Rev.2.0 July 31, 2017

NEC Express5800 series

Unexpected device driver application of
Intel(R) Management Engine Interface caused by Windows Update (*Note 3)

*Note 3: The device driver that causes this issue was removed from Windows Update on July 6, 2017. This update will no longer be displayed in Windows Update.

We would like to thank you for your patronage and your trust in our product, Express5800 series.
On the following models of Express5800 series servers, an unexpected device driver has been applied as Intel(R) Management Engine Interface causing failures when installing Windows Server 2012 (hereafter referred to as WS) or WS2012R2 (Note 1).
Chapter 2 explains procedure to confirm and fix these failures. Please handle your issues referring to the description.
(On the model in Group 3 in the Table 1, no failure has been reported, however, it is recommended to fix the driver because unexpected device driver has been applied.)

(*Note 1: On WS2016, the published drivers themselves can be applied to the server, however, not displayed in Windows Update.)

1 Target models, phenomena, and Windows Update that can be a cause.

1.1 Target models and phenomena

Table 1

Model group	Model name	Phenomena
Group 1	Express5800/R110f-1E, T110f-S, T110f-E Express5800/R110g-1E, T110g-S, T110g-E	・ When attempting to restart the server from Windows, The server turns (DC) off instead of restarting (occurrence frequency is 100%). ・ Wake On LAN fails sometimes (occurrence frequency is unknown). ・ The following logs may be registered to the system event log of Windows (occurrence frequency is unknown) (*Note 2). CPU internal error occurred. Date: YYYY/MM/DD HH:MM:SS CPU Number: 0x01

(Continued to the next page)

Note 2. Examples of system event log on Windows.
Source: ESMCommonService Event ID: 1400
CPU internal error occurred.
Date: YYYY/MM/DD HH:MM:SS
CPU Number: 0x01

Table 1 (continued)

Model group	Model name	Phenomena
Group 2	Express5800/T110h, T110h-S, R110h-1 Express5800/T110i, T110i-S, R110i-1	The following logs may be registered to the System event log of Windows (occurrence frequency is unknown) (*Note3) . Sensor Error has been detected. Sensor Number: 8Ah The following logs may be left on the System event log of Windows (occurrence frequency is unknown) (*Note4) . The system might have broken down. There is no response from the sensor. Sensor Number: 8Ah ・ Sensor abnormality of above occurs, there are cases when FAN rotates with high speed.
Group 3	Express5800/R120f-2E, T120f R120g-2E, T120g	No failure is confirmed.
	Express5800/R120f-1M, R120f-2M R120f-1E Express5800/R120g-1M, R120g-2M R120g-1E	No failure is confirmed.
	Express5800/E120f-M Express5800/E120g-M	No failure is confirmed.
	Express5800/B120f, B120f-h Express5800/B120g-h	No failure is confirmed.

Note 3: Examples of system event log on Windows.

Source: ESMCommonService Event ID: 1901
Sensor Error has been detected.
Sensor Number: 8Ah
Location: System Board 1
Date: YYYY/MM/DD HH:MM:SS
IDStrings: Sensor Failure
SEL Dump: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX**XX**(*)
(*Final two digits of SEL Dump shows the sensor number in Table.2)

Table 2 Target devices (*) of the device errors on I2C Bus of Group 2

Sensor number	Sensor name	Note
28h	POWER	
29h	Processor1 POWER	

32h	PSU1 temp1	
3Bh	PSU2 temp1	In Redundant power supply configuration
61h	Power Supply1	
62h	Power Supply2	In Redundant power supply configuration
70h	PSU FAN1	
78h	PSU FAN2	In Redundant power supply configuration
A2h	Proc1 Margin	
A6h	Chipset Temp	

(*Not all of the failures occur simultaneously.)

Note 4: Examples of system event log on Windows.

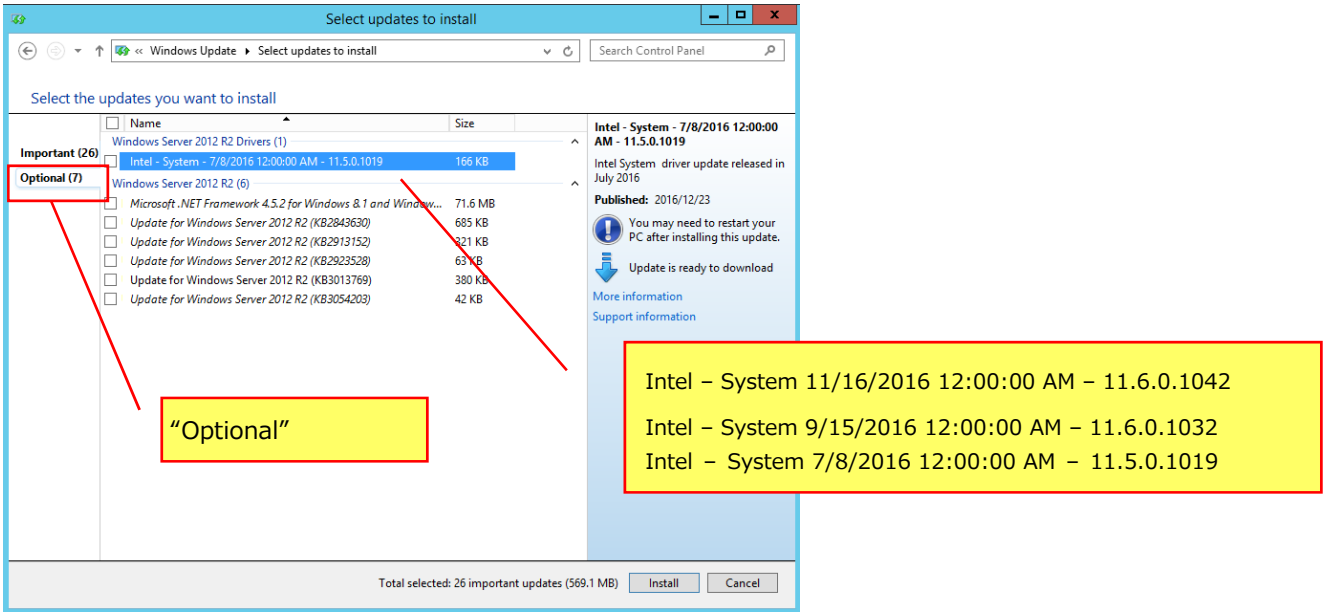
Source: ESMCommonService Event ID: 1900
The system might have broken down. There is no response from the sensor.
Sensor Number: 8Ah
Location: System Board 1
Date: YYYY/MM/DD HH:MM:SS
ID Strings: Sensor Failure
SEL Dump: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

