

HP Serviceguard/SGeRAC/Storage Management Suite/Serviceguard Manager Plug-in

Compatibility and Feature Matrix

Best if viewed at a resolution of 1280 x 800 or greater

March 29, 2012

SG A.11.20 for HP-UX 11i v3 COMPATIBILITY

Intro Date September 2010

SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM <small>Additional HPVM information can be found under "HP Serviceguard" White papers at: www.hp.com/go/hpux-serviceguard-docs</small>
SG/SGeRAC A.11.20 Sept 2010/Sept 2015	HP-UX 11i v3	Integrity PARISC	A.04.20	B.03.00, B.03.10, B.03.20, B03.30	B.07.00	A.02.00.04 - single IP only A.03.00 - single IP only A.04.00 - single or alternate IP's supported	SG: VxVM / CVM / CFS 5.0.1 & 5.1 SP1 VxVM 5.0, VxVM 4.1 LVM SGeRAC: CVM / CFS 5.0.1 & 5.1 SP1 Shared LVM (SLVM), ASM over SLVM or raw disks	A.03.01 and A.03.02 for 11iv3 Veritas Version 5.0.1 (T2771DB, T2773DB, T2774DB, T2775DB, T2776DB, T2777DB, T8684DB, T8694DB, T8685DB, T8695DB, T8686DB, T8696DB, T8687DB, T8697DB) A.04.00.01 and A.04.01 for 11iv3 Veritas Version 5.1 SP1 (T2774EB, T2777EB, T8684EB, T8694EB, T8687EB, T8697EB)	See HPVM specific support information at the end of this document

SG A.11.20 for 11iv3 NEW FEATURES

Intro Date September 2010

SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>	SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>
<ul style="list-style-type: none"> • Easy Deployment • New Serviceguard Manager capabilities • Live Application Detach • cDSF • New Serviceguard capabilities allow you to check the soundness of the cluster configuration, and the health of its components and to do so at any time, rather than only when changing the onfiguration of the cluster or its packages • You can use NFS-mounted (imported) file systems as shared storage in packages. • New capabilities in Serviceguard and HPVM allow online migration of a VM • Serviceguard A.11.20 supports a new failover policy, site_preferred_manual • April 2011 SG A.11.20 Patch provides: <ul style="list-style-type: none"> - Cluster Easy deployment – Added CFS/CVM Support - Cluster easy deployment - Added support for configuration of site aware clusters. - Package easy deployment for Oracle Clusterware, RAC, Oracle single instance, SGeEBS and Site controller packages. - Support for Site controller package configuration. - Serviceguard toolkits for Oracle Dataguard and SGeEBS. - Configure multiple CFS Mount Points and CVM Disk Groups in a single modular package - Parallel halt of Non Detached Multi Node package - Support for SG SMS A.04.00 - Support for HP Integrity VM 4.3 • August 2011 SG A.11.20 Patch provides: <ul style="list-style-type: none"> - Generic resources - A mechanism to allow integration of SFM/WBEM or custom user defined monitors to monitor hardware/software resources in Serviceguard by configuring the generic resource parameters as part of package configuration. - CFS Modular Packages - Online addition/deletion/modification of CFS MP/DG/CP/SN packages - Support for SG SMS A.04.00.01 - Support for cross bundle upgrades - Serviceguard Extension for SAP (SGeSAP) B.05.10 - SGeSAP Package Easy Deployment - Cluster support for SAP web dispatcher - Serviceguard Toolkits for Database Replication Solutions - Serviceguard Disaster Recovery Solutions. Metrocluster/Continentalclusters with 3PAR Remote Copy - Serviceguard Toolkit for IBM DB2 HADR • March 2012 SG A.11.20 Patch provides: <ul style="list-style-type: none"> - NPIV/DIO monitoring support on HPVM as a Serviceguard package. - Support iSCSI disks in Serviceguard and Serviceguard Manager - Easy migration for toolkit packages and CFS MP/DG packages - Support error handling during package halt using cmhaltpg -a command - Serviceguard Toolkit for Integrity Virtual Servers , EnterpriseDB, Sybase ASE support for SGeSAP - Easy deployment for DB2 in Serviceguard Manager 	<ul style="list-style-type: none"> • SGeRAC A.11.20 New Features: <ul style="list-style-type: none"> - Cluster-wide Device Special Files (cDSF) support - Cluster Verification support - Dynamic Root Disk (DRD) Support - SGeRAC Toolkit - enhanced to support new ASM DG package - Oracle RAC 11gR2 support • April 2011 SGeRAC A.11.20 Patch provides: <ul style="list-style-type: none"> - SGeRAC Cluster Easy Deployment, and package Easy Deployment of Oracle Clusterware and Oracle RAC Database packages using Serviceguard Manager - Configure multiple CFS Mount Points and CVM Disk Groups in a single package - Co-existence of Oracle RAC (SGeRAC Toolkit) packages and Oracle Single Instance (ECMT Toolkit) packages in the same cluster (Only requires ECMT B.06.00 April 2011 patch) • March 2012 SGeRAC A.11.20 Patch provides: <ul style="list-style-type: none"> - Support of user defined Oracle RAC Database services in RAC instance package - Supports Virtual Partitions (vPars) as Serviceguard cluster nodes created using the product BB068AA-HP-UX vPars & Integrity VM v6.1 • Oracle RAC Compatibility: <ul style="list-style-type: none"> - RAC 10gR2, 11gR1, 11gR2 with SLVM, ASM over SLVM or raw disks - RAC 11gR2 with CVM/CFS 5.0.1 & 5.1 SP1-- Integrity & HP 9000 Servers -- Cluster size: 16 nodes maximum -- Extended Cluster support (up to 100k between sites): <ul style="list-style-type: none"> --- With SLVM and ASM over SLVM: 2, 4 nodes (4 nodes requires SLVM v2) --- With ASM over Raw disks: ASM mirroring with Extended Cluster is allowed by HP, supported by Oracle, contact Oracle for ASM mirroring configuration requirements. --- With CVM/CFS 5.0.1 & 5.1 SP1: 2,4,6,8,...16 nodes (up to 10km between sites), 2,4 nodes (up to 100km between sites) <p>Note: CVM/CFS 5.0.1 & 5.1 SP1 is provided in SG SMS version A.03.01</p> <p>SGeRAC is supported in cross subnet environments only when used with Metrocluster in a Site Aware Disaster Tolerant Architecture</p> <p>Note: IPv6 is not supported in a SGeRAC cluster. (I think we should add a note like this).</p> <ul style="list-style-type: none"> - SGeRAC has been added in HA-OE and DC-OE September 2011 media as an optional bundle - Supports rolling upgrade from a SG only cluster (from SG A.11.19 or A.11.20) to SG/SGeRAC A.11.20 cluster. - Supports Live Application Detach (LAD) in an SGeRAC A.11.20 environment if Oracle Cluster Ready Services (CRS) are not running. 	<ul style="list-style-type: none"> SG SMS A.03.01 <ul style="list-style-type: none"> • Integrated with the Veritas version 5.0.1 products • Supported on the HP-UX 11i v3 operating system only (no 11i v2 support) • Bundles include Serviceguard version A.11.20 • Able to run on both HP 9000 and HP Integrity Servers SG SMS A.03.02 <ul style="list-style-type: none"> • Support for Enterprise DB • cmeasymigrate(1m) <p>Note: Please refer to Release notes for complete list</p> SG SMS A.04.00 <ul style="list-style-type: none"> • Integrated with the Veritas version 5.1 SP1 products • Supported on the HP-UX 11i v3 operating system only (no 11i v2 support) • Bundles include Serviceguard version A.11.20 • Able to run on both HP 9000 and HP Integrity Servers • Support for IPv6/Mixed mode environment • Support for Rolling Upgrade to future SG SMS releases from SG SMS A.04.00 • Enhancements to Easy Deployment • Support for cross bundle upgrades. SG SMS A.04.01 <ul style="list-style-type: none"> • Support for Enterprise DB • cmeasymigrate(1m) <p>Note: Please refer to Release notes for complete list</p>

