

HP Serviceguard Toolkit for Integrity Virtual Servers Release Notes

Version B.02.00

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1 HP Serviceguard Toolkit for Integrity Virtual Servers B.02.00 Release Notes

Announcements

The HP Serviceguard toolkit for Integrity Virtual Servers (SG IVS toolkit) is a product that inherits the functionality from the HP Integrity VM Serviceguard toolkit.

NOTE:

- The SG IVS toolkit files and the HP Integrity VM Serviceguard toolkit are installed at different locations and can coexist. They can be individually upgraded without one impacting the other. Also, the packages created using these toolkits, for two different VMs, can coexist and continue to use their respective files and commands.
 - HP recommends that you convert the package created using the HP Integrity VM Serviceguard toolkit to the package that uses the SG IVS toolkit.
 - To run the SG IVS toolkit on the Virtualization Services Platform (VSP), HP Integrity Virtual Machines or HP-UX vPars is a prerequisite.
 - You must use iSCSI storage in Serviceguard environment with Persistent Reservation (PR) implementation as it helps to protect data from Ghost IO.
-

The SG IVS toolkit for HP-UX 11i v3: Annual Release, March 2012 is available for free download at <http://software.hp.com> → HP-UX 11i Software → High Availability

What's new in this version

The SG IVS toolkit provides support for:

- Serviceguard weight and capacity feature.
- Online VM migration for VM-as-SG-node.
- vPar packaging.
- DIO LAN and NPIV disk monitoring on the guest.
- Support for cDSF devices.
- Support for DMP devices.
- Online VM migration with CVM backing store.
- Command `cmdeployvpkg` recognizes NFS backing store and adds it to package configuration file.
- SG IVS monitoring process is enhanced to support monitoring and automatic restart of `vswitchmgr` process.
- `vswitchmgr` process is enhanced to use event based mechanism for monitoring IP movement across the network interface cards during `vswitch` reconfiguration on a host.

Compatibility matrix and installation

Compatibility matrix

The compatible versions of SG IVS toolkit, Serviceguard, HP-UX OS, HP Integrity VM, and HP-UX vPars for the SG IVS toolkit are:

SG IVS Toolkit Version	Serviceguard Version	HP-UX OS Version	HP Integrity VM Version	HP-UX vPars
B.02.00	A.11.20	HP-UX 11i v3	B.04.30, B.06.10.x, B.06.2x, and B.06.30.0	B.06.10.x, B.06.2x, and B.06.30.0

Installation

To install SG IVS toolkit:

1. Run the command:

```
# swinstall -s <depot path>
```

The "SD Install - Software Selection" user interface appears.

2. On the "SD Install - Software Selection" screen, mark the product, "SG-IVS-Toolkit".
3. To mark the product for installation, select **Action > Mark For Install (m)**.
4. Select **Action > Install** to initiate the installation.

To verify that the installation is complete, run the command:

```
# swlist -l product SG-IVS-Toolkit
```

This command returns the entry for SG-IVS-Toolkit, if installed successfully.

Files created for SG IVS toolkit

After SG IVS toolkit is installed, a script directory `/etc/cmcluster/scripts/tkit/vtn/` and a module directory `/etc/cmcluster/modules/tkit/vtn` is created. The script directory contains toolkit scripts and other supported command scripts.

Table 1 Files created after SG IVS toolkit is installed.

File Name	Description	Available in Directory
tkit_module.sh	This is the module script for the HP Serviceguard toolkit for Integrity Virtual Servers.	/etc/cmcluster/scripts/tkit/vtn/
havtn.sh	The script is used to start, stop, and validate Integrity VM.	
havtn.mon	This script contains functions that monitor vswitchmgr process and status of a guest.	
cmdeployvpkg	This command is used to create and manage HP Serviceguard package configurations for Integrity VM/vPar.	
cmmovevpkg	This command is used for online migration of VM as a Serviceguard package.	
cmmovevnode	This command is used for online migration of VM as a Serviceguard node.	
ivs_vpar_utils	This script is used to perform vPar related functions, such as vparboot and vparreset.	
ivs_hpvm_utils	This script is used to perform VM related functions, such as hpvmstart and hpvmstop.	
ivs_common_utils	This script consists of function definitions that are common to both vPar and VM.	

Table 2 Files for the Attribute Definition File (ADF) Module

File Name	Description	Available in Directory
vtn	Soft link to vtn.1	/etc/cmcluster/modules/tkit/vtn
vtn.1	ADF module definition for HP Integrity VM	
vpar	Soft link to vpar.1	
vpar.1	ADF module definition for vPar	

Table 3 Scripts for monitoring virtual switch

File Name	Description	Available in Directory
vswitchmgr	Script for monitoring Virtual switch	/sbin/init.d/
lanmond	This binary file is used to monitor the movement of IP address from primary network interface to secondary network interface during vswitch reconfiguration.	/usr/sbin/lanmond
K004vswitchmgr	Soft link to /sbin/init.d/vswitchmgr	/sbin/rc2.d/
S802vswitchmgr	Soft link to /sbin/init.d/vswitchmgr	/sbin/rc3.d/

Documentation available for this version

The document and manpages available for SG IVS toolkit B.02.00 are:

- *HP Serviceguard Toolkit for Integrity Virtual Servers User Guide*
This user guide is available at <http://www.hp.com/go/hpux-serviceguard-docs> → HP Serviceguard Toolkit for Integrity Virtual Servers.
- HP Serviceguard Toolkit for Integrity Virtual Servers Manpages:
 - `cmdeployvpkg(1m)`
 - `cmmovevpkg(1m)`
 - `cmmovevnode(1m)`

Related information

Additional information about the SG IVS toolkit and related high availability topics are available on the HA documentation web page <http://www.hp.com/go/hpux-serviceguard-docs>.