1.2 Windows Update that causes failures

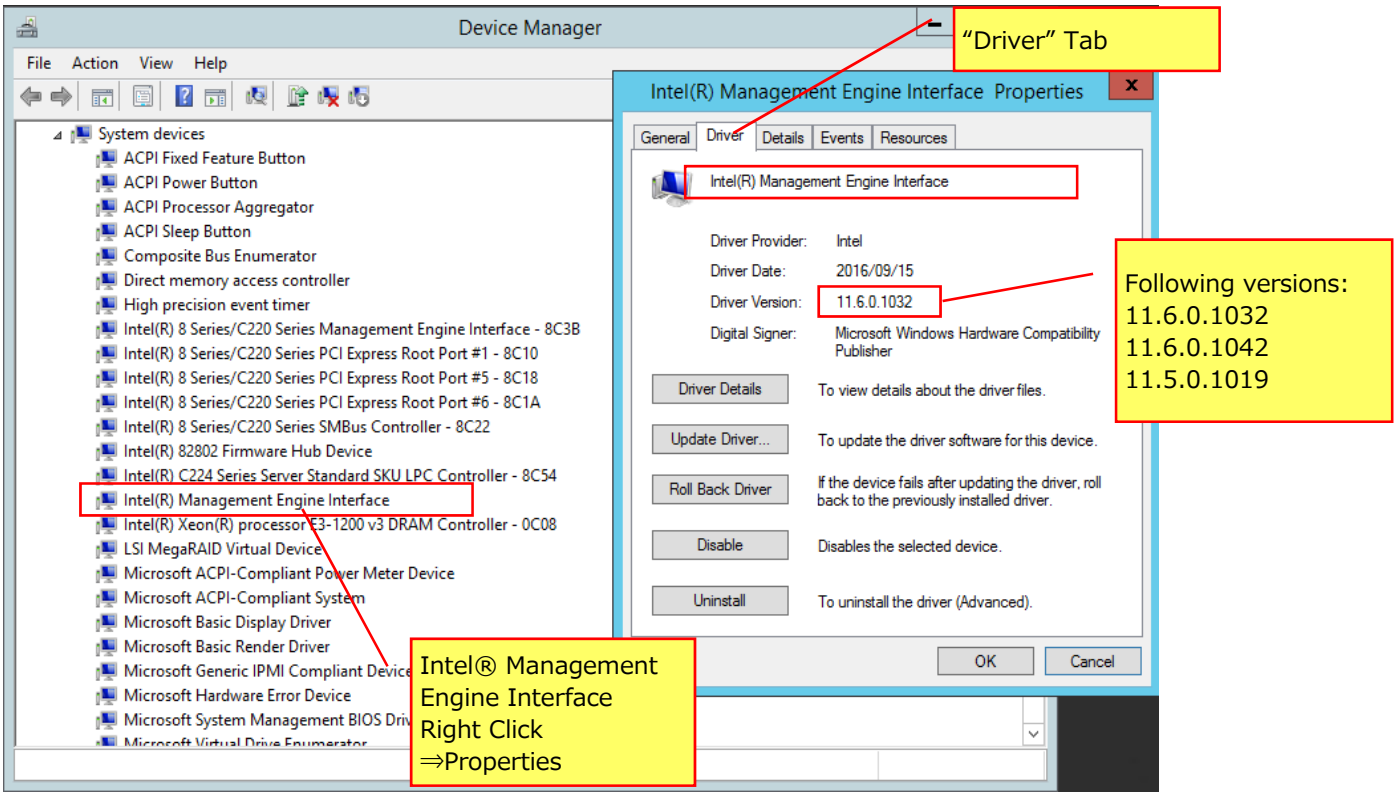
The following have been confirmed to cause the failures.

- Intel – System 11/16/2016 12:00:00 AM – 11.6.0.1042
- Intel – System 9/15/2016 12:00:00 AM – 11.6.0.1032
- Intel – System 7/8/2016 12:00:00 AM – 11.5.0.1019

Display on Windows Update



When the responsible device driver is applied, the display will be as follows on Device Manger.
(Device Manager [View] -> [Show hidden device]
Right click on Intel® Management Engine Interface -> Properties -> [Driver] tab)



2. Fix procedure

2．1.　Flow of fix procedure

This Chapter explains the fix procedure of Management Engine Interface driver.