SG A.11.19 for 11iv3 COMPATIBILITY

Intro Date March 2009

SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard- docs	SG Mgr Plug-in Version For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs	COM Version	QS Version	Volume Managers Note CFS is supported only as part of the SMS CFS bundle	SG SMS Version For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs	HPVM Additional HPVM information can be found under "HP Serviceguard" White papers at: www.hp.com/go/hpux-serviceguard- docs
SG/SGeRAC A.11.19 Mar 2009 / Mar 2014	HP-UX 11i v3	Integrity PARISC	A.04.20	B.02.00 JDK Support - version 5.0.17 , 5.0.19, & 6.0.05 (note, JRE not supported) SysMgmtWeb A.3.0.X (11iv2 & 11iv3 0903 AR/OE or later) hpuxwsTomcat B.5.5.23.02 or later (11.23 & 11.31 0903 AR/OE or later) DSAU Support - 11.31 -- DSAUtilities C.01.00.18 or later	B.06.00.00	A.02.00.04 - single IP only A.03.00 - single IP only A.04.00 - single or alternate IP's supported	VxVM 5.0.1, CVM 5.0.1, CFS 5.0.1 VxVM 5.0, CVM 5.0, CFS 5.0 VxVM 4.1 LVM, Shared LVM (SLVM)	A.03.00 for 11iv3 release in Nov 2009 Veritas Version 5.0.1 (T2771DB, T2773DB, T2774DB, T2775DB, T2776DB, T2777DB, T8684DB, T8694DB, T8685DB, T8695DB, T8686DB, T8696DB, T8687DB, T8697DB) A.02.01 for 11i v3 released in May 2009 Veritas Version 5.0 (T2771CB, T2773CB, T2774CB, T2775CB, T2777CB, T8684CB, T8694CB, T8685CB, T8695CB, T8686CB, T8696CB, T8687CB, T8697CB) SG SMS A.02.01.01	See HPVM specific support information at the end of this document