To receive the latest news on recommended patches, product support matrices, and supported hardware, see the Hewlett-Packard Support Center page at <http://www.hp.com/go/hpsc>.

Patches can be superseded or withdrawn at any time. Check the status of any patch before downloading it. An updated list of patches is available on the Hewlett-Packard Support Center:

<http://www.hp.com/go/hpsc>

Patches and fixes in this version

This section describes the required patches and the defects fixed in version B.02.00 of the SG IVS toolkit.

Required and recommended patches

HP recommends that you install patch PHSS_44142 for the SG IVS toolkit version B.02.00.

However, this is subject to change without notice. For the most current information, contact your HP representative.

To receive the latest information on recommended patches, product support matrices, and recently supported hardware, subscribe to the *High Availability program tips and issues digest* available at <http://www.hp.com/go/hpux-serviceguard-docs>.

Patches can be superseded or withdrawn at any time. Check the status of any patch before downloading it. An updated list of patches is available on the Hewlett-Packard Support Center website at:

<http://www.hp.com/go/hpsc>

Fixes

The following defects are fixed in patch PHSS_44142 release:

QXCR1001355356 SG HPVM Toolkit and GWLM coexistence issue.

QXCR1001356287 Enhancement: `vswitchmgr` need to use event based mechanism to detect LAN failures.

QXCR1001361756 ER: HA required for `vswitchmgr` process in SG IVS toolkit.

The following defects are fixed in patch PHSS_43634 release:

QXCR1001294741 Executing `cmhaltnode -f` might start up multiple `vswitchmgr` processes on alternate nodes.

QXCR1001296407 Enabling graceful shutdown of VM or vPar guest through the SG IVS Toolkit.

- QXCR1001324239 When a Serviceguard package configuration is created using `cmdeployvpkg` for HPVM or HP-UX vPars with CVM disk backing stores, package startup fails with the following errors in the package log:
- ```

Activating disk group cfsdg1 with non-exclusive option.
VxVM vxdg ERROR V-5-1-3424 Disk group cfsdg1:
 activation failed: Disk group already activated
ERROR: Function sg_activate_disk_group
ERROR: Failed to activate cfsdg1

```
- QXCR1001291588 This is an enhancement to `cmdeployvpkg` to support creating Serviceguard package configurations for HPVM or HP-UX vPars with NFS file backing store.
- The following defects are fixed in patch PHSS\_43573 release:
- QXCR1001266212 Problem: When you create a Serviceguard package for an HPVM or vPar guest that has the DIO interface, the `cmdeployvpkg` and `cmapplyconf` commands display the following error without suggesting an action to the reported problem.
- ```

Failed to set application control for vpar2 :
hpvmmodify: Cannot set '-j 1' because the guest has at least one DIO
device.

```
- QXCR1001266214 Problem: After a DIO interface error occurs while creating a Serviceguard package for VM or vPar guest, you might not be able to modify VM or vPar by using the `hpvmmodify` command. The DIO interface error is reported in QXCR1001266212.
- QXCR1001200150 Problem: If Serviceguard messages are not logged in `syslog.log` file, or if there is a problem logging to `syslog.log` file, the `vswitch` manager does not detect a local failover. Because of this, the `vswitch` cannot be re configured and VM or vPar guest are not reachable.
- The following defect is fixed in the patch PHSS_43277:
- QXCR1001248759 Problem: A Serviceguard IVS package fails to start on an adaptive node after a node failure is reported in the package log. The log file displays that the VM is running on another node when it is not. The package log has the following error messages:
- ```

ERROR: VM is already running on node
ERROR: Function start_vpar_or_vm: Failed to start VM
process

```
- The following defects are fixed in the patch PHSS\_43126:
- QXCR1001176688 Problem: The `cmdeployvpkg` fails with message `mse not configured consistently`.
- QXCR1001177948 Problem: The `cmmovevpkg` reports error from `cmmodpkg` for selective guest package.
- QXCR1001010990 Problem: The `vswitchmgr` script fails on restart when `syslog.log` inode changes .
- QXCR1001193392 Problem: The `cmdeployvpkg` **Usage** display needs some correction.
- QXCR1001203267 Problem: The `vswitchmgr` does not properly check for packages handling VMs.
- QXCR1001223141 Problem: The `cmdeployvpkg` fails to start `vswitch` manager on some nodes.
- QXCR1001223459 Problem: Serviceguard IVS toolkit B.02.00 slow starting package after node failure.



The following defects are fixed in the SG IVS toolkit version B.02.00:

- |                |                                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------|
| QXCR1001167654 | Problem: Online package conversion with the SG IVS has potential for data corruption.                   |
| QXCR1001170520 | Problem: The <code>cmdeployvpkg</code> command might not enable virtual machine as a distributed guest. |
| QXCR1001167696 | Problem: The usage of the <code>cmdeployvpkg -C</code> option is confusing.                             |

## Known problems and workarounds

If GWLM application coexists with SG IVS patch PHSS\_44142 then the VM packaged with SG IVS will fail over.

SG HPVM Toolkit and GWLM coexistence issue (defect QXCR1001355356) is fixed in the SG IVS toolkit with Patch PHSS\_44142. If GWLM is deployed before deploying SG IVS then the issue will not occur. However, if GWLM is deployed after deploying SG IVS then the issue will occur. The fix for this issue will be provided by GWLM application in the upcoming release of GWLM.

## Localized versions of the documents

The SG IVS toolkit is available only in English.