NOVELL TECHNICAL INFORMATION DOCUMENT

TITLE: Updated VLMs (1.20A) and ODI drivers
README FOR: VLMUP3.EXE

NOVELL PRODUCTS and VERSIONS:
NetWare Client for DOS/MS Windows 1.2

ABSTRACT:

Contains updated DOS client files. This file includes the v1.20A NetWare DOS Requester
(VLMs), NetBIOS, DOS client files, and MLID drivers. This is an update to the NetWare Client
for DOS/MS Windows that ships with NetWare v3.12 and v4.x, or is purchased separately. The
entire client kit can be downloaded - including these updates - from Novfiles\client.kit\vlms.

SYMPTOM:

   1.   Unnecessary traffic on LAN/WAN caused by w/s having castoff /all or send /a=n enabled
when a message is sent from console. With message reception disabled at w/s, if a message is
sent from the server, the server sends a packet every 2 seconds to the client   attempting to
notify the node that a message is waiting. The 1.20A VLMs now check to see if message
reception has been disabled, and if it has, instructs the server to forward the message to the w/s.
The VLMs then discard the message without displaying it. This empties the message queue at
the server and the server no longer sends the   notification packet to the w/s every 2 seconds.

   2.   Problem with icon is startup folder. If the executable an icon in the startup folder
references is not available when Windows initializes, Windows can become unstable.

   3.   A caching problem with the VLMs in isolated cases can cause a read to return corrupt
data.

   4.   Lock Delay and Lock Retries code was not being called in some cases. The net.cfg
parameters Lock Delay and Lock Retries will force the client to retry locking a file in the event
the file is already locked by a different user. Users had correctly configured the Lock Delay and
Lock Retries entries in the net.cfg yet the retries did not occur and the critical error of "Sharing
violation on device NETWORK" was returned immediately.

5.   Int 21 function 69 returns a serial number identifying the local volume (hard disk). The function guarantees this value will be returned on local devices, but states the function is not required of network drives. The VLMs will now return a serial number   identifying the server volume if the function 69 is called.

6.   In the following configuration: VLMs, VDSK.SYS and First Network Drive=m, the error "System Error. Cannot read from drive I. Cancel Retry." is returned for each drive between the last local drive and the First Network Drive when NWUser is run. The error is cosmetic.

7.   A w/s could hang in Windows when the same NetWare aware application was running in 2 or more DOS boxes and task switching between the sessions.

8.   Executing Net Down in Personal NetWare would cause the following error to be displayed:

        "VLM-120-31: Network error on server {servername}"
        "Check network cabling or server status."
        "Abort, Retry, Fail ?"

9.   Problems allocating permanent directory handles after allocating temporary directory handles.

10.   A caching problem could cause poor performance in isolated cases.

11.   Applications that use DOS system devices such as AUX and PRN experienced problems when running from the network.   Many applications print by writing to the system device PRN, LPT1, etc. If the application attempts to write to PRN or LPT1 everything is   fine. However, if they attempt to write to f:prn, the request will fail unless the port is captured. DOS receives the request, starts parsing the line, and passes the request to the VLMs when it sees the network drive letter. If the port is not captured, the VLMs   return the request to DOS because the VLMs recognize the application wants to write to a system device which DOS controls. Since DOS does not parse past the network drive letter, DOS does not realize the write is destined for a system device it controls and the   application eventually returns an error. The 1.20A VLMs will now support the 5 standard DOS Handles DOS initializes. They are as follows:

Handle	Device Name	Device Description
0	con	Standard input device
1	con	Standard output device
2	con	Standard error output device
3	aux	Auxiliary (serial i/o) device
4	PRN	Standard listing device (printer)

        LPT1 and NULL are also supported. The VLMs will now strip off any reference to a network drive when a request using one of the previously listed devices is forwarded from DOS, then send the request back to DOS. If your application still fails, it may be   using a device

other than those listed above. In that case, you must discover why a network drive is being placed before the device, and modify your application to prevent this.

SOLUTION:

Apply VLMUP3.EXE.

This is an update to the NetWare Client for DOS/MS Windows that ships with NetWare v3.12 and v4.x, or is purchased separately. If you are using 3.11 or 2.x and do not have the complete client kit, you can purchase a site license for $99.00 (US dollars) by going into the NOVFILES forum\Client Kits\Order DOS/Windows client (v1.20) - you will be asked for a credit card number. You can also call 1-800-UPDATE1 and order the "NetWare Client for DOS/MS Windows v1.20" - part number 00662644024943. Or you can download the entire client kit, including the latest updates from NOVFILES\ CLIENT.KIT\VLMS.