SG A.11.19 for 11iv3 NEW FEATURES

Intro Date March 2009

SG New Features Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated	SGeRAC New Features Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs	SG SMS New Features Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs
<ul style="list-style-type: none"> Complex Dependencies Package Weights Node Capacities IPv6 hostname address family for all cluster components, with some restrictions Serviceguard can now monitor subnets at the IP level, as well as the link level Online Cluster Configuration Capabilities Online Modular and Legacy Package Configuration capabilities for most parameters Preview Capabilities Partial-Startup Maintenance Mode Configure up to 300 packages per cluster Quorum Server support for up to 150 clusters / 300 nodes with QS version A.02.04 and later New Cluster Parameters: <ul style="list-style-type: none"> NETWORK_AUTO_FAILBACK <ul style="list-style-type: none"> tells SG how to handle the recovery of the primary LAN interface after it has failed over to the standby interface because of a link level failure CONFIGURED_IO_TIMEOUT_EXTENSION <ul style="list-style-type: none"> must be set for extended-distance clusters using iFCP interconnects between sites Supports Veritas CVM and CFS 5.0 only (3.5 and 4.1 versions not supported). This applies to CVM standalone and CVM included in SMS bundles July 2009 SG A.11.19 Patch provides: <ul style="list-style-type: none"> IPv6 only hosts and quorum server Online maintenance on a modular, failover package Rolling upgrade using DRD New -K param with cmgetconf (disables polling of VG's) Improved support for nested mounts October 2009 SG A.11.19 Patch provides: <ul style="list-style-type: none"> Rolling upgrade using DRD (enhanced) New Serviceguard Manager capabilities (graphical map, toolkit integration, display site information) Support for CFS, VxVM and CVM version 5.0.1 on HP-UX 11i v3 Support for the target port congestion control capability in HP-UX 11i v3. Support for parallel resynchronization of LVM volume groups in HP-UX 11i v3. 	<ul style="list-style-type: none"> Support for Cluster Interconnect Monitoring on IPv4 and IPv6 Support for Oracle VIP network monitoring on IPv4 and IPv6 Enablement for improved RAC VIP management & failover performance GMS authorization Support for Logical Volume Manager Version 2.0 (or later) Supports Veritas CVM and CFS 5.0 & 5.0.1 (3.5 and 4.1 versions not supported). This applies to CVM standalone and CVM included in SMS bundles Support for the SGeRAC Toolkit <ul style="list-style-type: none"> Support for modular package format, package maintenance mode, package halt reason feature, package description feature Support ASM DG package (patch required) Oracle RAC Compatibility: <ul style="list-style-type: none"> RAC 9iR2 with SLVM <ul style="list-style-type: none"> Cluster size: 16 nodes maximum Extended Cluster support (up to 100km between sites): <ul style="list-style-type: none"> With SLVM: 2, 4 nodes (4 nodes requires SLVM v2) RAC 11gR2 with CVM/CFS 5.0.1 RAC 10gR2, 11gR1 with CVM/CFS 5.0 RAC 10gR2, 11gR1, 11gR2 with SLVM, ASM over SLVM or raw disks <ul style="list-style-type: none"> Patches required with 11gR2 support Integrity & HP 9000 Servers <ul style="list-style-type: none"> Cluster size: 16 nodes maximum Extended Cluster support (up to 100k between sites): <ul style="list-style-type: none"> With SLVM and ASM over SLVM: 2, 4 nodes (4 nodes requires SLVM v2) With ASM over Raw disks: ASM mirroring with Extended Cluster is allowed by HP, supported by Oracle, contact Oracle for ASM mirroring configuration requirements. With CVM/CFS 5.0 & 5.0.1: 2,4,6,8...16 nodes (up to 10km between sites), 2,4 nodes (up to 100km between sites) <p>Note: CVM/CFS 5.0 is provided in SG SMS versions A.02.01 & A.02.01.01 CVM/CFS 5.0.1 is provided in SG SMS version A.03.00 RAC 11gR2 with CVM/CFS 5.0 & 5.0.1 is not yet supported with HP 9000 Servers</p> <p>- SGeRAC is supported in cross subnet environments only when used with Metrocluster in a Site Aware Disaster Tolerant Architecture</p> 	<p>SG SMS A.03.00:</p> <ul style="list-style-type: none"> Integrated with the Veritas version 5.0.1 products Supported on the HP-UX 11i v3 operating system only (no 11i v2 support) Able to run on both HP 9000 and HP Integrity Servers Serviceguard CFS clusters now support APA in the heartbeat network. Serviceguard CFS clusters use MEMBER_TIMEOUT to specify how long it takes for a node to time out. NODE_TIMEOUT and HEARTBEAT_INTERVAL are replaced by MEMBER_TIMEOUT in SG SMS version A.03.00. Support for Dynamic Root Disk (DRD) on HP-UX 11i v3 - before attempting an upgrade to SG SMS version A.03.00 from a previous SG SMS version, see "Using Dynamic Root Disk Utilities (DRD) to upgrade to SG SMS A.03.00" <ul style="list-style-type: none"> Note SMS A.03.00 requires the SG A.11.19 patch PHSS_40152 <p>SG SMS A.02.01.01</p> <ul style="list-style-type: none"> Patches provided by Symantec for the Veritas version 5.0 products <p>SG SMS A.02.01:</p> <ul style="list-style-type: none"> Integrated with the Veritas version 5.0 products Supported on the HP-UX 11i v3 operating system Able to run on both HP 9000 and HP Integrity Servers

