

Interrupt List, part 9 of 18

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-----E-21E3-----
INT 21 - OS/286, OS/386 - ISSUE REAL INTERRUPT
 AH = E3h
 AL = interrupt number
 ???

Return: ???

Note: protected mode only???

SeeAlso: AH=E1h"OS/286",INT 31/AX=0300h

-----T-21E3-----
INT 21 - DoubleDOS - ADD CHARACTER TO KEYBOARD BUFFER OF CURRENT JOB
 AH = E3h
 AL = character
Return: AL = status
 00h successful
 01h buffer full (128 characters)

SeeAlso: AH=E1h"DoubleDOS",AH=E2h"DoubleDOS",AH=E8h"DoubleDOS"

SeeAlso: AH=F3h"DoubleDOS"

-----N-21E3-----
INT 21 - Novell NetWare - CONNECTION CONTROL
 AH = E3h
 DS:SI -> request buffer (see #01885)
 ES:DI -> reply buffer (see #01886)
Return: AL = status
 00h successful
 else error code

Note: supported by NetWare 4.0+, Advanced NetWare 1.0+, and Alloy NTNX

SeeAlso: AH=E3h/SF=0Ah,AH=E3h/SF=32h,AH=E3h/SF=64h,AH=E3h/SF=C8h

Format of NetWare request buffer:

Offset Size Description (Table 01885)

00h WORD length of following data
02h BYTE subfunction number (see also AH=E3h/SF=01h,AH=E3h/SF=02h)
 00h login
 03h map object to number
 04h map number to object
 05h get station's logged information
 06h get station's root mask (obsolete)
 07h map group name to number
 08h map number to group name

09h get memberset M of group G

var depends on subfunction

Notes: the above subfunctions are not described in _NetWare_System_Calls--DOS_

see separate entries below for other subfunctions

SeeAlso: #01886,#01887,#01890

Format of NetWare reply buffer:

Offset Size Description (Table 01886)

00h WORD (call) length of following buffer space for results

var depends on subfunction

SeeAlso: #01885

Format of NetWare object property:

Offset Size Description (Table 01887)

00h 1-16 BYTES property name (see also #01888)

N BYTE flags

bit 0: property is dynamic

bit 1: property is a set rather than an item

N+1 BYTE security levels (see #01889)

???

(Table 01888)

Values for names of well-known NetWare properties:

ACCOUNT_BALANCE

ACCOUNT_SERVERS

GROUP_MEMBERS

GROUPS_I'M_IN

IDENTIFICATION user's name

LOGIN_CONTROL

NET_ADDRESS

OPERATORS

PASSWORD

SECURITY_EQUALS

(Table 01889)

Values for NetWare security levels:

00h "anyone" everyone may access

01h "logged" only logged-in clients may access

02h "object" only clients logged-in with object's name, type, and password

03h "supervisor" only clients logged-in with supervisor privileges

04h "NetWare" only NetWare may access

Note: the above values are stored in a nybble; the high half-byte is write access and the low half-byte is read access

(Table 01890)

Values for NetWare object type:

0000h unknown
 0001h user
 0002h user group
 0003h print queue / print server
 0004h file server
 0005h job server
 0006h gateway
 0007h print server
 0008h archive queue
 0009h archive server
 000Ah job queue
 000Bh administration
 0021h NAS SNA gateway
 0024h remote bridge server???
 0026h remote bridge server
 0027h TCPIP gateway
 002Dh time synchronization server
 002Eh archive server dynamic SAP
 0047h advertising print server
 0053h print queue uwer
 0048h-8000h reserved
 FFFFh wild (used only for finding objects)

-----N-21E3--SF01-----

INT 21 - Novell NetWare - CONNECTION SERVICES - CHANGE USER PASSWORD (OLD)

AH = E3h subfn 01h

DS:SI -> request buffer (see #01891)

ES:DI -> reply buffer (see #01895)

Return: AL = status

00h successful

else error code

Note: supported by NetWare 4.0+, Advanced NetWare 1.0+, and Alloy NTNX

SeeAlso: AH=E3h/SF=0Ah,AH=E3h/SF=32h,AH=E3h/SF=64h,AH=E3h/SF=C8h

Format of NetWare "Change User Password (old)" request packet:

Offset Size Description (Table 01891)

00h WORD length of following data

02h BYTE 01h (subfunction "Change User Password (old)")
 03h BYTE length of user name
 04h N BYTES user name
 BYTE length of old password
 N BYTES old password
 BYTE length of new password
 N BYTES new password

SeeAlso: #01895

-----N-21E3--SF02-----

INT 21 - Novell NetWare - CONNECTION SERVICES - CHANGE USER PASSWORD (OLD)

AH = E3h subfn 02h

DS:SI -> request buffer (see #01892)

ES:DI -> reply buffer (see #01893)

Return: AL = status

00h successful

else error code

Note: supported by NetWare 4.0+, Advanced NetWare 1.0+, and Alloy NTNX

SeeAlso: AH=E3h/SF=01h,AH=E3h/SF=03h,AH=E3h/SF=0Ah

Format of NetWare "Get User Connection List (old)" request packet:

Offset Size Description (Table 01892)

00h WORD length of following data

02h BYTE 02h (subfunction "Get User Connection List (old)")

03h BYTE length of user name

04h N BYTES user name

SeeAlso: #01893,#02162

Format of NetWare "Get User Connection List (old)" reply packet:

Offset Size Description (Table 01893)

00h WORD (call) length of following buffer

02h BYTE length of connection list

03h BYTE number of bytes in connection list

04h N BYTES list of connection numbers in use by user

SeeAlso: #01892,#02162

-----N-21E3--SF03-----

INT 21 - Novell NetWare - CONNECTION SERVICES - MAP OBJECT TO NUMBER (OLD)

AH = E3h subfn 03h

DS:SI -> request buffer

ES:DI -> reply buffer

Return: AL = status

00h successful

else error code

Note: supported by NetWare 4.0+, Advanced NetWare 1.0+, and Alloy NTNX

SeeAlso: AH=E3h/SF=01h,AH=E3h/SF=02h,AH=E3h/SF=0Ah

-----N-21E3--SF0A-----

INT 21 - Novell NetWare - CONNECTION SERVICES - ENTER LOGIN AREA

AH = E3h subfn 0Ah

DS:SI -> request buffer (see #01894)

ES:DI -> reply buffer (see #01895)

Return: AL = status

00h successful

Desc: change the login directory for the calling workstation

Note: this function is supported by NetWare 4.0+, Advanced NetWare 1.0+, and

Alloy NTNX

SeeAlso: AH=D7h,AH=E3h/SF=14h

Format of NetWare "Enter Login Area" request buffer:

Offset Size Description (Table 01894)

00h WORD length of following data (max 102h)

02h BYTE 0Ah (subfunction "Enter Login Area")

03h BYTE number of local drives

04h BYTE length of subdirectory name (00h-FFh)

05h N BYTES name of subdirectory under SYS:LOGIN where to find the login
utility

SeeAlso: #01895

Format of NetWare reply buffer:

Offset Size Description (Table 01895)

00h WORD (call) 0000h (no data returned)

SeeAlso: #01891,#01894,#01898

-----N-21E3--SF0C-----

INT 21 U - Novell NetWare - VERIFY NETWORK SERIAL NUMBER

AH = E3h subfn 0Ch

DS:SI -> request buffer (see #01896)

ES:DI -> reply buffer (see #01897)

Return: AL = status

00h successful

Note: if the network serial number to be verified is correct, the reply

buffer will contain the corresponding application number

SeeAlso: AH=E3h/SF=12h,AX=F217h/SF=0Ch

Format of NetWare "Verify Network Serial Number" request buffer:

Offset Size Description (Table 01896)
 00h WORD 0005h (length of following data)
 02h BYTE 0Ch (subfunction "Verify Network Serial Number")
 03h DWORD (big-endian) network serial number to verify
 SeeAlso: #01897,#02163

Format of NetWare "Verify Network Serial Number" reply buffer:

Offset Size Description (Table 01897)
 00h WORD (call) 0002h (size of following results buffer)
 02h WORD (big-endian) application number
 SeeAlso: #01896,#02163

-----N-21E3--SF0D-----

INT 21 - Novell NetWare - MESSAGE SERVICES - LOG NETWORK MESSAGE

AH = E3h subfn 0Dh
 DS:SI -> request buffer (see #01898)
 ES:DI -> reply buffer (see #01895)

Return: AL = status
 00h successful

Desc: append a line to the default file server's NET\$LOG.MSG file

Note: this function is supported by NetWare 4.0+, Advanced NetWare 1.0+, and

Alloy NTNX

SeeAlso: AH=E1h/SF=09h

Format of NetWare "Log Network Message" request buffer:

Offset Size Description (Table 01898)
 00h WORD length of following data (max 52h)
 02h BYTE 0Dh (subfunction "Log Network Message")
 03h BYTE length of message (01h-50h)
 04h N BYTES message (no control characters or characters > 7Eh)

SeeAlso: #01895

-----N-21E3--SF0E-----

INT 21 - Novell NetWare - FILE SERVER - GET DISK UTILIZATION

AH = E3h subfn 0Eh
 DS:SI -> request buffer (see #01900)
 ES:DI -> reply buffer (see #01901)

Return: AL = status (00h,98h,F2h) (see #01899)

Notes: this function is supported by Advanced NetWare 2.1+

the caller must have bindery object read privileges

SeeAlso: AH=E3h/SF=11h,AH=E3h/SF=D6h,AH=E3h/SF=D9h,AH=E3h/SF=E6h,AH=E3h/SF=E9h

SeeAlso: AX=F217h/SF=0Eh

(Table 01899)

Values for NetWare function status:

00h successful
98h nonexistent volume
F2h not permitted to read object

SeeAlso: #01866,#01902

Format of NetWare "Get Disk Utilization" request buffer:

Offset Size Description (Table 01900)

00h WORD 0005h (length of following data)
02h BYTE 0Eh (subfunction "Get Disk Utilization")
03h BYTE volume number (00h-1Fh)
04h DWORD (big-endian) object ID

SeeAlso: #01901,#02164

Format of NetWare "Get Disk Utilization" reply buffer:

Offset Size Description (Table 01901)

00h WORD (call) 000Bh (size of following results buffer)
02h BYTE volume number (00h-1Fh)
03h DWORD (big-endian) object ID
07h WORD (big-endian) directories used by object
09h WORD (big-endian) files created by object
0Bh WORD (big-endian) disk blocks used by object-created files

SeeAlso: #01900,#02164

-----N-21E3--SF0F-----

INT 21 - Novell NetWare - FILE SERVICES - SCAN FILE INFORMATION

AH = E3h subfn 0Fh

DS:SI -> request buffer (see #01903)

ES:DI -> reply buffer (see #01904)

Return: AL = status (see #01902)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=B6h,AH=E3h/SF=10h,AX=F217h/SF=0Fh

(Table 01902)

Values for NetWare function status:

00h successful
89h not permitted to search directory
FFh no more matching files

SeeAlso: #01899,#01920

Format of NetWare "Scan File Information" request buffer:

Offset Size Description (Table 01903)
 00h WORD length of following data (max 105h)
 02h BYTE 0Fh (subfunction "Scan File Information")
 03h WORD (big-endian) sequence number
 FFFFh on first call
 05h BYTE directory handle or 00h
 06h BYTE search attributes (see #01420 at AX=4301h)
 07h BYTE length of filespec
 08h N BYTES ASCIZ uppercase filespec
 SeeAlso: #01904,#02165

Format of NetWare "Scan File Information" reply buffer:

Offset Size Description (Table 01904)
 00h WORD (call) 005Eh (size of following results buffer)
 02h WORD next sequence number (place in request buffer for next call)
 04h 14 BYTES ASCIZ filename
 12h BYTE file attributes (see #01420 at AX=4301h)
 13h BYTE extended file attributes (see #01804 at AH=B6h)
 14h DWORD (big-endian) file size in bytes
 18h WORD (big-endian) file's creation date (see #01666 at AX=5700h)
 1Ah WORD (big-endian) date of last access (see #01665 at AX=5700h)
 1Ch DWORD (big-endian) date and time of last update (see #01846)
 20h DWORD (big-endian) object ID of owner
 24h DWORD (big-endian) date and time last archived (see #01846)
 28h 55 BYTES reserved

Note: the official documentation erroneously lists the field at offset 04h as
 15 bytes and thus shifts the remaining fields by one byte

SeeAlso: #01903,#02165

-----N-21E3--SF10-----

INT 21 - Novell NetWare - FILE SERVICES - SET FILE INFORMATION

AH = E3h subfn 10h

DS:SI -> request buffer (see #01905)

ES:DI -> reply buffer (see #01906)

Return: AL = status

00h successful

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX
 the caller must have modify privileges on the directory containing the
 file

SeeAlso: AH=B6h,AH=E3h/SF=0Fh,AX=F217h/SF=10h

Format of NetWare "Set File Information" request buffer:

Offset Size Description (Table 01905)

00h	WORD	length of following data (max 151h)
02h	BYTE	10h (subfunction "Set File Information")
03h	BYTE	file attributes (see #01420 at AX=4301h)
04h	BYTE	extended file attributes (see #01804 at AH=B6h)
05h	4 BYTES	reserved
09h	WORD	(big-endian) file's creation date (see #01666 at AX=5700h)
0Bh	WORD	(big-endian) date of last access (see #01665 at AX=5700h)
0Dh	DWORD	(big-endian) date and time of last update (see #01846)
11h	DWORD	(big-endian) object ID of owner
15h	DWORD	(big-endian) date and time last archived (see #01846)
19h	56 BYTES	reserved
51h	BYTE	directory handle or 00h
52h	BYTE	search attributes (see #01420 at AX=4301h)
53h	BYTE	length of filename
54h	N BYTES	filename

SeeAlso: #01906

Format of NetWare reply buffer:

Offset Size Description (Table 01906)

00h	WORD	(call) 0000h (no results returned)
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SeeAlso: #01905

-----N-21E3--SF11-----

INT 21 - Novell NetWare - FILE SERVER - GET FILE SERVER INFORMATION

AH = E3h subfn 11h

DS:SI -> request buffer (see #01907)

ES:DI -> reply buffer (see #01908)

Return: AL = status

00h successful

Desc: determine the version of software installed on the file server and
how it is configured

Note: this function is supported by Advanced NetWare 2.1+

SeeAlso: AH=E3h/SF=0Eh,AH=E3h/SF=12h,AH=E3h/SF=CDh,AH=E3h/SF=D3h,AH=E3h/SF=E7h

SeeAlso: AH=E7h"Novell",AX=F217h/SF=11h

Format of NetWare "Get File Server Information" request buffer:

Offset Size Description (Table 01907)

00h	WORD	0001h (length of following data)
02h	BYTE	11h (subfunction "Get File Server Information")

SeeAlso: #01908,#02166 at AX=F217h/SF=11h

Format of NetWare "Get File Server Information" reply buffer:

Offset Size Description (Table 01908)

00h WORD (call) 0080h (size of following results buffer)
 02h 48 BYTES server's name
 32h BYTE NetWare version
 33h BYTE NetWare subversion (0-99)
 34h WORD (big-endian) number of connections supported
 NetWare 4.01 reportedly returns maximum simulataneously-used
 connections
 36h WORD (big-endian) number of connections in use
 38h WORD (big-endian) maximum connected volumes
 ---Advanced NetWare 2.1+ ---
 3Ah BYTE operating system revision number
 3Bh BYTE fault tolerance (SFT) level
 3Ch BYTE TTS level
 3Dh WORD (big-endian) maximum simultaneously-used connections
 NetWare 4.01 reportedly returns number of connections in use
 3Fh BYTE accounting version
 40h BYTE VAP version
 41h BYTE queueing version
 42h BYTE print server version
 43h BYTE virtual console version
 44h BYTE security restrictions level
 45h BYTE internetwork bridge version
 46h 60 BYTES reserved

SeeAlso: #01907,#02166

-----N-21E3---SF12-----

INT 21 - Novell NetWare - GET NETWORK SERIAL NUMBER

AH = E3h subfn 12h

AL = 00h

BX = CX = DX = 0000h

DS:SI -> request buffer (see #01909)

ES:DI -> reply buffer (see #01910)

Return: AL = status

 00h successful

Desc: return the serial number and application number for the software
 installed on the file server

Notes: this function is supported by Advanced NetWare 2.1+

 reportedly, the workstation crashes if AL,BX,CX, and DX are not all
 zero

SeeAlso: AH=E3h/SF=0Ch,AH=E3h/SF=11h,AX=F217h/SF=12h

Format of NetWare "Get Serial Number" request buffer:

offset size description (Table 01909)
 00h WORD 0001h (length of following data)
 02h BYTE 12h (subfunction "Get Serial Number")

SeeAlso: #01910,#02167

Format of NetWare "Get Serial Number" reply buffer:

offset size description (Table 01910)
 00h WORD (call) 0006h (size of following results buffer)
 02h 4 BYTES (big-endian) NetWare server serial number
 06h 2 BYTES (big-endian) NetWare application serial number

SeeAlso: #01909,#02167

-----N-21E3--SF13-----

INT 21 - Novell NetWare - CONNECTION SERVICES - GET INTERNET ADDRESS (OLD)

AH = E3h subfn 13h

DS:SI -> request buffer (see #01911)

ES:DI -> reply buffer (see #01912)

Return: AL = status

00h successful

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=DCh"NetWare",AH=E3h/SF=16h,AH=EEh"NetWare",AX=F217h/SF=13h

Format of NetWare "Get Internet Address (old)" request buffer:

Offset Size Description (Table 01911)
 00h WORD 0002h (length of following data)
 02h BYTE 13h (subfunction "Get Internet Address")
 03h BYTE logical connection number (01h-64h)

SeeAlso: #01912,#02168

Format of NetWare "Get Internet Address (old)" reply buffer:

Offset Size Description (Table 01912)
 00h WORD (call) 000Ch (length of following results buffer)
 02h 4 BYTES network number
 06h 6 BYTES physical node address
 0Ch 2 BYTES socket number

SeeAlso: #01911,#02168 at AX=F217h/SF=13h

-----N-21E3--SF14-----

INT 21 - Novell NetWare - CONNECTION SERVICES - LOGIN TO FILE SERVER

AH = E3h subfn 14h

DS:SI -> request buffer (see #01913)

ES:DI -> reply buffer (see #01914)

Return: AL = status

00h successful

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=D7h"NetWare",AH=F1h"NetWare",AX=F217h/SF=14h

Format of NetWare "Login to File Server" request buffer:

Offset Size Description (Table 01913)

00h WORD length of following data (max B3h)

02h BYTE 14h (subfunction "Login To File Server")

03h WORD (big-endian) type of object

05h BYTE length of object's name (01h-2Fh)

06h N BYTES object's name

BYTE length of password

N BYTES password

SeeAlso: #01914

Format of NetWare reply buffer:

Offset Size Description (Table 01914)

00h WORD (call) 0000h (no data returned)

SeeAlso: #01913

-----N-21E3--SF15-----

INT 21 - Novell NetWare - CONNECTION SERVICES - GET OBJECT CONNECTION LIST (OLD)

AH = E3h subfn 15h

DS:SI -> request buffer (see #01915)

ES:DI -> reply buffer (see #01916)

Return: AL = status

00h successful

Desc: this function retrieves a list indicating the connection numbers under

which a bindery object is logged into the default file server

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=DCh"NetWare",AH=E3h/SF=16h,AX=F217h/SF=15h

Format of NetWare "Get Object Connection Numbers" request buffer:

Offset Size Description (Table 01915)

00h WORD length of following data (max 33h)

02h BYTE 15h (subfunction "Get Object Connection Numbers")

03h WORD (big-endian) type of object

05h BYTE length of object's name (01h-2Fh)

