Novell NetWare 6

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Novell Licensing Services Frequently Asked Questions March 2002

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NetWare Licensing Frequently Asked Questions (FAQ)

- "What is the new Licensing Model for NetWare 6?" on page 6
- "How does User Access Licensing differ from earlier versions of NetWare?" on page 7
- "What is the difference between NetWare 5 licenses and NetWare 6 licenses?" on page 7"Why did Novell change to User Access Licensing?" on page 7
- "What are the benefits of User Access Licensing?" on page 8
- "How many licenses units will I consume?" on page 8
- "How many license units do I need to purchase?" on page 8
- "Will a person who has more than one workstation need multiple licenses?" on page 8
- "Will a User object that is duplicated across multiple trees need more than one license?" on page 8
- "What types of NetWare 6 User Licenses are available?" on page 8
- "When is a license unit consumed?" on page 9
- "When is a license unit released?" on page 9
- "Do printers need a license under the NetWare 6 User model?" on page 9
- "Will a person who has two or more User objects assigned to him need multiple licenses?" on page 9
- "My company has computers shared by multiple users across shifts. How many licenses will we need?" on page 9
- "Do I still need a server license?" on page 9

- "What kind of user licenses are available?" on page 10
- "Where should I place the license certificate in eDirectory?" on page 10
- "I have a Master License Agreement (MLA). Where should I place my MLA License certificate?" on page 11
- "Can I install user licenses during the NetWare 6 server installation?" on page 11
- "How do I add, view, and delete licenses?" on page 11
- "Are NetWare 5.1 licenses compatible with NetWare 6?" on page 11
- "How do I look at my installed licenses?" on page 11
- "How can I monitor consumption of user licenses?" on page 12
- "After installing a NetWare 6 server, I can log in only once or twice before failing to log in or map drives. Why?" on page 12
- "Why are my NetWare licenses expired?" on page 12
- "I replaced my expired licenses. Why am I still getting messages saying that my licenses are expired?" on page 12
- "Why can't I map a drive?" on page 13
- "Why can't I log in or map drives after replacing the Demo licenses?" on page 13
- "What files are on the license diskette?" on page 13
- "How does NetWare 6 handle License Activation Keys?" on page 13
- "What tools are available to manage licensing in NetWare 6?" on page 14
- "How can I see NLS errors? They don't display on the console." on page 14
- "Where can I see a list of NLS Error Codes?" on page 14
- "How can I learn more about Novell Licensing Services?" on page 14

What is the new Licensing Model for NetWare 6?

Beginning with NetWare $6^{\text{®}}$, Novell[®] uses a User Access License model where User objects gain access to network services by connecting to the network instead of to servers. These User objects receive a permanent license unit that lets them access network services at any time from any workstation attached to the network.

How does User Access Licensing differ from earlier versions of NetWare?

In previous versions of NetWare[®], a Server Connection License model is used, where users are granted access to network services on a per-server basis. This means each time a user accesses services on a different server, the user consumes a license unit on that server. Printer connections also consume a connection license

In the NetWare 6 User Access License model, users consume a single User license (per tree) regardless of the number of NetWare 6 servers they log on to. Printers that connect to a NetWare 6 server do not consume a User license. The same is true for all other non-User connections.

Once a user logs in to the tree, the license unit is assigned to that userID for 90 days, making it essentially a permanent assignment. Thus, if a company has installed a five-user license and has 10 employees, the first five can log in, logout, and leave the country. The remaining five users will not be able to get a license until 90 days after the other users have logged out, or until another five-user license is installed. License units that are in use can be manually released through Novell® iManager.

Because most users map more than one drive and possibly several printers, most companies will find their overall unit consumption reduced with the NetWare 6 licensing model, despite the persistent nature of license unit assignments.

What is the difference between NetWare 5 licenses and NetWare 6 licenses?

NetWare[®] 5 uses the Server Connection License (SCL) model while NetWare 6 uses the User Access License (UAL) model. The SCL model consumes a license unit for every resource consumed in the tree and is concurrent. The UAL model consumes a license unit when a user logs in to the tree and does not consume additional units for resources consumed in the tree.

NetWare 5 and NetWare 6 servers with their associated licenses can coexist in the same eDirectory[™] tree.

Why did Novell change to User Access Licensing?

Novell[®] changed to the User Access License model in response to customer requests. Using the tools available to administrators such as Novell iManager and NetWare[®] Remote Manager, you can more easily monitor and manage licensing.

What are the benefits of User Access Licensing?

The benfits of user access licensing include the following:

- Easier to plan because each network user will consume a user license
- Easier to track using the NetWare[®] Usage tool in NetWare Remote Manager
- Easier to deploy as User licenses

How many licenses units will I consume?