SG A.11.19 for HP-UX 11i v2 COMPATIBILITY Intro Date March 2009									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers Note CFS is supported only as part of the SMS CFS bundle	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM <small>Additional HPVM information can be found under "HP Serviceguard" White papers at: www.hp.com/go/hpux-serviceguard-docs</small>
SG/SGeRAC A.11.19 Mar 2009 / Dec 2013	HP-UX 11i v2	Integrity PARISC	A.04.20	B.02.00 JDK Support - version 5.0.17, 5.0.19, & 6.0.05 (note, JRE not supported) SysMgmtWeb A.3.0.X (11iv2 & 11iv3 0903 AR/OE or later) Tomcat B.5.5.23.02 or later (11iv2 & 11iv3 0903 AR/OE or later) DSAU Support - 11.23 – DSAUtilities C.01.00.15 or later	B.06.00.00	A.02.00.04 - single IP only A.03.00 - single IP only A.04.00 - single or alternate IP's supported	VxVM 5.0, CVM 5.0, CFS 5.0 LVM, Shared LVM (SLVM)	A.02.01 for 11i v2 released May 2009 (T2771CA, T2773CA, T2774CA, T2775CA & T2777CA, T2794CA, T2795CA, T2796CA, T2797CA,)	See HPVM specific support information at the end of this document
SG A.11.19 for 11iv2 NEW FEATURES Intro Date March 2009									
Workin	SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>					SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>			
<ul style="list-style-type: none"> Complex Dependencies Package Weights Node Capacities IPv6 hostname address family for all cluster components, with some restrictions Serviceguard can now monitor subnets at the IP level, as well as the link level Online Cluster Configuration Capabilities Online Modular and Legacy Package Configuration capabilities for most parameters Preview Capabilities Partial-Startup Maintenance Mode Configure up to 300 packages per cluster Quorum Server support for up to 150 clusters / 300m nodes with QS version A.02.04 and later New Cluster Parameters: <ul style="list-style-type: none"> NETWORK_AUTO_FAILBACK <ul style="list-style-type: none"> tells SG how to handle the recovery of the primary LAN interface after it has failed over to the standby interface because of a link level failure CONFIGURED_IO_TIMEOUT_EXTENSION <ul style="list-style-type: none"> must be set for extended-distance clusters using iFCP interconnects between sites Supports Veritas CVM and CFS 5.0 only (3.5 and 4.1 versions not supported). This applies to CVM standalone and CVM included in SMS bundles July 2009 SG A.11.19 Patch provides: <ul style="list-style-type: none"> IPv6 only hosts and quorum server Online maintenance on a modular, failover package Rolling upgrade using DRD New -K param with cmgetconf (disables polling of VG's) Improved support for nested mounts October 2009 SG A.11.19 Patch provides: <ul style="list-style-type: none"> New Serviceguard Manager capabilities (graphical map, toolkit integration, display site information) 	<ul style="list-style-type: none"> Support for Cluster Interconnect Monitoring on IPv4 and IPv6 Support for Oracle VIP network monitoring on IPv4 and IPv6 Enablement for improved RAC VIP management & failover performance GMS authorization Supports Veritas CVM and CFS 5.0 only (3.5 and 4.1 versions not supported). This applies to CVM standalone and CVM included in SMS bundles Support for the SGeRAC Toolkit <ul style="list-style-type: none"> Support for modular package format, package maintenance mode, package halt reason feature, package description feature Support ASM DG package (patch required) Oracle RAC Compatibility: <ul style="list-style-type: none"> RAC 9iR2 with SLVM <ul style="list-style-type: none"> Cluster size: 16 nodes maximum Extended Cluster support (up to 100km between sites): <ul style="list-style-type: none"> With SLVM: 2 nodes With CVM/CFS 5.0: 2,4,6,8,...16 nodes (up to 10km between sites), 2 nodes (up to 100km between sites) RAC 10gR2 with SLVM, ASM over SLVM, CVM/CFS 5.0 only <ul style="list-style-type: none"> Cluster size: 16 nodes maximum Extended Cluster support (up to 100k between sites): <ul style="list-style-type: none"> With SLVM and ASM over SLVM: 2 nodes With CVM/CFS 5.0: 2,4,6,8,...16 nodes (up to 10km between sites), 2 nodes (up to 100km between sites) RAC 11gR1 with SLVM, ASM over SLVM, CVM/CFS 5.0 only <ul style="list-style-type: none"> Same Cluster size and Extended Cluster support as RAC 10gR2 SGeRAC is supported in cross subnet environments only when used with Metrocluster in a Site Aware Disaster Tolerant Architecture 					SG SMS A.02.01: <ul style="list-style-type: none"> Integrated with the Veritas version 5.0 products Supported on the HP-UX 11i v2 operating system – requires an HP-UX 11i v2 version released in September 2006, or later Able to run on both HP 9000 and HP Integrity Servers 			

SG A.11.19 for Linux COMPATIBILITY <i>Intro Date April 2009</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM <small>Additional HPVM information can be found under "HP Serviceguard" White papers at: www.hp.com/go/hpux-serviceguard-docs</small>
SG A.11.19 Apr 2009 / Apr 2014	Red Hat 5, SLES 10, SLES 11	ProLiant Integrity	N/A	B.02.00 Integrity Support: JDK - 6.0 update 17 & Java 6 update 18 (note, JRE not supported) SMH - hpsmh-2.1.11-07.linux Tomcat - hpsmh-tomcat-1.2-02.linux DSAU - 2.4-1 IA-32 Linux Support: JDK - 5.0 update 22 or later & 6.0 update 17 or later (note, JRE not supported) SMH- hpsmh-3.0.0-68 Tomcat - hpsmh-tomcat-1.0-11.linux DSAU - 2.4-1 X86-64 Linux Support: JDK - 5.0 update 22 or later & 6.0 update 17 or later (note, JRE not supported) SMH- hpsmh-3.0.0-68 Tomcat - hpsmh-tomcat-1.0-11.linux DSAU - 2.4-1	B.06.00.00	A.02.00.04 - single IP only A.03.00 - single IP only A.04.00 - single or alternate IP's supported	N/A	N/A	See HPVM specific support information at the end of this document
SG A.11.19 for Linux NEW FEATURES <i>Intro Date April 2009</i>									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>				SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>			
<ul style="list-style-type: none"> • Complex Dependencies • Package Weights • Node Capacities • IPv6 hostname address family for all cluster components, with some restrictions • Serviceguard can now monitor subnets at the IP level, as well as the link level • Online Cluster Configuration Capabilities • Online Modular and Legacy Package Configuration capabilities for most parameters • Preview Capabilities • Partial-Startup Maintenance Mode • Configure up to 300 packages per cluster • Quorum Server support for up to 150 clusters / 300 nodes with QS version A.02.04 and later • Persistent reservations (PR) to control access to LUNs <ul style="list-style-type: none"> • New Features for A.11.19.01 (August 2009 Patches): <ul style="list-style-type: none"> - SLES 11 support - IPv6 only hosts and quorum server - Online maintenance on a modular, failover package - VLAN support - New -k param with cmgetconf (disables polling of VG's) - Improved support for nested mount points • New Features for A.11.19.01 (October 2009 Patch): <ul style="list-style-type: none"> - New Serviceguard Manager capabilities (graphical map, cluster configuration enhancements, etc.) 		N/A				N/A			

