EXHIBIT 2

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

PROTOCOL STANDARD FOR A NetBIOS SERVICE ON A TCP/UDP TRANSPORT: CONCEPTS AND METHODS

ABSTRACT

This RFC defines a proposed standard protocol to support NetBIOS services in a TCP/IP environment. Both local network and internet operation are supported. Various node types are defined to accommodate local and internet topologies and to allow operation with or without the use of IP broadcast.

This RFC describes the NetBIOS-over-TCP protocols in a general manner, emphasizing the underlying ideas and techniques. Detailed specifications are found in a companion RFC, "Protocol Standard For a NetBIOS Service on a TCP/UDP Transport: Detailed Specifications".

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

SUMMARY OF CONTENTS

1. STATUS OF THIS MEMO 6
2. ACKNOWLEDGEMENTS 6
3. INTRODUCTION 7
4. DESIGN PRINCIPLES 7
5. OVERVIEW OF NetBIOS 10
6. NetBIOS FACILITIES SUPPORTED BY THIS STANDARD 15
7. REQUIRED SUPPORTING SERVICE INTERFACES AND DEFINITIONS 15
8. RELATED PROTOCOLS AND SERVICES 16
9. NetBIOS SCOPE 16
10. NetBIOS END-NODES 16
11. NetBIOS SUPPORT SERVERS 18
12. TOPOLOGIES 20
13. GENERAL METHODS 23
14. REPRESENTATION OF NETBIOS NAMES 25
15. NetBIOS NAME SERVICE 27
16. NetBIOS SESSION SERVICE 48
17. NETBIOS DATAGRAM SERVICE 55
18. NODE CONFIGURATION PARAMETERS 58
19. MINIMAL CONFORMANCE 59
REFERENCES 60
APPENDIX A - INTEGRATION WITH INTERNET GROUP MULTICASTING 61
APPENDIX B - IMPLEMENTATION CONSIDERATIONS 62

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.

TABLE OF CONTENTS

1. STATUS OF THIS MEMO 6

2. ACKNOWLEDGEMENTS 6

3. INTRODUCTION 7

4. DESIGN PRINCIPLES 8
4.1 PRESERVE NetBIOS SERVICES 8
4.2 USE EXISTING STANDARDS 8
4.3 MINIMIZE OPTIONS 8
4.4 TOLERATE ERRORS AND DISRUPTIONS 8
4.5 DO NOT REQUIRE CENTRAL MANAGEMENT 9
4.6 ALLOW INTERNET OPERATION 9
4.7 MINIMIZE BROADCAST ACTIVITY 9
4.8 PERMIT IMPLEMENTATION ON EXISTING SYSTEMS 9
4.9 REQUIRE ONLY THE MINIMUM NECESSARY TO OPERATE 9
4.10 MAXIMIZE EFFICIENCY 10
4.11 MINIMIZE NEW INVENTIONS 10

5. OVERVIEW OF NetBIOS 10
5.1 INTERFACE TO APPLICATION PROGRAMS 10
5.2 NAME SERVICE 11
5.3 SESSION SERVICE 12
5.4 DATAGRAM SERVICE 13
5.5 MISCELLANEOUS FUNCTIONS 14
5.6 NON-STANDARD EXTENSIONS 15

6. NetBIOS FACILITIES SUPPORTED BY THIS STANDARD 15

7. REQUIRED SUPPORTING SERVICE INTERFACES AND DEFINITIONS 15

8. RELATED PROTOCOLS AND SERVICES 16

9. NetBIOS SCOPE 16

10. NetBIOS END-NODES 16
10.1 BROADCAST (B) NODES 16
10.2 POINT-TO-POINT (P) NODES 16
10.3 MIXED MODE (M) NODES 16

11. NetBIOS SUPPORT SERVERS 18
11.1 NetBIOS NAME SERVER (NBNS) NODES 18
11.1.1 RELATIONSHIP OF THE NBNS TO THE DOMAIN NAME SYSTEM 19
11.2 NetBIOS DATAGRAM DISTRIBUTION SERVER (NBDD) NODES 19
11.3 RELATIONSHIP OF NBNS AND NBDD NODES 20
11.4 RELATIONSHIP OF NetBIOS SUPPORT SERVERS AND B NODES 20
12. TOPOLOGIES 20
12.1 LOCAL 20

DOCKET ALARM Find authenticated court documents without watermarks at docketalarm.com.

12.1.1 B NODES ONLY 21
12.1.2 P NODES ONLY 21
12.1.3 MIXED B AND P NODES 21
12.2 INTERNET 22
12.2.1 P NODES ONLY 22
12.2.2 MIXED M AND P NODES 23

13. GENERAL METHODS 23
13.1 REQUEST/RESPONSE INTERACTION STYLE 23
13.1.1 RETRANSMISSION OF REQUESTS 24
13.1.2 REQUESTS WITHOUT RESPONSES: DEMANDS 24
13.2 TRANSACTIONS 25
13.2.1 TRANSACTION ID 25
13.3 TCP AND UDP FOUNDATIONS 25

14. REPRESENTATION OF NETBIOS NAMES 25
14.1 FIRST LEVEL ENCODING 26
14.2 SECOND LEVEL ENCODING 27

15. NetBIOS NAME SERVICE 27
15.1 OVERVIEW OF NetBIOS NAME SERVICE 27
15.1.1 NAME REGISTRATION (CLAIM) 27
15.1.2 NAME QUERY (DISCOVERY) 28
15.1.3 NAME RELEASE 28
15.1.3.1 EXPLICIT RELEASE 28
15.1.3.2 NAME LIFETIME AND REFRESH 29
15.1.3.3 NAME CHALLENGE 29
15.1.3.4 GROUP NAME FADE-OUT 29
15.1.3.5 NAME CONFLICT 30
15.1.4 ADAPTER STATUS 31
15.1.5 END-NODE NBNS INTERACTION 31
15.1.5.1 UDP, TCP, AND TRUNCATION 31
15.1.5.2 NBNS WACK 32
15.1.5.3 NBNS REDIRECTION 32
15.1.6 SECURED VERSUS NON-SECURED NBNS 32
15.1.7 CONSISTENCY OF THE NBNS DATA BASE 32
15.1.8 NAME CACHING 34
15.2 NAME REGISTRATION TRANSACTIONS 34
15.2.1 NAME REGISTRATION BY B NODES 34
15.2.2 NAME REGISTRATION BY P NODES 35
15.2.2.1 NEW NAME, OR NEW GROUP MEMBER 35
15.2.2.2 EXISTING NAME AND OWNER IS STILL ACTIVE 36
15.2.2.3 EXISTING NAME AND OWNER IS INACTIVE 37
15.2.3 NAME REGISTRATION BY M NODES 38
15.3 NAME QUERY TRANSACTIONS 39
15.3.1 QUERY BY B NODES 39
15.3.2 QUERY BY P NODES 40
15.3.3 QUERY BY M NODES 43
15.3.4 ACQUIRE GROUP MEMBERSHIP LIST 43
15.4 NAME RELEASE TRANSACTIONS 44
15.4.1 RELEASE BY B NODES 44

DOCKET ALARM
Find authenticated court documents without watermarks at docketalarm.com.

DOCKET ALARM

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.