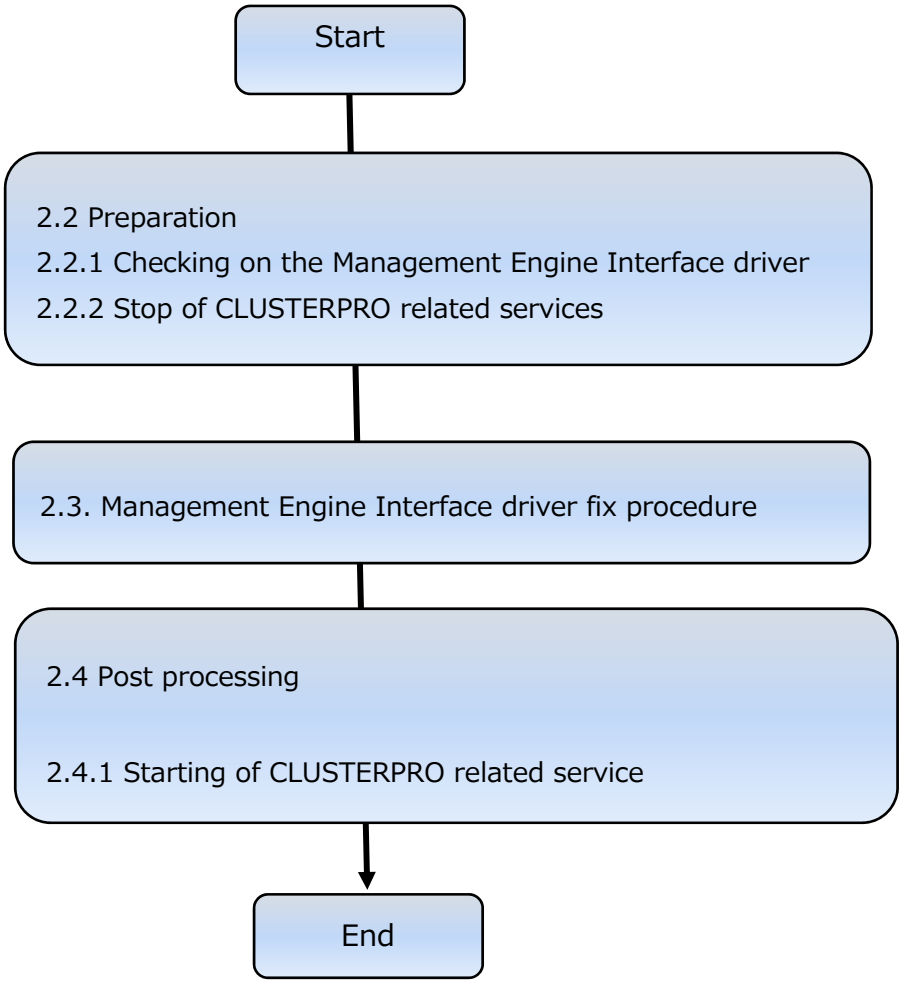
Important

To complete fixing Management Engine Interface driver, it is necessary to restart the computer.

- Under the failure environment where the computer powers off instead of restarting, power off may occur by restarting immediately after this fixing process. When this failure occurs, press power button and turn it on. It will restart normally thereafter.
- Please do not perform this fix procedure under the remote environment (because it is difficult to deal with the failure remotely, when OS start fails. Perform it on local console.)

Important

The procedure in this document presupposes to use CLUSTERPRO. In the case that the system is not using CLUSTERPRO, skip the procedure related to CLUSTERPRO (2.2.2 and 2.4.1).



2．2　Preparations

This chapter explains prerequisite procedure for fixing Management Engine Interface driver.

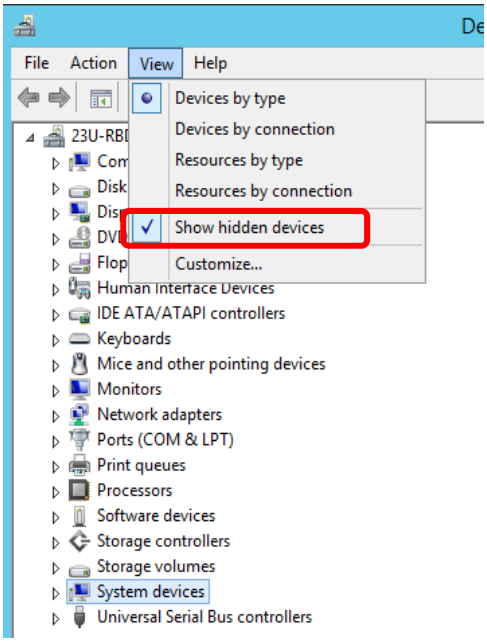
Important

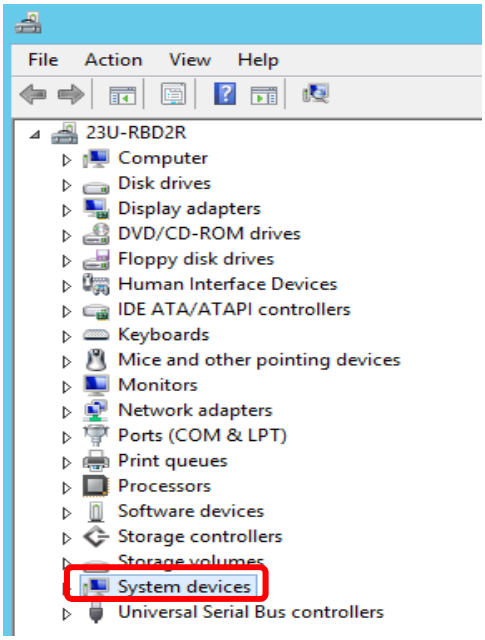
Execute the following procedure by logging on as a user with an administrative privilege (administrator, etc.). Performing this procedure by using OS remote desktop function is not supported. (Under the failure environment where computer turns off instead of restarting, the PC must be turned on after this fixing procedure. When failing to OS start, it is difficult to handle remotely, therefore, perform it on local console.)
In the environment where CLUSTERPRO is not used but Hyper-V is used, all the guest OS should be shut down and the auto-starting setting should be canceled before this fix procedure.
Before performing this procedure, make sure to close other windows, etc.
In the case that your problem is not solved after performing this procedure, there may be other problems. Contact the store where you purchased this product or contact service representative.

2.2.1 Confirmation of the Management Engine Interface driver

This chapter explains how to check Management Engine Interface driver. Check the Management Engine Interface driver and its version referring to the following procedure.