SG A.11.18 for HP-UX 11i v3 COMPATIBILITY <i>Intro Date Sept 2007</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM <small>Additional HPVM information can be found under "HP Serviceguard" White papers at: www.hp.com/go/hpux-serviceguard-docs</small>
SG/SGeRAC A.11.18 Sept 2007 / Sept 2012	HP-UX 11i v3	Integrity PARISC	A.04.20	B.01.01	B.05.00.00	A.02.00.04 A.03.00 single or alternate IP support	VxVM 5.0, CVM 5.0, CFS 5.0 VxVM 4.1 LVM, Shared LVM (SLVM)	A.02.00 for 11i v3 (T2771CB - T2777CB)	See HPVM specific support information at the end of this document
SG A.11.18 for 11iv3 NEW FEATURES <i>Intro Date Sept 2007</i>									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> Same as listed below for SG/SGeRAC A.11.18 on HP-UX 11i v2 plus: Support for the LAN Monitor mode of APA SG Patch April 2008 adds support for LVM Version 2 Volume Groups 		<ul style="list-style-type: none"> Oracle RAC Compatibility: <ul style="list-style-type: none"> RAC 9iR2 with SLVM <ul style="list-style-type: none"> Cluster size: 16 nodes maximum Extended Cluster support (up to 100km between sites): <ul style="list-style-type: none"> With SLVM: 2, 4 nodes (4 nodes requires SLVM v2) RAC 10gR2 with SLVM, ASM over SLVM and ASM over raw disks/LUs, CVM/CFS 5.0 <ul style="list-style-type: none"> Cluster size: 16 nodes maximum (CVM/CFS 5.0 - 8 nodes) Extended Cluster support (up to 100k between sites): <ul style="list-style-type: none"> With SLVM and ASM over SLVM: 2, 4 nodes (4 nodes requires SLVM v2) With ASM over Raw disks: ASM mirroring with Extended Cluster is allowed by HP, supported by Oracle, contact Oracle for ASM mirroring configuration requirements. With CVM/CFS 5.0: 2,4,6,8 nodes (up to 10km between sites), 2 nodes (up to 100km between sites) RAC 11gR1 with SLVM, ASM over SLVM and ASM over raw disks/LUs; CVM/CFS 5.0 <ul style="list-style-type: none"> Same Cluster size and Extended Cluster support as RAC 10gR2 SGeRAC is supported in cross subnet environments only when used with Metrocluster in a Site Aware Disaster Tolerant Architecture 			<ul style="list-style-type: none"> A.02.00 for 11i v3 includes: <ul style="list-style-type: none"> Symantec Veritas version 5.0 Performance enhancements Support with SGEFF A.01.00 Extended Distance Cluster (EDC) support with SG SMS version 2.0 on HP-UX 11i v3 is available with the following patches: <ul style="list-style-type: none"> PHCO_38412 - 11.31 VxVM 5.0 GARP2 Commands Patch 02 PHKL_38413 - 11.31 VxVM 5.0 GARP2 Kernel Patch 02 These patches are available from the ITRC patch web site at: http://h71028.www7.hp.com/enterprise/cache/286850-0-0-0-121.html Oracle Details: <ul style="list-style-type: none"> Support for 10gR2, 11gR1 Oracle RAC 9iR2 is not supported in this version 				

SG A.11.18 for HP-UX 11i v2 COMPATIBILITY <i>Intro Date June 2007</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM <small>Additional HPVM information can be found under "HP Serviceguard" White papers at: www.hp.com/go/hpux-serviceguard-docs</small>
SG/SGeRAC A.11.18 June 2007 / June 2012	HP-UX 11i v2	Integrity PARISC	A.04.11	B.01.01	B.05.00.00	A.02.00.04 A.03.00 single or alternate IP support	VxVM 5.0, CVM 5.0, CFS 5.0 VxVM 4.1, CVM 4.1, CFS 4.1 VxVM 3.5, CVM 3.5 LVM, Shared LVM (SLVM)	A.02.00 for 11i v2 (T2771CA - T2777CA) Jul 2007/Jun 2012 A.01.01 (T2771BA - T2777BA) Jun 2007/Jun 2012	See HPVM specific support information at the end of this document
SG A.11.18 for HP-UX 11i v2 NEW FEATURES <i>Intro Date June 2007</i>									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> Online network config: -add delete NIC's, Change designation of Heartbeat & Stationary IP's, Reconfigure cluster IP Addr, Change network polling New networking support : - Support for Virtual LANs (VLANs) over APA, Support for LACP, mode of Auto Port Aggregation, cmmmodnet to enable or disable a LAN_name Online cluster config: -Change HB interval, Change node timeout, Change auto start timeout Multi-node packages Package dependencies Package priorities New Modular package architecture Lock LUN support on HP-UX SG Manager Plug-in B.01.01 only (standalone not supported with A.11.18) Hostnames for cluster nodes extended to 39 characters SG Patch Oct 2007 adds the following new functionality: -Legacy to Modular package migration utility, VxVM Volume Monitor, Support for Alternate Quorum Server Subnet, Package Application parameter, SG Halt Reason environment variable SG Dec 2007 Patch adds support for cross-subnet configurations - Note, SLVM, CVM, and CFS are not currently supported in a cross subnet configuration - Note, SAP and NFS are not supported in a cross-subnet configuration 		<ul style="list-style-type: none"> SGeRAC Toolkit for 10gR2 RAC Cluster Interconnect Subnet Monitor Oracle RAC Compatibility: - RAC 9iR2 with SLVM, CVM 3.5, CVM/CFS 4.1 -- Cluster size with SLVM: 16 nodes maximum -- Cluster size with CVM 3.5, CVM/CFS 4.1, CVM/CFS 5.0: 8 nodes maximum -- Extended Cluster support: --- With SLVM: 2 nodes (up to 100km between sites) --- With CVM 3.5, CVM/CFS 4.1, 2,4,6,8 nodes (up to 10km between sites), 2 nodes (up to 100km between sites) - RAC 10gR2 with SLVM, ASM over SLVM, CVM/CFS 4.1, CVM/CFS 5.0 -- Cluster size with SLVM and ASM over SLVM: 16 nodes maximum -- Cluster size with CVM/CFS 4.1, CVM/CFS 5.0: 8 nodes maximum -- Extended Cluster support: --- With SLVM and ASM over SLVM: 2 nodes (up to 100km between sites) --- With CVM/CFS 4.1, CVM/CFS 5.0: 2,4,6,8 nodes (up to 10km between sites), 2 nodes (up to 100km between sites) - RAC 11gR1 with SLVM, ASM over SLVM -- Cluster size with SLVM and ASM over SLVM: 16 nodes maximum -- Cluster size with CVM/CFS 5.0: 8 nodes maximum -- Extended Cluster support: --- With SLVM and ASM over SLVM: 2 nodes (up to 100km between sites) --- With CVM/CFS 5.0: 2,4,6,8 nodes (up to 10km between sites), 2 nodes (up to 100km between sites) - SGeRAC is supported in cross subnet environments only when used with Metrocluster in a Site Aware Disaster Tolerant Architecture 			<p>A.02.00 for 11i v2 includes:</p> <ul style="list-style-type: none"> Symantec Veritas version 5.0 Performance enhancements Support with SGeFF A.01.00 <p>Oracle Details:</p> <ul style="list-style-type: none"> Supports Oracle 9iR2 and 10gR2 <p>A.01.01 includes:</p> <ul style="list-style-type: none"> Symantec Veritas version 4.1 Support with SGeFF A.01.00 Support with HPVM 3.0 <p>Oracle Details:</p> <ul style="list-style-type: none"> Supports Oracle 9iR2 and 10gR2 				

