Neterion Windows 2008 NDIS6 Drivers

Table of Contents

General Information

Driver Name	xfrmi64.sys, xfrmi86.sys, xfrmx64.sys	Device Drivers Download
Supported Adapters	All Neterion Adapters listed	here.
Supported Windows OS	Windows Server 2008, standard, enterprise, datacenter RTM	
Hardware Architectures	x86, x86-64, ia64	

Release Notes and Readme files

For information such as driver requirements, change logs, available downloads, and known issues, see the Release Notes.

For additional information regarding installation, performance suggestions, known issues, etc., please see the Readme.

Back to TOC

Measuring baseline performance

There are several commercially available as well as shareware tools that can measure the performance of the NIC.

1. Chariot
2. NT Testing TCP Tool.msi
3. NTTTCP Neterion Sample scripts

NTttcp is a Winsock–based port of ttcp to Windows.

More information can be found at:
http://download.microsoft.com/download/2/8/0/2800a518-7ac6-4aac-bd85-74d2c52e1ec6/tuning.doc

Expected Results The expected performance results can vary significantly based upon factors such as traffic type, number of connections, machine type, and PCI slot type, etc… If you feel the performance on a particular machine is low, please contact your server vendor or your Xframe vendor with your performance expectations and observed results.

Windows Server 2008 ndis6 utilities

```
This work is in progress.  When complete, the Xframe Control Panel Utility
will work with NDIS 6 drivers. Users can configure different ring based
parameters using XCP.
```

Frequently Asked Questions (FAQ)

Q1: Do you have drivers for the IA64 version of Windows 2008 Server?

```
A: The driver supports IA64 for all Xframe 10GbE network adapters.
   The driver is compatible with both the PCI-X and PCI-E versions
   of our adapters.
```

Q2: Do you have any sample scripts to measure the performance?

```
A: For your convenience, we have attached a ntttcp scripts here.

   On receiving machine run following command:

   ntttcpr -m 80,1,1.1.1.2 -a 24 -l 537600 -rb 5376000 -n 200000 -fr
    where 1.1.1.2 is the ip address of the receiver station.

   On sending machine, run following command:
   ntttcps -m 80,0,1.1.1.2 -a 6 -l 537600 -n 200000
```

Q3: How do I get statistics and register dump for Xframe adapter?

```
A: This work is in progress.  When complete, you will have to install
   Xframe Control Panel Application from Neterion. Once you install the
   application and have launched the application, Select the Xframe
   adapter on the general tab and then right click to "Properties".
   Select "Utilities" tab and then from drop down menu, select
   "Adapter dump" and hit start. Save the generated file which contains
   statistics and register dump.
```

Q4: Why did receive performance drop after reloading the driver or changing parameters?

```
A: Sometimes after changing parameters or multiple disable/enable of the
   driver a cpu load shifting to one cpu may occur. This appears related
   to RSS rebalancing. Similar issues have also been observed with other
```

```
      3rd party 10GbE adapters. Rebooting the machine will resolve the issue.
```

Q5: Does the Windows 2008 NDIS 6 driver support MSI-X?

```
A: Yes. The Xframe II NDIS 6 driver supports MSI-X. However, because certain machines
   do not support this configuration, the default is MSI-X disabled. If the server
   supports MSI-X, this can be enabled by using regedit.exe. NOTE: editing the registry
   incorrectly can negatively impact your server if done incorrectly. Explore

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Class\{4D36E972-E325-11CE-BFC1-08002BE10318}

   search for the folder that contains Xframe II 10GbE Server/Storage adapter.
   (There will be one folder for each adapter installed)

   Look for the key "intr_mode" and change the value to 2.

   Then, disable/enable the adapter in Network Connections or reboot the system for
   changes to take effect.

   Alternatively, this can be done in the Xframe Control Panel for Windows 2008 when
   released.
```

Q6: What are the performance suggestions for Windows Server 2008 NDIS 6 driver?

```
A: Please see README.TXT from NDIS6 driver package.
```

Q7: Will the NDIS 6 drivers work with Windows Vista?

```
A: The NDIS 6 drivers only support Windows 2008 Server environments at this time.
```

Q8: Does your driver support Windows Server 2008 Hyper-V?

```
A: Our driver has been tested and shown functional for Microsoft Hyper-V? However,
please note that Microsoft Hyper-V is a new environment and the Microsoft supplied
network driver available to the customer in a virtual machine is different from
the Neterion driver that is present in the role server. Thus, many features in the
virtual environment are limited by the functionality of the operating system
supplied virtual driver.
```

Q9: I loaded the driver and I can't connect. What should I do?

```
A: The key to troubleshooting network connectivity issues is to isolate the point
of failure. First, determine in device manager that the driver is properly
installed. If it is, check for link status. If there is not a link, this usually
represents a physical issue. Connect to a known good 10 GbE port, a back-to-back
fiber to another Xframe II adapter, or a loopback plug to isolate fault.
Once link is established, be sure to remove any firewalls or other applications
that may be preventing connectivity. As a general rule, when troubleshooting, start
with a basic setup and then add complexity. This makes it easier to take corrective
action or determine point of failure.
```

Q10: I have 16 CPUs. Why are only 4 used during RX stress testing?

```
A: Check that RSS is enabled. Next refer to Microsoft website:
http://msdn.microsoft.com/en-us/library/bb734079.aspx
Note that the default is 4 CPUs. The Xframe II adapter can use up to 8.
```

*Last updated on **Thu May 26 11:54:06 2011***

Download in other formats:

Plain Text