06h N BYTES object's name

SeeAlso: #01916,#02169

Format of NetWare "Get Object Connection Numbers" reply buffer:

Offset	Size	Description (Table 01916)
00h	WORD	(call) length of following results buffer (max 65h)
02h	BYTE	number of connections
03h	N BYTES	connection list

SeeAlso: #01915, #02169

-----N-21E3--SF16-----

INT 21 - Novell NetWare - CONNECTION SERVICES - GET CONNECTION INFORMATION

AH = E3h subfn 16h

DS:SI -> request buffer (see #01917)

ES:DI -> reply buffer (see #01918)

Return: AL = status

00h successful

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=D7h, AH=DCh"NetWare", AH=E3h/SF=14h

Format of NetWare "Get Connection Information" request buffer:

Offset	Size	Description (Table 01917)
00h	WORD	0002h (length of following data)
02h	BYTE	16h (subfunction "Get Connection Information")
03h	BYTE	logical connection number (01h-64h)

Format of NetWare "Get Connection Information" reply buffer:

Offset	Size	Description (Table 01918)
00h	WORD	(call) 003Eh (length of following results buffer)
02h	DWORD	(big-endian) object ID for object logged in on the connection 00000000h if no object logged in
06h	WORD	(big-endian) type of object
08h	48 BYTES	name of object
38h	7 BYTES	login time (see #01919)

Note: much of the Novell documentation incorrectly states the reply buffer length as 3Fh instead of 40h, which corresponds to a results length of 3Dh (61) bytes instead of the correct 3Eh (62) bytes

Format of NetWare login time:

Offset	Size	Description (Table 01919)
00h	BYTE	year (80-99 = 1980-1999, 00-79 = 2000-2079)
01h	BYTE	month (1-12)
02h	BYTE	day (1-31)
03h	BYTE	hour (0-23)

04h BYTE minute (0-59)
 05h BYTE second (0-59)
 06h BYTE day of week (0 = Sunday)

-----N-21E3--SF32-----

INT 21 - Novell NetWare - BINDERY SERVICES - CREATE BINDERY OBJECT

AH = E3h subfn 32h

DS:SI -> request buffer (see #01921)

ES:DI -> reply buffer (see #01922)

Return: AL = status (see #01920)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=33h,AH=E3h/SF=34h,AH=E3h/SF=38h,AH=E3h/SF=39h

SeeAlso: AX=F217h/SF=32h

(Table 01920)

Values for NetWare function status:

00h successful
 96h server out of memory
 EEh object already exists
 EFh invalid name
 F0h wildcard not allowed
 F1h invalid bindery security level
 F3h not permitted to rename object
 F4h not permitted to delete objects
 F5h not permitted to create objects
 FCh no such object
 FEh server bindery locked
 FFh bindery failure

SeeAlso: #01902,#01927

Format of NetWare "Create Bindery Object" request buffer:

Offset Size Description (Table 01921)

00h WORD length of following data (max 35h)
 02h BYTE 32h (subfunction "Create Bindery Object")
 03h BYTE object flag (00h static, 01h dynamic)
 04h BYTE object security levels
 05h WORD (big-endian) type of object
 07h BYTE length of object's name
 08h N BYTES object's name

SeeAlso: #01922

Format of NetWare reply buffer:

Offset Size Description (Table 01922)

00h WORD 0000h (no data returned)

SeeAlso: #01921,#01923,#01924

-----N-21E3--SF33-----

INT 21 - Novell NetWare - BINDERY SERVICES - DELETE BINDERY OBJECT

AH = E3h subfn 33h

DS:SI -> request buffer (see #01923)

ES:DI -> reply buffer (see #01922)

Return: AL = status (see #01920)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=32h,AH=E3h/SF=34h,AX=F217h/SF=33h

Format of NetWare "Delete Bindery Object" request buffer:

Offset Size Description (Table 01923)

00h WORD length of following data (max 33h)

02h BYTE 33h (subfunction "Delete Bindery Object")

03h WORD (big-endian) type of object

05h BYTE length of object's name (01h-2Fh)

06h N BYTES object's name

SeeAlso: #01922

-----N-21E3--SF34-----

INT 21 - Novell NetWare - BINDERY SERVICES - RENAME BINDERY OBJECT

AH = E3h subfn 34h

DS:SI -> request buffer (see #01924)

ES:DI -> reply buffer (see #01922)

Return: AL = status (see #01920)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=32h,AH=E3h/SF=33h,AX=F217h/SF=34h

Format of NetWare "Rename Bindery Object" request buffer:

Offset Size Description (Table 01924)

00h WORD length of following data (max 63h)

02h BYTE 34h (subfunction "Rename Bindery Object")

03h WORD (big-endian) type of object

05h BYTE length of object's name (01h-2Fh)

06h N BYTES object's name

BYTE length of new name (01h-2Fh)

N BYTES new name

SeeAlso: #01922

-----N-21E3--SF35-----

INT 21 - Novell NetWare - BINDERY SERVICES - GET BINDERY OBJECT ID

AH = E3h subfn 35h
 DS:SI -> request buffer (see #01925)
 ES:DI -> reply buffer (see #01926)
 Return: AL = status (00h,96h,FCh,FEh,FFh) (see #01927)
 Notes: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX
 the requesting workstation must be logged into the file server with
 read access to the bindery object
 SeeAlso: AH=E3h/SF=36h,AH=E3h/SF=44h,AX=F217h/SF=35h

Format of NetWare "Get Bindery Object ID" request buffer:

Offset	Size	Description (Table 01925)
00h	WORD	length of following data (max 33h)
02h	BYTE	35h (subfunction "Get Bindery Object ID")
03h	WORD	(big-endian) type of object
05h	BYTE	length of object's name
06h	N BYTES	object's name

SeeAlso: #01926,#02184

Format of NetWare "Get Bindery Object ID" reply buffer:

Offset	Size	Description (Table 01926)
00h	WORD	(call) 0036h (length of following buffer space)
02h	DWORD	(big-endian) object ID
06h	WORD	(big-endian) type of object
08h	48 BYTES	object name

SeeAlso: #01925,#02184 at AX=F217h/SF=35h

-----N-21E3--SF36-----

INT 21 - Novell NetWare - BINDERY SERVICES - GET BINDERY OBJECT NAME

AH = E3h subfn 36h
 DS:SI -> request buffer (see #01928)
 ES:DI -> reply buffer (see #01929)
 Return: AL = status (see #01927)
 Notes: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX
 the requesting workstation must be logged into the file server with
 read access to the bindery object
 SeeAlso: AH=E3h/SF=35h,AH=E3h/SF=44h,AX=F217h/SF=36h

(Table 01927)

Values for NetWare function status:

00h	successful
96h	server out of memory
EFh	invalid name

F0h wildcard not allowed
FCh no such object
FEh server bindery locked
FFh bindery failure
SeeAlso: #01920,#01933

Format of NetWare "Get Bindery Object Name" request buffer:

Offset	Size	Description (Table 01928)
00h	WORD	0005h (length of following data)
02h	BYTE	36h (subfunction "Get Bindery Object Name")
03h	DWORD	(big-endian) object ID

SeeAlso: #01929,#02185 at AX=F217h/SF=36h

Format of NetWare "Get Bindery Object Name" reply buffer:

Offset	Size	Description (Table 01929)
00h	WORD	(call) 0036h (length of following buffer space)
02h	DWORD	(big-endian) object ID
06h	WORD	(big-endian) type of object
08h	48 BYTES	object name

SeeAlso: #01928,#02185

-----N-21E3--SF37-----

INT 21 - Novell NetWare - BINDERY SERVICES - SCAN BINDERY OBJECT

AH = E3h subfn 37h

DS:SI -> request buffer (see #01930)

ES:DI -> reply buffer (see #01931)

Return: AL = status (see #01927)

Notes: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX
the requesting workstation must be logged into the file server with
read access to the bindery object

SeeAlso: AH=E3h/SF=32h,AH=E3h/SF=33h,AH=E3h/SF=38h,AH=E3h/SF=3Ch

SeeAlso: AX=F217h/SF=37h

Format of NetWare "Scan Bindery Object" request buffer:

Offset	Size	Description (Table 01930)
00h	WORD	length of following data (max 37h)
02h	BYTE	37h (subfunction "Scan Bindery Object")
03h	DWORD	(big-endian) last object ID
07h	WORD	(big-endian) type of object
09h	BYTE	length of object's name
0Ah	N BYTES	object's name

SeeAlso: #01931,#02186

Format of NetWare "Scan Bindery Object" reply buffer:

Offset	Size	Description (Table 01931)
00h	WORD	(call) 0039h (length of following buffer space)
02h	DWORD	(big-endian) object ID FFFFFFFFh for first call
06h	WORD	(big-endian) type of object
08h	48 BYTES	object name (counted string)
38h	BYTE	object flag (00h static, 01h dynamic)
39h	BYTE	object's security levels
3Ah	BYTE	object properties flag (00h no, FFh yes)

SeeAlso: #01930,#02186

-----N-21E3--SF38-----

INT 21 - Novell NetWare - BINDERY SERVICES - CHANGE BINDERY OBJECT SECURITY

AH = E3h subfn 38h

DS:SI -> request buffer (see #01932)

ES:DI -> reply buffer (see #01935)

Return: AL = status (00h,96h,F0h,F1h,FBh,FCh,FEh,FFh) (see #01933)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=32h,AH=E3h/SF=3Bh,AX=F217h/SF=38h

Format of NetWare "Change Bindery Object Security" request buffer:

Offset	Size	Description (Table 01932)
00h	WORD	length of following data (max 34h)
02h	BYTE	38h (subfunction "Change Bindery Object Security")
03h	BYTE	new security levels
04h	WORD	(big-endian) type of object
06h	BYTE	length of object's name (01h-2Fh)
07h	N BYTES	object name

Note: the object type may not be WILD (FFFFh)

SeeAlso: #01935

-----N-21E3--SF39-----

INT 21 - Novell NetWare - BINDERY SERVICES - CREATE PROPERTY

AH = E3h subfn 39h

DS:SI -> request buffer (see #01934)

ES:DI -> reply buffer (see #01935)

Return: AL = status (see #01933)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=32h,AH=E3h/SF=3Bh,AX=F217h/SF=39h

(Table 01933)

Values for NetWare function status:

00h successful
96h server out of memory
EDh property already exists
EFh invalid name
F0h wildcard not allowed
F1h invalid bindery security level
F6h not permitted to delete properties
F7h not permitted to create properties
FBh no such property
FCh no such object
FEh server bindery locked
FFh bindery failure

SeeAlso: #01927,#01937

Format of NetWare "Create Property" request buffer:

Offset Size Description (Table 01934)

00h WORD length of following data (max 45h)
02h BYTE 39h (subfunction "Create Property")
03h WORD (big-endian) type of object
05h BYTE length of object's name (01h-2Fh)
06h N BYTES object's name
 BYTE property flags
 BYTE property security levels
 BYTE length of property's name (01h-0Fh)
 N BYTES property's name

SeeAlso: #01935

Format of NetWare reply buffer:

Offset Size Description (Table 01935)

00h WORD (call) 0000h (no data returned)

SeeAlso: #01932,#01935,#01936

-----N-21E3--SF3A-----

INT 21 - Novell NetWare - BINDERY SERVICES - DELETE PROPERTY

AH = E3h subfn 3Ah

DS:SI -> request buffer (see #01936)

ES:DI -> reply buffer (see #01935)

Return: AL = status (see #01933)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=32h,AH=E3h/SF=39h,AX=F217h/SF=3Ah

Format of NetWare "Delete Property" request buffer:

```
Offset  Size  Description (Table 01936)
00h  WORD  length of following data (max 43h)
02h  BYTE  3Ah (subfunction "Delete Property")
03h  WORD  (big-endian) type of object
05h  BYTE  length of object's name (01h-2Fh)
06h  N BYTES object's name
      BYTE  length of property's name (01h-0Fh)
      N BYTES property's name
```

SeeAlso: #01935

-----N-21E3---SF3B-----

INT 21 - Novell NetWare - BINDERY SERVICES - CHANGE PROPERTY SECURITY

AH = E3h subfn 3Bh

DS:SI -> request buffer (see #01938)

ES:DI -> reply buffer (see #01935)

Return: AL = status (see #01937)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=38h,AX=F217h/SF=3Bh

(Table 01937)

Values for NetWare function status:

```
00h  successful
96h  server out of memory
F0h  wildcard not allowed
F1h  invalid bindery security level
FBh  no such property
FCh  no such object
FEh  server bindery locked
FFh  bindery failure
```

SeeAlso: #01933,#01941

Format of NetWare "Change Property Security" request buffer:

```
Offset  Size  Description (Table 01938)
00h  WORD  length of following data (max 44h)
02h  BYTE  3Bh (subfunction "Change Property Security")
03h  WORD  (big-endian) type of object
05h  BYTE  length of object's name (01h-2Fh)
06h  N BYTES object name
      BYTE  new property security levels
      BYTE  length of property's name
      N BYTES property name
```

Note: the object type may not be WILD (FFFFh)

-----N-21E3--SF3C-----

INT 21 - Novell NetWare - BINDERY SERVICES - SCAN PROPERTY

AH = E3h subfn 3Ch

DS:SI -> request buffer (see #01939)

ES:DI -> reply buffer (see #01940)

Return: AL = status (00h,96h,F1h,FBh,FCh,FEh,FFh) (see #01937)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=37h,AH=E3h/SF=3Bh,AX=F217h/SF=3Ch

Format of NetWare "Scan Property" request buffer:

Offset Size Description (Table 01939)

00h WORD length of following data (max 47h)

02h BYTE 3Ch (subfunction "Scan Property")

03h WORD (big-endian) type of object

05h BYTE length of object's name (01h-2Fh)

06h N BYTES object name

DWORD (big-endian) sequence number

FFFFFFFFh for first call

BYTE length of property's name (01h-0Fh)

N BYTES property's name

SeeAlso: #01940,#02187

Format of NetWare "Scan Property" reply buffer:

Offset Size Description (Table 01940)

00h WORD (call) 0018h (length of following results buffer)

02h 16 BYTES property name

12h BYTE property flags

13h BYTE property security levels

14h DWORD (big-endian) sequence number

18h BYTE property value flag (00h no, FFh yes)

19h BYTE more properties (00h no, FFh yes)

SeeAlso: #01939,#02187

-----N-21E3--SF3D-----

INT 21 - Novell NetWare - BINDERY SERVICES - READ PROPERTY VALUE

AH = E3h subfn 3Dh

DS:SI -> request buffer (see #01942)

ES:DI -> reply buffer (see #01943)

Return: AL = status (see #01941)

Desc: retrieve one 128-byte segment of the specified property's value

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=39h,AH=E3h/SF=3Ch,AH=E3h/SF=3Eh,AX=F217h/SF=3Dh

(Table 01941)

Values for NetWare function status:

00h successful
 96h server out of memory
 E8h not item property
 ECh no such segment
 F0h wildcard not allowed
 F1h invalid bindery security level
 F8h not permitted to write property
 F9h not permitted to read property
 FBh no such property
 FCh no such object
 FEh server bindery locked
 FFh bindery failure

SeeAlso: #01937,#01946

Format of NetWare "Read Property Value" request buffer:

Offset	Size	Description (Table 01942)
00h	WORD	length of following data (max 44h)
02h	BYTE	3Dh (subfunction "Read Property Value")
03h	WORD	(big-endian) type of object
05h	BYTE	length of object's name (01h-2Fh)
06h	N BYTES	object name
	BYTE	segment number (01h on first call, increment until done)
	BYTE	length of property's name (01h-0Fh)
	N BYTES	property name

SeeAlso: #01943,#02188

Format of NetWare "Read Property Value" reply buffer:

Offset	Size	Description (Table 01943)
00h	WORD	(call) 0082h (length of following results buffer)
02h	128 BYTES	property's value
82h	BYTE	more segments (00h no, FFh yes)
83h	BYTE	property's flags

SeeAlso: #01942,#02188

-----N-21E3--SF3E-----

INT 21 - Novell NetWare - BINDERY SERVICES - WRITE PROPERTY VALUE

AH = E3h subfn 3Eh

DS:SI -> request buffer (see #01944)

ES:DI -> reply buffer (see #01945)
 Return: AL = status (see #01941)
 Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX
 SeeAlso: AH=E3h/SF=39h,AH=E3h/SF=3Ch,AH=E3h/SF=3Dh,AX=F217h/SF=3Eh

Format of NetWare "Write Property Value" request buffer:

Offset	Size	Description (Table 01944)
00h	WORD	length of following data (max C5h)
02h	BYTE	3Eh (subfunction "Write Property Value")
03h	WORD	(big-endian) type of object
05h	BYTE	length of object's name (01h-2Fh)
06h	N BYTES	object name
	BYTE	segment number (01h on first call, increment until done)
	BYTE	erase remaining segments (00h no, FFh yes)
	BYTE	length of property's name (01h-0Fh)
	N BYTES	property name
	128 BYTES	property value segment

SeeAlso: #01945

Format of NetWare reply buffer:

Offset	Size	Description (Table 01945)
00h	WORD	(call) 0000h (no data returned)

SeeAlso: #01944,#01947

-----N-21E3--SF3F-----

INT 21 - Novell NetWare - BINDERY SERVICES - VERIFY BINDERY OBJECT PASSWORD

AH = E3h subfn 3Fh

DS:SI -> request buffer (see #01947)

ES:DI -> reply buffer (see #01945)

Return: AL = status (see #01946)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=40h,AX=F217h/SF=3Fh

(Table 01946)

Values for NetWare function status:

00h	successful
96h	server out of memory
F0h	wildcard not allowed
FBh	no such property
FCh	no such object
FEh	server bindery locked
FFh	bindery failure: no such object, bad password, no password for object,

or invalid old password

SeeAlso: #01941,#01950

Format of NetWare "Verify Bindery Object Password" request buffer:

Offset Size Description (Table 01947)

00h WORD length of following data (max 133h)
 02h BYTE 3Fh (subfunction "Verify Bindery Object Password")
 03h WORD (big-endian) type of object
 05h BYTE length of object's name (01h-2Fh)
 06h N BYTES object name
 BYTE length of password (00h-7Fh)
 N BYTES password

SeeAlso: #01945

-----N-21E3--SF40-----

INT 21 - Novell NetWare - BINDERY SERVICES - CHANGE BINDERY OBJECT PASSWORD

AH = E3h subfn 40h

DS:SI -> request buffer (see #01948)

ES:DI -> reply buffer (see #01949)

Return: AL = status (see #01946)

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=3Fh,AH=E3h/SF=41h,AX=F217h/SF=40h

Format of NetWare "Change Bindery Object Password" request buffer:

Offset Size Description (Table 01948)

00h WORD length of following data (max 133h)
 02h BYTE 40h (subfunction "Change Bindery Object Password")
 03h WORD (big-endian) type of object
 05h BYTE length of object's name (01h-2Fh)
 06h N BYTES object name
 BYTE length of old password (00h-7Fh)
 N BYTES old password
 BYTE length of new password (00h-7Fh)
 N BYTES new password

SeeAlso: #01949,#02195

Format of NetWare reply buffer:

Offset Size Description (Table 01949)

00h WORD (call) 0000h (no data returned)

SeeAlso: #01948,#01951

-----N-21E3--SF41-----

INT 21 - Novell NetWare - BINDERY SERVICES - ADD BINDERY OBJECT TO SET

AH = E3h subfn 41h

DS:SI -> request buffer (see #01951)

ES:DI -> reply buffer (see #01949)

Return: AL = status (see #01950)

Desc: add the specified object to an object's group property

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=40h,AH=E3h/SF=42h,AH=E3h/SF=43h,AX=F217h/SF=41h

(Table 01950)

Values for NetWare function status:

00h successful

96h server out of memory

E9h member already exists

EAh member does not exist

EBh not a group property

F0h wildcard not allowed

F8h can't write property

F9h not permitted to read property

FBh no such property

FCh no such object

FEh server bindery locked

FFh bindery failure

SeeAlso: #01946,#01961

Format of NetWare "Add Bindery Object to Set" request buffer:

Offset Size Description (Table 01951)

00h WORD length of following data (max 75h)

02h BYTE 41h (subfunction "Add Bindery Object to Set")

03h WORD (big-endian) type of object

05h BYTE length of object's name

06h N BYTES object name

 BYTE length of property name (01h-0Fh)

 N BYTES property name

 WORD (big-endian) type of member object

 BYTE length of member object's name

 N BYTES member object's name

SeeAlso: #01949

-----N-21E3--SF42-----

INT 21 - Novell NetWare - BINDERY SERVICES - DELETE BINDERY OBJECT FROM SET

AH = E3h subfn 42h

DS:SI -> request buffer (see #01952)

ES:DI -> reply buffer (see #01953)
 Return: AL = status (see #01950)
 Desc: delete the specified object from a set property
 Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX
 SeeAlso: AH=E3h/SF=40h,AH=E3h/SF=42h,AH=E3h/SF=43h,AX=F217h/SF=42h

Format of NetWare "Delete Bindery Object from Set" request buffer:

Offset	Size	Description (Table 01952)
00h	WORD	length of following data (max 75h)
02h	BYTE	42h (subfunction "Delete Bindery Object from Set")
03h	WORD	(big-endian) type of object
05h	BYTE	length of object's name
06h	N BYTES	object name
	BYTE	length of property name (01h-0Fh)
	N BYTES	property name
	WORD	(big-endian) type of member object
	BYTE	length of member object's name
	N BYTES	member object's name

SeeAlso: #01953

Format of NetWare reply buffer:

Offset	Size	Description (Table 01953)
00h	WORD	(call) 0000h (no data returned)

SeeAlso: #01952,#01954,#01955,#01956

-----N-21E3--SF43-----

INT 21 - Novell NetWare - BINDERY SERVICES - IS BINDERY OBJECT IN SET

AH = E3h subfn 43h

DS:SI -> request buffer (see #01954)

ES:DI -> reply buffer (see #01953)

Return: AL = status (see #01950)

Desc: determine whether the specified object is a member of the given set
 property

Notes: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX
 the caller must have read access to the property

SeeAlso: AH=E3h/SF=41h,AH=E3h/SF=42h,AX=F217h/SF=43h

Format of NetWare "Is Bindery Object in Set?" request buffer:

Offset	Size	Description (Table 01954)
00h	WORD	length of following data (max 75h)
02h	BYTE	43h (subfunction "Is Bindery Object In Set")
03h	WORD	(big-endian) type of object

05h BYTE length of object's name
 06h N BYTES object's name
 BYTE length of property's name
 N BYTES property's name
 WORD (big-endian) type of member object
 BYTE length of member object's name
 N BYTES member object's name

SeeAlso: #01953

-----N-21E3--SF44-----

INT 21 - Novell NetWare - BINDERY SERVICES - CLOSE BINDERY

AH = E3h subfn 44h

DS:SI -> request buffer (see #01955)

ES:DI -> reply buffer (see #01953)

Return: AL = status

00h successful

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E3h/SF=45h,AX=F217h/SF=44h

Format of NetWare "Close Bindery" request buffer:

Offset Size Description (Table 01955)

00h WORD 0001h (length of following data)

02h BYTE 44h (subfunction "Close Bindery")

SeeAlso: #01953,#01956

-----N-21E3--SF45-----

INT 21 - Novell NetWare - BINDERY SERVICES - OPEN BINDERY

AH = E3h subfn 45h

DS:SI -> request buffer (see #01956)

ES:DI -> reply buffer (see #01953)

Return: AL = status

00h successful

Notes: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

the bindery may only be opened by the supervisor or an object with
 equivalent privileges

SeeAlso: AH=E3h/SF=44h,AX=F217h/SF=45h

Format of NetWare "Open Bindery" request buffer:

Offset Size Description (Table 01956)

00h WORD 0001h (length of following data)

02h BYTE 45h (subfunction "Open Bindery")

SeeAlso: #01953,#01955

-----N-21E3--SF46-----

INT 21 - Novell NetWare - BINDERY SERVICES - GET BINDERY ACCESS LEVEL

AH = E3h subfn 46h

DS:SI -> request buffer (see #01957)

ES:DI -> reply buffer (see #01958)

Return: AL = status

00h successful

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AX=F217h/SF=46h

Format of NetWare "Get Bindery Access Level" request buffer:

Offset Size Description (Table 01957)

00h WORD 0001h (length of following data)

02h BYTE 46h (subfunction "Get Bindery Access Level")

SeeAlso: #01958,#02189

Format of NetWare "Get Bindery Access Level" reply buffer:

Offset Size Description (Table 01958)

00h WORD 0005h (length of following buffer)

02h BYTE security levels

03h DWORD (big-endian) object ID

SeeAlso: #01957,#02189

-----N-21E3--SF47-----

INT 21 - Novell NetWare - DIRECTORY SERVICES - SCAN BINDERY OBJ TRUSTEE PATHS

AH = E3h subfn 47h

DS:SI -> request buffer (see #01959)

ES:DI -> reply buffer (see #01960)

Return: AL = status (00h,96h,F0h,F1h,FCh,FEh,FFh) (see #01961)

Desc: iterate through the directories to which an object is a trustee

Note: this function is supported by Advanced NetWare 1.0+ and Alloy NTNX

SeeAlso: AH=E2h/SF=0Ch,AH=E2h/SF=0Dh,AH=E2h/SF=0Eh,AX=F217h/SF=47h

Format of NetWare "Scan Bindery Object Trustee Paths" request buffer:

Offset Size Description (Table 01959)

00h WORD 0008h (length of following data)

02h BYTE 47h (subfunction "Scan Bindery Object Trustee Paths")

03h BYTE volume number (00h-1Fh)

04h WORD (big-endian) last sequence number (FFFFh on first call)

06h DWORD (big-endian) object ID

SeeAlso: #01960,#02190

Format of NetWare "Scan Bindery Object Trustee Paths" reply buffer:

Offset Size Description (Table 01960)
 00h WORD (call) length of following results buffer (max 107h)
 02h WORD (big-endian) next sequence number
 04h DWORD (big-endian) object ID
 08h BYTE trustee directory rights (see #01849 at AH=E2h/SF=03h)
 09h BYTE length of trustee path
 0Ah N BYTES trustee path

SeeAlso: #01959,#02190

-----N-21E3--SF64-----

INT 21 - Novell NetWare - QUEUE SERVICES - CREATE QUEUE

AH = E3h subfn 64h

DS:SI -> request buffer (see #01962)

ES:DI -> reply buffer (see #01963)

Return: AL = status (00h,96h,99h,9Bh,9Ch,EDh-F1h,F5h,F7h,FCh,FEh,FFh)
 (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+
 caller must be on a workstation with supervisor privileges

SeeAlso: AH=E3h/SF=65h,AH=E3h/SF=66h,AH=E3h/SF=68h,AH=E3h/SF=6Bh

SeeAlso: AX=F217h/SF=64h

(Table 01961)

Values for NetWare function status:

00h (0) successful
 96h (150) server out of memory
 99h (153) directory full
 9Bh (155) invalid directory handle
 9Ch (156) invalid path
 D0h (208) queue error
 D1h (209) no such queue
 D2h (210) no server for queue
 D3h (211) no queue rights
 D4h (212) queue full
 D5h (213) no queue job
 D6h (214) no job rights
 D7h (215) queue servicing error
 D8h (216) queue not active
 D9h (217) station is not a server
 DAh (218) queue halted
 DBh (219) too many queue servers
 EDh (237) property already exists
 EEh (238) object already exists

EFh (239) invalid name
 F0h (240) wildcard not allowed
 F1h (241) invalid bindery security level
 F5h (245) not permitted to create object
 F7h (247) not permitted to create property
 FCh (252) no such object
 FEh (254) server bindery locked
 FFh (255) bindery failure

SeeAlso: #01950,#02002,#01680,#02860 at INT 2F/AX=7A20h/BX=0000h

Format of NetWare "Create Queue" request buffer:

Offset	Size	Description (Table 01962)
00h	WORD	length of following data (max ABh)
02h	BYTE	64h (subfunction "Create Queue")
03h	WORD	(big-endian) queue type
05h	BYTE	length of queue's name (01h-2Fh)
06h	N BYTES	queue's name
	BYTE	directory handle or 00h
	BYTE	length of path name (01h-76h)
	N BYTES	path name of directory in which to create queue subdirectory

SeeAlso: #01963,#02198

Format of NetWare "Create Queue" reply buffer:

Offset	Size	Description (Table 01963)
00h	WORD	(call) 0004h (size of following results buffer)
02h	DWORD	(big-endian) object ID of queue

SeeAlso: #01962,#02198

-----N-21E3--SF65-----

INT 21 - Novell NetWare - QUEUE SERVICES - DESTROY QUEUE

AH = E3h subfn 65h

DS:SI -> request buffer (see #01964)

ES:DI -> reply buffer (see #01969)

Return: AL = status (00h,96h,9Ch,D0h,D1h,FFh) (see also AH=E3h/SF=64h)

FFh hardware failure

Desc: abort all active jobs, detach all job servers, remove all job entries,
 delete all job files, remove the queue object and its properties
 from the bindery, and delete the queue's subdirectory

Notes: this function is supported by Advanced NetWare 2.1+

caller must have SUPERVISOR privileges

SeeAlso: AH=E3h/SF=64h,AH=E3h/SF=66h,AH=E3h/SF=68h,AH=E3h/SF=6Ah,AH=E3h/SF=70h

SeeAlso: AX=F217h/SF=65h

Format of NetWare "Destroy Queue" request buffer:

Offset	Size	Description (Table 01964)
00h	WORD	0005h (length of following data)
02h	BYTE	65h (subfunction "Destroy Queue")
03h	DWORD	(big-endian) object ID of queue

SeeAlso: #01969

-----N-21E3--SF66-----

INT 21 - Novell NetWare - QUEUE SERVICES - READ QUEUE CURRENT STATUS (OLD)

AH = E3h subfn 66h

DS:SI -> request buffer (see #01965)

ES:DI -> reply buffer (see #01966)

Return: AL = status (00h,96h,9Ch,D1h-D3h,F1h,FCh,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+

caller must be on a workstation which is security-equivalent to a member of the queue's Q_USERS or Q_OPERATORS properties

SeeAlso: AH=E3h/SF=64h,AH=E3h/SF=67h,AH=E3h/SF=6Fh,AH=E3h/SF=76h

SeeAlso: AX=F217h/SF=66h

Format of NetWare "Read Queue Current Status (old)" request buffer:

Offset	Size	Description (Table 01965)
00h	WORD	0005h (length of following data)
02h	BYTE	66h (subfunction "Read Queue Current Status")
03h	DWORD	(big-endian) object ID of queue

SeeAlso: #01966,#02199 at AX=F217h/SF=66h

Format of NetWare "Read Queue Current Status (old)" reply buffer:

Offset	Size	Description (Table 01966)
00h	WORD	(call) 0085h (size of following results)
02h	DWORD	(big-endian) object ID of queue
06h	BYTE	status of queue (see #01967)
07h	BYTE	number of jobs in queue (00h-FAh)
08h	BYTE	number of servers attached to queue (00h-19h)
09h	25 DWORDs	list of object IDs of attached servers
6Dh	25 BYTES	list of attached servers' stations
86h	BYTE	(call) maximum number of servers to return

SeeAlso: #01965,#02199 at AX=F217h/SF=66h

Bitfields for NetWare queue status:

Bit(s)	Description (Table 01967)
0	operator disabled addition of new jobs

1 operator refuses additional job servers attaching
2 operator disabled job servicing

SeeAlso: #01966,#01968

-----N-21E3--SF67-----

INT 21 - Novell NetWare - QUEUE SERVICES - SET QUEUE CURRENT STATUS (OLD)

AH = E3h subfn 67h

DS:SI -> request buffer (see #01968)

ES:DI -> reply buffer (see #01969)

Return: AL = status (00h,96h,9Ch,D0h,D1h,D3h,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+
caller must have operator privileges

SeeAlso: AH=E3h/SF=64h,AH=E3h/SF=66h,AH=E3h/SF=6Fh,AH=E3h/SF=76h

SeeAlso: AX=F217h/SF=67h

Format of NetWare "Set Queue Current Status (old)" request buffer:

Offset Size Description (Table 01968)

00h WORD 0006h (length of following data)

02h BYTE 67h (subfunction "Set Queue Current Status")

03h DWORD (big-endian) object ID of queue

07h BYTE queue status (see #01967)

SeeAlso: #01969

Format of NetWare reply buffer:

Offset Size Description (Table 01969)

00h WORD (call) 0000h (no results returned)

-----N-21E3--SF68-----

INT 21 - Novell NetWare - QUEUE SERVICES - CREATE QUEUE JOB AND FILE

AH = E3h subfn 68h

DS:SI -> request buffer (see #01970)

ES:DI -> reply buffer (see #01972)

Return: AL = status (00h,96h,99h,9Ch,D0h-D4h,DAh,EDh,EFh-F1h,F7h,FCh,FEh,FFh)
(see #01961)

Notes: this function is supported by Advanced NetWare 2.1+
caller must be on a workstation which is security-equivalent to a
member of the queue's Q_USER property

SeeAlso: AX=B807h,AH=E0h"SPOOLING",AH=E3h/SF=69h,AH=E3h/SF=6Ah,AH=E3h/SF=6Eh

SeeAlso: AX=F217h/SF=68h

Format of NetWare "Create Queue Job and File" request buffer:

Offset Size Description (Table 01970)

00h WORD 0107h (length of following data)

02h BYTE 68h (subfunction "Close File and Start Queue Job")
 03h DWORD (big-endian) object ID of queue
 07h 256 BYTES job structure (see #01971)
 SeeAlso: #01972,#02200

Format of NetWare old-style job structure:

Offset Size Description (Table 01971)
 00h BYTE client station
 01h BYTE client task number
 02h DWORD (big-endian) object ID of client
 06h DWORD (big-endian) object ID of target server
 FFFFFFFFh if any server acceptable
 0Ah 6 BYTES target execution time (year,month,day,hour,minute,second)
 FFFFFFFFFFFFFFFh to execute as soon as possible
 10h 6 BYTES job entry time (year,month,day,hour,minute,second)
 16h WORD (big-endian) job number
 18h WORD (big-endian) job type
 1Ah BYTE job position
 1Bh BYTE job control flags (see #01980)
 1Ch 14 BYTES ASCIZ job file name
 2Ah 6 BYTES job file handle
 30h BYTE server station
 31h BYTE server task number
 32h DWORD (big-endian) object ID of server
 36h 50 BYTES ASCIZ job description string
 68h 152 BYTES client record area
 SeeAlso: #01970,#02210

Format of NetWare "Create Queue Job and File" reply buffer:

Offset Size Description (Table 01972)
 00h WORD (call) 0036h (size of following results buffer)
 02h BYTE client station
 03h BYTE client task number
 04h DWORD (big-endian) object ID of client
 08h DWORD (big-endian) object ID of target server
 0Ch 6 BYTES target execution time (year,month,day,hour,minute,second)
 12h 6 BYTES job entry time (year,month,day,hour,minute,second)
 18h WORD (big-endian) job number
 1Ah WORD (big-endian) job type
 1Ch BYTE job position
 1Dh BYTE job control flags (see #01980)

1Eh 14 BYTES ASCIIZ job file name
 2Ch 6 BYTES job file handle
 32h BYTE server station
 33h BYTE server task number
 34h DWORD (big-endian) object ID of server or 00000000h

SeeAlso: #01970,#02200

-----N-21E3--SF69-----

INT 21 - Novell NetWare - QUEUE SERVICES - CLOSE FILE AND START QUEUE JOB (OLD)

AH = E3h subfn 69h

DS:SI -> request buffer (see #01973)

ES:DI -> reply buffer (see #01974)

Return: AL = status (00h,96h,D0h,D1h,D3h,D5h,D6h,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+

caller must be on the workstation which created the job

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ah,AH=E3h/SF=6Eh,AX=F217h/SF=69h

Format of NetWare "Close File and Start Queue Job (old)" request buffer:

Offset Size Description (Table 01973)

00h WORD 0007h (length of following data)

02h BYTE 69h (subfunction "Close File and Start Queue Job")

03h DWORD (big-endian) object ID of queue

07h WORD (big-endian) job number

SeeAlso: #01974

Format of NetWare reply buffer:

Offset Size Description (Table 01974)

00h WORD (call) 0000h (no results returned)

SeeAlso: #01973,#01975

-----N-21E3--SF6A-----

INT 21 - Novell NetWare - QUEUE SERVICES - REMOVE JOB FROM QUEUE (OLD)

AH = E3h subfn 6Ah

DS:SI -> request buffer (see #01975)

ES:DI -> reply buffer (see #01974)

Return: AL = status (00h,96h,D0h,D1h,D5h,D6h,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+

caller must have created the job or be an operator

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ah,AH=E3h/SF=6Eh,AX=F217h/SF=6Ah

Format of NetWare "Remove Job From Queue (old)" request buffer:

Offset Size Description (Table 01975)

00h WORD 0007h (length of following data)

02h BYTE 6Ah (subfunction "Remove Job From Queue (old)")
 03h DWORD (big-endian) object ID of queue
 07h WORD (big-endian) job number

-----N-21E3--SF6B-----

INT 21 - Novell NetWare - QUEUE SERVICES - GET QUEUE JOB LIST (OLD)

AH = E3h subfn 6Bh

DS:SI -> request buffer (see #01976)

ES:DI -> reply buffer (see #01977)

Return: AL = status (00h,96h,9Ch,D0h-D3h,FCh,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+
 caller must be on a workstation which is security-equivalent to a
 member of the Q_USERS or Q_OPERATORS properties

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ah,AH=E3h/SF=6Eh,AX=F217h/SF=6Bh

Format of NetWare "Get Queue Job List (old)" request buffer:

Offset Size Description (Table 01976)

00h WORD 0005h (length of following data)

02h BYTE 6Bh (subfunction "Get Queue Job List (old)")

03h DWORD (big-endian) object ID of queue

SeeAlso: #01977

Format of NetWare "Get Queue Job List (old)" reply buffer:

Offset Size Description (Table 01977)

00h WORD (call) size of following results buffer (max 1F6h)

02h WORD (big-endian) job count

04h N WORDs (big-endian) list of job numbers by position in queue
 WORD maximum job numbers

SeeAlso: #01976

-----N-21E3--SF6C-----

INT 21 - Novell NetWare - QUEUE SERVICES - READ QUEUE JOB ENTRY (OLD)

AH = E3h subfn 6Ch

DS:SI -> request buffer (see #01978)

ES:DI -> reply buffer (see #01979)

Return: AL = status (00h,96h,D0h-D3h,D5h,FCh,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+
 caller must be on a workstation which is security-equivalent to a
 member of the Q_USERS, Q_OPERATORS, or Q_SERVERS properties

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ah,AH=E3h/SF=6Eh,AX=F217h/SF=6Ch

Format of NetWare "Read Queue Job Entry (old)" request buffer:

Offset Size Description (Table 01978)

00h WORD 0007h (length of following data)
 02h BYTE 6Ch (subfunction "Read Queue Job Entry (old)")
 03h DWORD (big-endian) object ID of queue
 07h WORD (big-endian) job number

SeeAlso: #01979

Format of NetWare "Read Queue Job Entry (old)" reply buffer:

Offset Size Description (Table 01979)
 00h WORD (call) 0100h (size of following results)
 02h BYTE client station number
 03h BYTE client task number
 04h DWORD object ID of client
 08h DWORD (big-endian) object ID of target server
 FFFFFFFFh if any server acceptable
 0Ch 6 BYTES target execution time (year,month,day,hour,minute,second)
 FFFFFFFFFFFFFFh if serviced as soon as possible
 12h 6 BYTES job entry time (year,month,day,hour,minute,second)
 18h WORD (big-endian) job number
 1Ah WORD (big-endian) job type
 1Ch BYTE job position
 1Dh BYTE job control flags (see #01980)
 1Eh 14 BYTES ASCIZ job filename
 2Ch 6 BYTES job file handle
 32h BYTE server station
 33h BYTE server task number
 34h DWORD object ID of server
 38h 50 BYTES ASCIZ job description string
 6Ah 152 BYTES client record area

SeeAlso: #01978

Bitfields for NetWare job control flags:

Bit(s) Description (Table 01980)
 3 job will be serviced automatically if connection broken
 4 job remains in queue after server aborts job
 5 client has not filled associated job file
 6 User Hold--job advances, but cannot be serviced until this is
 cleared by user or operator
 7 Operator Hold--job advances, but cannot be serviced until this is
 cleared by an operator

SeeAlso: #01979

-----N-21E3--SF6D-----

INT 21 - Novell NetWare - QUEUE SERVICES - CHANGE QUEUE JOB ENTRY (OLD)

AH = E3h subfn 6Dh

DS:SI -> request buffer (see #01981)

ES:DI -> reply buffer (see #01983)

Return: AL = status (00h,96h,D0h,D1h,D5h,D7h,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+

caller must be an operator or the user who created the job

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ah,AH=E3h/SF=6Ch,AH=E3h/SF=6Eh

SeeAlso: AX=F217h/SF=6Dh

Format of NetWare "Change Queue Job Entry" request buffer:

Offset Size Description (Table 01981)

00h WORD 0105h (length of following data)

02h BYTE 6Dh (subfunction "Change Queue Job Entry")

03h DWORD (big-endian) object ID of queue

07h 256 BYTES job structure (see #01971)

SeeAlso: #01983

-----N-21E3--SF6E-----

INT 21 - Novell NetWare - QUEUE SERVICES - CHANGE QUEUE JOB POSITION

AH = E3h subfn 6Eh

DS:SI -> request buffer (see #01982)

ES:DI -> reply buffer (see #01983)

Return: AL = status (00h,96h,D0h,D1h,D5h,D6h,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+

caller must be an operator

if the specified position is greater than the number of jobs in the queue, the job is placed at the end of the queue

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ah,AH=E3h/SF=6Ch,AH=E3h/SF=6Dh

SeeAlso: AX=F217h/SF=6Eh

Format of NetWare "Change Queue Job Position" request buffer:

Offset Size Description (Table 01982)

00h WORD 0008h (length of following data)

02h BYTE 6Eh (subfunction "Change Queue Job Position")

03h DWORD (big-endian) object ID of queue

07h WORD (big-endian) job number

09h BYTE new position in queue

(01h = first, FAh [250] = last position in full queue)

SeeAlso: #01983

Format of NetWare reply buffer:

Offset Size Description (Table 01983)

00h WORD (call) 0000h (no results returned)

SeeAlso: #01981,#01982,#01984

-----N-21E3--SF6F-----

INT 21 - Novell NetWare - QUEUE SERVICES - ATTACH QUEUE SERVER TO QUEUE

AH = E3h subfn 6Fh

DS:SI -> request buffer (see #01984)

ES:DI -> reply buffer (see #01983)

Return: AL = status (00h,96h,9Ch,D0h,D1h,D3h,DAh,DBh,FEh,FFh)

(see also AH=E3h/SF=64h)

FFh bindery failure, or no such property, or no such member

Desc: attach the calling job server to the specified queue

Notes: this function is supported by Advanced NetWare 2.1+

a queue may have up to 25 job servers attached

the calling workstation must be security-equivalent to a member of the queue's Q_SERVERS property

SeeAlso: AH=E3h/SF=70h,AH=E3h/SF=71h,AH=E3h/SF=72h,AH=E3h/SF=73h,AH=E3h/SF=76h

SeeAlso: AX=F217h/SF=6Fh

Format of NetWare "Attach Queue Server to Queue" request buffer:

Offset Size Description (Table 01984)

00h WORD 0005h (length of following data)

02h BYTE 6Fh (subfunction "Attach Queue Server To Queue")

03h DWORD (big-endian) object ID of queue

SeeAlso: #01983,#01985

-----N-21E3--SF70-----

INT 21 - Novell NetWare - QUEUE SERVICES - DETACH QUEUE SERVER FROM QUEUE

AH = E3h subfn 70h

DS:SI -> request buffer (see #01985)

ES:DI -> reply buffer (see #01983)

Return: AL = status (00h,96h,9Ch,D0h,D1h,D2h,FEh,FFh) (see #01961)

Desc: remove the calling job server from the specified queue's list of servers

Notes: this function is supported by Advanced NetWare 2.1+

the caller must have previously attached itself to the queue

SeeAlso: AH=E3h/SF=6Fh,AH=E3h/SF=72h,AH=E3h/SF=73h,AH=E3h/SF=76h

SeeAlso: AX=F217h/SF=70h

Format of NetWare "Detach Queue Server From Queue" request buffer:

Offset Size Description (Table 01985)

00h WORD 0005h (length of following data)

02h BYTE 70h (subfunction "Detach Queue Server From Queue")
 03h DWORD (big-endian) object ID of queue
 SeeAlso: #01983,#01984

-----N-21E3--SF71-----

INT 21 - Novell NetWare - QUEUE SERVICES - SERVICE QUEUE JOB AND OPEN FILE

AH = E3h subfn 71h

DS:SI -> request buffer (see #01986)

ES:DI -> reply buffer (see #01972)

Return: AL = status (00h,96h,9Ch,D0h,D1h,D3h,D5h,D9h,DAh,FEh,FFh)
 (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+
 the caller must be on a workstation which is security-equivalent to a
 member of the queue's Q_USERS, Q_OPERATORS, or Q_SERVERS properties

SeeAlso: AH=E3h/SF=6Fh,AH=E3h/SF=72h,AH=E3h/SF=73h,AH=E3h/SF=76h

SeeAlso: AX=F217h/SF=71h

Format of NetWare "Service Queue Job and Open File" request buffer:

Offset Size Description (Table 01986)

00h WORD 0007h (length of following data)

02h BYTE 71h (subfunction "Service Queue Job and Open File")

03h DWORD (big-endian) object ID of queue

07h WORD (big-endian) target job type

FFFFh any

SeeAlso: #01972,#01987

-----N-21E3--SF72-----

INT 21 - Novell NetWare - QUEUE SERVICES - FINISH SERVICING QUEUE JOB AND FILE

AH = E3h subfn 72h

DS:SI -> request buffer (see #01987)

ES:DI -> reply buffer (see #01989)

Return: AL = status (00h,96h,D0h,D1h,D6h) (see #01961)

Desc: inform the Queue Management System (QMS) that the queue server has
 completed a job

Notes: this function is supported by Advanced NetWare 2.1+
 the caller must be a job server which has previously obtained a job
 for servicing

SeeAlso: AH=E3h/SF=6Fh,AH=E3h/SF=71h,AH=E3h/SF=73h,AH=E3h/SF=76h

SeeAlso: AX=F217h/SF=72h

Format of NetWare "Finish Servicing Queue Job and File (old)" request buffer:

Offset Size Description (Table 01987)

00h WORD 000Bh (length of following data)

02h BYTE 72h (subfunction "Finish Servicing Queue Job and File (old)")
 03h DWORD (big-endian) object ID of queue
 07h WORD (big-endian) job number
 09h DWORD (big-endian) charge

SeeAlso: #01989,#01986,#01998

-----N-21E3--SF73-----

INT 21 - Novell NetWare - QUEUE SERVICES - ABORT SERVICING QUEUE JOB AND FILE

AH = E3h subfn 73h

DS:SI -> request buffer (see #01988)

ES:DI -> reply buffer (see #01989)

Return: AL = status (00h,96h,D0h,D1h,D6h,D9h) (see #01961)

Desc: inform the Queue Management System (QMS) that the queue server is
 unable to service a previously-accepted job

Notes: this function is supported by Advanced NetWare 2.1+

this is an old version of the call (see AH=E3h/SF=84h)

only a job server which previously accepted a job for servicing may
 call this function

SeeAlso: AH=E3h/SF=6Fh,AH=E3h/SF=71h,AH=E3h/SF=72h,AH=E3h/SF=76h,AH=E3h/SF=84h

SeeAlso: AX=F217h/SF=73h

Format of NetWare "Abort Servicing Queue Job and File (old)" request buffer:

Offset Size Description (Table 01988)

00h WORD 0007h (length of following data)

02h BYTE 73h (subfunction "Abort Servicing Queue Job and File (old)")

03h DWORD (big-endian) object ID of queue

07h WORD (big-endian) job number

SeeAlso: #01989,#01987

Format of NetWare reply buffer:

Offset Size Description (Table 01989)

00h WORD (call) 0000h (no results returned)

SeeAlso: #01987,#01988,#01990,#01991

-----N-21E3--SF74-----

INT 21 - Novell NetWare - QUEUE SERVICES - CHANGE TO CLIENT RIGHTS (OLD)

AH = E3h subfn 74h

DS:SI -> request buffer (see #01990)

ES:DI -> reply buffer (see #01989)

Return: AL = status (00h,96h,D0h,D1h,D5h,D9h) (see #01961)

Desc: temporarily assume the login identity of the client submitting the
 job being serviced

Notes: this function is supported by Advanced NetWare 2.1+

caller must be a job server which has obtained a job for servicing

SeeAlso: AH=E3h/SF=75h,AX=F217h/SF=74h

Format of NetWare "Change to Client Rights (old)" request buffer:

Offset Size Description (Table 01990)

00h WORD 0007h (length of following data)

02h BYTE 74h (subfunction "Change To Client Rights (old)")

03h DWORD (big-endian) object ID of queue

07h WORD (big-endian) job number

SeeAlso: #01989,#01991

-----N-21E3--SF75-----

INT 21 - Novell NetWare - QUEUE SERVICES - RESTORE QUEUE SERVER RIGHTS

AH = E3h subfn 75h

DS:SI -> request buffer (see #01991)

ES:DI -> reply buffer (see #01989)

Return: AL = status (00h,96h,9Ch,D0h,D1h,D3h,D5h,D9h,DAh,FEh,FFh) (see #01961)

Desc: restore server's own identity after assuming the login identity of the
client submitting the job being serviced

Notes: this function is supported by Advanced NetWare 2.1+

caller must be a job server which has previously changed its identity

SeeAlso: AH=E3h/SF=74h,AX=F217h/SF=75h

Format of NetWare "Restore Queue Server Rights" request buffer:

Offset Size Description (Table 01991)

00h WORD 0001h (length of following data)

02h BYTE 75h (subfunction "Change To Client Rights")

SeeAlso: #01989,#01990

-----N-21E3--SF76-----

INT 21 - Novell NetWare - QUEUE SERVICES - READ QUEUE SERVER CURRENT STATUS OLD

AH = E3h subfn 76h

DS:SI -> request buffer (see #01992)

ES:DI -> reply buffer (see #01993)

Return: AL = status (00h,96h,9Ch,D1h-D3h,F1h,FCh,FEh,FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+

caller must be on a workstation which is security-equivalent to a
member of the Q_USERS or Q_OPERATORS properties

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ch,AH=E3h/SF=6Fh,AH=E3h/SF=77h,AH=E3h/SF=78h

SeeAlso: AX=F217h/SF=76h

Format of NetWare "Read Queue Server Current Status (old)" request buffer:

Offset Size Description (Table 01992)

00h WORD 000Ah (length of following data)
 02h BYTE 76h (subfunction "Read Queue Server Current Status (old)")
 03h DWORD (big-endian) object ID of queue
 07h DWORD (big-endian) object ID of server
 0Bh BYTE server station
 SeeAlso: #01993

Format of NetWare "Read Queue Server Current Status (old)" reply buffer:

Offset Size Description (Table 01993)
 00h WORD (call) 0040h (size of following results)
 02h 64 BYTES server status record (format depends on server)
 first four bytes should contain estimated "price" for an
 average job

SeeAlso: #01992, #02203

-----N-21E3--SF77-----

INT 21 - Novell NetWare - QUEUE SERVICES - SET QUEUE SERVER CURRENT STATUS
 AH = E3h subfn 77h
 DS:SI -> request buffer (see #01994)
 ES:DI -> reply buffer (see #01995)

Return: AL = status (00h, 96h, 9Ch, D0h, D1h, FEh, FFh) (see #01961)

Notes: this function is supported by Advanced NetWare 2.1+

caller must be a job server which has attached itself to the queue
 SeeAlso: AH=E3h/SF=68h, AH=E3h/SF=6Ch, AH=E3h/SF=6Fh, AH=E3h/SF=76h, AH=E3h/SF=78h
 SeeAlso: AX=F217h/SF=77h

Format of NetWare "Set Queue Server Current Status" request buffer:

Offset Size Description (Table 01994)
 00h WORD 0045h (length of following data)
 02h BYTE 77h (subfunction "Set Queue Server Current Status")
 03h DWORD (big-endian) object ID of queue
 07h 64 BYTES server status record (format depends on server)
 first four bytes should contain estimated "price" for an
 average job

SeeAlso: #01995

Format of NetWare "Set Queue Server Current Status" reply buffer:

Offset Size Description (Table 01995)
 00h WORD (call) 0000h (no results returned)

SeeAlso: #01994

-----N-21E3--SF78-----

INT 21 - Novell NetWare - QUEUE SERVICES - GET QUEUE JOB'S FILE SIZE (OLD)

AH = E3h subfn 78h

DS:SI -> request buffer (see #01996)

ES:DI -> reply buffer (see #01997)

Return: AL = status (see also #01961)

00h successful

Notes: this function is supported by Advanced NetWare 2.1+

caller must be on a workstation which is security-equivalent to a member of the queue's Q_USERS, Q_OPERATORS, or Q_SERVERS properties

SeeAlso: AH=E3h/SF=68h,AH=E3h/SF=6Ch,AH=E3h/SF=71h,AX=F217h/SF=78h

Format of NetWare "Get Queue Job's File Size (old)" request buffer:

Offset Size Description (Table 01996)

00h WORD 0007h (length of following data)

02h BYTE 78h (subfunction "Get Queue Job's File Size (old)")

03h DWORD (big-endian) object ID of queue

07h WORD (big-endian) job number

SeeAlso: #01997,#02204 at AX=F217h/SF=78h

Format of NetWare "Get Queue Job's File Size (old)" reply buffer:

Offset Size Description (Table 01997)

00h WORD (call) 000Ah (size of following results)

02h DWORD (big-endian) object ID of queue

06h WORD (big-endian) job number

08h DWORD (big-endian) size of job file in bytes

SeeAlso: #01996,#02204 at AX=F217h/SF=78h

-----N-21E3--SF83-----

INT 21 - Novell NetWare - QUEUE SERVICES - FINISH SERVICING QUEUE JOB

AH = E3h subfn 83h

DS:SI -> request buffer (see #01998)

ES:DI -> reply buffer (see #01999)

Return: AL = status (00h,96h,D0h,D1h,D6h,D9h) (see #01961)

Desc: inform the Queue Management System (QMS) that the queue server has completed servicing a previously-accepted job

Notes: this function is supported by Advanced NetWare 3.1+

this variant of Abort Servicing Queue Job allows use of the high connection byte in the NCP packet header, unlike AH=E3h/SF=73h

SeeAlso: AH=E3h/SF=6Fh,AH=E3h/SF=71h,AH=E3h/SF=72h,AH=E3h/SF=73h,AH=E3h/SF=84h

SeeAlso: AX=F217h/SF=83h

Format of NetWare "Finish Servicing Queue Job" request buffer:

Offset Size Description (Table 01998)

00h WORD 0007h (length of following data)
 02h BYTE 84h (subfunction "Abort Servicing Queue Job")
 03h DWORD (big-endian) object ID of queue
 07h WORD (big-endian) job number
 09h DWORD (big-endian) charge for job
 SeeAlso: #01999,#01987

Format of NetWare "Finish Servicing Queue Job" reply buffer:

Offset Size Description (Table 01999)
 00h WORD (call) 0000h (no results returned)
 SeeAlso: #01998

-----N-21E3--SF84-----

INT 21 - Novell NetWare - QUEUE SERVICES - ABORT SERVICING QUEUE JOB

AH = E3h subfn 84h

DS:SI -> request buffer (see #02000)

ES:DI -> reply buffer (see #02001)

Return: AL = status (00h,96h,D0h,D1h,D6h,D9h) (see #01961)

Desc: inform the Queue Management System (QMS) that the queue server is
 unable to service a previously-accepted job

Notes: this function is supported by Advanced NetWare 3.1+

this variant of Abort Servicing Queue Job allows use of the high
 connection byte in the NCP packet header, unlike AH=E3h/SF=73h

SeeAlso: AH=E3h/SF=6Fh,AH=E3h/SF=71h,AH=E3h/SF=72h,AH=E3h/SF=73h,AH=E3h/SF=76h

SeeAlso: AX=F217h/SF=84h

Format of NetWare "Abort Servicing Queue Job" request buffer:

Offset Size Description (Table 02000)
 00h WORD 0007h (length of following data)
 02h BYTE 84h (subfunction "Abort Servicing Queue Job")
 03h DWORD (big-endian) object ID of queue
 07h WORD (big-endian) job number
 SeeAlso: #02001

Format of NetWare "Abort Servicing Queue Job" reply buffer:

Offset Size Description (Table 02001)
 00h WORD (call) 0000h (no results returned)
 SeeAlso: #02000

-----N-21E3--SF96-----

INT 21 - Novell NetWare - ACCOUNTING SERVICES - GET ACCOUNT STATUS

AH = E3h subfn 96h

DS:SI -> request buffer (see #02003)

ES:DI -> reply buffer (see #02004)
 Return: AL = status (00h,C0h,C1h) (see #02002)
 Note: this function is supported by Advanced NetWare 2.1+
 SeeAlso: AH=E3h/SF=97h,AH=E3h/SF=98h,AH=E3h/SF=99h,AX=F217h/SF=96h

(Table 02002)

Values for NetWare function status:

00h successful
 C0h no account privileges
 C1h no account balance
 C2h credit limit exceeded
 C3h too many holds on account
 C6h no console rights

SeeAlso: #01961

Format of NetWare "Get Account Status" request buffer:

Offset Size Description (Table 02003)

00h WORD length of following data (max 33h)
 02h BYTE 96h (subfunction "Get Account Status")
 03h WORD (big-endian) type of bindery object
 05h BYTE length of object name (01h to 2Fh)
 06h N BYTES object name

SeeAlso: #02004,#02224 at AX=F217h/SF=96h

Format of NetWare "Get Account Status" reply buffer:

Offset Size Description (Table 02004)

00h WORD (call) length of following buffer space
 02h DWORD (big-endian) account balance
 06h DWORD (big-endian) credit limit
 signed number indicating lowest allowable account balance
 0Ah 120 BYTES reserved
 82h DWORD (big-endian) object ID, server 1
 86h DWORD (big-endian) hold amount, server 1
 ...
 F8h DWORD (big-endian) object ID, server 16
 FCh DWORD (big-endian) hold amount, server 16

Note: the reply buffer lists the servers which have placed holds on a portion
 of the account balance, and the amount reserved by each

SeeAlso: #02003,#02224 at AX=F217h/SF=96h

-----N-21E3--SF97-----

INT 21 - Novell NetWare - ACCOUNTING SERVICES - SUBMIT ACCOUNT CHARGE

AH = E3h subfn 97h

DS:SI -> request buffer (see #02005)