SG A.11.18 for Linux COMPATIBILITY <i>Intro Date July 2007</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard- docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/LX A.11.18 July 2007 / - Feb 2012 (for RedHat 4), - Apr 2014 (for RedHat 5) - Apr 2014 (for SLES10)	Red Hat 4, Red Hat 5, SLES10	Integrity and ProLiant	N/A	B.01.01	B.05.00.00	A.02.00.04 A.03.00 single or alternate IP's	N/A	N/A	HPVM 4.0
SG A.11.18 for Linux NEW FEATURES <i>Intro Date June 2007</i>									
SG New Features		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> • Online network config: -add delete NIC's, Change designation of Heartbeat & Stationary IP's, Reconfigure cluster IP Addr, Change network polling •New networking support: -Use cmmodnet to enable or disable a LAN_name • Online cluster config: -Change HB interval, Change node timeout, Change auto start timeout • Multi-node packages • Package dependencies • Package priorities • New Modular package architecture • SG Manager Plug-in B.01.01 only (standalone not supported with A.11.18) • Hostnames for cluster nodes extended to 39 characters • IPv6 support for data links only • SNMP subagent • SAF API's for cluster membership and locking services • WBEM provider • SG Patch Oct 2007 adds the following new functionality: -Legacy to Modular package migration utility -Support for Alternate Quorum Server Subnet -Package Application parameter -SG Halt Reason environment variable -Support for HPVM Linux Guest as SG Node (Integrity) -Support for VMware Linux guest as SG Node (ProLiant) • SG Feb 2008 Patch adds support for cross-subnet support configurations, DeviceMapper multipath (DM-MPIO) for application LUNS <p>SG Manager Plugin Notes: B.01.01 requires J2SE 1.4.2 or 5.0 or 6.0</p>		N/A			N/A				

SG A.11.17.01 for HP-UX 11i v3 COMPATIBILITY <i>Intro Date Feb 2007</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SGeRAC A.11.17.01 Feb 2007 / Feb 2012	HP-UX 11i v3	Integrity and PARISC	A.04.11	B.01.00	B.04.00.01	A.02.00.04 A.03.00	VxVM 4.1 LVM, Shared LVM (SLVM)	N/A	N/A
SG A.11.17.01 for HP-UX 11i v3 NEW FEATURES <i>Intro Date Feb 2007</i>									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>				SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>			
<ul style="list-style-type: none"> • HP-UX agile addressing. • HP-UX native multipathing and load balancing. • Serviceguard Manager plug-in • New networking capabilities: <ul style="list-style-type: none"> - The HP-UX <code>olrad -C</code> command now identifies network interface cards (NIC's) that are part of the Serviceguard cluster configuration. - Supports the LACP_AUTO mode of Auto Port Aggregation - Supports Virtual LANs (VLANs) over APA • 39 byte Hostnames 		<ul style="list-style-type: none"> • All SG New Features plus: <ul style="list-style-type: none"> - SGeRAC Toolkit for 10gR2 RAC and 11gR1 RAC integration • Oracle RAC Compatibility: <ul style="list-style-type: none"> - RAC 9iR2 with SLVM, - RAC 10gR2 with SLVM, ASM over SLVM and ASM over raw disks/Lus - RAC 11gR1 with SLVM, ASM over SLVM and ASM over raw disks/LUs 				N/A			