Each network user consumes one license unit, regardless of the number of network services and NetWare[®] servers accessed within a single eDirectory[™] tree.

How many license units do I need to purchase?

Determining the number of user access licenses needed is simple. First determine the total number of users that will be accessing the network. Then purchase the equivalent number of user licenses.

For example, if you have 112 users all in one context who will be accessing resources on your network, you will need to purchase a minimum of 112 licenses. Since user licenses are sold in quantities of 5, 10, and 25 license units, you will need to purchase at total of a 115 license units

Will a person who has more than one workstation need multiple licenses?

No. As long as users access all workstations with the same NDS[®] user object, they will not be required to have more than one license.

Will a User object that is duplicated across multiple trees need more than one license?

A user license is needed for each User object within a tree. If a user has identical, multiple User objects across multiple trees, he will need a separate license for each. However, if you link these directory trees by using products such as Novell's DirXMLTM, you will only need one user license.

What types of NetWare 6 User Licenses are available?

The most typical licenses available for NetWare[®] 6 are Red BoxTM (retail box) licenses that do not permit license unit consumption beyond the license units

installed and volume licensing agreements like MLA and CLA, which provide unlimited connections. Using the NetWare Usage tool, you can audit and report their NetWare usage for your license agreement. For more information on license agreements, see the Novell Licensing Programs (http://www.novell.com/licensing/) Web site.

When is a license unit consumed?

When a user accesses a network resource, a license is consumed and assigned to the User object. The license unit is not released when the user logs out.

When is a license unit released?

A user license unit remains assigned to a User object for 90 days since the user's last network access. You can manually release an assigned license unit using Novell[®] iManager or NetWare[®] Administrator.

Do printers need a license under the NetWare 6 User model?

No. Only User objects (or other classes of object that contain data representing a person, such as objects containing credit card information or PIN numbers) that access the software services require a user license.

Will a person who has two or more User objects assigned to him need multiple licenses?

Yes. A person who has multiple unique user IDs will need a separate license for each different ID.

My company has computers shared by multiple users across shifts. How many licenses will we need?

Each person who accesses the software services should have a unique NDS[®] User object, and each of these objects needs a license. So if three people share the same computer across shifts, each person must have a unique NDS User object, and three licenses are needed.

Do I still need a server license?

A server license is still required. The server license is free and each server needs to have its own unique license. While a NetWare[®] 6 server license is included in the NetWare Red BoxTM (retail software box), you can request

additional server licenses by completing the License Request Form (http://www1.novell.com/eld/LRequest.jsp?ENCRYPTION=NW6).

What kind of user licenses are available?

User licenses are sold in quantities of 5-,10-, and 25-user license units. Because NLS searches through user contexts, and because these contexts might be diverse, companies might need to split up their user licenses. To accommodate this, purchased license envelopes actually contain multiples of 5-unit licenses.

Purchased License	Contents
Server+5	1 5-unit license
Server+10	2 5-unit licenses
Server+25	5 5-unit licenses
Server+50	10 5-unit licenses
Server+100	20 5-unit licenses

These 5-unit increments can be installed all at once using Novell[®] iManager or they can be individually installed, moved, and deleted.

Where should I place the license certificate in eDirectory?

Because licenses are consumed by User objects, they should be installed in an eDirectoryTM container at or above the Users. NetWare[®] 6 searches for licenses upward in the tree from the user's context. If a license is not found in the current user's context, NLS will search upward in the tree to the organization level. Licenses cannot be installed into containers higher than an organization.

In NetWare 6, users do not consume licenses from individual servers; therefore, it does not make sense for licenses to be tied to servers. User licenses must be installed into the users's context or a context which can be found on an upward search from the users's context.

NOTE: If a license is not found in the upward search, no search of the server's context is attempted. This prevents problems between different departments that manage their own licenses in configurations where users reside in departmental contexts but servers are installed in a central location.

I have a Master License Agreement (MLA). Where should I place my MLA License certificate?

MLA licenses should be installed in or above the server's context. You can install MLA licenses as many times as you want. During the server installation, if an MLA license is detected in a path accessible to the current installation, you are prompted to choose to install without a license or to select another context.

MLA licenses contain a special server license but there is no user license, because server licenses contain information which permits NLS to grant logins without interaction with NLS. An MLA customer's NetWare[®] usage is audited. If you have MLA licenses, you should use the NetWare Usage tool to ensure you are in compliance with your license agreement.

Can I install user licenses during the NetWare 6 server installation?

No. Unlike a server license which is installed in or above the server's context, user licenses should be installed in or above the user's context.

The user license is located in at the root of the license diskette and server licenses are located in the \LICENSE directory.

How do I add, view, and delete licenses?

You can manage licenses using Novell® iManager. For more information, see "Licensing Tools in NetWare 6" on page 17.

