

Alacritech Release 10.0.0.3006 Release Notes for NDIS 6.0 driver for  
Microsoft Windows Server 2008 and Vista Platforms

Date: Wednesday, 28 January, 2009

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## Introduction

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This is the official release of the 10.0.0.3006 driver package for Alacritech Accelerators on Windows Server platforms using the Microsoft Scalable Networking Pack.

This is a features release for Windows Server 2008 and Windows Vista. This driver introduces support for Alacritech SEN3000 series 10 gigabit Network Accelerators, adds additional teaming functionality, and increases the functionality of existing Alacritech SEN1800 products and all SES (iSCSI Accelerator) products.

This driver also contains bugfixes resolved since the 9.3.0.2093 driver.

This release supports the following Alacritech product families:

- SEN3000 10 Gigabit Network Accelerator
- SEN1800 Volume Server Network Accelerator
- SEN2000 Enterprise Server Network Accelerator
- SEN2100 Enterprise Server Network Accelerator
- SES1800 Volume Server iSCSI Accelerator
- SES2000 Enterprise Server iSCSI Accelerator
- SES2100 Enterprise Server iSCSI Accelerator

1000x1 and SES1001 products continue to be supported through the 7.x.x.x drivers. 100 Mbit products continue to be supported through the 6.x.x.x drivers.

This file provides details on known outstanding bugs, support issues and feedback mechanisms for this release.

Content List

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This release contains the following file and directories:

autorun.inf

Launches the installation process on a Windows system if it is located on CD media.

install.html

Front end introduction to the drivers included on the CD.

doc

Files and documentation associated with Alacritech's hardware and software products. The snp directory contains documentation specific to this software release. This includes the Alacritech Accelerator Users Guide.

doc\images

Folder containing files referenced by html documentation.

doc\include

Folder containing files referenced by html documentation.

doc\wlh

The snp directory contains documentation specific to this software release. This includes the Alacritech Accelerator Users Guide.

readme.html

Front end introduction to the driver.

RelNotes.txt

This file.

FlashImage

Flash image files to provide a PXE/UNDI interface to all one gig products supported by this release. This release does not provide PXE/UNDI support for ten gig products.

tools\wlh

Configuration and diagnostic tools for this release.

slicstat.exe

Performance diagnostic tool.

slicutil.exe

Command line configuration tool.

wlh

Directories for x86 and x64 versions of the NDIS 6.0 driver software. [Windows Server 2008 and Vista]

wlh\x86

The install programs, software drivers, libraries, and utilities for Windows Server 2008 and Windows Vista.

wlh\x64

The install programs, software drivers, libraries, and utilities for Windows Server 2008 x64 and Windows Vista x64.

NDIS 6.0 x86 File Versions:

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File	Version	Build Date	Description
sxgx86.sys	10.0.0.3006	01/06/2009 11:13 AM	Network Miniport Driver for 10 gigabit
slicix86.sys	10.0.0.3006	01/06/2009 11:13 AM	Network Miniport Driver for 1 gigabit
slicteam.sys	10.0.0.3006	01/06/2009 11:13 AM	Intermediate driver for Teaming/VLAN

NDIS 6.0 x64 File Versions:

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File	Version	Build Date	Description
sxgx64.sys	10.0.0.3006	01/06/2009 11:09 AM	Network Miniport Driver for 10 gigabit
slicix64.sys	10.0.0.3006	01/06/2009 11:09 AM	Network Miniport Driver for 1 gigabit
slicteam.sys	10.0.0.3006	01/06/2009 11:09 AM	Intermediate driver for Teaming/VLAN

PXE/UNDI File Versions:

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File	Version*	Build Date	Description
oasis0.bin	1.0.1.3	07/10/2007 1:50 PM	iSCSI boot firmware
oasis1.bin	1.0.1.3	07/10/2007 1:50 PM	iSCSI boot firmware
oasis2.bin	1.0.1.3	07/10/2007 1:50 PM	iSCSI boot firmware
stub_m.nic	1.0.1.3	07/10/2007 1:50 PM	iSCSI boot firmware
stub_mb.nic	1.0.1.3	07/10/2007 1:50 PM	iSCSI boot firmware
stub_mc.nic	1.0.1.3	07/10/2007 1:50 PM	iSCSI boot firmware
stub_mf.nic	1.0.1.3	07/10/2007 1:50 PM	iSCSI boot firmware

\*At this time there is no version stamp in the PXI/UNDI files.  
Version can be determined with 'findstr "Alacritech" \*.nic'

Caveats

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Network performance on Server 2008 and Vista is very poor unless Service Pack 2 is installed.