ES:DI -> reply buffer (see #02007)

Return: AL = status (00h,C0h-C2h) (see #02002)

Note: this function is supported by Advanced NetWare 2.1+

SeeAlso: AH=E3h/SF=96h,AH=E3h/SF=98h,AX=F217h/SF=97h

Format of NetWare "Submit Account Charge" request buffer:

Offset Size Description (Table 02005)

00h	WORD	length of following data (max 13Fh)
02h	BYTE	97h (subfunction "Submit Account Charge")
03h	WORD	(big-endian) service type
05h	DWORD	(big-endian) amount to be charged to account
09h	DWORD	(big-endian) amount of prior hold to be cancelled
0Dh	WORD	(big-endian) type of bindery object
0Fh	WORD	(big-endian) type of comment
8000h-FFFFh reserved for experimental use		
11h	BYTE	length of object's name
12h	N BYTES	object name
	BYTE	length of comment
	N BYTES	comment

SeeAlso: #02007

-----N-21E3---SF98-----

INT 21 - Novell NetWare - ACCOUNTING SERVICES - SUBMIT ACCOUNT HOLD

AH = E3h subfn 98h

DS:SI -> request buffer (see #02006)

ES:DI -> reply buffer (see #02007)

Return: AL = status (00h,C0h-C3h) (see #02002)

Note: this function is supported by Advanced NetWare 2.1+

SeeAlso: AH=E3h/SF=96h,AH=E3h/SF=97h,AX=F217h/SF=98h

Format of NetWare "Submit Account Hold" request buffer:

Offset Size Description (Table 02006)

00h	WORD	length of following data (max 37h)
02h	BYTE	98h (subfunction "Submit Account Hold")
03h	DWORD	(big-endian) amount of account balance to reserve
07h	WORD	(big-endian) type of bindery object
09h	BYTE	length of object's name
0Ah	N BYTES	object name

SeeAlso: #02007

Format of NetWare reply buffer:

Offset Size Description (Table 02007)

00h WORD 0000h (no data returned)

SeeAlso: #02005,#02006,#02008,#02009

-----N-21E3--SF99-----

INT 21 - Novell NetWare - ACCOUNTING SERVICES - SUBMIT ACCOUNT NOTE

AH = E3h subfn 99h

DS:SI -> request buffer (see #02008)

ES:DI -> reply buffer (see #02007)

Return: AL = status (00h,C0h) (see #02002)

Note: this function is supported by Advanced NetWare 2.1+

SeeAlso: AH=E3h/SF=96h,AX=F217h/SF=99h

Format of NetWare "Submit Account Note" request buffer:

Offset Size Description (Table 02008)

00h WORD length of following data (max 137h)

02h BYTE 99h (subfunction "Submit Account Note")

03h WORD (big-endian) type of service

05h WORD (big-endian) type of bindery object

07h WORD (big-endian) type of comment

8000h-FFFFh reserved for experimental use

09h BYTE length of object's name

0Ah N BYTES object name

BYTE length of comment

N BYTES comment

SeeAlso: #02007

-----N-21E3--SFC8-----

INT 21 - Novell NetWare - FILE SERVER - CHECK CONSOLE PRIVILEGES

AH = E3h subfn C8h

DS:SI -> request buffer (see #02009)

ES:DI -> reply buffer (see #02007)

Return: AL = status (00h,C6h) (see #02002)

Desc: determine whether the caller is a console operator

Notes: this function is supported by Advanced NetWare 2.1+

NetWare determines console privileges by checking the file server's

OPERATOR property for the caller's object ID

SeeAlso: AH=E3h/SF=C9h,AX=E3h/SF=D1h,AX=F217h/SF=C8h

Format of NetWare "Check Console Privileges" request buffer:

Offset Size Description (Table 02009)

00h WORD 0001h (length of following data)

02h BYTE C8h (subfunction "Check Console Privileges")

SeeAlso: #02007

-----N-21E3--SFC9-----

INT 21 - Novell NetWare - FILE SERVER - GET FILE SERVER DESCRIPTION STRINGS

AH = E3h subfn C9h

DS:SI -> request buffer (see #02010)

ES:DI -> reply buffer (see #02011)

Return: AL = status

00h successful

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must be attached to the file server

SeeAlso: AH=E3h/SF=11h,AH=E3h/SF=CDh,AH=E3h/SF=E8h,AX=F217h/SF=C9h

Format of NetWare "Get File Server Description Strings" request buffer:

Offset Size Description (Table 02010)

00h WORD 0001h (length of following data)

02h BYTE C9h (subfunction "Get File Server Description Strings")

SeeAlso: #02011,#02225 at AX=F217h/SF=C9h

Format of NetWare "Get File Server Description Strings" reply buffer:

Offset Size Description (Table 02011)

00h WORD (call) 0200h (size of following results buffer)

02h var ASCIZ name of company distributing this copy of NetWare

var ASCIZ version and revision

9 BYTES ASCIZ revision date (mm/dd/yy)

var ASCIZ copyright notice

SeeAlso: #02010,#02225 at AX=F217h/SF=C9h

-----N-21E3--SFCA-----

INT 21 - Novell NetWare - FILE SERVER - SET FILE SERVER DATE AND TIME

AH = E3h subfn CAh

DS:SI -> request buffer (see #02012)

ES:DI -> reply buffer (see #02014)

Return: AL = status (00h,C6h) (see #02002)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=2Bh"DATE",AH=2Dh"TIME",AH=E3h/SF=C8h,AH=E7h"Novell",AX=F217h/SF=CAh

SeeAlso: AX=F214h

Format of NetWare "Set File Server Date and Time" request buffer:

Offset Size Description (Table 02012)

00h WORD 0007h (length of following data)

02h BYTE CAh (subfunction "Set File Server Date And Time")
 03h BYTE year (00-79 = 2000-2079, 80-99 = 1980-1999)
 04h BYTE month (1-12)
 05h BYTE day (1-31)
 06h BYTE hour (0-23)
 07h BYTE minute
 08h BYTE second

SeeAlso: #02014,#02106 at AX=F214h

-----N-21E3--SFCB-----

INT 21 - Novell NetWare - FILE SERVER - DISABLE FILE SERVER LOGIN

AH = E3h subfn CBh

DS:SI -> request buffer (see #02013)

ES:DI -> reply buffer (see #02014)

Return: AL = status (00h,C6h) (see #02002)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=CCh,AH=E3h/SF=D3h,AX=F217h/SF=CBh

Format of NetWare "Disable File Server Login" request buffer:

Offset Size Description (Table 02013)

00h WORD 0001h (length of following data)

02h BYTE CBh (subfunction "Disable File Server Login")

SeeAlso: #02014,#02015

Format of NetWare reply buffer:

Offset Size Description (Table 02014)

00h WORD (call) 0000h (no results returned)

SeeAlso: #02012,#02013,#02015

-----N-21E3--SFCC-----

INT 21 - Novell NetWare - FILE SERVER - ENABLE FILE SERVER LOGIN

AH = E3h subfn CCh

DS:SI -> request buffer (see #02015)

ES:DI -> reply buffer (see #02014)

Return: AL = status (00h,C6h) (see #02002)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=CBh,AX=F217h/SF=CCh

Format of NetWare "Enable File Server Login" request buffer:

Offset Size Description (Table 02015)

00h WORD 0001h (length of following data)

02h BYTE CCh (subfunction "Enable File Server Login")

SeeAlso: #02014

-----N-21E3--SFCD-----

INT 21 - Novell NetWare - FILE SERVER - GET FILE SERVER LOGIN STATUS

AH = E3h subfn CDh

DS:SI -> request buffer (see #02016)

ES:DI -> reply buffer (see #02017)

Return: AL = status (00h,C6h) (see #02002)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=CBh,AH=E3h/SF=CCh

Format of NetWare "Get File Server Login Status" request buffer:

Offset Size Description (Table 02016)

00h WORD 0001h (length of following data)

02h BYTE CDh (subfunction "Get File Server Login Status")

SeeAlso: #02017,#02226 at AX=F217h/SF=CDh

Format of NetWare "Get File Server Login Status" reply buffer:

Offset Size Description (Table 02017)

00h WORD (call) 0001h (size of following results buffer)

02h BYTE login state (00h disabled, 01h enabled)

SeeAlso: #02016,#02226 at AX=F217h/SF=CDh

-----N-21E3--SFCE-----

INT 21 - Novell NetWare - FILE SERVICES - PURGE ALL ERASED FILES

AH = E3h subfn CEh

DS:SI -> request buffer (see #02018)

ES:DI -> reply buffer (see #02020)

Return: AL = status (00h,C6h) (see #02002)

Desc: all files marked for deletion on the file server are purged, regardless
of which workstation actually erased them

Notes: this function is supported by NetWare 4.0+, Advanced NetWare 1.0+, and
Alloy NTNX

the calling workstation must have console operator privileges

SeeAlso: AH=13h,AH=E2h/SF=10h,AH=E3h/SF=C8h,AX=F217h/SF=CEh,AX=F244h

Format of NetWare "Purge All Erased Files" request buffer:

Offset Size Description (Table 02018)

00h WORD 0001h (length of following data)

02h BYTE CEh (subfunction "Purge All Erased Files")

SeeAlso: #02020

-----N-21E3--SFCF-----

INT 21 - Novell NetWare - FILE SERVER - DISABLE TRANSACTION TRACKING

AH = E3h subfn CFh

DS:SI -> request buffer (see #02019)

ES:DI -> reply buffer (see #02020)

Return: AL = status (00h,C6h) (see #02002)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=D0h

Format of NetWare "Disable Transaction Tracking" request buffer:

Offset Size Description (Table 02019)

00h WORD 0001h (length of following data)

02h BYTE CFh (subfunction "Disable Transaction Tracking")

SeeAlso: #02020,#02021

Format of NetWare reply buffer:

Offset Size Description (Table 02020)

00h WORD (call) 0000h (no results returned)

SeeAlso: #02018,#02019,#02021

-----N-21E3--SFD0-----

INT 21 - Novell NetWare - FILE SERVER - ENABLE TRANSACTION TRACKING

AH = E3h subfn D0h

DS:SI -> request buffer (see #02021)

ES:DI -> reply buffer (see #02020)

Return: AL = status (00h,C6h) (see #02025)

Desc: restart transaction tracking after being stopped either explicitly by

AH=E3h/SF=CFh or automatically due to a full transaction volume

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=CFh,AX=F217h/SF=D0h

Format of NetWare "Enable Transaction Tracking" request buffer:

Offset Size Description (Table 02021)

00h WORD 0001h (length of following data)

02h BYTE D0h (subfunction "Enable Transaction Tracking")

SeeAlso: #02020,#02019

-----N-21E3--SFD1-----

INT 21 - Novell NetWare - FILE SERVER - SEND CONSOLE BROADCAST

AH = E3h subfn D1h

DS:SI -> request buffer (see #02022)

ES:DI -> reply buffer (see #02024)
 Return: AL = status (00h,C6h) (see #02025)
 Notes: this function is supported by Advanced NetWare 2.1+
 the calling workstation must have console operator privileges
 the broadcast message will not be received by workstations which have
 disabled broadcasts with AH=E1h/SF=02h
 SeeAlso: AH=E1h/SF=02h,AH=E1h/SF=09h,AH=E3h/SF=C8h,AH=E3h/SF=D3h
 SeeAlso: AX=F217h/SF=D1h

Format of NetWare "Send Console Broadcast" request buffer:

Offset Size Description (Table 02022)
 00h WORD length of following data (max A2h)
 02h BYTE D1h (subfunction "Send Console Broadcast")
 03h BYTE number of connections to receive message
 00h = all, else specific list below
 04h N BYTES connection list
 BYTE length of message (max 3Ch)
 N BYTES message

SeeAlso: #02024

-----N-21E3--SFD2-----

INT 21 - Novell NetWare - FILE SERVER - CLEAR CONNECTION NUMBER

AH = E3h subfn D2h
 DS:SI -> request buffer (see #02023)
 ES:DI -> reply buffer (see #02024)
 Return: AL = status (00h,C6h) (see #02025)
 Desc: close the open files and release all file locks for a connection,
 abort transactions if a TTS file server, and detach from the file
 server
 Notes: this function is supported by Advanced NetWare 2.1+
 the caller must have SUPERVISOR privileges
 SeeAlso: AH=E3h/SF=C9h,AH=E3h/SF=D1h,AX=F217h/SF=D2h,AX=F217h/SF=FEh

Format of NetWare "Clear Connection Number" request buffer:

Offset Size Description (Table 02023)
 00h WORD 0002h (length of following data)
 02h BYTE D2h (subfunction "Clear Connection Number")
 03h BYTE connection number

SeeAlso: #02024,#02277

Format of NetWare reply buffer:

Offset Size Description (Table 02024)

00h WORD (call) 0000h (no results returned)

SeeAlso: #02022,#02023,#02026

-----N-21E3--SFD3-----

INT 21 - Novell NetWare - FILE SERVER - DOWN FILE SERVER

AH = E3h subfn D3h

DS:SI -> request buffer (see #02026)

ES:DI -> reply buffer (see #02024)

Return: AL = status (00h,C6h,FFh) (see #02025)

Desc: take down the file server

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have SUPERVISOR privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=CBh,AH=E3h/SF=CFh,AH=E3h/SF=D1h

(Table 02025)

Values for NetWare function status:

00h successful

C6h no console rights

FFh files open

SeeAlso: #02002,#02053

Format of NetWare "Down File Server" request buffer:

Offset Size Description (Table 02026)

00h WORD 0002h (length of following data)

02h BYTE D3h (subfunction "Down File Server")

03h BYTE flag: force down even if files open if nonzero

SeeAlso: #02024

-----N-21E3--SFD4-----

INT 21 - Novell NetWare - FILE SERVER - GET FILE SYSTEM STATISTICS

AH = E3h subfn D4h

DS:SI -> request buffer (see #02027)

ES:DI -> reply buffer (see #02028)

Return: AL = status (00h,C6h) (see #02025)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=0Eh,AH=E3h/SF=C8h,AH=E3h/SF=D9h,AH=E3h/SF=E7h,AH=E3h/SF=E8h

SeeAlso: AX=F217h/SF=D4h

Format of NetWare "Get File System Statistics" request buffer:

Offset Size Description (Table 02027)

00h WORD 0001h (length of following data)

02h BYTE D4h (subfunction "Get File System Statistics")

SeeAlso: #02028,#02227 at AX=F217h/SF=D4h

Format of NetWare "Get File System Statistics" reply buffer:

Offset	Size	Description (Table 02028)
00h	WORD	(call) 0028h (size of following results buffer)
02h	DWORD	clock ticks since system started
06h	WORD	maximum open files set by configuration
08h	WORD	maximum files open concurrently
0Ah	WORD	current number of open files
0Ch	DWORD	total files opened
10h	DWORD	total file read requests
14h	DWORD	total file write requests
18h	WORD	current changed FATs
1Ah	WORD	total changed FATs
1Ch	WORD	number of FAT write errors
1Eh	WORD	number of fatal FAT write errors
20h	WORD	number of FAT scan errors
22h	WORD	maximum concurrently-indexed files
24h	WORD	current number of indexed files
26h	WORD	number of attached indexed files
28h	WORD	number of indexed files available

Note: all fields except the first are big-endian

SeeAlso: #02027,#02227 at AX=F217h/SF=D4h

-----N-21E3--SFD5-----

INT 21 - Novell NetWare - FILE SERVER - GET TRANSACTION TRACKING STATISTICS

AH = E3h subfn D5h

DS:SI -> request buffer (see #02029)

ES:DI -> reply buffer (see #02030)

Return: AL = status (00h,C6h) (see #02025)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=CFh,AH=E3h/SF=D0h,AH=E3h/SF=E8h

SeeAlso: AX=F217h/SF=D5h

Format of NetWare "Get Transaction Tracking Statistics" request buffer:

Offset	Size	Description (Table 02029)
00h	WORD	0001h (length of following data)
02h	BYTE	D5h (subfunction "TTS Get Statistics")

SeeAlso: #02030,#02228 at AX=F217h/SF=D5h

Format of NetWare "Get Transaction Tracking Statistics" reply buffer:

```

Offset  Size  Description (Table 02030)
00h  WORD  (call) length of following results buffer (max 1BCh)
02h  DWORD (big-endian) clock ticks since system started
06h  BYTE  transaction tracking supported if nonzero
      (all following fields are invalid if zero)
07h  BYTE  transaction tracking enabled
08h  WORD  (big-endian) transaction volume number
0Ah  WORD  (big-endian) maximum simultaneous transactions configured
0Ch  WORD  (big-endian) maximum simultaneous transactions since startup
0Eh  WORD  (big-endian) current transactions in progress
10h  DWORD (big-endian) total transactions performed
14h  DWORD (big-endian) total write transactions
18h  DWORD (big-endian) total transactions backed out
1Ch  WORD  (big-endian) number of unfilled backout requests
1Eh  WORD  (big-endian) disk blocks used for transaction tracking
20h  DWORD (big-endian) blocks allocated for tracked-file FATs
24h  DWORD (big-endian) number of file size changes during a transaction
28h  DWORD (big-endian) number of file truncations during a transaction
2Ch  BYTE  number of records following
2Dh  Active Transaction Records [array]

```

```

Offset  Size  Description

```

```

00h  BYTE  logical connection number

```

```

01h  BYTE  task number

```

```

SeeAlso: #02029,#02228 at AX=F217h/SF=D5h

```

```

-----N-21E3--SFD6-----

```

```

INT 21 - Novell NetWare - FILE SERVER - GET DISK CACHE STATISTICS

```

```

AH = E3h subfn D6h

```

```

DS:SI -> request buffer (see #02031)

```

```

ES:DI -> reply buffer (see #02032)

```

```

Return: AL = status (00h,C6h) (see #02025)

```

```

Notes: this function is supported by Advanced NetWare 2.1+

```

```

the calling workstation must have console operator privileges

```

```

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=D5h,AH=E3h/SF=D8h,AH=E3h/SF=D9h,AH=E3h/SF=E6h

```

```

SeeAlso: AX=F217h/SF=D6h

```

```

Format of NetWare "Get Disk Cache Statistics" request buffer:

```

```

Offset  Size  Description (Table 02031)

```

```

00h  WORD  0001h (length of following data)

```

```

02h  BYTE  D6h (subfunction "Get Disk Cache Statistics")

```

```

SeeAlso: #02032,#02229 at AX=F217h/SF=D6h

```

Format of NetWare "Get Disk Cache Statistics" reply buffer:

Offset Size Description (Table 02032)

00h	WORD	(call) 004Eh (length of following results buffer)
02h	DWORD	clock ticks since system started
06h	WORD	number of cache buffers
08h	WORD	size of cache buffer in bytes
0Ah	WORD	number of dirty cache buffers
0Ch	DWORD	number of cache read requests
10h	DWORD	number of cache write requests
14h	DWORD	number of cache hits
18h	DWORD	number of cache misses
1Ch	DWORD	number of physical read requests
20h	DWORD	number of physical write requests
24h	WORD	number of physical read errors
26h	WORD	number of physical write errors
28h	DWORD	cache get requests
2Ch	DWORD	cache full write requests
30h	DWORD	cache partial write requests
34h	DWORD	background dirty writes
38h	DWORD	background aged writes
3Ch	DWORD	total cache writes
40h	DWORD	number of cache allocations
44h	WORD	thrashing count
46h	WORD	number of times LRU block was dirty
48h	WORD	number of reads on cache blocks not yet filled by writes
4Ah	WORD	number of times a fragmented write occurred
4Ch	WORD	number of cache hits on unavailable block
4Eh	WORD	number of times a cache block was scrapped

