Disabling TCP-IPv6 Checksum Offload Capability with Intel® 1/10 GbE Controllers

Technical Brief

Ethernet Networking Division (ND)

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Revision 1.0
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Revision History

Revision	Date	Comments
1.0	October 30, 2017	Initial release (Intel public).

1.0   Overview

This document is part of a package (ZIP file) that contains the following:

- This document
- Windows* PowerShell* script (*DisableChecksumOffload.ps1*)

Please ensure that you have both items before proceeding.

2.0   Description

In some situations where a client machine is connected via some specific Optical Network Terminals (ONTs), and data is appended after the packet checksum, the network adapter can drop receive packets when using TCP-IPv6 Checksum Offload for receive traffic.

3.0   Products Affected

All 1 GbE and 10 GbE Intel® Ethernet controllers and network adapters.

4.0   Recommended Action

1. Before proceeding with any changes, create a restore point or otherwise ensure that all relevant files are backed up.

2. To disable all Intel-branded network adapters in the system, download and run the PowerShell script *DisableChecksumOffload.ps1*, included in the package with this document.

3. Alternately you can disable TCP-IPv6 Checksum Offload using Windows Device Manager. For each Intel 1 GbE and 10 GbE adapter:

   a. Go to the **Properties** page and select the **Advanced** tab.

   b. In the **Advanced** tab, scroll until you find **TCP Checksum Offload (IPv6)** and click on that.

   c. The **Value** field should show **Rx & Tx Enabled**. Use the selection box and change the **Value** to be **Disabled**.

   d. Click on **OK** to save and apply the change.

Following is the content of the *DisableChecksumOffload.ps1* PowerShell script:

```
Disable-NetAdapterChecksumOffload -InterfaceDescription "*Intel*" –TcpIPv6
```

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