Files marked with '^' have been updated since VLMUP2.EXE.

   NOTE: When you expand VLMUP3.EXE, it will automatically create two sub-directories: ODIDRV which contains the latest MLID drivers and related files, and VLMS which contains the latest VLMs (v1.20A).

Self-Extracting File Name: VLMUP3.EXE   Revision: A

Files Included   Size   Date   Time

\
 VLMUP3.TXT   (This File in text format)
 VLMUP3.WPD   (This File in WordPerfect 5.1 format)
 VLMUP3.WRI   (This File in Windows Write format)
 ODIINFO.DOC   24499   12-09-92   2:43p
 VLMUP3IT.TXT   28753   06-02-95   2:34p
\ODIDRV\
 NE2.COM   22291   04-06-95   10:22a ^
 NE2.INS   330   10-06-94   9:32a
 DOSNP.EXE   10757   09-01-94   10:49a
 INT2F.COM   640   07-28-88   11:48a
 PCN2L.COM   21294   04-28-93   1:12p
 ROUTE.COM   4919   02-23-95   12:50p ^
 TOKEN.COM   27381   04-12-93   6:27p
 LANSUP.COM   23339   04-06-95   10:29a ^
 LANSUP.INS   821   10-06-94   9:24a
 NE2_32.COM   21980   04-06-95   10:23a ^
 NE2_32.INS   309   10-06-94   10:00a
 NE1000.COM   21790   04-06-95   10:21a ^

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  NE1000.INS          515        10-06-94      8:52a
  NE2000.COM          23472      05-04-95      9:44a  ^
  NE2000.INS          961        10-06-94      8:47a
  NE2100.COM          31203      04-06-95     10:24a  ^
  NE2100.INS          577        10-06-94      9:06a
  NE3200.COM          28566      04-06-95     10:26a  ^
  NE3200.INS          538        10-06-94     10:03a
  RPLFIX.COM          1838       06-30-93     10:56p
  RPLFIX.TXT          2255       02-21-91      2:47p
  RPLODI.COM          1652       03-21-91      2:24p
  TRXNET.COM          20979      04-06-95     10:28a  ^
  TRXNET.INS          536        10-06-94      9:20a
  NE1500T.COM         31205      04-06-95     10:24a  ^
  NE1500T.INS         583        10-06-94      9:04a
  NETBIOS.EXE         24482      04-10-95     12:15p  ^
  NTR2000.COM         26847      04-06-95     10:27a  ^
  NTR2000.INS         616        10-07-94      3:17p
  ODINSUP.COM         34298      04-06-95     10:29a  ^
  ODINSUP.DOC         44764      10-04-94      2:24p
\VLMS\
  FIO.VLM             18250      06-16-95     12:41p ^
  LSL.COM             18285      04-17-95     10:30a ^
  LSL.MSG             3551       04-17-95     10:29a ^
  NDS.VLM      8533              06-16-95     12:40p ^
  NMR.MSG             620        06-05-95      1:19p ^
  NMR.VLM             9874       06-16-95     12:40p ^
  NWP.VLM      6661              06-16-95     12:40p ^
  PNW.VLM      10124             06-16-95     12:40p ^
  RSA.VLM             18913      06-16-95     12:41p ^
  VLM.EXE             37651      06-16-95     12:39p ^
  AUTO.VLM            4543       06-16-95     12:40p ^
  BIND.VLM            4713       06-16-95     12:40p ^
  CONN.VLM            10850      06-16-95     12:40p ^
  NETX.VLM            17230      06-16-95     12:41p ^
  TRAN.VLM            1562       06-16-95     12:40p ^
  PRINT.VLM           8005       06-16-95     12:40p ^
  REDIR.VLM           14842      06-16-95     12:40p ^
  IPXNCP.VLM          10116      06-16-95     12:40p ^
  IPXODI.COM          39353      10-31-94      4:35p
  IPXODI.MSG          4089       09-15-94      4:02p
  NETCFG.TXT          14897      12-13-94     12:40p
  PACKET.SIG          3720       01-20-94     10:31a
  GENERAL.VLM         4958       06-16-95     12:41p ^
  DOSRQSTR.MSG        9600       06-05-95      1:14p ^
  RXMONSTK.COM 11605             04-06-95     10:35a ^
  RXMONSTK.MSG 2548              04-06-95     10:31a ^
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SECURITY.VLM   8011   06-16-95   12:40p ^