Are NetWare 5.1 licenses compatible with NetWare 6?

NetWare[®] 5.1 servers can coexist in the same eDirectoryTM tree; however, you cannot use a NetWare 5.1 server license for a NetWare 6 server. You can request a NetWare 6 server license using the License Request Form (http://www1.novell.com/eld/LRequest.jsp?ENCRYPTION=NW6).

How do I look at my installed licenses?

You can view information about the installed licenses using Novell® iManager. For more information, see "Viewing Information about License Certificates and Containers (http://www.novell.com/documentation/lg/nw6p/nls502enu/data/hnd1frdt.html#hnd1frdt)" in the *Novell Licensesing Services Administration Guide*

You can also use the **VERSION** command at the server console. The **VERSION** command works with NetWare $^{\circledR}$ 6 Support Pack 1 or later. For

How can I monitor consumption of user licenses?

NetWare® 6 includes a snap-in to NetWare Remote Manager called NetWare Usage. Using NetWare Usage, you can view statistical information about license usage and generate reports.

To access this information, in NetWare Remote Manager click Usage Information under NetWare Usage.

After installing a NetWare 6 server, I can log in only once or twice before failing to log in or map drives. Why?

Most likely licensing is not installed properly and you are consuming a grace login license. For instructions on installing NetWare[®] 6 licenses, go to the NetWare 6 online documentation (http://www.novell.com/documentation/lg/ nw6p/index.html) and select Novell[®] Licensing Services Administration > Using Novell Licensing services.

Why are my NetWare licenses expired?

The Demo license included with NetWare[®] 6 is limited to 90 days. If your license is expired, you will need to delete the expired license and install a valid license. For more information, see "How do I add, view, and delete licenses?" on page 11.

I replaced my expired licenses. Why am I still getting messages saying that my licenses are expired?

You must remove the expired licenses from eDirectory[™] and install new licenses using Novell® iManager. Once you have removed the old licenses and installed the new ones, you must flush the NLS cache so that the server can consume the new license. There are three ways to flush the cache:

- Unload POLIMGR, and NLSLSP, and then load POLIMGR.
- Wait 45 minutes to an hour for POLIMGR.NLM to update the cache.
- Restart the server.

Why can't I map a drive?

The most typical reason for mapping failures that relate to licensing are expired licenses. Refer to "Why are my NetWare licenses expired?" on page 12.

Why can't I log in or map drives after replacing the Demo licenses?

Most likely, the Demo licenses were notfully removed. These licenses might be interfering with your installed licenses.

Using Novell® iManager, ensure that the Demo licenses have been removed and valid licenses have been installed.

What files are on the license diskette?

With NetWare[®] 6, the server license is contained in the A:\LICENSE directory of each license diskette. This is an .NLF file and is accompanied by a NICI key.NFK file. User licenses are stored in the root directory of each of these diskette. User license files are also .NLF files but do not have an accompanying NICI key. This arrangement, separation of server and user licenses, allows the server license to be installed during the server installation process without installing the User licenses, which are installed using Novell[®] iManager.

How does NetWare 6 handle License Activation Keys?

With NetWare[®] 6, server licenses are basically free. As a result, every user license diskette contains a server license. Therefore, many customers will have a number of extra server licenses not in use. Novell[®] no longer licenses runtime servers. You may use as many NetWare servers as you require.

Because server licenses are distributed freely, the only activation key contained on upgrade license diskettes is for the user license component. As before, activation keys are distributed only with upgrade licenses.

When the server license on an upgrade license diskette is installed, either during the actual server installation or after server installation in Novell iManager, no activation screen is generated.

When the user license on this same disk is installed, a screen prompt appears requesting manual entry of the activation key, if required.

What tools are available to manage licensing in NetWare 6?

The following tools are used to manage licensing:

- "Novell iManager" on page 17
- "NetWare Remote Manager" on page 18
- "VERSION Console Command" on page 18
- "NetWare Administrator" on page 19

The License Options menu is no longer supported by NWCONFIG, because user licenses are installed relative to users, not servers. In NetWare[®] 6, license administration is accomplished using Novell[®] iManager.

How can I see NLS errors? They don't display on the console.

Most Novell[®] Licensing Service and Policy Manager error codes display only when trace facilities are turned on. Use any of the the following commands to turn on the trace facilities:

Turn on NLSTRACE: SET NLSTRACE = 2

Turn off NLSTRACE and write SYS:SYSTEM\NLSTRACE.OLD: SET NLSTRACE=0

Turn on PMTRACE: PM TRACE FILE ON

Turn off PMTRACE and write SYS:SYSTEM\PMTRACE.DBG:
PM TRACE FILE OFF

Where can I see a list of NLS Error Codes?

