Operation The Host Environment Interfaces Relation to Other Protocols Reliable Communication Connection Establishment and Clearing Data Communication Precedence and Security Robustness Principle	7 8 9 9 10 12 13
<u>3</u> . FUN	NCTIONAL SPECIFICATION	<u>15</u>
3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9	Header Format Terminology Sequence Numbers Establishing a connection Closing a Connection Precedence and Security Data Communication Interfaces Event Processing	19 24 30 37 40 44
GLOSSARY		<u>79</u>
REFERENCES		

[Page i]



September 1981

Transmission Control Protocol



[Page ii]



September 1981

Transmission Control Protocol

PREFACE

This document describes the DoD Standard Transmission Control Protocol (TCP). There have been nine earlier editions of the ARPA TCP specification on which this standard is based, 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 clarifies several details and removes the end-of-letter buffer-size adjustments, and redescribes the letter mechanism as a push function.

Jon Postel

Editor



DOCKET A L A R M

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.