INSTALLATION INSTRUCTIONS

The following is a matrix that identifies which files you need to download to update your workstation. When the VLMs are referenced - the assumption is made that you have already installed the VLMS with the client kit that is provided with the NetWare products 4.X and 3.12. If you are using NetWare 3.11 or NetWare 2.x and do not have the complete client kit, you can purchase a site license for $99.00 (US dollars) by entering the NOVFILES forum \Client Kits\ Order DOS/Windows client (v1.20) you will be asked for a credit card number. You can call 1-800-UPDATE1 and order the "NetWare Client for DOS/MS Windows v1.20" - part number 00662644024943. Or you can download the entire client kit, including the latest updates, from NOVFILES\CLIENT.KIT\VLMS.

Version of NetWare on file server

W/s configuration	v2.x/v3.x/PNW @	v4.02	v4.10
Netx with dedicated IPX (IPX.COM) strictly DOS	NET33x.EXE VLMUP3.EXE	NET33X.EXE VLMUP3.EXE	NET33X.EXE VLMUP3.EXE
Netx with dedicated IPX with Windows	NET33X.EXE WINDR2.EXE VLMUP3.EXE	NET33X.EXE WINDR2.EXE VLMUP3.EXE	NET33X.EXE WINDR2.EXE VLMUP3.EXE
Netx with ODI and strictly DOS	NET33X.EXE VLMUP3.EXE	NET33X.EXE VLMUP3.EXE	NET33X.EXE VLMUP3.EXE
Netx with ODI and Windows	NET33X.EXE WINDR2.EXE NWDLL2.EXE VLMUP3.EXE	NET33X.EXE WINDR2.EXE NWDLL2.EXE VLMUP3.EXE	NET33X.EXE WINDR2.EXE NWDLL2.EXE VLMUP3.EXE
VLMs with ODI and strictly DOS	VLMUP3.EXE	VLMUP3.EXE	VLMUP3.EXE
VLMs with ODI and Windows	VLMUP3.EXE WINDR2.EXE NWDLL2.EXE	VLMUP3.EXE WINDR2.EXE *	VLMUP3.EXE **

*   The dynamic link libraries (*.dll) that you need are dependent upon the version of NWADMIN.EXE that you run. If you are using the NWADMIN.EXE that comes with 4.02 (NWADMIN.EXE 5-12-94 v4.06) you will need to use the client files that come with NetWare v4.02. That client kit contains the DLLs that correspond to the 4.06 version of NWADMIN.EXE. The v4.06 NWADMIN will not run if the workstation has the DLLs from this file loaded.

**   The drivers contained in WINDR2.EXE, and NWDLL2.EXE are the same as the files that ship with NetWare v4.10.

@   Personal NetWare works only with VLMs (you cannot use NETX).

UPDATING A WORK STATION WHICH HAS THE NETWARE DOS REQUESTER ALREADY INSTALLED.

Make a backup of any files currently on your workstation that appear in the list below.

FOR THE FILES IN THE SUB-DIRECTORY VLMS IN THE VLMUP3.EXE FILE:

Copy the following files to the workstation's NWCLIENT directory:

    LSL.COM
    IPXODI.COM
    AUTO.VLM
    BIND.VLM
    CONN.VLM
    FIO.VLM
    GENERAL.VLM
    IPXNCP.VLM
    NDS.VLM
    NETX.VLM
    NWP.VLM
    PRINT.VLM
    REDIR.VLM
    RSA.VLM
    SECURITY.VLM
    TRAN.VLM
    VLM.EXE

Copy the following files to the NWCLIENT\NLS\ENGLISH directory:

    DOSRQSTR.MSG

IPXODI.MSG
        LSL.MSG
        NMR.MSG

   Make sure you have LASTDRIVE=Z in the workstation's CONFIG.SYS file.

FOR THE FILES IN THE SUB-DIRECTORY ODIDRV IN THE VLMUP3.EXE FILE:

   Copy the updated MLID and any other needed driver to the workstation's NWCLIENT
directory and reboot to load the new drivers. If the MLID you are using is not in this file, you
should contact the manufacturer of the card for an updated driver. A listing of the Novell
certified DOS ODI drivers can be obtained by calling the Novell Labs Faxback System at   (800)
414-LABS. DOC# 10043 is a listing of all the certified MLIDs, the Master Index Catalog
contains a listing and description of all documents on the system.