A list of error codes is available in the NetWare 6 Novell Licensing Services Error Codes (http://www.novell.com/documentation/lg/nwec/nwec_enu/nwec_nls_error_codes.html) and in the January 2001, *NetWare Application Notes* entitled: "How to Optimize Novell Licensing Services" (http://developer.novell.com/research/appnotes/2001/january/02/a010102.htm).

How can I learn more about Novell Licensing Services?

The following Novell® articles and documents provide additional information:

• *Novell Licensing Administration Guide* (http://www.novell.com/documentation/lg/nw6p/nls502enu/data/a2b7xd4.html)

- "User Access Licensing for NetWare®" (http://www.novell.com/documentation/lg/nw6p/nlsuaenu/data/a2b7xd4.html) in *User Access Licensing for NetWare*
- "How to Optimize Novell Licensing Services" (http:// developer.novell.com/research/appnotes/2001/january/02/a010102.htm) (January 2001 NetWare Application Notes)
- "Important Information Regarding Changes to Licensing for NetWare 6" (http://support.novell.com/cgi-bin/search/searchtid.cgi?/10065536.htm)
- "Troubleshooting Downloaded Licenses from Shop Novell" (http://support.novell.com/cgi-bin/search/searchtid.cgi?/10062967.htm)
- "Troubleshooting NetWare 6 Novell Licensing Services" (http://support.novell.com/cgi-bin/search/searchtid.cgi?/10066215.htm)
- "Troubleshooting Licenses in a NetWare 5.1 and NetWare 6
 Environment" (http://support.novell.com/cgi-bin/search/searchtid.cgi?/10065604.htm)



Licensing Tools in NetWare 6

The following tools are used to manage licensing:

- "Novell iManager" on page 17
- "NetWare Remote Manager" on page 18
- "VERSION Console Command" on page 18
- "NetWare Administrator" on page 19

These sections provide very brief introductions to the tools available to manage licensing. For more information, see the NetWare[®] 6 online documentation (http://www.novell.com/documentation/lg/nw6p).

Novell iManager

Because the NetWare 6 Server Installation no longer installs user licenses, they are installed later using Novell[®] iManager, a browser-based management utility included with NetWare 6.

Novell iManager provides administration tools for a number of NetWare products. The licensing snap-in to Novell iManager can install, delete, and move licenses. You can also view license properties including license count, license consumption and, for demo licenses, expiration date.

Novell iManager is accessed by entering the server's secured IP address and the port 2200 in your Web browser. For example, if the server's IP address is 192.168.0.1, you enter

https://192.168.0.1:2200

For more information, see the Novell iManager Administration Guide (http://www.novell.com/documentation/lg/imanage10/treetitl.html). For more

information on using Novell iManager to manage licensing, see the *Novell Licensing Services Administration Guide* (http://www.novell.com/documentation/lg/nw6p/nls502enu/data/a2b7xd4.html).

NetWare Remote Manager

NetWare Remote Manager (NRM), is a Web interface into a particular server which allows administration of a number of server elements including licensing. The licensing snap-in to NRM is under NetWare Usage heading. If this heading is not present, then NWUSAGE.NLM is not loaded on the server.

Usage information can provide summary statistics on the number of unique userIDs that have logged in to the tree as well as detailed information listing every user's authentication to servers in the tree. For more information, see "Using the NetWare Usage Tool (http://www.novell.com/documentation/lg/nw6p/nlsuaenu/data/acbsk21.html)" in *User Access Licensing for NetWare*.

VERSION Console Command

Beginning with NetWare 6 Support Pack 1, licensing information has been added to the VERSION command executed at the server console. The VERSION command now displays the information about the server license and user licenses.

If you are using the demo license included with NetWare 6, the following is displayed by the VERSION command:

```
Server License: Novell NetWare 6 Demo Server 600 SN:123456789
User License: Novell NetWare 6 Demo User 600 (Hard Stop)
```

If you installed an MLA license, the following is displayed:

```
Server License: Novell NetWare 6 Server 600 SN:123456789
User License: Audited
```

If a license has not been installed or has not yet been identified by the server, the following is displayed:

```
Server License: Novell NetWare 6 Demo Server 600 Not Acquired
```

If a license has expired, the following is displayed:

```
Server License: Novell NetWare 6 Server 600 Expired
```

When deleting and installing licenses, you need to flush the NLS cache. For more information, see "I replaced my expired licenses. Why am I still getting messages saying that my licenses are expired?" on page 12.

NetWare Administrator

Licenses can also still be installed and managed through NetWare Administrator. The functionality of NetWare Administrator has been implemented in Novell iManager. NetWare Administrator is a legacy product that is no longer being developed, and it requires a mapped drive and Novell Client 32TM for Windows to run.