(1) Start [Device Manager] and select [View] -> [Show hidden devices].Then, select [System devices] and display the system device.





(2) Check the Management Engine Interface driver referring to the following procedure.

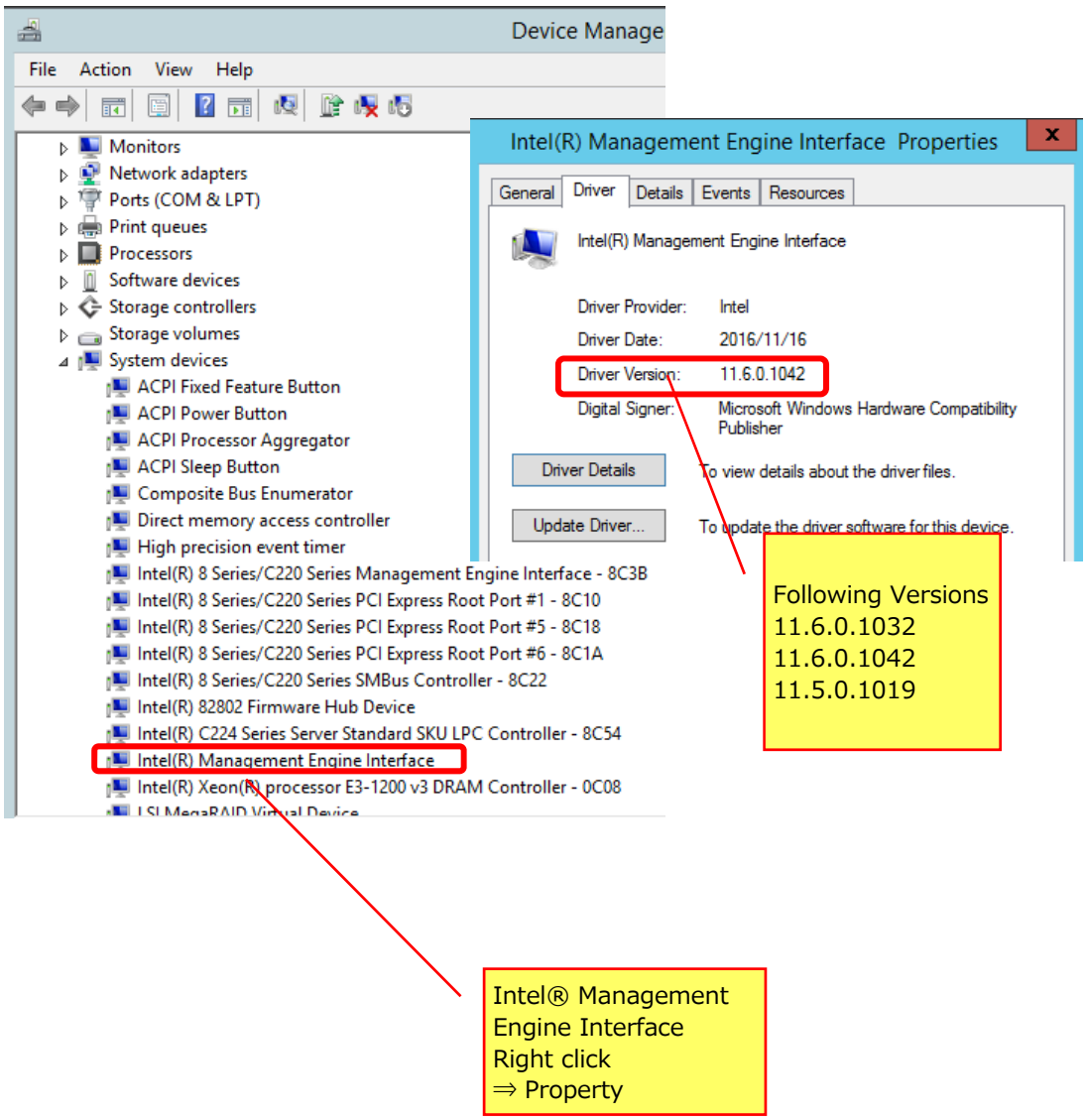
(a) The display when fix procedure is needed.

[Intel(R) Management Engine Interface]

(Driver version:**11.6.0.1032、11.6.0.1042 or 11.5.0.1019)**

In the case that the above is displayed, proceed to fix the driver referring to the procedure in this document.

For checking the driver version, right click on this device and select [Properties]. Property window is displayed. Select [Driver] tab and check the driver version.

