IBM PowerHA SystemMirror for AIX

Enterprise Edition

Version 7.2.1

Release Notes



IBM PowerHA SystemMirror for AIX

Enterprise Edition

Version 7.2.1

Release Notes



Note

Before using this information and the product it supports, read the information in "Notices" on page 9.

First edition (October 2016)

This edition applies to PowerHA SystemMirror Version 7.2.1 and to all subsequent release and modifications until otherwise indicated in new editions.

© Copyright IBM Corporation 2016.

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

Contents

About this document .	•	•	•	•	•	•	•	. v
Highlighting								
Case sensitivity in AIX								
ISO 9000				•				. v
PowerHA SystemMirror Edition replication tech								
Software requirements	•			•	-	•	-	. 3
Installation and migration	on	•	-	•	•	•	•	. 5
Additional information	•	•	•	•	•	•	•	. 7
Notices								
i iivacy policy considerations	·	·	·	·	·	·	·	• 11

About this document

The Release Notes topics include late technical information that is not included in other topics, and they highlights new functions for the PowerHA[®] SystemMirror[®] Version 7.2.1.1 licensed program.

Highlighting

The following highlighting conventions are used in this document:

Bold	Identifies commands, subroutines, keywords, files, structures, directories, and other items whose names are predefined by the system. Bold highlighting also identifies graphical objects, such as buttons, labels, and icons that the you select.
Italics	Identifies parameters for actual names or values that you supply.
Monospace	Identifies examples of specific data values, examples of text similar to what you might see displayed, examples of portions of program code similar to what you might write as a programmer, messages from the system, or text that you must type.

Case sensitivity in AIX

Everything in the AIX[®] operating system is case sensitive, which means that it distinguishes between uppercase and lowercase letters. For example, you can use the **ls** command to list files. If you type LS, the system responds that the command is not found. Likewise, **FILEA**, **FiLea**, and **filea** are three distinct file names, even if they reside in the same directory. To avoid causing undesirable actions to be performed, always ensure that you use the correct case.

ISO 9000

ISO 9000 registered quality systems were used in the development and manufacturing of this product.

PowerHA SystemMirror 7.2.1 Enterprise Edition replication technologies

PowerHA SystemMirror 7.2.1 Enterprise Edition supports the following software and hardware replication technologies:

- Geographic Logical Volume Manager (GLVM)
- DS8000[®] PPRC (Metro Mirror and Global Mirror)
- SVC
- EMC SRDF
- Hitachi Truecopy/HUR
- XIV[®] Remote Mirror
- HyperSwap[®]

Software requirements

Before you install PowerHA SystemMirror Version 7.2.1, you should install all available service packs for AIX and PowerHA SystemMirror from the IBM[®] Fix Central website.

PowerHA SystemMirror Version 7.2.1 is supported on the following version of the AIX operating system:

- IBM AIX 7 with Technology Level 3 with Service Pack 7, or later ¹
- IBM AIX 7 with Technology Level 4 with Service Pack 2, or later ²
- IBM AIX Version 7.2 with Service Pack 2, or later
- IBM AIX 7.2 with Technology Level 1 with Service Pack 1, or later

Note:

¹ The Automatic Repository Disk Replacement (ARR) capability, the AIX Live Update function, and the Logical Volume Manager (LVM) options that are used to enable rootvg monitoring, are not available in this version of the AIX operating system.

² The AIX Live Update function is not available in this version of the AIX operating system.

Installation and migration

You cannot migrate from PowerHA SystemMirror Version 6.1 to PowerHA SystemMirror Version 7.2.1. You must first migrate from PowerHA SystemMirror Version 6.1 to PowerHA SystemMirror Version 7.2. For more information about migrating, see the Migrating from PowerHA SystemMirror 6.1 to PowerHA SystemMirror 7.1, or later topic.

For more information about updating PowerHA SystemMirror Version 7.2.1 with a snapshot, see the Upgrading PowerHA SystemMirror using a snapshot topic.

For more information about updating an offline cluster, see the Upgrading an offline cluster for PowerHA SystemMirror topic.

For more information about rolling migration, see the Performing a rolling migration topic.

Additional information

Default settings

PowerHA SystemMirror Version 7.2.1 added many AIX specific checks to daily verification. In previous versions of PowerHA SystemMirror, these daily verification checks were not enabled by default. However, in PowerHA SystemMirror Version 7.2.1, these verification checks are enabled by default. To view the **Detailed Checks** field in the SMIT interface, select **Custom Cluster Configuration** > **Verify and Synchronize Cluster Configuration (Advanced)**, and press Enter.