UPDATING THE ORIGINAL CLIENT DISKETTES OR THE
SYS:PUBLIC\CLIENT\DOSWIN DIRECTORY ON THE SERVER

   Copy the updated files from this file to the corresponding location on the diskettes or in the
network directory. If the original files are compressed (*.co_) - delete the compressed file and
put the updated files in its place. The client install will use the files that are not compressed if
the compressed files are not present. The *.ins files in this file are used by the client install to
customize the NET.CFG for the corresponding MLID.

 Frame types

   The following drivers included in this ZIP file now default to the 802.2 frame type. When
using these drivers, it is necessary to either use the 802.2 frame type on your server tor change
the frame type for the workstation in your workstation's NET.CFG file.

        NE1000   COM
        NE1500T   COM
        NE2   COM
        NE2000   COM
        NE2100   COM
        NE2_32   COM
        NE3200   COM

If you wish to continue to use the 802.3 frame type, place the following two lines in the
NET.CFG file:

     Link Driver <drivername>

Frame Ethernet_802.3

If you were using the NE2000.COM driver, you would replace <drivername>
with NE2000. Be sure to indent the second line and place a carriage
return after the second line.

NTR2000.COM and TOKEN.COM

The NTR2000.COM driver can be used in place of TOKEN.COM.

RXMONSTK.COM

Due to an architecture change, programs like Lanalyzer and the Intel
LanDesk may not run with the new MLIDs (NE2000.COM) in this file
without loading a SHIM. RXMONSTK.COM is a shim that will allow a
program that uses the "Receive Monitor Stack" to function (ie Lanalyzer).
In the past the Receive Monitor Stack was built into the MLID - but this
was very inefficient and caused high overhead. The decision was made
to take it out of the MLID and an increase in performance resulted.
Because of this change, applications like Lanalyzer need to be modified.
Lanalyzer for Windows has been modified to work with this new
architecture, the update can be downloaded from NOVLIB\08 - the file
name is LZW002.COM. Applications such as LanDesk (and older versions
of Lanalyzer for Windows) that use the receive monitor stack may not
have been updated at this time and will require the shim to be loaded.

Since modifications such as this takes time, Novell has provided the
RXMONSTK.COM as a migration tool until the Monitor programs like
LanDesk can be updated. This new architecture was not released to
developers until October 1994. If you have a driver prior to that
date, you should not need to load RXMONSTK.COM. If you have a driver
that is dated after August 1994 you may need to load the shim.
The symptom that indicates the need for RXMONSTK is the application
(such as LanDesk) will load, but does not appear to be receiving any
packets.

The load order that should be used is as follows:

  LSL
  RXMONSTK
  MLID
  IPXODI
  VLM

If you need to use this shim - copy RXMONSTK.COM from \VLMS to the

NWCLIENT directory and the RXMONSTK.MSG from \VLMS to the NWCLIENT\NLS\ENGLISH directory.

The RXMONSTK.COM file has not been certified with any 32 bit drivers - including the NE3200 and NE2_32. Workstations hanging while running the application that uses the Receive Monitor Stack is the most common symptom. Novell does not recommend using the RXMONSTK.COM with a 32 bit driver. If you have a 32 bit driver and need to run an application that uses the Receive Monitor Stack (Lanalyzer for Windows), Novell recommends using the old MLID which does not require RXMONSTK.COM. The older MLID can be used in conjunction with the updated LSL.COM, IPXODI.COM, and the updated VLMs in this file.

Brief Description of the files included in the kit:

ODIDRV

DOSNP.EXE:	NetWare DOS NP Extender
INT2F.COM:	Novell Network BIOS Interrupt 2Fh Emulator
LANSUP.COM:	IBM LAN Support MLID
LANSUP.INS:	IBM LAN Support Instruction file for Client Install
NE1000.COM:	Novell NE1000 Ethernet MLID
NE1000.INS:	Novell NE1000 Instruction file for Client Install
NE1500T.COM:	Novell NE1500T Ethernet MLID
NE1500T.INS	Novell NE1500T Instruction file for Client Install
NE2.COM:	Novell NE2 Ethernet MLID
NE2.INS:	Novell NE2 Instruction file for Client Install
NE2_32.COM:	Novell NE2-32 Ethernet MLID
NE2_32.INS:	Novell NE2_32 Instruction file for Client Install
NE2000.COM:	Novell NE2000 Ethernet MLID
NE2000.INS:	Novell NE2000 Instruction file for Client Install
NE2100.COM:	Novell NE2100 Ethernet MLID
NE2100.INS:	Novell NE2100 Instruction file for Client Install
NE3200.COM:	Novell NE3200 Ethernet MLID
NE3200.INS:	Novell NE3200 Instruction file for Client Install
NETBIOS.EXE:	Novell NetBIOS Emulation Package
NTR2000.COM:	Novell NTR2000 Token-ring MLID
NTR2000.INS:	Novell NTR2000 Instruction file for Client Install
ODINSUP.COM:	ODI Support Interface for NDIS
PCN2L.COM:	IBM PC Network II & II/A MLID
ROUTE.COM:	NetWare Source Routing Driver
RPLFIX.COM:	NetWare Boot Disk Image Patch Program
RPLODI.COM:	Novell RPL ODI
TOKEN.COM:	IBM Token-Ring MLID
TRXNET.COM:	Novell Turbo RxNet & RxNet/2 MLID

TRXNET.INS: Novell TRXNET Instruction file for Client Install

VLMs

AUTO.VLM: NetWare auto-reconnect module
BIND.VLM: NetWare bindery protocol module
CONN.VLM: NetWare connection table manager
DOSRQSTR.MSG: NetWare DOS Requester message file (english)
FIO.VLM: NetWare file input-output module
GENERAL.VLM: NetWare general purpose function module
IPXNCP.VLM: NetWare IPX transport module
IPXODI.COM: NetWare IPX/SPX Protocol

(No further development is being done on IPX.OBJ. Novell recommends you use the ODI client software. See ODIINFO.DOC for details.)

IPXODI.MSG: NetWare IPXODI Message file (english)
LSL.COM: NetWare Link Support Layer
LSL.MSG: NetWare LSL Message file (english)
NDS.VLM: NetWare directory services protocol module
NETX.VLM: NetWare workstation shell module
NMR.VLM: NetWare Management Responder module
NMR.MSG: NetWare NMR Message file (english)
NWP.VLM: NetWare protocol multiplexor module
PRINT.VLM: NetWare printer redirection module
PNW.VLM: Personal NetWare protocol module
REDIR.VLM: NetWare DOS redirecter module
RSA.VLM: NetWare RSA authentication module
RXMONSTK.COM   Novell Receive Monitor Stack Shim
RXMONSTK.MSG   NetWare RXMONSTK Message file (english)
SECURITY.VLM: NetWare security enhancement module
TRAN.VLM: NetWare transport multiplexor module
VLM.EXE: NetWare virtual loadable module manager

Brief Description of the document files included in the kit:

VLMUP3.TXT: This file in ASCII text format
VLMUP3.WRI: This file in Windows Write format
VLMUP3.WPD: This file in WordPerfect 5.1 format

This README file accompanies VLMUP2.EXE which comprises DOS client files for NetWare v4.x, v3.x, v2.2x and v2.1x operating systems.

ODIINFO.DOC: Discussion on why Novell is promoting ODI
ODINSUP.DOC: Info and configuration examples for ODINSUP

PACKET.SIG:	Info on Packet Signature and parameters
RPLFIX.DOC:	Information on how and when to run RPLFIX
NETCFG.DOC:	Information on net.cfg parameters

General Information

PACKET BURST:

BNETX.EXE has been deleted from the client update due to a rare problem which can result in data corruption.

For Packet Burst support at the client, the workstation will need to be upgraded to the NetWare DOS Requester (VLM) technology. v1.20A VLMs have Packet Burst and Large Internet Packets enabled by default.

For v3.12 and v4.x NetWare, Packet Burst and Large Internet Packets are enabled by default in the O/S, and do not require or use PBURST.NLM v3.11 servers need PBURST.NLM loaded to support Packet Burst and LIP NCP calls. To turn Large Internet Packets off at a 3.11 server with PBURST.NLM loaded, or at a 3.12 or 4.x server, at the server console   type: Allow LIP=OFF

PBURST.NLM (for 3.11) and the patches for 3.12 and 4.x can be downloaded in the file PBURST.EXE from NOVLIB\05.

November 1993 NetWare Application Notes has an article comparing packet burst under BNETX vs VLMs.

December 1993 NetWare Application Notes has an article with a sample packet burst configuration for VSAT satellite links.

