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PRIMERGY CUSTOMER INFORMATION BULLETIN

Number/Revision:
PY-CIB072-00

Issue Date:
October 27, 2021

Title:
PRIMERGY & PRIMEQUEST servers running VMware ESXi 6.x can experience a communication failure of the installed LAN card when a down-level "ixgben" driver is used

Applies to:
(*) PRIMERGY & PRIMEQUEST series servers:

TX1320 M1 / M2 / M3 / M4	RX2540 M1 / M2 / M4 / M5
TX1330 M1 / M2 / M3 / M4	RX2560 M1 / M2
TX2540 M1	RX4770 M1 / M2 / M3 / M4 / M5
TX2550 M4 / M5	RX100 S8
TX2560 M1 / M2	RX200 S8
TX150 S8	RX300 S8
TX300 S8	RX350 S8
RX1330 M1 / M2 / M3 / M4	CX2550 M1 / M2
RX2520 M1 / M4 / M5	CX2560 M4 / M5
RX2530 M1 / M2 / M4 / M5	CX2570 M1 / M2 / M4
LX1430 M1	
PRIMEQUEST 3000 series	
PRIMEQUEST 2000 series	

(*) This report lists the server models wherein certain target LAN card types are in use and associated VMware ESXi operating system supported are running.

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Summary/ Impacts:
In certain PRIMERGY & PRIMEQUEST servers running VMware ESXi 6.x operating system can experience a communication failure in the LAN card when a down-level "ixgben" driver is used.

Impact on system operation:
Stops the business operation that involves network communication.

Symptoms:
The network communication with a virtual machine operating within VMware ESXi or ESXi may fail. When this occurs, the following event is repeatedly logged to the VMware ESXi var/log/vmkernel.log in every few seconds.

vmnic*: TX hang detected: reset it

Cause:
The LAN driver (ixgben) contains a control error, which may intermittently reset the LAN controller. As a result, the network communication fails.

The problem manifests itself when all the conditions below are met:
1) VMware ESXi 6.5/6.7 is used as the OS.
And
2) The following LAN card or onboard LAN card is used:

  PRIMERGY series - LAN cards with these part numbers
  S26361-F3752-L502 (including S26361-F3752-E2/E202)
  S26361-F3948-L502 (including S26361-F3948-E2/E202/E210/E540)
  S26361-F3629-L502 (including S26361-F3629-E2/E202/E702)
  S26361-F5295-L500 (including S26361-F5295-E500)
  - Onboard LAN for the following servers:
  PRIMERGY RX4770 M1/M2/M3

  PRIMEQUEST 3000 series
  - Dual-channel LAN card (10G BASE-T)
  MC-0JXEJ1*, MCX0JXEJ1*, MC-0JXEJ2*
  - I/O unit MC-5HUX6*, MCX5HUX6* MC-5HUX7*, MCX5HUX7*
  PRIMEQUEST 2000 series
  - Dual-channel LAN card (10G BASE-T) - MC-0JXE3*, MCX0JXE31
  - Dual-channel LAN card (10G BASE) - MC-0JXE4*, MCX0JXE4*
  - I/O unit (10GbE)
  MC-2HUX4*, MCX2HUX41
  MC-3HUX4*, MCX3HUX4*

And
3) LAN driver "ixgben" version lower than **1.7.10**

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Procedure for identifying driver version using an esxcli command:

Direct Console User Interface (DCUI) or SSH connection to log into the ESXi shell.

Run the following command:

esxcli network nic get -n <VMNIC_name>
The driver version information is displayed on Version.
The driver version information is displayed on Version.
Driver Info:
    Bus Info: 0000:c5:00:1
    Driver: ixgben
    Firmware Version: 0x80000d02
    Version: 1.7.10 ←

Corrective action / Fixes:

The error has been fixed in the LAN driver "ixgben" version **1.7.20**. This LAN driver "ixgben" can be downloaded from VMware's website.

● For VMware ESXi 6.5
Update to ESXi6.5U3. Obtain the LAN driver "ixgben" from the following URL and install it.
https://my.vmware.com/en/group/vmware/details?downloadGroup=DT-ESXI60-INTEL-IXGBEN-1720&productId=491

* The driver name in the linked site is "ESXi 6.0", however, the driver is also compatible with ESXi 6.5

● For VMware ESXi 6.7
Update to ESXi6.7U2 or later. Obtain the LAN driver "ixgben" from the following URL and apply it.
https://my.vmware.com/en/web/vmware/details?downloadGroup=DT-ESXI67-INTEL-IXGBEN-1720&productId=742

● Additionally
If the LAN driver "ixgben" version 1.7.20 is used in the server environment where the following NIC cards are installed, the card firmware needs to be updated to version 2.00 or later.

PRIMERGY series - LAN cards with these part numbers
S26361-F3948-L502 (including S26361-F3948-E2/E202/E210/E540)

See next page for firmware location.

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[How to obtain the firmware]

Use the "Download" page on "PRIMERGY" website to download the firmware. Visit the download page at: https://support.ts.fujitsu.com/

* Click "Browse for Product" > FUJITSU Server PRIMERGY > desired PRIMERGY product group > PRIMERGY product family and then select the desired firmware version.

For example, NVM Update Package for Intel® X550 Series version 3.15

Direct download:
https://support.ts.fujitsu.com/IndexDownload.asp?SoftwareGuid=E8CBD6EC-8DAB-4453-B7BA-F9D109A552AE

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Revision History:

REVISION	DATE	CHANGE SUMMARY
00	October 27, 2021	Initial draft Release – RQB60