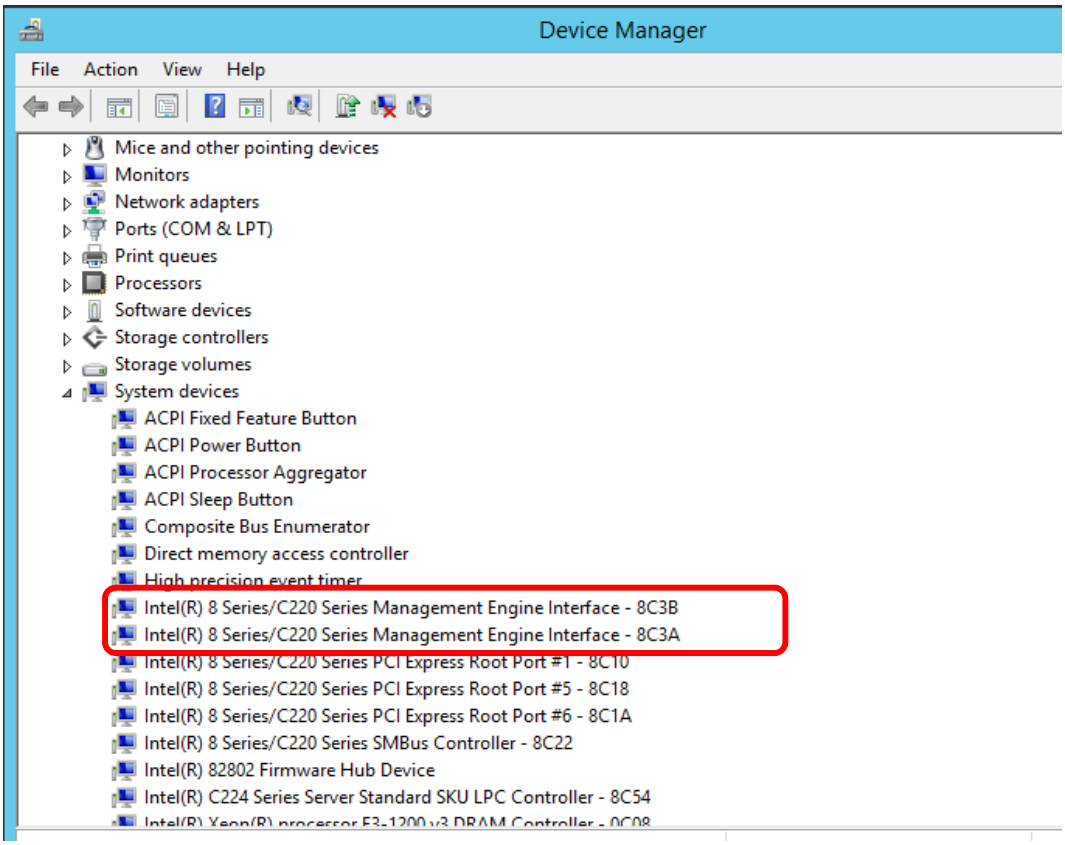


(b) The displays when fix procedure for driver is not needed.

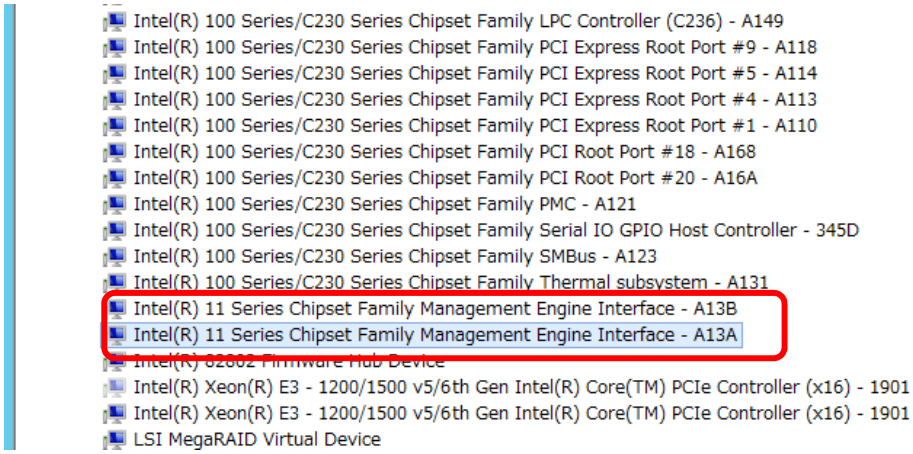
If [Intel(R) Management Engine Interface] confirmed in (a) does not exist but both of the following two devices exist, the fix procedure is not necessary.

Model group	
Group 1	Intel(R) 8 Series Management Engine Interface – 8C3A Intel(R) 8 Series Management Engine Interface – 8C3B*
Group 2	intel(R) 11 Series Chipset Family Management Engine Interface - A13A intel(R) 11 Series Chipset Family Management Engine Interface - A13B*
Group 3	Intel(R) C610 series/X99 Chipset Management Engine Interface - 8D3A Intel(R) C610 series/X99 Chipset Management Engine Interface - 8D3B*

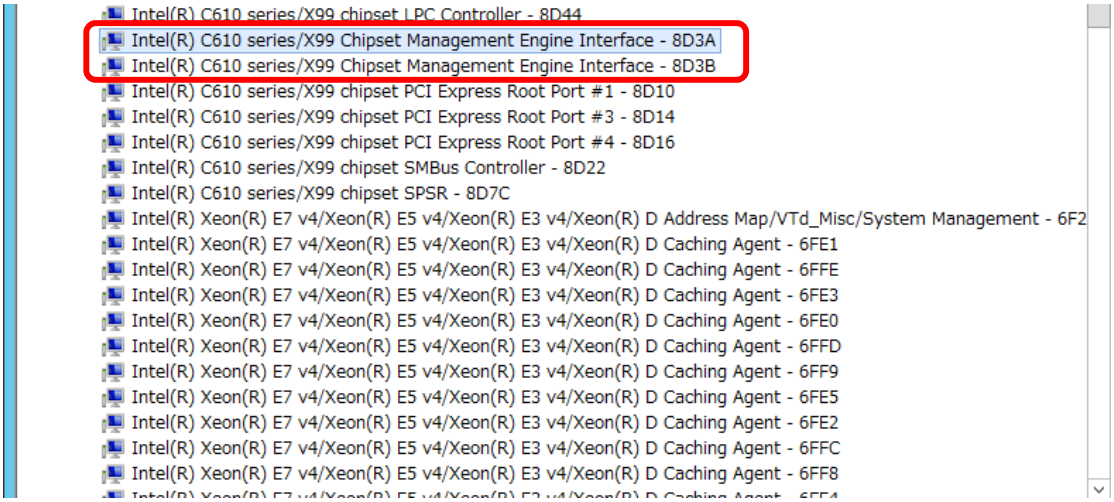
Group 1 without any problems:



Group 2 without any problems:



Group 3 without any problems:



2.2.2 Stop of CLUSTERPRO related services

(This section is applied only when CLUSTERPRO is used. If not used, go to the next section.)