In PowerHA SystemMirror Version 7.2.0, ROHA supported the **Start Resource Groups even if resources are insufficient** field in SMIT that determines whether resources are started when the total requested resource exceeds the maximum value for the LPAR profile or the combined available resources value. The default value for the **Start Resource Groups even if resources are insufficient** field is **No**. However, in PowerHA SystemMirror Version 7.2.1 the **Start Resource Groups even if resources are insufficient** field was replaced with the **Always start resource groups** field. The **Always start resource groups** field still functions the same as the **Start Resource Groups even if resources are insufficient** field, but the default value changed to **Yes**. To view the **Always start resource groups** field in the SMIT interface, select **Cluster Applications and Resources > Resources > Configure User Applications (Scripts and Monitors) > Resource Optmized High Availability > Change/Show Default Cluster Tunables**, and press Enter. For more information about the **Always start resource groups** field, see the Changing the default cluster tunables topic.

PowerHA SystemMirror graphical user interface (GUI)

After you install the filesets that are available on the PowerHA SystemMirror Version 7.2.1 media, you must run the **smuiinst.ksh** command to complete the installation process. The **smuiinst.ksh** command automatically downloads and installs the remaining files that are required to complete the PowerHA SystemMirror GUI installation process. These downloaded files are not shipped in the filesets because the files are licensed under the General Public License (GPL).

Documentation

To view the latest updates to the documentation, see the What's new in PowerHA SystemMirror topic.

If you want to view the documentation without an internet connection, you can install the PowerHA SystemMirror Version 7.2.1 IBM Knowledge Center on a computer that is running Windows 7, Windows 8, or Windows 10. You can download the PowerHA SystemMirror Version 7.2.1 IBM Knowledge Center installation files from the Entitled Software Service website.

To view the latest version of the release notes, see the PowerHA SystemMirror Version 7.2.1 release notes topic.

To view the documentation in PDF files, see the PowerHA SystemMirror Version 7.2.1 PDFs topic.

Man pages

The man pages for the PowerHA SystemMirror commands are provided in the cluster.man.en_US.es.data fileset. The fileset is installed in the /usr/share/man/cat1 directory. To view the man pages, from the command line, enter man *command_name* (where *command_name* is the name of the command).

You can use the **clmgr** command to perform most of the PowerHA SystemMirror operations. For more information about the operations that you can perform by using the **clmgr** command, see the clmgr

command: Quick reference topic.

Notices

This information was developed for products and services offered in the US.

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, MD-NC119 Armonk, NY 10504-1785 US

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. 19-21, Nihonbashi-Hakozakicho, Chuo-ku Tokyo 103-8510, Japan

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 jurisdictions 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 websites are provided for convenience only and do not in any manner serve as an endorsement of those websites. The materials at those websites are not part of the materials for this IBM product and use of those websites is at your own risk.

IBM may use or distribute any of the information you provide 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 Director of Licensing IBM Corporation North Castle Drive, MD-NC119 Armonk, NY 10504-1785 US

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.

The performance data and client examples cited are presented for illustrative purposes only. Actual performance results may vary depending on specific configurations and operating conditions.

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.

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

All IBM prices shown are IBM's suggested retail prices, are current and are subject to change without notice. Dealer prices may vary.

This information is for planning purposes only. The information herein is subject to change before the products described become available.

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 actual people or business enterprises is entirely coincidental.

COPYRIGHT LICENSE:

This information contains sample application programs in source language, which illustrate programming techniques on various operating platforms. You may copy, modify, and distribute these sample programs in any form without payment to IBM, for the purposes of developing, using, marketing or distributing application programs conforming to the application programming interface for the operating platform for which the sample programs are written. These examples have not been thoroughly tested under all conditions. IBM, therefore, cannot guarantee or imply reliability, serviceability, or function of these programs. The sample programs are provided "AS IS", without warranty of any kind. IBM shall not be liable for any damages arising out of your use of the sample programs.

Each copy or any portion of these sample programs or any derivative work must include a copyright notice as follows:

© (your company name) (year).

Portions of this code are derived from IBM Corp. Sample Programs.

© Copyright IBM Corp. _enter the year or years_.

Privacy policy considerations

IBM Software products, including software as a service solutions, ("Software Offerings") may use cookies or other technologies to collect product usage information, to help improve the end user experience, to tailor interactions with the end user or for other purposes. In many cases no personally identifiable information is collected by the Software Offerings. Some of our Software Offerings can help enable you to collect personally identifiable information. If this Software Offering uses cookies to collect personally identifiable information, specific information about this offering's use of cookies is set forth below.

This Software Offering does not use cookies or other technologies to collect personally identifiable information.

If the configurations deployed for this Software Offering provide you as the customer the ability to collect personally identifiable information from end users via cookies and other technologies, you should seek your own legal advice about any laws applicable to such data collection, including any requirements for notice and consent.

For more information about the use of various technologies, including cookies, for these purposes, see IBM's Privacy Policy at http://www.ibm.com/privacy and IBM's Online Privacy Statement at http://www.ibm.com/privacy/details the section entitled "Cookies, Web Beacons and Other Technologies" and the "IBM Software Products and Software-as-a-Service Privacy Statement" at http://www.ibm.com/software/info/product-privacy.

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 web at Copyright and trademark information at www.ibm.com/legal/copytrade.shtml.

IBM.®

Printed in USA