

IBM Storage Device Driver for VMware VAAI
Version 1.3.0

Release Notes



First Edition (June 2013)

This edition applies to version 1.3.0 of the IBM Storage Device Driver for VMware VAAI software package. Newer editions may be issued for the same product version in order to add missing information. The edition is reset to 'First Edition' for every new product version.

© Copyright IBM Corporation 2011, 2013.

US Government Users Restricted Rights – Use, duplication or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

Contents

Overview	1
Compatibility and requirements	1
Supported storage systems	1
Required software on the host	1
Change log	1
Version 1.3.0 (June 2013)	2
Version 1.2.0.1 (February 2012)	2
Version 1.2.0 (June 2011)	2
Version 1.1.0.1 (April 2011).	2
Known issues	2
Related information and publications	2
Getting information, help, and service	3
Notices	5
Trademarks.	7

Overview

The IBM® Storage Device Driver for VMware VAAI is a software plug-in that integrates with the VMware ESX 4.1 and ESXi 4.1 environments, as part of the VMware vStorage APIs for Array Integration (VAAI).

The IBM software plug-in consists of a kernel module that reports to the VMware VAAI driver and allows offloading extended VMware operations to supported IBM storage systems.

You can download the IBM Storage Device Driver for VMware VAAI software package at any time from the IBM Fix Central website (www.ibm.com/support/fixcentral).

Compatibility and requirements

This section specifies the compatibility and requirements of version 1.3.0 of the IBM Storage Device Driver for VMware VAAI.

Supported storage systems

The IBM Storage Device Driver for VMware VAAI supports different IBM storage systems, as listed in the following table.

Storage system	Microcode version
IBM Storwize® V7000	6.2.0, 6.3.0, 6.4.x
	7.1.0
IBM System Storage® SAN Volume Controller	6.2.0, 6.3.0, 6.4.x
	7.1.0
IBM System Storage DS8000®	7.1.0
IBM XIV® Storage System	10.2.4.a or later in the 10.2.4.x version series
	11.0.x, 11.1.x, 11.2.x

Required software on the host

The IBM Storage Device Driver for VMware VAAI requires VMware ESX 4.1 or ESXi 4.1 to be installed on the host system (ESX or ESXi server).

Note: VMware ESXi 5.0 or later already includes built-in drivers that support IBM storage systems. The IBM Storage Device Driver for VMware VAAI is required only if you are using ESX 4.1 or ESXi 4.1.

Change log

This section summarizes the changes made in different version releases of the IBM Storage Device Driver for VMware VAAI.

Version 1.3.0 (June 2013)

Version 1.3.0 introduces support for IBM System Storage DS8000 and for newer microcode versions of the already supported storage systems.

Version 1.2.0.1 (February 2012)

Version 1.2.0.1 included the following fix.

Ticket ID	Description
VAAI-172973	Fixed: In some rare cases, XIV, Storwize V7000, or SAN Volume Controller storage systems cannot be claimed by the IBM Storage device driver.

Version 1.2.0 (June 2011)

Version 1.2.0 introduced support for IBM Storwize V7000 and IBM System Storage SAN Volume Controller, in addition to the IBM XIV Storage System that was supported in the previous version.

Version 1.1.0.1 (April 2011)

Version 1.1.0.1 was the initial version that introduced the offloading of the following VMware extended operations to the IBM XIV Storage System:

- Full copy (clone)
- Block zeroing
- Hardware-assisted locking

For more information about these operations, refer to the Introduction topic.

Known issues

Version 1.3.0 of the IBM Storage Device Driver for VMware VAAI has no known issues.

Related information and publications

You can find additional information related to the IBM Storage Device Driver for VMware VAAI on the following information resources.

- IBM XIV Storage System Information Center (publib.boulder.ibm.com/infocenter/ibmxiv/r2)
- IBM Storwize V7000 Information Center ([/publib.boulder.ibm.com/infocenter/storwize/ic](http://publib.boulder.ibm.com/infocenter/storwize/ic))
- IBM SAN Volume Controller Information Center (publib.boulder.ibm.com/infocenter/svc/ic)
- VMware VAAI website (www.vmware.com/products/vstorage-apis-for-array-integration)
- Performance Best Practices for VMware vSphere 4.1 (www.vmware.com/pdf/Perf_Best_Practices_vSphere4.1.pdf)
- vSphere Command-Line Interface Installation and Reference Guide (www.vmware.com/pdf/vsphere4/r40/vsp_40_vcli.pdf)

Getting information, help, and service

If you need help, service, technical assistance, or want more information about IBM products, you can find various sources to assist you. You can view the following websites to get information about IBM products and services and to find the latest technical information and support.

- IBM website (ibm.com[®])
- IBM Support Portal website (www.ibm.com/storage/support)
- IBM Directory of Worldwide Contacts website (www.ibm.com/planetwide)

Notices

These legal notices pertain to IBM Storage Host Software Solutions product documentation.

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not grant you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.*

For license inquiries regarding double-byte character set (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

*Intellectual Property Licensing
Legal and Intellectual Property Law
IBM Japan Ltd.
1623-14, Shimotsuruma, Yamato-shi
Kanagawa 242-8502 Japan*

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law:

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

*IBM Corporation
Attn: Office of Legal Counsel
650 Harry Road
San Jose, CA 95120-6099
U.S.A.*

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

Any performance data contained herein was determined in a controlled environment. Therefore, the results obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

All statements regarding IBM's future direction or intent are subject to change or withdrawal without notice, and represent goals and objectives only.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Copyright and trademark information website (www.ibm.com/legal/us/en/copytrade.shtml).

VMware, the VMware logo, ESX, ESXi, vSphere, vCenter, and vStorage are trademarks or registered trademarks of VMware Corporation in the United States, other countries, or both.

Other product and service names might be trademarks of IBM or other companies.



Printed in USA