

Hitachi Application Protector Version 1.2 for SAP Release Notes

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Product Release Information

Product:	Hitachi Application Protector for SAP®
Release Version:	1.2.0.31
Release Date:	2014/July

Introduction

This document contains the release notes for *Hitachi Application Protector (HAPRO)* for SAP® Version 1.2. This document describes the release details and provides late-breaking or other information that supplements the main documents for Hitachi Application Protector for SAP®.

Installation and Configuration Notes

For complete installation instructions, refer Hitachi Application Protector Quick Install and Configuration Guide for SAP® on Linux that is shipped along with the binaries.

Manifest

This release consists of the following items:

Release notes	Hitachi Application Protector for SAP® Release Notes V1.2.0.31
Software	HAPRO_SAP_v1.2.0.31_Binaries_2014-06-30.tar.gz

Minimum System Requirements

System Memory	Minimum 1GB and recommended 4GB or more
Install Free Disk Space	100 MB(minimum)
Operating System	Following operating systems are supported: Solaris 10 update 11 x86 (32-bit and 64-bit) for HNAS only Solaris 11 x86 (32-bit and 64-bit) for HNAS only RHEL 6.3 (32-bit / 64-bit) for HNAS, VSP and HUS only SLES 11 SP3 (32-bit / 64-bit) for HNAS and VSP only
Networking	Gigabit Ethernet Recommended

For Solaris 10 u11 and Solaris 11

Application Software	SAP® ECC 6.0 (ERP) with Oracle® Database 11g Release2 (11.2.0.3 / 11.2.0.4)(Non-ASM) Note: HiStor v2.1.0 (build 315) is packaged with Hitachi Application Protector server v1.2
Additional Software (Client)	<ul style="list-style-type: none"> • Oracle Java Runtime Environment 1.6+ (pre-installed) • log4j (CSWlog4j)
Additional Software (Server)	-

For SLES 11 SP3

Application Software	SAP® ECC 6.0 (ERP) with Oracle® Database 11g Release2 (11.2.0.3 / 11.2.0.4)(Non-ASM) Note: HiStor v2.1.0 (build 315) is packaged with Hitachi Application Protector server v1.2
Additional Software (Client)	<ul style="list-style-type: none"> • Java Runtime Environment 1.6+ • sblim-cim-client2 • log4j
Additional Software (Server)	<ul style="list-style-type: none"> • CIM server (sblim-sfcb) • parted-2.3-10.38.16 • openssl-0.9.8j-0.50.1

	<ul style="list-style-type: none"> • libcurl-7.19.7-26.el6_2.4.i686 • CCI RAID-Manager/Linux version 01-29-03/06
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For RHEL 6.3

Application Software	SAP® ECC 6.0 (ERP) with Oracle® Database 11g Release2 (11.2.0.3)(Non-ASM) Note: HiStor v2.1.0 (build 315) is packaged with Hitachi Application Protector server v1.2
Additional Software (Client)	<ul style="list-style-type: none"> • Java Runtime Environment 1.6+ • Sblim CIM Client • log4j
Additional Software (Server)	<ul style="list-style-type: none"> • CIM server Open Pegasus 32-bit • Parted-2.3-10.38.16 • OpenSSL - 0.9.8e • libcurl- 7.19.7-26 (RHEL6.i686) <ul style="list-style-type: none"> • CCI RAID-Manager/Linux version 01-29-03/06

Supported Storage Sub-systems

Storage Type	Snapshot Type Supported	Operating System
HNAS (3090)	TreeClone	Solaris 10 u11, Solaris 11, SLES 11 SP3 and RHEL 6.3
VSP (RAID700)	ShadowImage and HTI Snapshots	SLES 11 SP3 and RHEL 6.3*
HUS (DF850)	ShadowImage and HTI Snapshots	RHEL 6.3

*: Refer to Known Problems and Workarounds section

Firmware Version for Storage Sub-systems

Storage Subsystem	Microcode Version
HNAS 3090	M1SEKW0933273
HUS DF850	0915/B-S
VSP RAID 700	Main: 70-06-04-00/00
	SVP: 70-06-03/00
	RMI Server: 07-06-00

Features Supported

Category	Feature	Description
Installation / Uninstallation	Server Installation	Self-extracting package for client and server
	Server Uninstallation	
	Client Installation	
	Client Uninstallation	