Stop the CLUSTERPRO related services referring to the following CLUSTERPRO manual.

http://www.nec.com/en/global/prod/expresscluster/en/support/manuals.html

- Select your EXPRESSCLUSTER version
- Choose Reference Guide

■Operation by WebManager

→Chapter 1　Functions of the WebManager

→Window of the WebManager

→Operating a cluster and cluster services on the WebManager

■EXPRESSCLUSTER command reference

→Chapter 3　EXPRESSCLUSTER command reference

→Operating the cluster (clcpl command)

*After shut-down is completed, start the system and move on to the section 4.

2.3 Fix procedure of Management Engine Interface driver

This chapter explains how to fix Management Engine Interface driver.

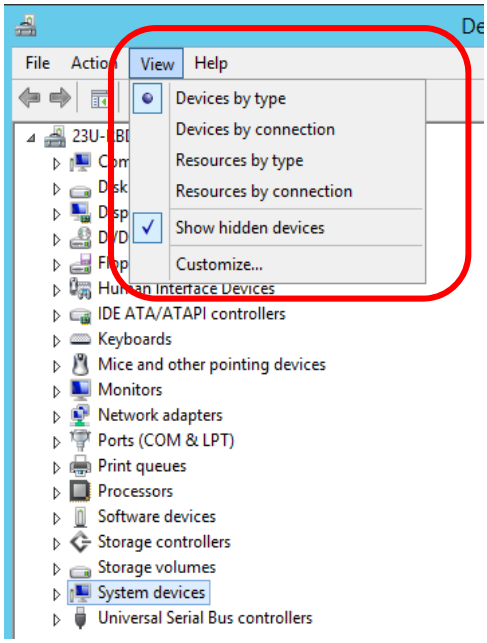
Important

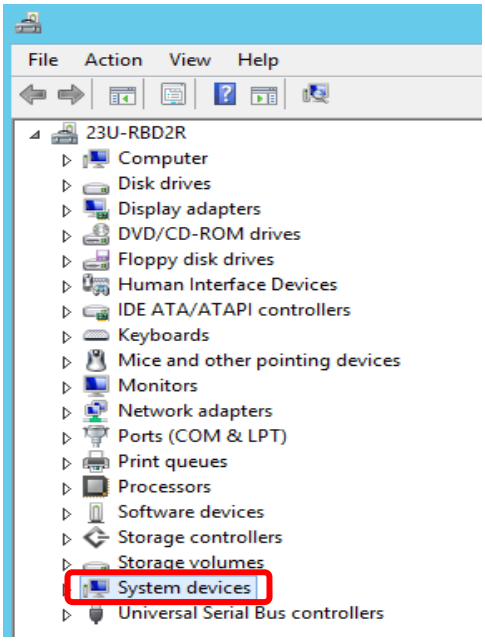
Execute the following procedure by logging on as a user with an administrative privilege (administrator, etc.). Performing this procedure by using OS remote desktop function is not supported. (Under the failure environment where computer turns off instead of restarting, the PC must be turned on after this fixing procedure. When failing to OS start, it is difficult to handle remotely, therefore, perform it on local console.)
In the environment where CLUSTERPRO is not used but Hyper-V is used, all the guest OS should be shut down and the auto-starting setting should be canceled before this fix procedure.
Before performing this procedure, make sure to close other windows, etc.
In the case that your problem is not solved after performing this procedure, there may be other problems. Contact the store where you purchased this product or contact service representative.

2.3.1 Management Engine Interface driver repairing procedure

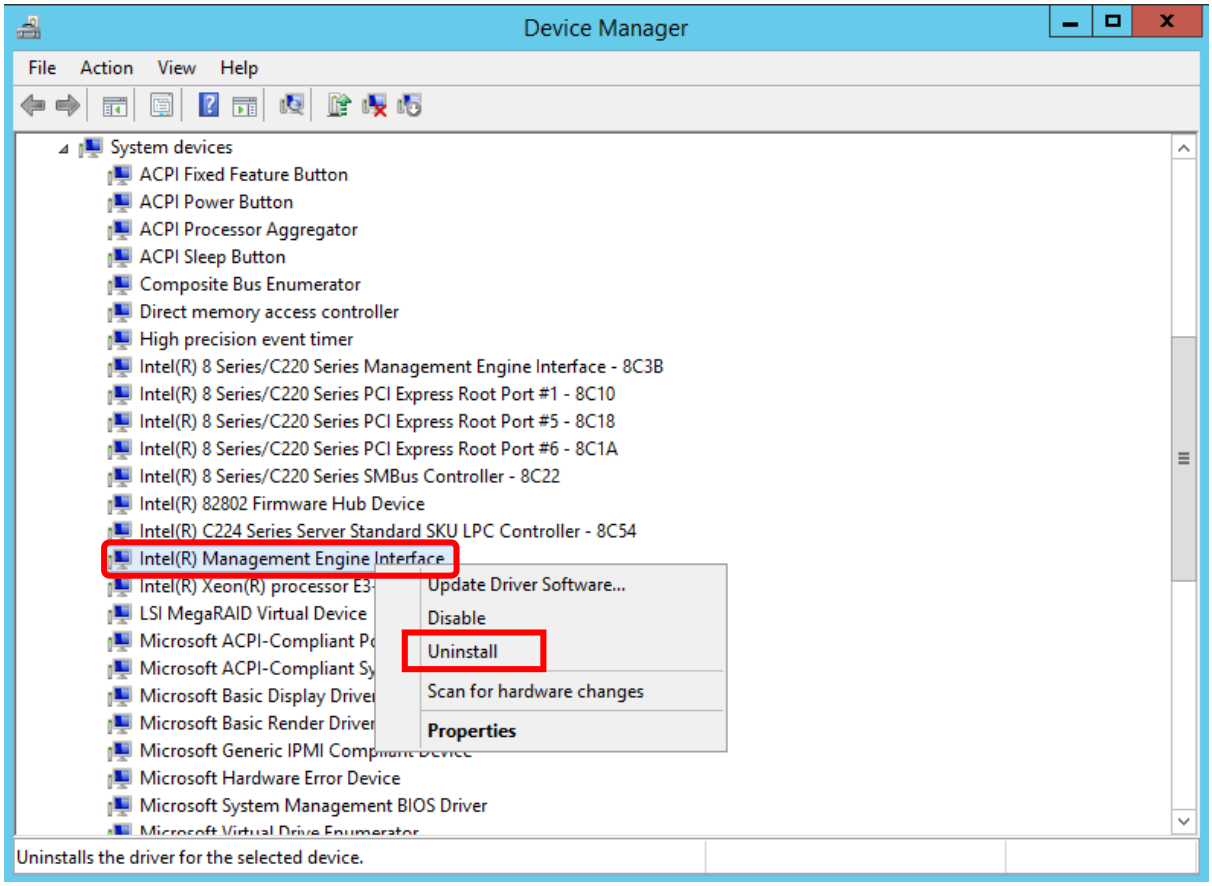
(a) Start [Device Manager] and select [View] -> [Show hidden devices].

