

**N8104-153/155F  
LAN Driver Installation Guide  
(Intel R191)**

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# 1. Preface

Thank you very much for purchasing our product.

This installation guide explains how to set up the LAN drivers of [N8104-153] Dual Port 10GBASE-T Adapter / [N8104-155F] Dual Port 10GBASE-T LOM Card.

## 1.1. Target OS

Abbreviated designation	Software Production Name
Windows Server 2012	Microsoft® Windows Server® 2012 Standard Microsoft® Windows Server® 2012 Datacenter
Windows Server 2012 R2	Microsoft® Windows Server® 2012 R2 Standard Microsoft® Windows Server® 2012 R2 Datacenter

## 1.2. Target

Refer to the URL below and check the target server.

<http://www.58support.nec.co.jp/global/download/index.html>

-> Click to model name (product name).

-> Click to "NEC N8104-153/155F LAN Driver Module (Version R191)" in "Other update".

## 1.3. Registration Trademark

Microsoft and its logos, and Windows Server are registered trademarks or trademarks of the Microsoft Corporation in the U.S. and other countries.

Intel is a registered trademarks of Intel Corporation of the United States.

\* In addition, TM and a R mark are not specified in the text.

## 2. Installation of Windows Driver

This Section explains how to install the Windows Driver.  
Make sure [4.Notice (P.11)] are confirmed before begins.

Important

- Sign in the system by administrator account for execute the operation below
  - Parameters of LAN driver back to a default by this installation.
- If you changed parameters from a default, make a memo of the parameter settings beforehand. And setting parameters after installation of LAN driver again.

### ◆ Preparations

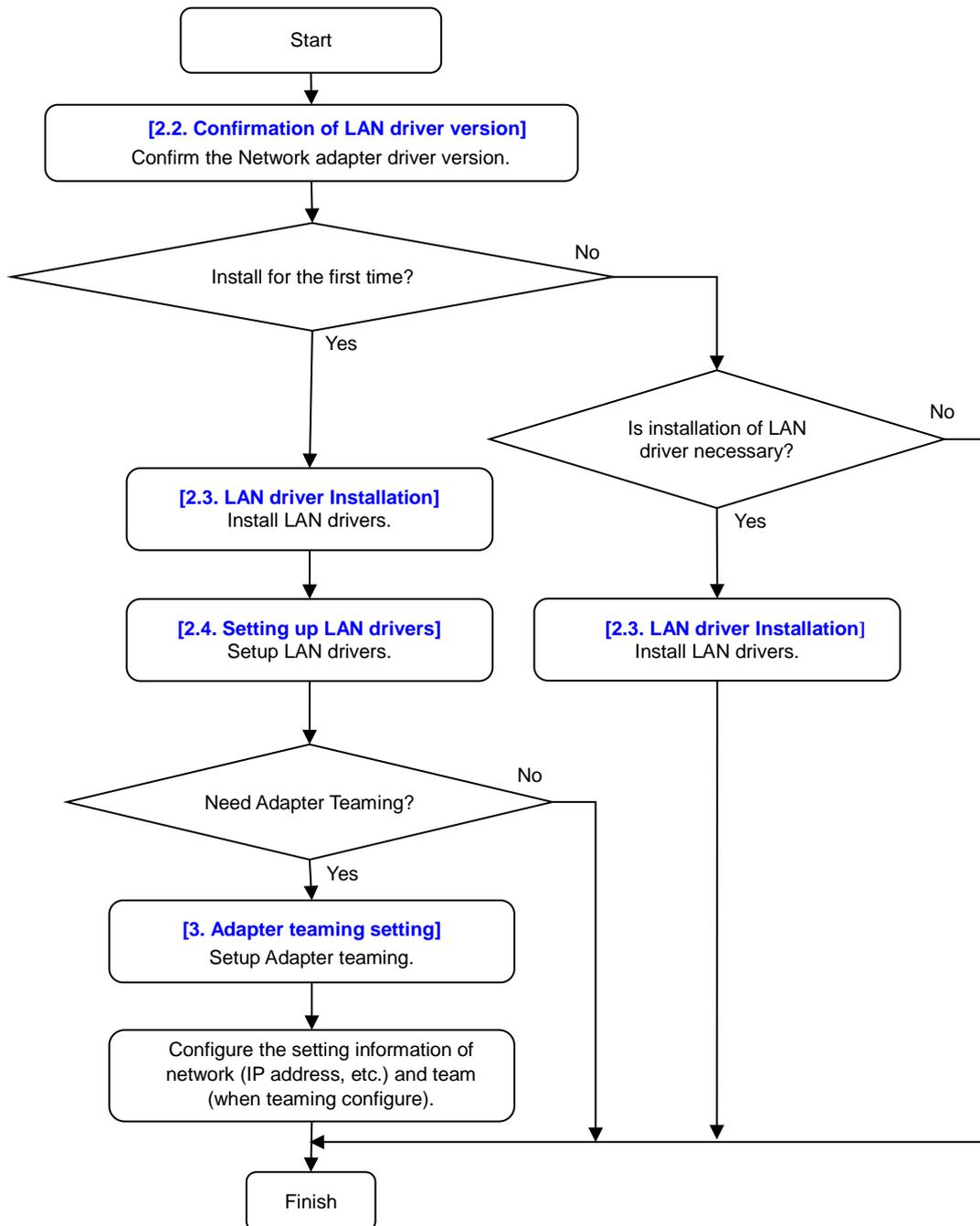
1. Refer to the URL below and Download the **422251-B01\_XXXXXX.zip** (XXXXXX is an expression of arbitrary numbers).  
<http://www.58support.nec.co.jp/global/download/index.html>
  - > Click to model name (product name).
  - > Click to “NEC N8104-153/155F LAN Driver Module (Version R191)” in “Other update”.
2. Create a **Temp** folder directly under the system drive.  
**(e.g., C:\Temp)**
3. Unzip **422251-B01\_XXXXXX.zip**, copy the **LAN** folder in the **Temp** folder.  
**(e.g., C:\Temp\LAN)**