Features

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Supported Hardware

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This release supports the following products:

Part Number	Product Description
SEN3000	10 Gigabit Network Accelerators

SEN3001EF-SR	PCI-Express 10 Gigabit Fiber 1-port Network Accelerator with SFP+ SR transceiver
SEN3001EF	PCI-Express 10 Gigabit Fiber 1-port Network Accelerator without SFP+ SR transceiver
SEN1800	Volume Server Scalable Network Accelerators
SEN1811XT	PCI-X Gigabit Copper 1-port Network Accelerator
SEN1812XT	PCI-X Gigabit Copper 2-port Network Accelerator
SEN1822ET	PCI-Express Gigabit Copper 2-port Network Accelerator
SES1800	Volume Server Scalable iSCSI Accelerators
SES1811XT	PCI-X Gigabit Copper 1-port iSCSI Accelerator
SES1812XT	PCI-X Gigabit Copper 2-port iSCSI Accelerator
SES1822ET	PCI-Express Gigabit Copper 2-port iSCSI Accelerator
SEN2000	Enterprise Server Scalable Network Accelerators
SEN2001XT	PCI-X Gigabit Copper 1-port Network Accelerator
SEN2001XF	PCI-X Gigabit Fiber 1-port Network Accelerator
SEN2002XT	PCI-X Gigabit Copper 2-port Network Accelerator
SEN2002XF	PCI-X Gigabit Fiber 2-port Network Accelerator
SES2000	Enterprise Server Scalable iSCSI Accelerators
SES2001XT	PCI-X Gigabit Copper 1-port iSCSI Accelerator
SES2001XF	PCI-X Gigabit Fiber 1-port iSCSI Accelerator
SES2002XT	PCI-X Gigabit Copper 2-port iSCSI Accelerator
SES2002XF	PCI-X Gigabit Fiber 2-port iSCSI Accelerator
SEN2100	Enterprise Server Scalable Network Accelerators
SEN2102ET	PCI-Express Gigabit Copper 2-port Network Accelerator
SEN2102EF	PCI-Express Gigabit Fiber 2-port Network Accelerator
SEN2104ET	PCI-Express Gigabit Copper 4-port Network Accelerator
SEN2104EF	PCI-Express Gigabit Fiber 4-port Network Accelerator
SES2100	Enterprise Server Scalable iSCSI Accelerators
SES2102ET	PCI-Express Gigabit Copper 2-port iSCSI Accelerator
SES2102EF	PCI-Express Gigabit Fiber 2-port iSCSI Accelerator
SES2104ET	PCI-Express Gigabit Copper 4-port iSCSI Accelerator
SES2104EF	PCI-Express Gigabit Fiber 4-port iSCSI Accelerator

#### Supported Platforms

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This release is supported only for IA32 x86 and x64 compatible architecture running selected Microsoft Windows operating system versions:

#### Supported Windows Versions

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Windows Server 2008  
Windows Server 2008 x64  
Windows Server Core 2008\*  
Windows Server Core 2008 x64\*  
Windows Vista  
Windows Vista x64

\*slicutil program is required to configure Teaming and VLANs from command line

#### Existing Features

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- Basic NIC Functionality
  - TCP Offload
  - IPv4 checksum, TCP checksum, and large send offload even when connections not offloaded.
  - PXE UNDI flash ROM support (To enable iSCSI boot, one gig only)
  - Jumbo Frames
  - Link Aggregation (Teaming)
    - + 802.3ad/(Fast/Gigabit) EtherChannel compatible mode
    - + Hot Standby Failover mode
  - Membership in multiple tagged VLANs

Added Features:

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- Support for SEN3000 Series 10 gigabit Network Accelerator
  - TCP Offload for IPv6 (SEN3000 only)
  - Full 802.3x flow control (SEN3000 only)
  - Interrupt Moderation (SEN3000 only)
  - Mixed speed (one gig with 10 gig) Hot Standby Failover teaming.
  - Command line configuration for teaming and VLANs. This allows these functions to be available under Server Core 2008.
  - Upgrades all SEN1800 and all SES products to their SEN2100 or SEN2000 equivalent functionality (See product\_id\_map.htm in the doc directory).