SG A.11.17 for HP-UX 11i v2 Update 2 COMPATIBILITY									
Intro Date Dec 2005									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SGeRAC A.11.17 Dec 2005 / Dec 2010	HP-UX 11i v2 U2	Integrity and PARISC	A.04.11	N/A	B.04.00.00	A.02.00.03 A.03.00	VxVM 5.0, VxVM 4.1, CVM 4.1, CFS 4.1 VxVM 3.5, CVM 3.5 LVM, Shared LVM (SLVM)	A.01.00	N/A
SG A.11.17 for HP-UX 11i v2 Update 2 NEW FEATURES									
Intro Date Dec 2005									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>				SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>			
<ul style="list-style-type: none"> Support for VxVM /VxFS 5.0 Support for CFS/CVM 4.1, maximum 8 nodes Multi-node package is now supported for HP-specified applications. Several new Serviceguard commands have been added for CFS support. Simple dependencies are introduced for HP-specified applications. Support for Distributed Systems Administration Utilities (DSAU). Tested with security containment HP Fabric Clustering System for (No Suggestions) as cluster heartbeat and data networks using IPoB. Support for HPVM 1.2, 2.0, 3.0 & 3.5 Supports the LACP_AUTO mode of Auto Port Aggregation 		<ul style="list-style-type: none"> All SG New Features Plus: <ul style="list-style-type: none"> Support for Oracle 9iR2 RAC and 10gR2 RAC (on HP Integrity Servers) with CFS/CVM 4.1, maximum 8 nodes Oracle 10gR2 RAC with SGeRAC A.11.17 can be configured using multi-node packages (MNP) and simple dependencies. Support for a maximum of 16 node clusters when using Shared LVM (SLVM) Support for Shared LVM Single Node Online Volume Reconfiguration (SNOR). Support for Shared LVM Online Node Addition and Deletion. Support for 8192 Oracle foreground Server Processes for Oracle 9iR2 RAC Support for Oracle ASM with SGeRAC, requires: SGeRAC A.11.17, Oracle 10gR2, and ASM disk group members must be raw volumes managed by SLVM; maximum 16 nodes when configured with the multinode packages (MNP) and simple dependencies integration framework, maximum 16 nodes without MNP's and dependencies SGeRAC Toolkit for Oracle 10gR2 RAC and 11gR1 integration Extended Distance Cluster support with CVM 4.1 or CFS 4.1: <ul style="list-style-type: none"> up to 8 nodes with a maximum distance between data centers of 10km up to 2 nodes with a maximum distance between data centers of 100km Oracle RAC Compatibility: <ul style="list-style-type: none"> RAC 9iR2 with SLVM, CVM 3.5, CVM 4.1, or CFS 4.1 RAC 10gR1 with SLVM, or CVM 3.5 RAC 10gR2 with SLVM, CVM 4.1 or CFS 4.1 Oracle 10gR2 with ASM over SLVM RAC 11gR1 with SLVM, ASM over SLVM 				<ul style="list-style-type: none"> Support with HPVM 2.0, 3.0, & 3.5 			

SG A.11.16.02 for Linux COMPATIBILITY <i>Intro Date July 2005</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/LX A.11.16.02 July 2005 / Oct 2009	Red Hat Enterprise Linux 4, AS or ES	ProLiant Integrity	N/A	N/A	B.03.01.00	A.02.00.03 A.03.00	N/A	N/A	N/A
SG A.11.16.02 for Linux New Features <i>Intro Date July 2005</i>									
SG New Features		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
• Support Red Hat EL 4		N/A			N/A				

SG A.11.16.01 for Linux COMPATIBILITY <i>Intro Date Feb 2005</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/LX A.11.16.01 Feb 2005 / Oct 2010 (for RedHat), July 2011 (for SLES9)	Red Hat Enterprise Linux 3, AS or ES (WS is not supported) SUES Linux Enterprise Server (SLES) 9	ProLiant Integrity	N/A	N/A	B.03.01.00	A.02.00.03 A.03.00	N/A	N/A	N/A
SG A.11.16.01 for Linux NEW FEATURES <i>Intro Date Feb 2005</i>									
SG New Features		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> Support for access control policies Support for GUI based configuration using Serviceguard Manager A.04.02 		N/A			N/A				

SG A.11.16 for HP-UX 11i v1 and 11i v2 Update 2 COMPATIBILITY									
Intro Date Oct 2004									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SGeRAC A.11.16 Oct 2004 / Dec 31, 2013 with 11i v1 Oct 2004/ Jun 30 2009 with 11i v2	HP-UX 11i v1 HP-UX 11i v2 U2	PARISC only Integrity & PARISC	EMS A.04.00.02 *	N/A	B.03.00.00 B.03.00.01	A.02.00.01 A.03.00	VxVM 3.5, CVM 3.5 LVM, Shared LVM (SLVM)	N/A	N/A
SG A.11.16 for HP-UX 11i v1 and 11i v2 Update 2 NEW FEATURES									
Intro Date Oct 2004									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
• Mixed node support HP 9000 and HP Integrity with HP-UX 11i v2 Update 2 • Support for 16 node clusters on HP Integrity • IP over IB support for SG Heartbeat with required patches (as of Apr'05) • VPar support with SG on HP-UX 11i v2 May 2005 release on Integrity and PA platforms including mixed node clusters. Also in this release is Serviceguard support for Security Containment on HP-UX 11i v2. • Support for HPVM 1.2, 2.0, 3.0 & 3.5 on HP-UX 11i v2 only		• All New SG Features Plus: • Online SLVM node addition supported with required patches (as of Apr'05) • IP over IB support for SG Heartbeat with required patches (as of Apr'05) • SGeRAC is not supported in a mixed node configuration • Oracle RAC Compatibility: - RAC 9.2 with SLVM or CVM 3.5 - RAC 10gR1 with SLVM, or CVM 3.5 - RAC 10gR2 with SLVM			N/A				

SG A.11.16 for HP-UX 11i v1 and 11i v2 COMPATIBILITY <i>Intro Date June 2004</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard- docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SGeRAC A.11.16 Jun 2004 / Dec 31, 2013 with 11i v1 June 2004/ Jun 30 2009 with 11i v2	HP-UX 11i v1 HP-UX 11i v2	PARISC only Integrity & PARISC	EMS A.04.00.02 "	N/A	B.03.00.00 B.03.00.01	A.02.00 "	VxVM 3.5, CVM 3.5 LVM, Shared LVM (SLVM)	N/A	N/A
SG A.11.16 for HP-UX 11i v1 and 11i v2 NEW FEATURES <i>Intro Date June 2004</i>									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> Support access control policies with required patches (as of Apr'05) Support for faster failover Support for Network Monitoring 		<ul style="list-style-type: none"> All New SG Features Plus: Enhanced RAC monitoring with Access Control Policies RAC packaging through Serviceguard Manager A.04.00 RAC 100 KM Extended Distance Cluster (requires RAC 9.2 or 10gR2) with SLVM or CVM 3.5, maximum 2 nodes Oracle RAC Compatibility: <ul style="list-style-type: none"> RAC 9.2 with SLVM or CVM 3.5 RAC 10gR1 with SLVM, or CVM 3.5 RAC 10gR2 with SLVM 			N/A				