Note: all fields except the first are big-endian

SeeAlso: #02031,#02229 at AX=F217h/SF=D6h

-----N-21E3--SFD7-----

INT 21 - Novell NetWare - FILE SERVER - GET DRIVE MAPPING TABLE

AH = E3h subfn D7h

DS:SI -> request buffer (see #02033)

ES:DI -> reply buffer (see #02034)

Return: AL = status (00h,C6h) (see #02025)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=D6h,AH=E3h/SF=D9h,AH=E3h/SF=E6h,AH=E3h/SF=E9h

SeeAlso: AX=F217h/SF=D7h

Format of NetWare "Get Drive Mapping Table" request buffer:

Offset	Size	Description (Table 02033)
00h	WORD	0001h (length of following data)
02h	BYTE	D7h (subfunction "Get Drive Mapping Table")

SeeAlso: #02034,#02230 at AX=F217h/SF=D7h

Format of NetWare "Get Drive Mapping Table" reply buffer:

Offset	Size	Description (Table 02034)
00h	WORD	(call) 00ECh (length of following results buffer)
02h	DWORD	(big-endian) clock tick elapsed since system started
06h	BYTE	fault tolerance (SFT) level
07h	BYTE	number of logical drives attached to server
08h	BYTE	number of physical drives attached to server
09h	5 BYTES	disk channel types (00h none, 01h XT, 02h AT, 03h SCSI, 04h disk coprocessor drive, 32h-FFh value-added drive types)
0Eh	WORD	(big-endian) number of outstanding controller commands
10h	32 BYTES	drive mapping table (FFh = no such drive)
30h	32 BYTES	drive mirror table (secondary physical drive, FFh = none)
50h	32 BYTES	dead mirror table (last drive mapped to, FFh if never mirrored)
70h	BYTE	physical drive being remirrored (FFh = none)
71h	BYTE	reserved
72h	DWORD	(big-endian) remirrored block
76h	60 BYTES	SFT error table (internal error counters)

SeeAlso: #02033,#02230 at AX=F217h/SF=D7h

-----N-21E3--SFD8-----

INT 21 - Novell NetWare - FILE SERVER - GET PHYSICAL DISK STATISTICS

AH = E3h subfn D8h

DS:SI -> request buffer (see #02035)

ES:DI -> reply buffer (see #02036)

Return: AL = status (00h,C6h) (see #02025)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=D9h,AH=E3h/SF=E9h,AX=F217h/SF=D8h

Format of NetWare "Get Physical Disk Statistics" request buffer:

Offset	Size	Description (Table 02035)
00h	WORD	0002h (length of following data)
02h	BYTE	D8h (subfunction "Get Physical Disk Statistics")
03h	BYTE	physical disk number

SeeAlso: #02036,#02231 at AX=F217h/SF=D8h

Format of NetWare "Get Physical Disk Statistics" reply buffer:

Offset	Size	Description (Table 02036)
00h	WORD	(call) 005Dh (size of following results record)
02h	DWORD	(big-endian) clock ticks since system started
06h	BYTE	physical disk channel
07h	BYTE	flag: drive removable if nonzero
08h	BYTE	physical drive type
09h	BYTE	drive number within controller
0Ah	BYTE	controller number
0Bh	BYTE	controller type
0Ch	DWORD	(big-endian) size of drive in 4K disk blocks
10h	WORD	(big-endian) number of cylinders on drive
12h	BYTE	number of heads
13h	BYTE	number of sectors per track
14h	64 BYTES	ASCIZ drive make and model
54h	WORD	(big-endian) number of I/O errors
56h	DWORD	(big-endian) start of Hot Fix table
5Ah	WORD	(big-endian) size of Hot Fix table
5Ch	WORD	(big-endian) number of Hot Fix blocks available
5Eh	BYTE	flag: Hot Fix disabled if nonzero

SeeAlso: #02035,#02231 at AX=F217h/SF=D8h

-----N-21E3--SFD9-----

INT 21 - Novell NetWare - FILE SERVER - GET DISK CHANNEL STATISTICS

AH = E3h subfn D9h

DS:SI -> request buffer (see #02037)

ES:DI -> reply buffer (see #02038)

Return: AL = status (00h,C6h) (see #02025)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=D8h,AH=E3h/SF=E6h,AH=E3h/SF=E9h

SeeAlso: AX=F217h/SF=D9h

Format of NetWare "Get Disk Channel Statistics" request buffer:

Offset	Size	Description (Table 02037)
00h	WORD	0002h (length of following data)
02h	BYTE	D9h (subfunction "Get Disk Channel Statistics")
03h	BYTE	channel number

SeeAlso: #02038,#02232 at AX=F217h/SF=D9h

Format of NetWare "Get Disk Channel Statistics" reply buffer:

Offset	Size	Description (Table 02038)
--------	------	---------------------------

00h WORD (call) 00A8h (size of following results record)
02h DWORD (big-endian) clock ticks since system started
06h WORD (big-endian) channel run state (see #02039)
08h WORD (big-endian) channel synchronization state (see #02040)
0Ah BYTE driver type
0Bh BYTE major version of driver
0Ch BYTE minor version of driver
0Dh 65 BYTES ASCIZ driver description
4Eh WORD (big-endian) first I/O address used
50h WORD (big-endian) length of first I/O address
52h WORD (big-endian) second I/O address used
54h WORD (big-endian) length of second I/O address
56h 3 BYTES first shared memory address
59h 2 BYTES length of first shared memory address
5Bh 3 BYTES second shared memory address
5Eh 2 BYTES length of second shared memory address
60h BYTE first interrupt number in-use flag
61h BYTE first interrupt number used
62h BYTE second interrupt number in-use flag
63h BYTE second interrupt number used
64h BYTE first DMA channel in-use flag
65h BYTE first DMA channel used
66h BYTE second DMA channel in-use flag
67h BYTE second DMA channel used
68h BYTE flags
69h BYTE reserved
6Ah 80 BYTES ASCIZ configuration description
SeeAlso: #02037,#02232 at AX=F217h/SF=D9h

(Table 02039)

Values for channel run state:

0000h running
0001h being stopped
0002h stopped
0003h nonfunctional

SeeAlso: #02038,#02040

(Table 02040)

Values for channel synchronization state:

0000h not in use
0002h used by NetWare, no other requests

0004h used by NetWare, other requests
 0006h in use, not needed by NetWare
 0008h in use, needed by NetWare
 000Ah channel released, NetWare should use it

SeeAlso: #02038,#02039

-----N-21E3--SFDA-----

INT 21 - Novell NetWare - FILE SERVER - GET CONNECTION'S TASK INFORMATION

AH = E3h subfn DAh

DS:SI -> request buffer (see #02041)

ES:DI -> reply buffer (see #02042)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DBh,AH=E3h/SF=DFh,AH=E3h/SF=E1h,AH=E3h/SF=E5h

SeeAlso: AX=F217h/SF=DAh

Format of NetWare "Get Connection's Task Information" request buffer:

Offset Size Description (Table 02041)

00h WORD 0003h (length of following data)

02h BYTE DAh (subfunction "Get Connection's Task Information")

03h WORD (big-endian) logical connection number

SeeAlso: #02042,#02233 at AX=F217h/SF=DAh

Format of NetWare "Get Connection's Task Information" reply buffer:

Offset Size Description (Table 02042)

00h WORD (call) size of following results record (max 1FEh)

02h BYTE lock status of connection (see #02043)

03h var Lock Status Information (see #02044)

N BYTE number of records following

N+1 Active Task Information Records [array]

Offset Size Description

00h BYTE task number (01h-FFh)

01h BYTE task state

01h in TTS explicit transaction

02h in TTS implicit transaction

04h shared fileset lock active

SeeAlso: #02041,#02233 at AX=F217h/SF=DAh

(Table 02043)

Values for lock status of connection:

00h no locks

01h waiting on physical record lock
 02h waiting on file lock
 03h waiting on logical record lock
 04h waiting on semaphore
 SeeAlso: #02042,#02044

Format of Lock Status Information:

Offset Size Description (Table 02044)

---lock status 00h---

no fields

---lock status 01h---

00h BYTE number of waiting task
 01h DWORD start address
 05h DWORD end address
 09h BYTE volume number
 0Ah WORD directory entry number
 0Ch 14 BYTES ASCIZ filename

---lock status 02h---

00h BYTE number of waiting task
 01h BYTE volume number
 02h WORD directory entry number
 04h 14 BYTES ASCIZ filename

---lock status 03h---

00h BYTE number of waiting task
 01h BYTE length of record name
 02h N BYTES ASCIZ record name

---lock status 04h---

00h BYTE number of waiting task
 01h BYTE length of semaphore's name
 02h N BYTES ASCIZ semaphore name

SeeAlso: #02042,#02043

-----N-21E3--SFDB-----

INT 21 - Novell NetWare - FILE SERVER - GET CONNECTION'S OPEN FILES (OLD)

AH = E3h subfn DBh

DS:SI -> request buffer (see #02045)

ES:DI -> reply buffer (see #02046)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E2h/SF=1Ah,AH=E3h/SF=C8h,AH=E3h/SF=DAh,AH=E3h/SF=DCh,AH=E3h/SF=DFh

SeeAlso: AH=E3h/SF=E1h,AX=F217h/SF=DBh

Format of NetWare "Get Connection's Open Files (old)" request buffer:

Offset	Size	Description (Table 02045)
00h	WORD	0005h (length of following data)
02h	BYTE	DBh (subfunction "Get Connection's Open Files")
03h	WORD	(big-endian) logical connection number
05h	WORD	(big-endian) last record seen (0000h on first call)

SeeAlso: #02046,#02234 at AX=F217h/SF=DBh

Format of NetWare "Get Connection's Open Files (old)" reply buffer:

Offset	Size	Description (Table 02046)
00h	WORD	(call) size of following results record (max 1FEh)
02h	WORD	next request record (place in "last record" field on next call) 0000h if no more records
04h	BYTE	number of records following
05h	var	array of File Information Records (see #02047)

SeeAlso: #02045,#02234 at AX=F217h/SF=DBh

Format of NetWare File Information Record:

Offset	Size	Description (Table 02047)
00h	BYTE	task number
01h	BYTE	lock flags (see #02048)
02h	BYTE	access flags (see #02049)
03h	BYTE	lock type 00h no lock FEh file lock FFh locked by Begin Share File Set
04h	BYTE	volume number (00h-1Fh)
05h	WORD	(big-endian) directory entry number
07h	14 BYTES	ASCIZ filename

SeeAlso: #02046

Bitfields for lock flags:

Bit(s)	Description (Table 02048)
0	file is locked
1	file opened Shareable
2	logged
3	file opened Normal
6	TTS holding lock
7	Transaction Flag set on file

SeeAlso: #02047,#02049

Bitfields for access flags:

Bit(s) Description (Table 02049)

- 0 file open for reading by calling station
- 1 file open for writing by calling station
- 2 deny reads by other stations
- 3 deny writes by other stations
- 4 file detached
- 5 TTS Holding Detach
- 6 TTS Holding Open

SeeAlso: #02047,#02048

-----N-21E3--SFDC-----

INT 21 - Novell NetWare - FILE SERVER - GET CONNECTIONS USING A FILE

AH = E3h subfn DCh

DS:SI -> request buffer (see #02050)

ES:DI -> reply buffer (see #02051)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DAh,AH=E3h/SF=DBh,AH=E3h/SF=DFh,AH=E3h/SF=E1h

SeeAlso: AX=F217h/SF=DCh

Format of NetWare "Get Connections Using a File" request buffer:

Offset Size Description (Table 02050)

- 00h WORD length of following data (max 104h)
- 02h BYTE DCh (subfunction "Get Connections Using a File")
- 03h WORD (big-endian) last record (0000h on first call)
- 05h BYTE directory handle
- 06h BYTE length of file path
- 07h N BYTES ASCIZ file path

SeeAlso: #02051,#02235 at AX=F217h/SF=DCh

Format of NetWare "Get Connections Using a File" reply buffer:

Offset Size Description (Table 02051)

- 00h WORD (call) size of following results record (max 1FEh)
- 02h WORD (big-endian) count of tasks which have opened or logged file
- 04h WORD (big-endian) count of tasks which have opened file
- 06h WORD (big-endian) count of opens for reading
- 08h WORD (big-endian) count of opens for writing
- 0Ah WORD (big-endian) deny read count
- 0Ch WORD (big-endian) deny write count

0Eh WORD next request record (place in "last record" field on next call)
 0000h if no more records
 10h BYTE locked flag
 00h not locked exclusively
 else locked exclusively
 11h BYTE number of records following
 12h var array of File Usage Information Records (see #02052)
 SeeAlso: #02050,#02235 at AX=F217h/SF=DCh

Format of NetWare File Usage Information Record:

Offset Size Description (Table 02052)

00h WORD (big-endian) logical connection number
 02h BYTE task number
 03h BYTE lock flags (see #02048)
 04h BYTE access flags (see #02049)
 05h BYTE lock type
 00h no lock
 FEh file lock
 FFh locked by Begin Share File Set

-----N-21E3--SFDD-----

INT 21 - Novell NetWare - FILE SERVER - GET PHYSICAL RECORD LOCKS BY CONN&FILE

AH = E3h subfn DDh
 DS:SI -> request buffer (see #02054)
 ES:DI -> reply buffer (see #02055)

Return: AL = status (00h,C6h,FFh) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DEh,AH=E3h/SF=DFh,AX=F217h/SF=DDh

(Table 02053)

Values for NetWare function status:

00h successful
 C6h no console rights
 FFh file not open

SeeAlso: #02025,#02094

Format of NetWare "Get Phys Record Locks by Conn and File" request buffer:

Offset Size Description (Table 02054)

00h WORD 0016h (length of following data)
 02h BYTE DDh (subfunction "Get Physical Record Locks by Connection and File")

03h WORD (big-endian) logical connection number
 05h WORD (big-endian) last record seen (0000h on first call)
 07h BYTE volume number (00h-1Fh)
 08h WORD (big-endian) directory handle
 0Ah 14 BYTES ASCIZ filename
 SeeAlso: #02055,#02236 at AX=F217h/SF=DDh

Format of NetWare "Get Phys Record Locks by Conn and File" reply buffer:

Offset Size Description (Table 02055)
 00h WORD (call) size of following results record (max 1FEh)
 02h WORD next request record (place in "last record" on next call)
 0000h if no more records
 04h BYTE number of physical record locks
 05h BYTE number of records following
 06h var array of Physical Record Lock Info records (see #02056)
 SeeAlso: #02054,#02236 at AX=F217h/SF=DDh

Format of NetWare Physical Record Lock Info:

Offset Size Description (Table 02056)
 00h BYTE task number
 01h BYTE lock status (see #02057)
 02h DWORD (big-endian) starting offset of record in file
 06h DWORD (big-endian) ending offset of record in file
 SeeAlso: #02055

Bitfields for lock status:

Bit(s) Description (Table 02057)
 0 exclusive lock
 1 shareable lock
 2 logged
 6 lock held by TTS
 SeeAlso: #02056

-----N-21E3--SFDE-----

INT 21 - Novell NetWare - FILE SERVER - GET PHYSICAL RECORD LOCKS BY FILE

AH = E3h subfn DEh

DS:SI -> request buffer (see #02058)

ES:DI -> reply buffer (see #02059)

Return: AL = status (00h,C6h,FFh) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DDh,AH=E3h/SF=DFh,AX=F217h/SF=DEh

Format of NetWare "Get Physical Record Locks by File" request buffer:

Offset	Size	Description (Table 02058)
00h	WORD	length of following data (max 104h)
02h	BYTE	DEh (subfunction "Get Physical Record Locks by File")
03h	WORD	(big-endian) last record seen (0000h on first call)
05h	BYTE	directory handle
06h	BYTE	length of filename
07h	N BYTES	ASCIZ filename

SeeAlso: #02059,#02237 at AX=F217h/SF=DEh

Format of NetWare "Get Physical Record Locks by File" reply buffer:

Offset	Size	Description (Table 02059)
00h	WORD	(call) size of following results record (max 1FEh)
02h	WORD	next request record (place in "last record" on next call) 0000h if no more records
04h	BYTE	number of physical record locks
05h	BYTE	number of records following
06h	var array	of Physical Record Lock Info records (see #02060)

SeeAlso: #02058,#02237 at AX=F217h/SF=DEh

Format of NetWare Physical Record Lock Info:

Offset	Size	Description (Table 02060)
00h	WORD	(big-endian) number of tasks logging record
02h	WORD	(big-endian) number of tasks with shareable lock
04h	DWORD	(big-endian) starting offset of record in file
08h	DWORD	(big-endian) ending offset of record in file
0Ch	WORD	(big-endian) logical connection number
0Eh	BYTE	task number
0Fh	BYTE	lock type
00h		none
FEh		file lock
FFh		Begin Share File Set lock

SeeAlso: #02059

-----N-21E3--SFDF-----

INT 21 - Novell NetWare - FILE SERVER - GET LOGICAL RECORDS BY CONNECTION

AH = E3h subfn DFh

DS:SI -> request buffer (see #02061)

ES:DI -> reply buffer (see #02062)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges
 SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DDh,AH=E3h/SF=E0h,AH=E3h/SF=E2h
 SeeAlso: AX=F217h/SF=DFh

Format of NetWare "Get Logical Records by Connection" request buffer:

Offset	Size	Description (Table 02061)
00h	WORD	0005h (length of following data)
02h	BYTE	DFh (subfunction "Get Logical Records By Connection")
03h	WORD	(big-endian) logical connection number
05h	WORD	(big-endian) last record seen (0000h on first call)

SeeAlso: #02062,#02238 at AX=F217h/SF=DFh

Format of NetWare "Get Logical Records by Connection" reply buffer:

Offset	Size	Description (Table 02062)
00h	WORD	(call) size of following results record (max 1FEh)
02h	WORD	next request record (place in "last record" field on next call) 0000h if no more locked records
04h	BYTE	number of records following
05h	var array	of Logical Lock Information Records (see #02063)

SeeAlso: #02061,#02238 at AX=F217h/SF=DFh

Format of NetWare Logical Lock Information Record:

Offset	Size	Description (Table 02063)
00h	BYTE	task number
01h	BYTE	lock status (see #02057)
02h	BYTE	length of logical lock's name
03h	N BYTES	logical lock's name

SeeAlso: #02062

-----N-21E3--SFE0-----

INT 21 - Novell NetWare - FILE SERVER - GET LOGICAL RECORD INFORMATION

AH = E3h subfn E0h

DS:SI -> request buffer (see #02064)

ES:DI -> reply buffer (see #02065)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DDh,AH=E3h/SF=DFh,AH=E3h/SF=E2h

SeeAlso: AX=F217h/SF=E0h

Format of NetWare "Get Logical Record Information" request buffer:

Offset	Size	Description (Table 02064)
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00h WORD length of following data (max 67h)
 02h BYTE E0h (subfunction "Get Logical Record Information")
 03h WORD (big-endian) last record seen (0000h on first call)
 05h BYTE length of logical record's name
 06h N BYTES logical record's name
 SeeAlso: #02065,#02239 at AH=E3h/SF=E0h

Format of NetWare "Get Logical Record Information" reply buffer:

Offset	Size	Description (Table 02065)
00h	WORD	(call) size of following results record (max 200h)
02h	WORD	(big-endian) number of logical connections logging the record
04h	WORD	(big-endian) number of logical connections with shareable lock
06h	WORD	(big-endian) next request record (place in "last record" field on next call)
08h	BYTE	locked exclusively if nonzero
09h	BYTE	number of records following
0Ah	var array	of Task Information Records (see #02066)

SeeAlso: #02064,#02239 at AH=E3h/SF=E0h

Format of NetWare Task Information Record:

Offset	Size	Description (Table 02066)
00h	WORD	(big-endian) logical connection number
02h	BYTE	task number
03h	BYTE	lock status (see #02057)

