N8104-157
LAN Driver Installation Guide
(Intel R207)

April 2016(1st Edition)
808-882328-319-A

Contents

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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 [N8104-157] Dual Port 10GBASE-T Adapter.

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 Microsoft® Windows Server® 2012 R2 Foundation

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 N8104-157 LAN Driver Module (Version R207)” 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.
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* In addition, TM and a R mark are not specified in the text.

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2. Installation of Windows Driver

This Section explains how to install the Windows Driver.
Make sure [4.Notice] 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 **GVO-008431-G01_xxxxxxxxxxxxxxxxxx.zip** (x 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 N8104-157 LAN Driver Module (Version R207)” in “Other update”.

2. Create a **Temp** folder directly under the system drive.
   (e.g., C:\Temp\)

3. Unzip **GVO-008431-G01_xxxxxxxxxxxxxxxxxx.zip**, copy the **LAN** folder in the **Temp** folder.
   (e.g., C:\Temp\LAN)

note

If the target server is Express5800/E120g-M or N8104-153/155 is in use, when the LAN driver is installed by following this installation guide, the latest version of LAN driver will be applied to the standard network adapter or N8104-153/155.

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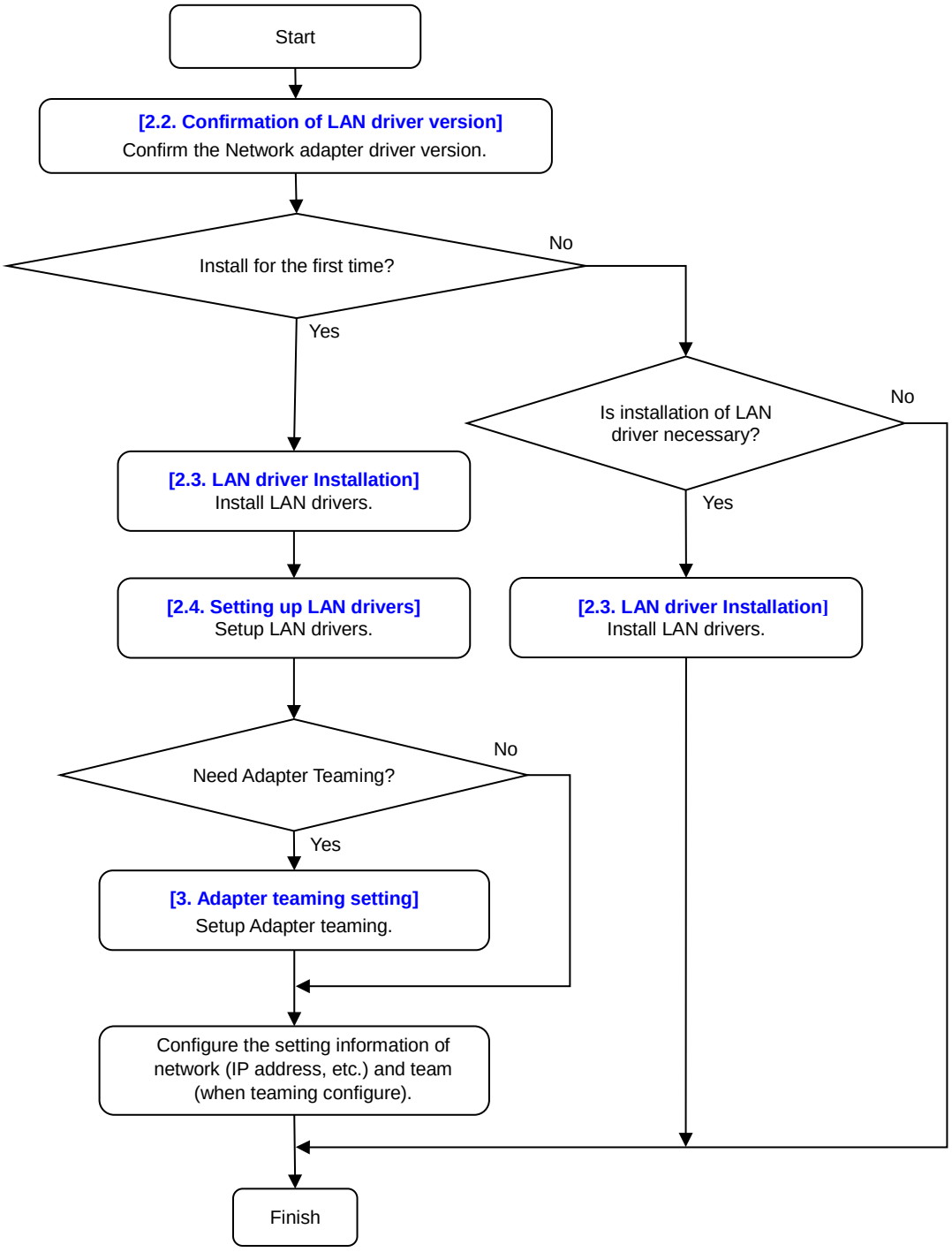
2.1. The flow of LAN driver installation process

The flow of LAN driver installation process

The installation process is executed by the following flow.



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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 X550**" exists under **Network adapters**. Double-click and display property.

   - If "**Intel(R) Ethernet Controller X550**" is displayed, Installation is first time. Go to [2.3. LAN driver Installation] 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 X550	ixs63x64.sys	3.12.11.1
Windows Server 2012 R2	Intel(R) Ethernet Controller X550	ixs64x64.sys	3.12.11.1

   - If Network controller driver version is same or new, you do not need to install LAN drivers by this installation guide.

2.3. LAN driver Installation

1. Run a command prompt as administrator. Enter the following command at the command prompt.

```
cd C:\temp\LAN
```

2. Enter the following, and then press **Enter** key.

   - Windows Server 2012

```
INSTALL_WS2012.bat
```

   - Windows Server 2012 R2

```
INSTALL_WS2012R2.bat
```

3. When the following message is displayed, restart the system.

```
Installation Completed!
```

4. Check that the driver version is **3.12.11.1**. By following [2.2 Confirmation of LAN driver version].

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 configures by the down-arrow button.
5. Click **OK** in the network adapter properties dialog box.

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(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.

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
  -> [Technical Information] - [NIC Teaming (LBFO)]

- Windows Server 2012 R2:
  http://www.58support.nec.co.jp/global/download/w2012r2/index.html
  -> [Technical Information] - [NIC Teaming (LBFO)]

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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 the Windows logs

The following log may be registered.
This error does not affect system operation.

Source	ixgbs
Level	Warning
Timing	At Installing the LAN driver、At booting after already installed the LAN driver
Event ID	27
Explanation	Intel(R) Ethernet Controller X550 #xx Network link is disconnected.

4.3. About the Flow Control

If Flow Control is set to "Transmit Enabled" or "Receive & Transmit Enabled", when the OS packet process is stopped due to system hang etc., there are some cases that PauseFrame is continuously sent.
In that case, since large amount of packets remain in the switch, the buffer in the switch will not be enough.
As a result, the other communication devices connected with the switch may be influenced.
In order to avoid such case, please set the Flow Control to "Disabled".