Then, select [System devices] and display the system device.

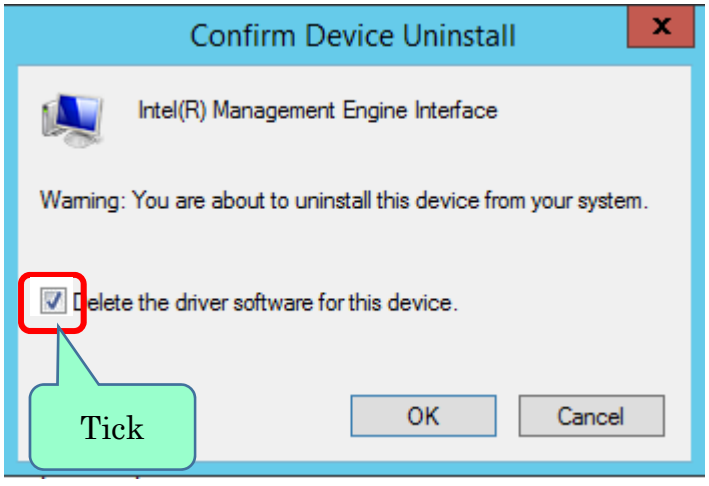




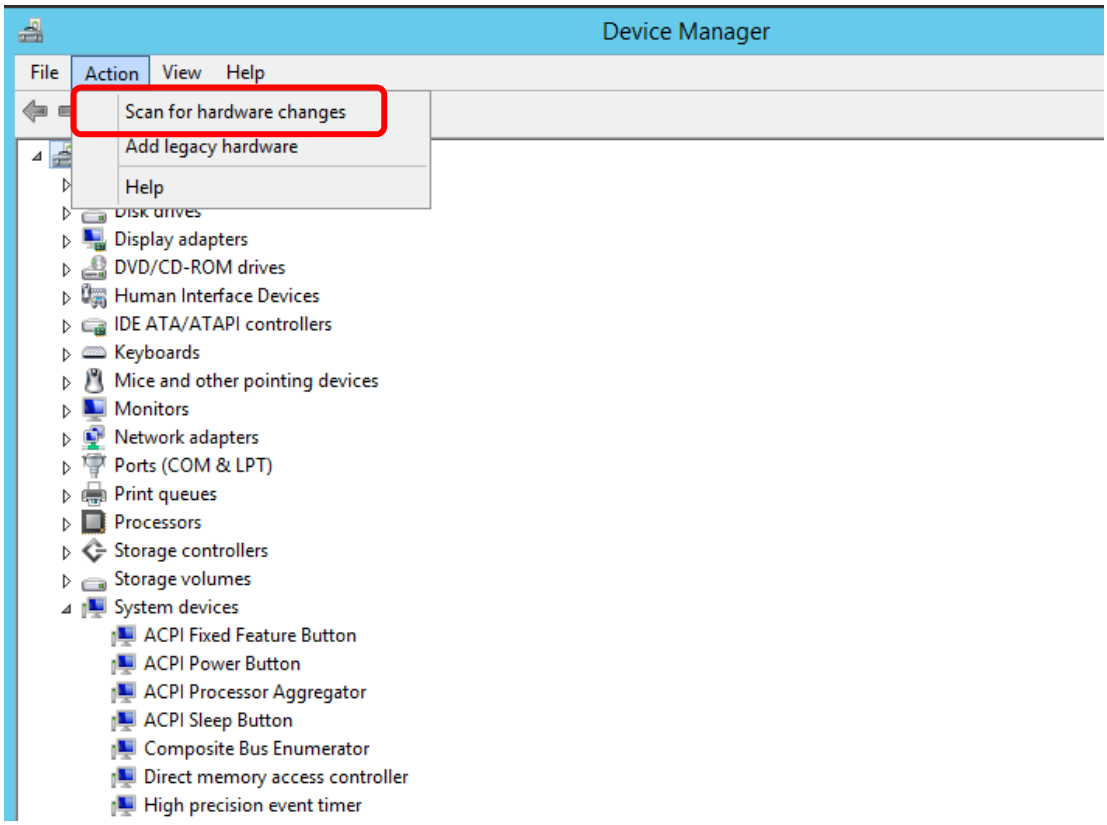
(b) Move the cursor to Intel(R) Management Engine Interface, right click on it and select Uninstall.



(c) [Confirm Device Uninstall] is displayed. Tick on [Delete the driver software for this device] and click OK.



(d) Select [Action] and execute [Scan for hardware changes].



(e) Confirm the display referring to [(b) The displays when fix procedure is not needed] in 2.2.1 (2).