SeeAlso: #02065

-----N-21E3--SFE1-----

INT 21 - Novell NetWare - FILE SERVER - GET CONNECTION'S SEMAPHORES

AH = E3h subfn E1h

DS:SI -> request buffer (see #02067)

ES:DI -> reply buffer (see #02068)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DBh,AH=E3h/SF=DFh,AH=E3h/SF=E2h

SeeAlso: AX=F217h/SF=E1h

Format of NetWare "Get Connection's Semaphores" request buffer:

Offset	Size	Description (Table 02067)
00h	WORD	0005h (length of following data)
02h	BYTE	E1h (subfunction "Get Connection's Semaphores")
03h	WORD	(big-endian) logical connection number

05h WORD (big-endian) last record seen (0000h on first call)

SeeAlso: #02068,#02240 at AX=F217h/SF=E1h

Format of NetWare "Get Connection's Semaphores" reply buffer:

Offset Size Description (Table 02068)

00h WORD (call) size of following results record (max 1FEh)

02h WORD next request record (place in "last record" field on next call)

04h BYTE number of records following

05h var array of Semaphore Information Records (see #02069)

SeeAlso: #02067,#02240 at AX=F217h/SF=E1h

Format of NetWare Semaphore Information Record:

Offset Size Description (Table 02069)

00h WORD (big-endian) open count

02h BYTE semaphore value (-128 to 127)

03h BYTE task number

04h BYTE lock type

05h BYTE length of semaphore's name

06h N BYTES semaphore's name

14 BYTES filename

SeeAlso: #02068

-----N-21E3--SFE2-----

INT 21 - Novell NetWare - FILE SERVER - GET SEMAPHORE INFORMATION

AH = E3h subfn E2h

DS:SI -> request buffer (see #02070)

ES:DI -> reply buffer (see #02071)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=E1h,AX=F217h/SF=E2h

Format of NetWare "Get Semaphore Information" request buffer:

Offset Size Description (Table 02070)

00h WORD length of following data (max 83h)

02h BYTE E2h (subfunction "Get LAN Driver's Configuration Information")

03h WORD (big-endian) last record seen (0000h on first call)

05h BYTE length of semaphore's name (01h-7Fh)

06h N BYTES semaphore's name

SeeAlso: #02071,#02241 at AX=F217h/SF=E2h

Format of NetWare "Get Semaphore Information" reply buffer:

Offset Size Description (Table 02071)
 00h WORD (call) size of following results buffer (max 1FEh)
 02h WORD next request record (place in "last record" on next call)
 0000h if no more
 04h WORD (big-endian) number of logical connections opening semaphore
 06h BYTE semaphore value (-127 to 128)
 07h BYTE number of records following
 08h var array of Semaphore Information records (see #02072)
 SeeAlso: #02071,#02241 at AX=F217h/SF=E2h

Format of NetWare Semaphore Information:

Offset Size Description (Table 02072)
 00h WORD (big-endian) logical connection number
 02h BYTE task number

SeeAlso: #02071

-----N-21E3--SFE3-----

INT 21 - Novell NetWare - FILE SERVER - GET LAN DRIVER'S CONFIGURATION INFO

AH = E3h subfn E3h

DS:SI -> request buffer (see #02073)

ES:DI -> reply buffer (see #02074)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

the calling workstation must have console operator privileges

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=E7h,AH=E3h/SF=E8h,AX=F217h/SF=E3h

Format of NetWare "Get LAN Driver's Configuration Info" request buffer:

Offset Size Description (Table 02073)
 00h WORD 0002h (length of following data)
 02h BYTE E3h (subfunction "Get LAN Driver's Configuration Information")
 03h BYTE LAN board (00h-03h)

SeeAlso: #02074,#02242 at AX=F217h/SF=E3h

Format of NetWare "Get LAN Driver's Configuration Info" reply buffer:

Offset Size Description (Table 02074)
 00h WORD (call) 00ACh (size of following results buffer)
 02h 4 BYTES network number
 06h 6 BYTES node number
 0Ch BYTE LAN driver installed (00h no--remaining fields invalid)
 0Dh BYTE option number selected at configuration time
 0Eh 160 BYTES configuration text
 ASCIZ hardware type

ASCIIZ hardware settings

SeeAlso: #02073,#02242 at AX=F217h/SF=E3h

-----N-21E3--SFE5-----

INT 21 - Novell NetWare - FILE SERVER - GET CONNECTION'S USAGE STATISTICS

AH = E3h subfn E5h

DS:SI -> request buffer (see #02075)

ES:DI -> reply buffer (see #02076)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

one must have console operator privileges to get statistics for logical connections other than one's own

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=DAh,AH=E3h/SF=DBh,AH=E3h/SF=E1h

SeeAlso: AX=F217h/SF=E5h

Format of NetWare "Get Connection's Usage Statistics" request buffer:

Offset Size Description (Table 02075)

00h WORD 0003h (length of following data)

02h BYTE E5h (subfunction "Get Connection's Usage Statistics")

03h WORD (big-endian) logical connection number

SeeAlso: #02076,#02243 at AX=F217h/SF=E5h

Format of NetWare "Get Connection's Usage Statistics" reply buffer:

Offset Size Description (Table 02076)

00h WORD (call) 0014h (size of following results record)

02h DWORD (big-endian) clock ticks since server started

06h 6 BYTES bytes read

0Ch 6 BYTES bytes written

12h DWORD (big-endian) total request packets

SeeAlso: #02075,#02243 at AX=F217h/SF=E5h

-----N-21E3--SFE6-----

INT 21 - Novell NetWare - FILE SERVER - GET BINDERY OBJECT DISK SPACE LEFT

AH = E3h subfn E6h

DS:SI -> request buffer (see #02077)

ES:DI -> reply buffer (see #02078)

Return: AL = status (00h,C6h) (see #02053)

Notes: this function is supported by Advanced NetWare 2.1+

one must have console operator privileges to get the free space for other bindery objects

SeeAlso: AH=E3h/SF=C8h,AH=E3h/SF=E8h,AH=E3h/SF=E9h

Format of NetWare "Get Bindery Object Disk Space Left" request buffer:

Offset Size Description (Table 02077)
 00h WORD 0005h (length of following data)
 02h BYTE E6h (subfunction "Get Bindery Object Disk Space Left")
 03h DWORD (big-endian) object ID
 SeeAlso: #02078,#02244 at AX=F217h/SF=E6h

Format of NetWare "Get Bindery Object Disk Space Left" reply buffer:

Offset Size Description (Table 02078)
 00h WORD (call) 000Fh (size of following results buffer)
 02h DWORD (big-endian) clock ticks elapsed since server started
 06h DWORD (big-endian) object ID
 0Ah DWORD (big-endian) 4K disk blocks available to user
 0Eh BYTE restrictions (00h enforced, FFh not enforced)

SeeAlso: #02077,#02244 at AX=F217h/SF=E6h

-----N-21E3--SFE7-----

INT 21 - Novell NetWare - FILE SERVER - GET FILE SERVER LAN I/O STATISTICS

AH = E3h subfn E7h

DS:SI -> request buffer (see #02079)

ES:DI -> reply buffer (see #02080)

Return: AL = status

00h successful

Note: this function is supported by Advanced NetWare 2.1+

SeeAlso: AH=E3h/SF=0Eh,AH=E3h/SF=11h,AH=E3h/SF=D3h,AH=E3h/SF=E8h

SeeAlso: AH=E7h"Novell",AX=F217h/SF=E7h

Format of NetWare "Get File Server LAN I/O Statistics" request buffer:

Offset Size Description (Table 02079)
 00h WORD 0001h (length of following data)
 02h BYTE E7h (subfunction "Get File Server LAN I/O Statistics")

SeeAlso: #02080,#02245 at AX=F217h/SF=E7h

Format of NetWare "Get File Server LAN I/O Statistics" reply buffer:

Offset Size Description (Table 02080)
 00h WORD (call) 0042h (size of following results buffer)
 02h DWORD clock ticks since system started
 06h WORD total routing buffers
 08h WORD maximum routing buffers used
 0Ah WORD current routing buffers used
 0Ch DWORD total file service packets
 10h WORD number of file service packets buffered
 12h WORD number of invalid connection packets

14h WORD packets with bad logical connection numbers
 16h WORD number of packets received during processing
 18h WORD number of requests reprocessed
 1Ah WORD packets with bad sequence numbers
 1Ch WORD number of duplicate replies sent
 1Eh WORD number of acknowledgements sent
 20h WORD number of packets with bad request types
 22h WORD requests to attach to ws for which a request is being processed
 24h WORD requests to attach from ws which is already attaching
 26h WORD number of forged detach requests
 28h WORD detach requests with bad connection number
 2Ah WORD requests to detach from ws for which requests pending
 2Ch WORD number of cancelled replies
 2Eh WORD packets discarded due to excessive hop count
 30h WORD packets discarded due to unknown net
 32h WORD incoming packets discarded for lack of DGroup buffer
 34h WORD outgoing packets discarded due to lack of buffer
 36h WORD received packets destined for B,C, or D side drivers
 38h DWORD number of NetBIOS packets propagated through net
 3Ch DWORD total number of non-file-service packets
 40h DWORD total number of routed packets

Note: all fields except the first are big-endian

SeeAlso: #02080,#02245 at AX=F217h/SF=E7h

-----N-21E3--SFE8-----

INT 21 - Novell NetWare - FILE SERVER - GET FILE SERVER MISC INFORMATION

AH = E3h subfn E8h

DS:SI -> request buffer (see #02081)

ES:DI -> reply buffer (see #02082)

Return: AL = status (00h,C6h) (see #02053)

Note: this function is supported by Advanced NetWare 2.1+

SeeAlso: AH=E3h/SF=0Eh,AH=E3h/SF=11h,AH=E3h/SF=CDh,AH=E3h/SF=E7h

SeeAlso: AX=F217h/SF=E8h

Format of NetWare "Get File Server Misc Information" request buffer:

Offset Size Description (Table 02081)

00h WORD 0001h (length of following data)

02h BYTE E8h (subfunction "Get File Server Misc Information")

SeeAlso: #02082,#02246 at AX=F217h/SF=E8h

Format of NetWare "Get File Server Misc Information" reply buffer:

Offset Size Description (Table 02082)

00h WORD (call) size of following results buffer (max 0048h)
 02h DWORD (big-endian) clock ticks since system started
 06h BYTE CPU type
 00h Motorola 68000
 01h Intel 8086, 8088, or V20
 02h Intel 80286+
 07h BYTE reserved
 08h BYTE number of service processes in server
 09h BYTE server utilization in percent
 0Ah WORD (big-endian) maximum bindery objects set by configuration
 0000h = unlimited
 0Ch WORD (big-endian) maximum number of bindery objects used
 0Eh WORD (big-endian) current number of bindery objects in use
 10h WORD (big-endian) total server memory in KB
 12h WORD (big-endian) wasted server memory in KB
 normally 0000h
 14h WORD number of records following (01h-03h)
 16h var array of Dynamic Memory Information records (see #02083)
 SeeAlso: #02081,#02246 at AX=F217h/SF=E8h

Format of NetWare Dynamic Memory Information:

Offset Size Description (Table 02083)
 00h DWORD (big-endian) total dynamic space
 04h DWORD (big-endian) maximum dynamic space used
 08h DWORD (big-endian) current dynamic space usage
 -----N-21E3--SFE9-----
 INT 21 - Novell NetWare - DIRECTORY SERVICES - GET VOLUME INFORMATION
 AH = E3h subfn E9h
 DS:SI -> request buffer (see #02084)
 ES:DI -> reply buffer (see #02085)
 Return: AL = status
 00h successful

Notes: this function is supported by Advanced NetWare 2.1+
 SeeAlso: AH=DAh,AH=E2h/SF=15h,AX=F217h/SF=E9h

Format of NetWare "Get Volume Information" request buffer:

Offset Size Description (Table 02084)
 00h WORD 0002h (length of following data)
 02h BYTE E9h (subfunction "Get Volume Information")
 03h BYTE directory handle
 SeeAlso: #02085,#02247 at AX=F217h/SF=E9h

Format of NetWare "Get Volume Information" reply buffer:

Offset Size Description (Table 02085)

00h WORD (call) 0028h (length of following results buffer)
02h DWORD (big-endian) elapsed system time
06h BYTE volume number
07h BYTE logical drive number
08h WORD (big-endian) sectors per block
0Ah WORD (big-endian) starting block
0Ch WORD (big-endian) total blocks on volume
0Eh WORD (big-endian) blocks available on volume
10h WORD (big-endian) total directory slots
12h WORD (big-endian) directory slots available
14h WORD (big-endian) maximum directory entries actually used
16h BYTE flag: volume hashed if nonzero
17h BYTE flag: volume cached if nonzero
18h BYTE flag: volume removable if nonzero
19h BYTE flag: volume mounted if nonzero
1Ah 16 BYTES NUL-padded volume name

SeeAlso: #02084,#02247 at AX=F217h/SF=E9h

-----N-21E4-----

INT 21 0 - Novell NetWare - SET FILE ATTRIBUTES (FCB)

AH = E4h

CL = file attributes (see #02086)

DX:DX -> FCB (see #01345 at AH=0Fh)

Return: AL = error code

Note: this function was added in NetWare 4.0, but was removed some time prior to Advanced NetWare 2.15, and is no longer listed in current Novell documentation

SeeAlso: AX=4301h

Bitfields for NetWare file attributes:

Bit(s) Description (Table 02086)

0 read only
1 hidden
2 system
7 shareable

-----v-21E4-----

INT 21 - VIRUS - "Anarkia" - INSTALLATION CHECK

AH = E4h

Return: AH = 04h if resident

SeeAlso: AH=E1h"VIRUS",AH=E7h"VIRUS"

-----T-21E400-----

INT 21 - DoubleDOS - INSTALLATION CHECK/PROGRAM STATUS

AX = E400h

Return: AL = program status

00h if DoubleDOS not present

01h if running in visible DoubleDOS partition

02h if running in the invisible DoubleDOS partition

SeeAlso: AH=E5h"DoubleDOS",AX=F400h

-----E-21E400-----

INT 21 - OS/286, OS/386 - CHAIN TO REAL-MODE HANDLER

AX = E400h

???

Return: ???

Note: protected mode only???

-----E-21E402-----

INT 21 - OS/286, OS/386 - SET PROTECTED-MODE TASK GATE

AX = E402h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=E403h

-----E-21E403-----

INT 21 - OS/286, OS/386 - REMOVE PROTECTED-MODE TASK GATE

AX = E403h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=E402h

-----N-21E5-----

INT 21 O - Novell NetWare - UPDATE FILE SIZE (FCB)

AH = E5h

DS:DX -> FCB (see #01345 at AH=0Fh)

Return: AL = (unreliable) return code

Notes: this function was added in NetWare 4.0, but was removed some time prior to Advanced NetWare 2.15, and is no longer listed in current Novell documentation

on success, NetWare sets AL to zero; on errors it restores AL

-----T-21E5-----

INT 21 - DoubleDOS - OTHER PROGRAM STATUS

AH = E5h

Return: AL = status

00h no program in other partition

01h program in other partition is running

02h program in other partition is suspended

SeeAlso: AX=E400h"DoubleDOS",AH=F5h"DoubleDOS"

-----E-21E500-----

INT 21 - OS/286, OS/386 - HEAP MANAGEMENT STRATEGY

AX = E500h

???

Return: ???

SeeAlso: AX=E501h

-----E-21E501-----

INT 21 - OS/286, OS/386 - FORCE HEAP COMPACTION

AX = E501h

???

Return: ???

SeeAlso: AX=E500h

-----N-21E6-----

INT 21 O - Novell NetWare - COPY FILE TO FILE (FCB)

AH = E6h

CX:DX = number of bytes to copy

DS:SI -> opened source FCB

ES:DI -> opened destination FCB

Return: AL = error code

CX = ???

DX = ???

Note: this function was added in NetWare 4.0, but was removed some time prior to Advanced NetWare 2.15, and is no longer listed in current Novell documentation

-----E-21E6-----

INT 21 P - OS/286, OS/386 - ISSUE REAL PROCEDURE SIGNAL FROM PROTECTED MODE

AH = E6h

???

Return: ???

SeeAlso: AH=E2h"OS/286"

-----N-21E7-----

INT 21 - Novell NetWare - FILE SERVER - GET FILE SERVER DATE AND TIME

AH = E7h

DS:DX -> date/time buffer (see #02087)

Return: AL = error code

00h successful

FFh unsuccessful

Note: this function is supported by NetWare 4.0+, Advanced NetWare 1.0+,

Alloy NTNX, and Banyan VINES

SeeAlso: AH=2Ah,AH=2Ch,AX=5FC0h,AH=E3h/SF=CAh,AX=F214h

Format of NetWare date/time buffer:

Offset Size Description (Table 02087)

00h BYTE year (80-99 = 1980-1999, 0-79 = 2000-2079)

01h BYTE month (1=Jan)

02h BYTE day

03h BYTE hours

04h BYTE minutes

05h BYTE seconds

06h BYTE day of week (0 = Sunday) (Novell and NTNX only)

SeeAlso: #02106

-----E-21E7-----

INT 21 - OS/286, OS/386 - CREATE CODE SEGMENT

AH = E7h

???

Return: ???

SeeAlso: AH=E8h"OS/286",AH=E9h"OS/286",AH=EAh"OS/286"

-----v-21E7-----

INT 21 - VIRUS - "Spyer"/"Kiev" - INSTALLATION CHECK

AH = E7h

Return: AH = 78h if resident

SeeAlso: AH=E4h"VIRUS",AX=EC59h

-----N-21E8-----

INT 21 O - Novell NetWare, Alloy NTNX - SET FCB RE-OPEN MODE

AH = E8h

DL = mode

00h no automatic re-open

01h auto re-open

Return: AL = error code

Desc: provided backward compatibility with a bug in CP/M and early DOS vers

Note: this function was added in NetWare 4.6, but was removed some time prior

to Advanced NetWare 2.15, and is no longer listed in current Novell

documentation

-----E-21E8-----

INT 21 - OS/286, OS/386 - SEGMENT CREATION

AH = E8h

AL = type

00h data segment
 01h data window/alias
 02h real segment
 03h real window/alias
 CX:DX = size in bytes
 SI:BX -> start of desired memory block
 Return: AX = selector
 06h shareable segment

???

Return: ???

SeeAlso: AH=E7h"OS/286",AH=E9h"OS/286"

-----T-21E8-----

INT 21 - DoubleDOS - SET/RESET KEYBOARD CONTROL FLAGS

AH = E8h

AL = program for which to set flags (00h this program, 01h other)

DX = keyboard control flags (see #02088)

Return: DX = previous flags

Notes: disabling Ctrl-PrtSc will allow the program to intercept the keystroke;

disabling any of the other keystrokes disables them completely

identical to AH=F8h

SeeAlso: AH=E1h"DoubleDOS",AH=E2h"DoubleDOS",AH=E3h"DoubleDOS"

SeeAlso: AH=F8h"DoubleDOS"

Bitfields for DoubleDOS keyboard control flags:

Bit(s) Description (Table 02088)

0 menu
 1 exchange
 2 entire keyboard enable/disable
 3 Ctrl-C
 4 Ctrl-PrtSc
 5 Alt/Erase
 6 Ctrl-Break
 7 Ctrl-NumLock
 8 shift-PrtSc
 9-13 undefined
 14 cancel key (clear keyboard buffer)
 15 suspend key

Note: setting a enables the corresponding key or operatin, clearing a
 disables it

-----E-21E9-----

INT 21 P - OS/286, OS/386 - CHANGE SEGMENTS

AH = E9h
 AL = function
 01h change code segment parameters
 02h change data segment parameters
 05h adjust segment limit
 06h change segment base address
 ???

Return: ???