note

In case of using the N8104-145, New version of LAN driver is installed to the N8104-145 too.

## 2.1. The flow of LAN driver installation process

The flow of LAN driver installation process  
The installation process is executed by the following flow.



## 2.2. Confirmation of LAN driver version

Check the Driver version by the procedure below.

1. Sign in to the system into administrator account.
2. Open [Device Manager], confirm “Intel(R) Ethernet Controller X540-AT2” exists under [Network adapters]. Double-click and display property.
  - If “**Intel(R) Ethernet Controller 10Gigabit X540-AT2**” is displayed, **Installation is first time**. Go to [2.3. LAN driver Installation (P.7)] procedure.
3. Open [Driver] tab and click to [Driver Details].  
[Driver File Details] is displayed under [Network adapters].
4. Compare the displayed network controller driver and following list.

### Network controller driver list

OS	Device name	Driver file name	Version
Windows Server 2012	Intel(R) Ethernet Controller X540-AT2	Ixt63x64.sys	3.9.58.0
Windows Server 2012 R2	Intel(R) Ethernet Controller X540-AT2	Ixt64x64.sys	3.9.58.0

- If Network controller driver version is old, **it is necessary to install LAN drivers**. Go to [ 2.3. LAN driver/ Installation (P.7)] procedure.
- If Network controller driver version is same or new, you do not need to install LAN drivers by this installation guide.
- If Network controller driver file name differ from list, **Installation is first time**. Go to [2.3. LAN driver/ Installation (P.7)] procedure.

## 2.3. LAN driver Installation

**Important**

- Sign in the system by administrator account for execute the operation below.
- Adding N8104-153/155F after LAN driver are already installed, refer to [2.2. Confirmation of LAN driver version (P.6)] and confirm the version of LAN driver.