DOSNP.EXE:

This is the Named Pipes Extender for DOS. It allows you to run Named Pipes applications under DOS.

Novell Named Pipe Route Enhancements

DOS Clients:

The default has been changed to not maintain a local Named Pipe server router table. When a request for a DosOpen, DosWaitNmPipe, or DosCallNmPipe is received the protocol will query the network for the whereabouts of the Named Pipe server specified. This means NCP services must be available i.e. NETX.EXE or VLM's must be loaded before

DOSNP.EXE

The following parameters can be used in the Net.cfg to configure Dosnp.exe.

NP Max Machine Names = n where n is a number between 4 and 50. Replace n with how many named pipe servers you want in the table. (This statement in the Net.cfg will make the client maintain a local Named Pipe server router table.) (Not to be used in conjunction with NP Max Sessions) Default is 10

NP Max Sessions = n where n is a number between 4 and 50. Replace n with the number of Named Pipe servers you want to communicate with at once from the remote router. (Not to be used in conjunction with NP Max Machine Names) Default is 10

NP Max Open Named Pipes = n where n is a number between 4 and 128. Replace n with the maximum number of named pipes that can be opened at once. Default is 4

RPLFIX.COM:

RPLFIX is used to allow workstations to remote program load (RPL) properly with MS DOS 5.x and above. This utility must be run after the boot image file (usually NET$DOS.SYS) has been created using the DOSGEN utility. RPLFIX will directly modify the boot image file; the boot image file's size and last modified date will be different after RPLFIX has been run. RPLFIX only needs to be run against the boot image file once. Attempts to run RPLFIX against an already modified boot image file are detected by the utility, and no further modifications will be made to the boot image file.

Follow the instructions for DOSGEN (setting up remote reset workstations) in the Novell reference manuals. For NetWare v2.x, this information can be found in Chapter 9 of the "Supervisor Guide", or Chapter 2 of the "Using the Network" manual. For NetWare v3.x, this information is found in Appendix D of the Installation manual. After performing all steps as outlined in the appropriate manual to create the boot image file, run RPLFIX.COM. The remote workstation will likely hang during the reset process if you are resetting using DOS 5.x or above and the boot image file has not been modified by RPLFIX.

After you have located RPLFIX.COM, map a drive to the LOGIN subdirectory on the file server you wish to remote reset from. The DOSGEN procedure instructed you to create a boot image file in that subdirectory (usually named NET$DOS.SYS). If the drive you mapped to SYS:LOGIN was drive F, then you would enter the following:

RPLFIX F:NET$DOS.SYS <ENTER>

RPLFIX only needs to be run if the version of DOS loaded on the floppy disk used with DOSGEN is 5.x or greater. Earlier versions of DOS do not require that this utility be run.

NOTE: If you renamed your boot image file, then you must use the new filename with RPLFIX:

    RPLFIX [f:]<boot image file> <ENTER>

where [f:] is the drive letter where the image file is located, and <boot image file> is the name of the file created with the DOSGEN utility.

RPLODI.COM

How and When to Use RPLODI.COM

When a user has the traditional Novell Remote Boot PROM that sends a Get-Nearest-Server packet to connect to the server, the workstation will hang after the MLID (such as \ NE2000.COM) loads. Use RPLODI.COM only with Novell Remote Boot PROMS, and ensure it is loaded before the MLID.

Use RPLODI.COM only with the older Novell Remote Boot PROMS. Do not use RPLODI.COM with IBM RPL PROMS or the new Novell "Enhanced" Boot PROMS. The RPLODI.COM intelligence was built-into the following files:

TOKEN.RPL
ETHER.RPL
PCN2L.RPL
F1ETH.RPL
RBOOT.RPL

which are used by the IBM RPL and the Enhanced Novell Boot PROMS. For Novell Remote Boot PROMS, RPLODI.COM is implemented as shown in the following AUTOEXEC.BAT, and RPLODI.COM must load before NE2000.COM (the MLID driver):

LSL
RPLODI
NE2000
IPXODI
VLM

To obtain the drivers necessary to run with NETX.EXE instead of the VLMS you should download NET33X.EXE from CompuServe.

To obtain the latest Windows drivers for workstations running the VLMs you should download WINDRx.EXE and NWDLLx.EXE.

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Any comments or suggestions on how we can improve the delivery of these client update files
are welcomed. Any enhancement request to these drivers are welcomed at the same address.
Please send your responses to enhclient@novell.com via Internet Mail.

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your product manuals for complete trademark information.