**Express5800 Series**

**NEC**

# Windows Server® 2012

## NIC Teaming (LBFO) Setup Guide

Aug 3, 2017 Rev.5

856-121112-419-Ge

# Introduction

This document provides for setup information of Windows Server 2012 NIC Teaming on Express5800 Series servers.

## Latest editions

This document was created based on the information available at the time of its creation. The screen images, messages and procedures may differ from the actual screens, messages and procedures. Substitute as appropriate when content has been modified.
The most recent version of this document, as well as other related documents, is also available for download from the following website.
**http://www.58support.nec.co.jp/global/download/index.html**

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# Supported NIC

The following tables list supported NICs.
About other supported models, refer to System Configuration Guide for each model.
System Configuration Guide: http://www.nec.com/en/global/prod/express/collateral/configguide.html

| Express5800 Series Supported Models | | Devices | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Standard network adapters | N8104 | | | | | | | | |
| | | | -128 | -132 | -133 | -135 | -137 | -138 | -141 | -142 |
| Rack Servers | R110e-1E | • | • | • | | | | • | | |
| | R120d-1M | • | • | • | • | • | • | • | | |
| | R120d-2M | • | • | • | • | • | • | • | | |
| | R120d-1E | • | • | • | • | | | • | | |
| | R120d-2E | • | • | • | • | | | • | | |
| Tower Servers | GT110e | • | • | • | • | | | • | | |
| | GT110e-S | • | | • | | | | • | | |
| | T120d | • | | • | | | | • | | |
| ECO CENTER | E120d-M | • | • | • | • | | | • | | |
| | E120d-1 | • | • | • | • | | | • | • | • |

| Express5800 Series Supported Models | | Devices | | | | | |
|---|---|---|---|---|---|---|---|
| | | N8403 | | | | | |
| | | -035 | -061 | -062 | -064 | -065 | -067 |
| SIGMA BLADE | B120d-h | | • | • | | • | |
| | B120d | | • | • | | • | |
| | B110d | | • | • | | • | |

| Express5800 Series Supported Models | | Devices | | | |
|---|---|---|---|---|---|
| | | Standard network adapters | NE3108 | | |
| | | | -004 | -007 | -008 |
| Scalable HA Server | A1040a | • | • | • | • |
| | A1080a-S | • | • | • | • |
| | A1080a-D | • | • | • | • |
| | A1080a-E | • | • | • | • |

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# Setup of Windows Server 2012 NIC Teaming (LBFO)

Set up the network adapter teaming feature as shown below.

## ■ Launching the NIC teaming setup tool

1. Launch Server Manager.
2. Select **Local Server**.
3. In the Properties window, click **Enable** or **Disable** for **NIC teaming**.

   The NIC teaming setup tool will launch.

> **NOTE :** The NIC teaming setup tool can also be launched by opening the **Run** dialog box, typing <lbfoadmin>, and then pressing the <Enter> key.

## ■ Creating a team

Create a team by using the NIC teaming setup tool.

1. In the **Servers** section, select the name of the server to set up.

   If there is only one server connected, the name of the server is selected automatically.
2. In the **Teams** section, under **Tasks**, select **New Team**. The **New Team** wizard then starts.
3. Type the name of the team to create, and then select the network adapter to include in the team

   from the **Member adapters** list.
4. Click **Additional properties**.
5. Specify the required settings, and then click **OK**.

**Teaming mode**

| Static Teaming | Configures static aggregation between the NIC and switches. |
|---|---|
| Switch Independent | Configures teaming on the NIC side without depending on the switch settings. |
| LACP | Configures dynamic aggregation between the NIC and switches. |

**Load balancing mode**

| Address Hash | Distributes the load based on IP addresses and port numbers. |
|---|---|
| Hyper-V Port | Distributes the load to each of the virtual switch ports used by the virtual machines. |

**Standby adapter**

Select one adapter to be set to standby mode from the adapters in the team.

Setting all adapters to active mode is also possible.

**Primary team interface**

Any VLAN ID can be specified for the primary team interface.

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# ■ Notes and restrictions

- NIC teaming on a guest OS is not supported.
- Teaming of Virtual NICs on the host OS is not supported in the Hyper-V environment.
- When STP (Spanning Tree Protocol) is enabled on network switch ports to which network adapters of the team are connected, network communications may be disrupted. Disable STP, or configure "PortFast" or "EdgePort" to the ports.
  * About setting the network switch of the connection destination, see the manual of the network switch.
- All NICs in a team must connect to the same subnet through a network switch.
- Teaming of different speed NICs is not supported.
- Teaming of different vendor's NICs is not supported.
- When binding a teaming adapter to a virtual switch in a Hyper-V environment and Virtual Machine Queue(VMQ) is enabled, an error message may appear depending on the settings of the teaming mode and the load balancing mode. Refer to KB2974384 in the Microsoft Knowledge Base for more details.
- When teaming is configured in a Network Load Balancing(NLB) environment, you should select multicast mode on the NLB cluster.
- In a Windows Server Failover Cluster environment, heartbeat interruption or failover may occur if you configure Active-Standby teaming. To avoid this, you should configure multiple NICs in Active Mode in a team so that all the NICs do not fail simultaneously.

856-121112-419-Ge

**Document Revision History**

| Date | Revision No. | Notes | |
|------|--------------|-------|---|
| May 31, 2013 | 1 | The first edition | 856-121112-419-Ae |
| July 23, 2014 | 2 | Notes and Restrictions are modified | 856-121112-419-De |
| July 2, 2015 | 3 | Notes and Restrictions are modified | 856-121112-419-Ee |
| Nov 11, 2016 | 4 | Notes and Restrictions are modified | 856-121112-419-Fe |
| Aug 3, 2017 | 5 | Notes and Restrictions are modified | 856-121112-419-Ge |

856-121112-419-Ge