Discontinued Features:

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No features have been removed by this release.

Windows Logo (Windows Hardware Quality Lab [WHQL] signature)

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The slicix86.sys, and slicix64.sys network miniport drivers are digitally signed by Microsoft.

The slicteam.sys intermediate driver is digitally signed by Microsoft.

The sxgx86.sys and sxgx64.sys network miniport driver has not undergone WHQL testing, and is digitally signed by Alacritech.

Known Issues

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This section contains a list of currently understood issues. Both open bugs and known integration issues are documented based on this specific release. Please review the current open bugs and known issues before filing a bug report. See the Support and Feedback section below for details on reporting bugs.

Open Bugs

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Bug 01813 [All]  
Unable to Add VLAN

VLAN support just flat doesn't work

Workaround: Contact Alacritech support for a bugfix driver.

## Integration Issues

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TCP Offload is not available to virtual client operating systems.

Problem - Under Vritual Server 2005 or Hyper-V, TCP Offload is unavailable to client OSES. TCP Oflload is available to the host OS. This has design implication for environments where client OSES wish to access iSCSI LUNS. Better performance can be gained by mounting the LUN to the host OS which can then present the LUN to the client as a local disk, rather than having the client OS access the LUN directly.

Workaround: None. The Microsoft virtual network drivers do not support Scalable Networking Pack.

## Resolved Issues

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Resolved since 9.3.0.2093

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Resolved since 9.1.0.1283

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Bug 01684 [All]

BSOD D1 When Deleting the Last VLAN on a Single Adapter

Deleting last VLAN on a non-team member ports resulted in a double free, causing a BSOD.

Bug 01498 [All]

SACK advertised but not implemented

Selective ACK is advertised by Microsoft front end but not supported by Alacritech Offload layer.

Readme

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The readme.html contained with distribution should be used as the starting point for learning about this driver.

Users Guide

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There is a Users Guide contained in the doc directory provided to customers for use with Alacritech Accelerators. For details on installation, management, teaming, and interoperability issues, please review the Users Guide, as full details have been provided there.

Support and Feedback Mechanism

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Before Contacting Customer Support, please browse the troubleshooting

section of the Users Guide. Should you need to contact customer support, please gather all of the following information requested in the Incident Reports section below before initiating contact.

To contact Alacritech customer support you may use one of the following options:

Email: [support@alacritech.com](mailto:support@alacritech.com)

Phone: 877.341.8267

#### Incident Reports

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Please include the following information when sending in an incident request:

#### Hardware:

- CPUs
- Amount of memory
- PCI busses
- Number of Alacritech accelerators
- Other network interfaces

#### Software:

- Windows Version (2000, XP, 2003)
- Windows Service Pack version
- Version of Alacritech drivers

#### Log information:

- Event Viewer details related to Alacritech
- Windows dump files (if there is a crash)

#### Testing environment:

- What software is being tested
- What types of tests reproduce the problem
- Where is the failure occurring
- What has been done to try and solve the problem

#### Patents

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One or more U.S. and international patents apply to Alacritech products, including without limitation: U.S. Patent Nos. 6,226,680, 6,247,060, 6,334,153, 6,389,479, 6,393,487, 6,427,171, 6,427,173, 6,434,620, 6,470,415, 6,591,302, 6,658,480, 6,687,758, 6,697,868, 6,751,665, 6,757,746, 6,807,581, 6,938,092, 6,941,386, 6,965,941, 6,996,070, 7,042,898, 7,076,568, 7,089,326, 7,093,099, 7,124,205, 7,133,940, 7,167,926, 7,167,927, 7,174,393, 7,185,266, 7,191,241, 7,191,318.

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