Application Protector CLI	CLI for Non-Snapshot management operations	Command line utility for Application Protector Server management
	CLI for Snapshot management operations	Supported operations: List, Delete, Mount/Dismount
	XML Output of Listings	Redirection of all listing commands to XML file
Configuration	Storage Array configuration	Register/Unregister storage array
	Application Protector Configuration	Client/Server configuration parameters
Snapshot Management (Using BACKINT adapter)	Backup (Create Snapshot)	Create snapshot using 'brbackup' program
	Inquire (Snapshot Listing)	Inquire function of BACKINT program
	Mount	Mount snapshot
	Dismount	Dismount snapshot
	Restore	Recovery from snapshot using 'brrecover' and 'brrestore' (only in-place restore supported)
Logging	Syslog notifications, Application Protector Logs	Application Protector Logging with error notification in Syslog
Debug support	Logging/Tracing	Application Protector log files
	HAPRO Dump	Debug Dump Tool
Policy	Snapshot Retention	TreeClone and HTI snapshot retention policy and snapshot rotation
Metadata Protection	Metadata backup and restore	Metadata backup to user-defined location and restore from the location in case of metadata loss or corruption

Note: 1. Backup/recovery jobs can be scheduled using SAP GUI page DB13 (DBA Planning calendar). This has not been tested as part of this release.

Operating Systems Supported for Client and Server Installations

Client Installation has been tested on following OS versions:

- Solaris 10® u11 and Solaris 11 (32-bit and 64-bit)
- Red Hat® Enterprise Linux Server release 6.3 (32-bit and 64-bit)
- SUSE® Linux Enterprise Server release 11 Service Pack 3(32-bit and 64-bit)

Server Installation has been tested on following OS versions:

- Solaris® 10 u11 and Solaris 11 (32-bit and 64-bit)
- Red Hat® Enterprise Linux® Server release 6.3 (32-bit and 64-bit)
- SUSE® Linux Enterprise Server release 11 Service Pack 3(32-bit and 64-bit)

Application Configurations tested

1. SAP® ECC 6.0 (ERP) with Oracle® Database 11g Release2 (11.2.0.3 and 11.2.0.4)(Non-ASM) on Solaris 10 u11 and Solaris 11(32-bit and 64-bit)
2. SAP® ECC 6.0 (ERP) with Oracle® Database 11g Release2 (11.2.0.3 and 11.2.0.4)(Non-ASM) on Red Hat Enterprise Linux Server release 6.3 (32-bit and 64-bit)
3. SAP® ECC 6.0 (ERP) with Oracle® Database 11g Release2 (11.2.0.3 and 11.2.0.4)(Non-ASM) on SUSE Linux Enterprise Server release 11 Service Pack 3 (32-bit and 64-bit)

Note: All the tested application configurations work seamlessly on a physical server as well as VMware ESX v4.0 VM as well as ESX v5.1 configurations. Support for iSCSI is present in VMware ESX 4.0(or 5.1), hence to use fiber channel based storage LUNs that require FC HBA's, a physical machine is required.

Limitations

1. If Snapshots are deleted from the backend, Hitachi Application Protector does not identify such snapshot operations and continues to show the corresponding snapshots in the Hitachi Application Protector Metadata. This limitation can be resolved using Hitachi Application Protector Sync utility.
Note: As part of best practices, snapshots created using Hitachi Application Protector should be deleted using Hitachi Application Protector only.
2. Value of 'util_vol_access' in backup profile (init<SID>.sap) should be set to "mount" ('copy' mode is not supported)
3. BR*Tools parameter profile (init<DBSID>.sap) file used by "brbackup" must be placed on a device from registered storage array and it should be directly/indirectly placed under the directory pointed by environment variable ORACLE_HOME

Known Problems and Workarounds

Affected Area	Problem	Workaround/Resolution
Snapshot Management	Create Snapshot for VSP-HTI fails with error: "This API is not supported for this storage device." CR # 18999	This issue has been identified in HiStor. This occurs when 32-bit SFCB is installed on 64-bit server. Workaround: For 64-bit, comment out the following line in file "/etc/init.d/sfcb":preload_pam_misc_so
Snapshot Management	Create HTI snapshot fails with HiStor exception: "API call failed." CR # 18875	This issue has been identified in HiStor. Workaround: Make sure that the storage is available and retry the operation.
Snapshot Management	BRBACKUP with database verification ("dbverify") fails during restore of snapshot. (Defect # 4016)	"dbverify" command line option for BRBACKUP is not supported in Application Protector v1.2.
Snapshot Management	After deleting a snapshot with HAPRO CLI, during BRRESTORE operation BACKINT fails with error: [E7300135] Failed to get backup record for Snapshot set with ID: <SnapshotSetID> (Defect # 4086)	Run BRRESTORE -b with <Latest confirmed SnapId>.anv file.
License Management	Application Protector should not accept same license file for more than one server. (CR#18576)	This issue has been identified in Flexera Licensing module (CR#18576). This occurs on RHEL 6.3 with block storage (HUS and VSP).