Instructions for updating a multi-node environment for production running NoMachine
Considerations

1. What to Consider Before Upgrading

   1.1. Planning Server Downtime Period Before Upgrading

How to Upgrade

2. Instructions

   2.1. Updating the Terminal Server Nodes
   2.2. Updating the Enterprise Terminal Server(s)

Considerations

1. What to Consider Before Upgrading

This document applies to multi-node environments v. 6 made of NoMachine Enterprise Terminal Server (ETS) plus one or more Terminal Server Node (TSN) installations.

To upgrade ETS and TSN installations, customers should use packages downloaded from their Customer Area at: https://www.nomachine.com/support#login or provided by the Sales Team.

There is no longer any distinction between packages ‘for production’ and ‘for update’, the same package can be used now for:

I upgrading an existing installation or
II making a new installation.

To be compliant with MPEGLA royalty fees, downloads are limited to two for each license. The counter is reset every new release.

Updating the installed software requires the termination of all the running sessions. These sessions cannot be recovered later.

This is necessary for installing the new libraries and binaries. Processes already loaded in the system memory lock down the corresponding binaries and libraries that cannot be otherwise replaced.

The upgrade procedure implies a shutdown of all services. They are automatically restarted once the upgrade procedure is completed.
All operations must be executed with administrative privileges ('root' user or a 'sudo' user) and are intended to be executed from command line in a console.

The cleanest way to upgrade a multi-node environment is to:

I. initially update installation on the TSN nodes, then
II. update installation of the main server, ETS, or servers if two ETS are set-up in a failover cluster.

Please read carefully all the steps below before proceeding with the upgrade and do not hesitate to contact our Sales or Support Teams for any advice.

1.1. Planning Server Downtime Period Before Upgrading

As a precaution, we suggest to do the following before proceeding with the upgrade.

**Step 1** - Send a broadcast message to all connected users to inform about ongoing operations. Execute on ETS:

```
$ sudo /etc/NX/nxserver --broadcast "Your message here"
```

**Step 2** - Stop ETS.
This will prevent new connections to ETS but will not terminate running sessions:

```
$ sudo /etc/NX/nxserver --stop
```

If there are two servers in failover cluster mode, you will need to do the following. Shutdown ETS on the secondary server host, this will avoid to activate the failover procedure when stopping ETS on the primary server host. Execute on the secondary server host:

```
$ sudo /etc/NX/nxserver --shutdown
```

Then stop ETS on the primary server host:

```
$ sudo /etc/NX/nxserver --stop
```

**Step 3** - Proceed with the upgrade of the node(s) and of the server(s) as explained in the next sections.
2.1. Updating the Terminal Server Node(s)

Proceed to update the installation of NoMachine Terminal Server Node on each of the remote node(s). No further actions are required.

Instructions from command line are:

```
for DEB:
  sudo dpkg -i packageName.deb

for RPM:
  sudo rpm -Uvh packageName.rpm
```

To verify the installation:

```
/etc/NX/nxnode --version
sudo /etc/NX/nxnode --status
sudo /etc/NX/nxnode --subscription
```

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How to Upgrade

2. Instructions

2.2. Updating the Enterprise Terminal Server(s)

Proceed to update the NoMachine Enterprise Terminal Server installation.

The update procedure takes care of starting all the NoMachine services, there's no need to start the server manually.

If there are two ETS in failover cluster mode, it's instead necessary to do the following.

**Step 1** - Update the primary server and the secondary server. Order of update is not relevant.

**Step 2** - Then restart both cluster servers after the update to make sure that the cluster interface is created on the primary server. Execute firstly on the primary ETS host then on the secondary ETS host:
To verify the installation:

```bash
/etc/NX/nxserver --version
```

```bash
sudo /etc/NX/nxserver --status
```

```bash
sudo /etc/NX/nxserver --subscription
```

**Troubleshooting**: what to do if the server installation has been upgraded before the nodes.

In case of a multi-node environment without failover cluster functionalities, run the following command on the ETS host to retrieve resources from the remote node(s):

```bash
$ sudo /etc/NX/nxserver --nodedbupdate
```

If there are two ETS in failover cluster mode, run instead the following command on the *primary server*:

```bash
$ sudo /etc/NX/nxserver --nodedbupdate
```

Then synchronize the cluster dbs by running on the *primary server*:

```bash
$ sudo /etc/NX/nxserver --clusterupdate
```