1. Sign in to the system into administrator account.
2. Enter the following command at the command prompt, and then specify the drive letter of System Drive (usually C drive).

```
Windows Server 2012  
cd C:\Temp\LANWS2012
```

```
Windows Server 2012 R2  
cd C:\Temp\LANWS2012R2
```

3. Enter the following, and then press <Enter> key.  
**"INSTALL.bat"**
4. When the following message appears, restart the system.

```
"Installation Completed!"
```

## 2.4. Setting up LAN drivers

Important

- Sign in the system by administrator account for execute the operation below.
- After changing parameters of the LAN driver, restart the system.

### 2.4.1. Setting up common

#### (1) Setting link speed

Important

- The transfer rate and duplex mode of the network adapter must be the same as those of the switching hub.

Follow the procedure below to specify the transfer rate and duplex mode.

1. Open the [Device Manager].
2. Expand [Network Adapters], and then double-click the name of the network adapter you want to set. The properties of the network adapter will be displayed.
3. Select the [Advanced] tab, and then set the [Speed & Duplex] values to the same as those of the switching hub.
4. Click [OK] in the network adapter properties dialog box.

#### (2) Flow Control

It is necessary to set the Flow Control parameter of the network adapter matching to the connected network equipment (switching hub etc.).

Please set Flow Control parameter by the following procedures.

Note

Server Adapter and link partner must be configured by the same value.

- Disabled : Disabled
- Rx & Tx Enabled : Receive & Transmit Enabled
- Rx Enabled : Receive Enabled
- Tx Enabled : Transmit Enabled

1. Open [Device Manager].
2. Expand [Network Adapters], and then double-click the name of the network adapter you want to set. The properties of the network adapter will be displayed.
3. Open [Advanced] tab and click [Flow Control] to show [Value].
4. The value can be configured by the down-arrow button.
5. Click [OK] in the network adapter properties dialog box.

### (3) Jumbo Packet

It is necessary to set the Jumbo Packet parameter of the network adapter matching to the connected network equipment (switching hub etc.).

Please set Jumbo Packet parameter by the following procedures.

#### Important

• Set all Jumbo Frame to the same value to all adapters that composes the team.

1. Open [Device Manager].
2. Expand [Network Adapters], and then double-click the name of the network adapter you want to set. The properties of the network adapter will be displayed.
3. Open [Advanced] tab and click [Jumbo Packet] to show [Value].
4. Change the value by the down-arrow button.
5. Click [OK] in the Network adapter properties dialog box.

#### 2.4.2. Setting up Wake on LAN (WOL) with N8104-155F

Using WOL with N8104-155F, PME must be ON.

Follow the procedure below to set it.

1. Open [Device Manager].
2. Expand [Network Adapters], and then double-click the name of the network adapter you want to set. The properties of the network adapter will be displayed.
3. Open [Advanced] tab and click [Enable PME] to show [Value]
4. Change the value to [Enable] by the down-arrow button.
5. Click [OK] in the Network adapter properties dialog box.

### 3. Adapter teaming setting

This section describes setting procedures about adapter teaming.  
Refer to the URL below and follow the instructions.

- Windows Server 2012:

<http://www.58support.nec.co.jp/global/download/w2012/index.html>

- Windows Server 2012 R2:

<http://www.58support.nec.co.jp/global/download/w2012r2/index.html>

## 4. Notice

This section describes notice of installing. Read the following notes or information before installing.

### 4.1. About the operation by remote desktop

To operation that has been described to this document, Sign in to the system from a local console using an administrator account.

Remotely changing the settings by using the operating system's remote desktop feature is not supported.

### 4.2. About Wake On LAN (WOL)

Wake On LAN (WOL) is only supported on standard network adapters.

### 4.3. About the Windows logs

The following log may be registered.

This error does not affect system operation.

Source	ixgbi
Level	Warning
Timing	At Installing the LAN driver、 At booting after already installed the LAN driver
Event ID	27
	Intel(R) Ethernet Controller X540-AT2 #xx
Explanation	Network link is disconnected.

If registered log has source "ixgbi",It is necessary to Install the LAN driver by this installation.  
Refer to [2.1 The flow of LAN driver installation process (p.5)] and install the LAN driver.