In the case when [Intel(R) Management Engine Interface] is displayed although the procedure of (a) to (d) was performed, retry the procedure from (a) to (e).
(When the [Intel(R) Management Engine Interface] driver has been updated multiple times, the update should be deleted one by one; hence, multiple procedures are necessary.)

(f) Restart the server. If the STATUS LED is amber ON caused by this issue, once remove AC power and turn AC power ON and boot.

Important

To complete fixing Management Engine Interface driver, it is necessary to restart the computer.

- Under the failure environment where the computer powers off instead of restarting, power off may occur by restarting immediately after this fixing process. When this failure occurs, press power button and turn it on. It will restart normally thereafter.
- Please do not perform this fix procedure under the remote environment.

2.4 Postprocessing

Important

In the environment where CLUSTERPRO is not used but Hyper-V is used, all the guest OS should be shut down and the auto-starting setting should be canceled before this fix procedure.
Before performing this procedure, make sure to close other windows, etc.
In the case that your problem is not solved after performing this procedure, there may be other problems. Contact the store where you purchased this product or contact service representative.

2.4.1 Starting of CLUSTERPRO related service

(This section is applied only when CLUSTERPRO is used. If not used, go to the next section.)
Start the CLUSTERPRO related services referring to the following CLUSTERPRO manual.
http://www.nec.com/en/global/prod/expresscluster/en/support/manuals.html

- Select your EXPRESSCLUSTER version
- Choose Reference Guide

■Operation from WebManager
→Chapter 1　Functions of the WebManager
→Window of the WebManager
→Operating a cluster and cluster services on the WebManager

■EXPRESSCLUSTER command reference
→Chapter 3　EXPRESSCLUSTER command reference
→Operating the cluster (clcpl command)

3. Precautions

This Chapter explains precautions regarding the fix procedure of Management Engine Interface driver.

3.1 Operating by using remote desktop

Make sure to perform all the operations in this document from console connected to the server.
OS remote desktop function or operation by using other remote operation tool is not supported. (Under the failure environment where computer turns off instead of restarting, the server must be turned on after this fixing procedure. When failing to OS start, it is difficult to handle remotely, therefore, perform it on local console.)

3.2 Account at the time of operation

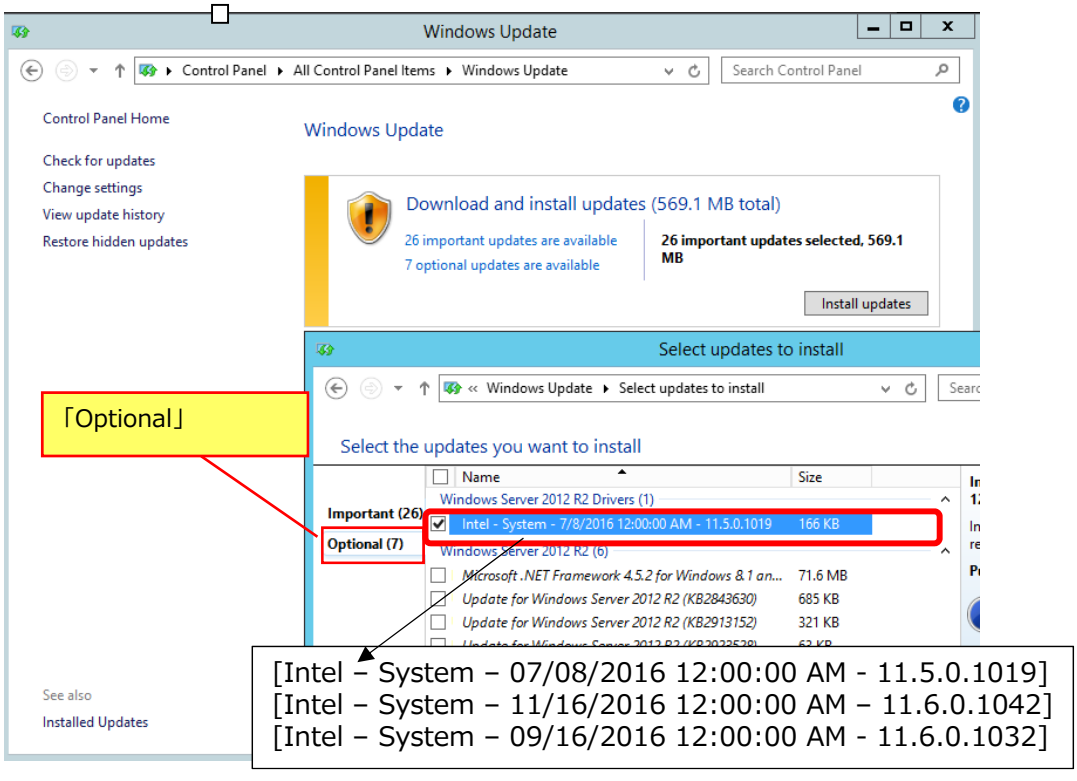
When performing all the operations in this document, make sure to log on or sign as an account with administrative privilege.
Make sure to start command prompt as an administrator.

3.3 About Windows Update

When performing Windows Update, do not select the following updates.
When erroneously applied, fix it referring to the procedure in this document.

[Intel – System – 07/08/2016 12:00:00 AM - 11.5. 0.1019]
[Intel – System – 09/16/2016 12:00:00 AM - 11.6. 0.1032]
[Intel – System – 11/16/2016 12:00:00 AM - 11.6. 0.1042]

<Example of display>



Change History:

Rev. Date	Change
Rev. 1.3 June 26, 2017	Initial revision in English (based on Rev.1.3 Japanese version)
Rev. 2.0 July 31, 2017	Page 1 Added the description that the device driver causing the issue was removed from Windows Update on July 6, 2017. Page 1, 4 Removed the descriptions that instruct not to apply the update again after the procedures described in this document was performed.