SeeAlso: AH=E7h"OS/286",AH=E8h"OS/286",AH=EAh"OS/286",AH=EDh"OS/286"

SeeAlso: INT 31/AX=0007h,INT 31/AX=0008h

-----T-21E9-----

INT 21 - DoubleDOS - SET TIMESHARING PRIORITY

AH = E9h

AL = new priority (see #02089)

Return: AL = priority setting if AL=05h on entry

Note: identical to AH=F9h

SeeAlso: AH=EAh"DoubleDOS",AH=EBh"DoubleDOS",AH=F9h"DoubleDOS"

(Table 02089)

Values for DoubleDOS timesharing priority:

00h visible program gets 70%, invisible gets 30% (default)
 01h visible program gets 50%, invisible gets 50%
 02h visible program gets 30%, invisible gets 70%
 03h Top program gets 70%, bottom program gets 30%
 04h Top program gets 30%, bottom program gets 70%
 05h get current priority

-----N-21E900-----

INT 21 - Novell NetWare - DIRECTORY SERVICES - GET DIRECTORY HANDLE

AX = E900h

DX = drive number to check (0 = A:, ..., 25 = Z:, 26 ... 31)

Return: AL = directory handle

AH = flags (drive not mapped if none set)

 bit 0: permanent handle

 bit 1: temporary handle

 bit 7: mapped to local drive

Note: this function is supported by NetWare 4.0+, Advanced NetWare 1.0+, and

Alloy NTNX

SeeAlso: AH=E2h/SF=00h,AH=E2h/SF=01h,AH=E2h/SF=0Ah

-----v-21E900-----

INT 21 - VIRUS - "Dark End" - INSTALLATION CHECK

AX = E900h

Return: AX = 1234h if resident

SeeAlso: AX=DEFEH"VIRUS",AX=EC27h"VIRUS"

-----N-21E905-----

INT 21 - Novell NetWare shell 3.01 - MAP A FAKE ROOT DIRECTORY

AX = E905h

BL = drive number (0=default, 1=A:, ...)

DS:DX -> ASCIZ path for fake root (may include server name or be empty)

Return: CF set on error

AL = error code (03h,0Fh,11h) (see #01680 at AH=59h/BX=0000h)

CF clear if successful

Note: if drive is not currently mapped, a drive mapping will be created

SeeAlso: AX=E906h

-----N-21E906-----

INT 21 - Novell NetWare shell 3.01 - DELETE FAKE ROOT DIRECTORY

AX = E906h

BL = drive number (0=default, 1=A:, ...)

Return: AL = completion code

Note: drive remains mapped

SeeAlso: AX=E905h

-----N-21E907-----

INT 21 - Novell NetWare shell 3.01 - GET RELATIVE DRIVE DEPTH

AX = E907h

BL = drive number (0=default, 1=A:, ...)

Return: AL = number of directories below the fake root

FFh if no fake root assigned

SeeAlso: AX=E905h

-----N-21E908BL00-----

INT 21 - Novell NetWare shell 3.01 - SET SHOW DOTS

AX = E908h

BL = 00h don't return '.' or '..' during directory scans

= nonzero directory scans will return '.' or '..' entries

Return: BL = previous show-dots setting

-----N-21E909-----

INT 21 - Novell NetWare - NetWare shell - CONVERT DOS FILE HANDLE TO NETWARE

AX = E909h

BX = DOS file handle

Return: AX = 0000h if successful

BX:CX:DX = NetWare file handle

Notes: this function is partially a reverse of "AttachHandle" (AH=B4h)

many NetWare 3.x functions use a four-byte file handle, which appears

to be the high four bytes of the six-byte NetWare handle

SeeAlso: AH=B4h"NetWare"

-----N-21EA-----

INT 21 - Novell NetWare, Alloy NTNX - RETURN SHELL VERSION

AH = EAh

AL = return version environment string

00h don't return string

nonzero get environment string

ES:DI -> 40-byte buffer for string

Return: buffer filled with three null-terminated entries:

major operating system

version

hardware type

Return: AH = operating system (00h = MS-DOS)

AL = hardware type

00h IBM PC

01h Victor 9000

BH = major shell version

BL = minor shell version

CH = (v3.01+) shell type

00h conventional memory

01h expanded memory

02h extended memory

CL = shell revision number

Note: this function is supported by NetWare 4.6 and Advanced NetWare 1.0+

SeeAlso: INT DF"Victor"

-----T-21EA-----

INT 21 - DoubleDOS - TURN OFF TASK SWITCHING

AH = EAh

Return: task switching turned off

SeeAlso: AH=E9h"DoubleDOS",AH=EBh"DoubleDOS",AH=FAh"DoubleDOS"

SeeAlso: INT FA"DoubleDOS"

-----E-21EA-----

INT 21 - OS/286, OS/386 - ALLOCATE HUGE SEGMENT

AH = EAh

???

Return: ???

Note: protected mode only???

SeeAlso: AH=E7h"OS/286",AH=E8h"OS/286",AH=E9h"OS/286"

-----N-21EB-----

INT 21 - Novell NetWare - SYNCHRONIZATION SERVICES - LOG FILE

AH = EBh

```
DS:DX -> ASCIZ filename
if function C6h lock mode 01h:
    AL = flags
    00h log file only
    01h lock as well as log file
        BP = lock timeout in timer ticks (1/18 second)
        0000h = don't wait if file already locked
Return: AL = status (see #02090)
Desc: add the location and size of the specified file to the log table and
    optionally lock the file
Note: this function is supported by NetWare 4.6+, Advanced NetWare 1.0+, and
    Alloy NTNX
SeeAlso: AH=BCh"NetWare",AH=CAh,AH=D0h,AH=ECh"NetWare",AH=EDh"NetWare"
```

(Table 02090)

Values for NetWare status:

```
00h successful
96h no dynamic memory for file
FEh timed out
FFh failed
```

SeeAlso: #02053

-----T-21EB-----

INT 21 - DoubleDOS - TURN ON TASK SWITCHING

AH = EBh

Return: task switching turned on

SeeAlso: AH=E9h"DoubleDOS",AH=EAh"DoubleDOS",AH=FBh"DoubleDOS"

SeeAlso: INT FB"DoubleDOS"

-----E-21EB00-----

INT 21 - OS/386 VMM - GET A PAGE TABLE ENTRY BY LINEAR ADDRESS

AX = EB00h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=EB02h,AX=EB04h,INT 31/AX=0506h

-----E-21EB02-----

INT 21 - OS/386 VMM - GET A PAGE TABLE ENTRY BY 16-BIT SEGMENT:OFFSET

AX = EB02h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=EB00h,AX=EB04h

-----E-21EB03-----

INT 21 - OS/386 VMM - FREE MAPPED PAGES

AX = EB03h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=EB05h,INT 31/AX=0801h

-----E-21EB04-----

INT 21 - OS/386 VMM - GET A PAGE TABLE ENTRY BY 32-BIT SEGMENT:OFFSET

AX = EB04h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=EB00h,AX=EB02h

-----E-21EB05-----

INT 21 - OS/386 VMM - MAP PAGES

AX = EB05h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=EB03h,INT 31/AX=0800h

-----E-21EB06-----

INT 21 - OS/386 VMM - LOCK PAGES IN MEMORY

AX = EB06h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=EB07h,INT 31/AX=0600h

-----E-21EB07-----

INT 21 - OS/386 VMM - UNLOCK MEMORY PAGES

AX = EB07h

???

Return: ???

Note: protected mode only???

SeeAlso: AX=EB06h,INT 31/AX=0601h

-----N-21EC-----

INT 21 - Novell NetWare - SYNCHRONIZATION SERVICES - RELEASE FILE

AH = ECh

DS:DX -> ASCIZ filename

Return: AL = status

00h successful

FFh file not found

Desc: unlock the specified file but retain it in the log table

Note: this function is supported by NetWare 4.6+, Advanced NetWare 1.0+, and

Alloy NTNX

SeeAlso: AH=CDh,AH=EBh"NetWare",AH=EDh"NetWare"

-----T-21EC-----

INT 21 - DoubleDOS - GET VIRTUAL SCREEN ADDRESS

AH = ECh

Return: ES = segment of virtual screen

Desc: determine the address of the virtual screen to which the program
should write instead of the actual video memory, so that the
multitasked programs do not interfere with each other's output

Notes: screen address can change if task-switching is on!

identical to AH=FCh

SeeAlso: INT 10/AH=FEh,AH=FCh"DoubleDOS",INT FC"DoubleDOS"

-----E-21EC-----

INT 21 - OS/286, OS/386 - BLOCK TRANSFER

AH = ECh

???

Return: ???

-----v-21EC27-----

INT 21 - VIRUS - "Halloween.1839" - INSTALLATION CHECK

AX = EC27h

Return: AX = 4A52h ("JR") if resident

SeeAlso: AH=E7h"VIRUS",AX=E900h"VIRUS",AX=EC59h"VIRUS"

-----v-21EC59-----

INT 21 - VIRUS - "Terror" - INSTALLATION CHECK

AX = EC59h

Return: BP = EC59h if resident

SeeAlso: AX=EC27h"VIRUS",AH=EEh"VIRUS"

-----N-21ED-----

INT 21 - Novell NetWare - SYNCHRONIZATION SERVICES - CLEAR FILE

AH = EDh

DS:DX -> ASCIZ filename

Return: AL = status

00h successful

FFh no files found

Desc: unlock the file and remove it from the log table

Note: this function is supported by NetWare 4.6+, Advanced NetWare 1.0+, and

Alloy NTNX

SeeAlso: AH=CBh"NetWare",AH=CEh,AH=CFh,AH=EBh"NetWare",AH=ECh"NetWare"

-----E-21ED-----

INT 21 - OS/286, OS/386 - GET SEGMENT OR WINDOW DESCRIPTOR

AH = EDh

???

Return: ???

Note: protected mode only???

SeeAlso: AH=E9h"OS/286"

-----N-21EE-----

INT 21 - Novell NetWare - CONNECTION SERVICES - GET PHYSICAL STATION ADDRESS

AH = EEh

Return: CX:BX:AX = six-byte physical address

Note: this function is supported by NetWare 4.6+, Advanced NetWare 1.0+, and

Alloy NTNX

SeeAlso: AH=E3h/SF=13h

-----T-21EE-----

INT 21 - DoubleDOS - GIVE AWAY TIME TO OTHER TASKS

AH = EEh

AL = number of 55ms time slices to give away

Return: returns after giving away time slices

SeeAlso: AH=FEh"DoubleDOS",INT FE"DoubleDOS"

-----v-21EE-----

INT 21 - VIRUS - "Jerusalem-G", "Pregnant", "Barrotes" - INSTALLATION CHECK

AH = EEh

Return: AX = 0300h if "Jerusalem-G" resident

AL = 05h if "Pregnant" resident

AL = FEh if "Barrotes" resident

SeeAlso: AH=DDh"VIRUS",AX=EC59h,AX=EEE7h"VIRUS"

-----v-21EEE7-----

INT 21 - VIRUS - "GingerBread" - INSTALLATION CHECK

AX = EEE7h

Return: AX = D703h if installed

SeeAlso: AH=EEh"VIRUS",AH=EFh"VIRUS"

-----v-21EF-----

INT 21 - VIRUS - "Mabuhay"/"June 12th" - INSTALLATION CHECK

AH = EFh

Return: AX = 025Bh if resident

SeeAlso: AX=EC27h"VIRUS",AH=EEh"VIRUS",AH=F0h"VIRUS"

-----N-21EF00-----

INT 21 - Novell NetWare - WORKSTATION - GET DRIVE HANDLE TABLE

AX = EF00h

Return: ES:SI -> network shell's 32-byte drive handle table

AX = 0000h

Notes: this function is supported by Advanced NetWare 1.0+
each byte in the drive handle table contains the directory handle for
the corresponding drive, or 00h if not mapped to a directory

SeeAlso: AX=EF01h,AX=EF02h,AX=EF03h,AX=EF04h

-----N-21EF01-----

INT 21 - Novell NetWare - WORKSTATION - GET DRIVE FLAG TABLE

AX = EF01h

Return: ES:SI -> network shell's 32-byte drive flag table (see #02091)

AX = 0000h

Notes: this function is supported by Advanced NetWare 1.0+
each byte in the drive flag table corresponds to a drive

SeeAlso: AX=EF00h,AX=EF02h,AX=EF03h

(Table 02091)

Values in NetWare drive flag table:

00h drive is not mapped
01h permanent network drive
02h temporary network drive
80h mapped to local drive
81h local drive used as permanent network drive
82h local drive used as temporary network drive

-----N-21EF02-----

INT 21 - Novell NetWare - WORKSTATION - GET DRIVE CONNECTION ID TABLE

AX = EF02h

Return: ES:SI -> network shell's 32-byte drive connection ID table

AX = 0000h

Notes: this function is supported by Advanced NetWare 1.0+
each byte in the connection ID table corresponds to a drive and
contains either the connection ID (1-8) of the server for that drive
or 00h if the drive is not mapped to a file server

SeeAlso: AX=EF01h,AX=EF03h,AX=F002h

-----N-21EF03-----

INT 21 - Novell NetWare - WORKSTATION - GET CONNECTION ID TABLE

AX = EF03h

Return: ES:SI -> network shell's connection ID table (see #02092)

AX = 0000h

Note: this function is supported by Advanced NetWare 1.0+

SeeAlso: AX=EF00h,AX=EF02h,AX=EF04h,AX=F002h

Format of NetWare connection ID table [one entry of eight-element array]:

Offset Size Description (Table 02092)

00h BYTE in-use flag
 E0h AES temporary
 F8h IPX in critical section
 FAh processing
 FBh holding
 FCh AES waiting
 FDh waiting
 FEh receiving
 FFh sending

01h BYTE order number assigned to server (1-8)
 02h DWORD (big-endian) file server's network address
 06h 6 BYTES (big-endian) file server's node address
 0Ch WORD (big-endian) socket number
 0Eh WORD (big-endian) base receive timeout in clock ticks
 10h 6 BYTES (big-endian) preferred routing node
 16h BYTE packet sequence number
 17h BYTE connection number (FFh = no connection)
 18h BYTE connection status (00h if active)
 19h WORD (big-endian) maximum receive timeout in clock ticks
 1Bh WORD connection number (if > FAh)
 1Dh BYTE major version of NetWare
 1Eh BYTE minor version of NetWare
 1Fh BYTE server flags
 bit 0: server is burst enabled

-----N-21EF04-----

INT 21 - Novell NetWare - WORKSTATION - GET FILE SERVER NAME TABLE

AX = EF04h

Return: ES:SI -> network shell's file server name table (see #02093)

AX = 0000h

Note: this function is supported by Advanced NetWare 1.0+

SeeAlso: AX=EF03h

Format of file server name table:

Offset Size Description (Table 02093)

00h 48 BYTES ASCIZ server name for first entry in connection ID table
 30h 48 BYTES ASCIZ server name for second entry in connection ID table
 ...
 150h 48 BYTES ASCIZ server name for eighth entry in connection ID table

-----T-21F0-----

INT 21 - DoubleDOS - MENU CONTROL

AH = F0h
AL = subfunction
 01h exchange tasks
 73h resume invisible job if suspended
 74h kill other job
 75h suspend invisible job

Note: identical to AH=E0h

SeeAlso: AH=E0h"DoubleDOS"

-----v-21F0-----

INT 21 - VIRUS - "Frere Jacques" - INSTALLATION CHECK

AH = F0h

Return: AX = 0300h if resident

SeeAlso: AH=EEh"VIRUS",AX=F078h"VIRUS"

-----N-21F000-----

INT 21 - Novell NetWare - WORKSTATION - SET PREFERRED CONNECTION ID

AX = F000h

DL = connection ID of preferred file server (1-8) or 00h for none

Notes: this function is supported by Advanced NetWare 1.0+

the preferred connection ID is set to 00h by the shell on EOJ

SeeAlso: AH=D6h,AX=EF03h,AX=F001h,AX=F002h,AX=F005h

-----N-21F001-----

INT 21 - Novell NetWare - WORKSTATION - GET PREFERRED CONNECTION ID

AX = F001h

Return: AL = connection ID of preferred file server (1-8), 00h if not set

Notes: this function is supported by Advanced NetWare 1.0+

the preferred connection ID is set to 00h by the shell on EOJ

SeeAlso: AH=D6h,AX=EF03h,AX=F000h,AX=F002h,AX=F005h

-----N-21F002-----

INT 21 - Novell NetWare - WORKSTATION - GET DEFAULT CONNECTION ID

AX = F002h

Return: AL = connection ID of current default file server (1-8) (see AX=EF03h)

Note: this function is supported by Advanced NetWare 1.0+

SeeAlso: AX=EF03h,AX=F000h,AX=F004h

-----N-21F003-----

INT 21 - Novell NetWare - PRINT SERVICES - GET LPT CAPTURE STATUS

AX = F003h

Return: AH = status

 00h not active

 FFh active

AL = connection ID (01h-08h)

Note: this function is supported by Advanced NetWare 1.0+

SeeAlso: AX=B800h,AX=B804h,AH=DFh/DL=00h,AH=DFh/DL=04h

-----N-21F004-----

INT 21 - Novell NetWare - WORKSTATION - SET PRIMARY CONNECTION ID

AX = F004h

DL = connection ID of primary file server (1-8) or 00h for none

Note: this function is supported by Advanced NetWare 2.0+

SeeAlso: AH=D6h,AX=EF03h,AX=F000h,AX=F002h,AX=F005h

-----N-21F005-----

INT 21 - Novell NetWare - WORKSTATION - GET PRIMARY CONNECTION ID

AX = F005h

Return: AL = connection ID of primary file server (1-8), 00h if not set

Notes: this function is supported by Advanced NetWare 2.0+

by default, the primary file server is the one from which the login script executed; it is set to 00h if the workstation is not logged in and when it detaches from its primary file server

SeeAlso: AH=D6h,AX=EF03h,AX=F000h,AX=F002h,AX=F004h

-----v-21F078-----

INT 21 - VIRUS - "Burgler/H" - INSTALLATION CHECK

AX = F078h

Return: AX = 0000h if installed

SeeAlso: AH=F0h"VIRUS",AH=F1h"VIRUS"

-----N-21F1-----

INT 21 - Novell NetWare - CONNECTION SERVICES - FILE SERVER CONNECTION

AH = F1h

AL = subfunction

00h attach to file server

DL = preferred file server (01h-08h)

01h detach from file server

DL = connection ID

02h logout from file server

DL = connection ID

Return: AL = status (see #02094)

Note: these functions are supported by Advanced NetWare 1.0+

SeeAlso: AH=D7h"NetWare",AH=E3h/SF=14h

(Table 02094)

Values for NetWare function status:

00h successful

F8h already attached to server

F9h connection table full

FAh no more server slots

```
FCh unknown file server
FEh server bindery locked
FFh no response from server, or connection does not exist
```

SeeAlso: #02053,#02350

-----T-21F1-----

```
INT 21 - DoubleDOS - CLEAR KEYBOARD BUFFER FOR CURRENT JOB
    AH = F1h
```

SeeAlso: AH=E1h"DoubleDOS",AH=F2h"DoubleDOS",AH=F3h"DoubleDOS"

SeeAlso: AH=F8h"DoubleDOS"

-----v-21F1-----

```
INT 21 - VIRUS - "F1-337" - ???
```

```
    AH = F1h
```

```
    ???
```

Return: ???

SeeAlso: AH=F0h"VIRUS",AX=F1E9h

-----v-21F1E9-----

```
INT 21 - VIRUS - "Tremor" - INSTALLATION CHECK
```

```
    AX = F1E9h
```

Return: AX = installation state

```
    CADEh installed, and calling program is infected
```

```
    F100h not installed (normal DOS return value)
```

```
    else installed, but calling program is not infected
```

SeeAlso: AH=F1h"VIRUS",AX=F2AAh

-----!---Section-----