SG A.11.15.02 for Linux COMPATIBILITY									
Intro Date April 2003									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/LX A.11.15.02 April 2004 / April 2006	Linux Red Hat EL 3	Integrity ProLiant	N/A	N/A	B.02.02.01	A.02.00	N/A	N/A	N/A
SG A.11.15.02 for Linux NEW FEATURES									
Intro Date April 2004									
SG New Features	SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>				SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
• Red hat Enterprise Linux 3 update 1 support with ProLiant and Integrity servers	N/A				N/A				

SG A.11.15.01 for Linux COMPATIBILITY									
Intro Date November 2003									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/LX A.11.15.01 Nov 2003 / Nov 2007	Linux SLES 8 (SP3 and later)	Integrity ProLiant	N/A	N/A	B.02.02.01	A.02.00	N/A	N/A	N/A
SG A.11.15.01 for Linux NEW FEATURES									
Intro Date November 2003									
SG New Features		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> • HP Integrity Server support • Cluster Lock LUN support 		N/A			N/A				

SG A.11.15 for HP-UX 11i v2 and 11iv2 Update 2 on <u>Integrity</u> COMPATIBILITY									
Intro Date September 2003									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SGeRAC A.11.15 Sept 2003 / Sept 2006	HP-UX 11i v2 HP-UX 11i v2 U2	Integrity	A.04.00.01	N/A	B.02.02	A.01.01 A.02.00	VxVM 3.5, CVM 3.5 LVM, Shared LVM (SLVM)	N/A	N/A
SG A.11.15 for HP-UX 11i v2 and HP-UX 11i v2 Update 2 on <u>Integrity</u> NEW FEATURES									
Intro Date September 2003									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> Supports only HP Integrity servers VPar support with SG on HP-UX 11iv2 May 2005 release on Integrity platforms only 		<ul style="list-style-type: none"> Supports only HP Integrity servers 			N/A				

SG A.11.15 for HP-UX 11i v1 on <u>PARISC</u> COMPATIBILITY									
Intro Date June 2003									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SGeRAC A.11.15 Jun 2003 / Jun 2006	HP-UX 11.i v1	PARISC	A.04.00 A.04.00.01	N/A	B.02.02	A.01.00 A.01.01 A.02.00 A.03.00	VxVM 3.5, CVM 3.5 LVM, Shared LVM (SLVM)	N/A	N/A
SG A.11.15 for HP-UX 11i v1 on <u>PARISC</u> NEW FEATURES									
Intro Date June 2003									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> • Ipv6 support • Quorum server as a package • Automatic probe of networks with cmrun commands • Can limit cmcheckconf connectivity checks for volume groups 		<ul style="list-style-type: none"> • All New SG Features Plus: • Fast detection of Oracle instance failures, • DB and group membership displayed via SG Mgr • Rolling upgrade enabled for future versions • SG unbundled from SGeRAC 			N/A				

SG A.11.14.02 for Linux COMPATIBILITY <i>Intro Date December 2002</i>									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/LX A.11.14.02 Jul 2003 / Jul 2005 (SLES8), Jan 2003 / May 2009 (RedHat)	Linux –RH EL 2.1, SLES8	ProLiant	N/A	N/A	B.02.01.01	A.02.00 A.03.00	N/A	N/A	N/A
SG A.11.14.02 for Linux NEW FEATURES <i>Intro Date December 2002</i>									
SG New Features		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> • ProLiant Server support, • 16 node cluster support 		N/A			N/A				

SG A.11.14.01 for HP-UX 11i v1.6 COMPATIBILITY									
Intro Date July 2002									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SGeRAC A.11.14.01 Jul 2002 / Dec 2005	HP-UX 11i v1.6	Integrity	A.03.40	N/A	B.02.01	A.01.01 A.02.00 A.03.00	VxVM 3.5, CVM 3.5 LVM, Shared LVM (SLVM)	N/A	N/A
SG A.11.14.01 for HP-UX 11i v1.6 NEW FEATURES									
Intro Date July 2002									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> 1st version supported on HP Integrity Servers, with some configuration limitations 		<ul style="list-style-type: none"> All New SG Features Plus: New name for SG OPS: SGeRAC SG unbundled from SGeRAC 			N/A				

SG A.11.14 for HP-UX 11.0 and 11i v1 COMPATIBILITY									
Intro Date March 2002									
SG, SG OPS, SGeRAC Version Intro/End of Support Dates	OS Version	Hardware Platform	EMS & HA Monitors Version <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>	SG Mgr Plug-in Version <small>For Serviceguard Manager standalone version information see "HP Serviceguard Manager" at: www.hp.com/go/hpux-serviceguard-docs</small>	COM Version	QS Version	Volume Managers <small>Note CFS is supported only as part of the SMS CFS bundle</small>	SG SMS Version Intro/End of Support Dates <small>For specific naming conventions for the various SMS bundles please refer to the product release notes at www.hp.com/go/hpux-serviceguard-docs</small>	HPVM
SG/SG OPS A.11.14 Mar 2002 / Dec 2006	HP-UX 11.0 HP-UX 11.i v1	PARISC	EMS A.03.20 EMS A.03.20.01, EMS A.04.00, & EMS A.04.00.01	N/A	B.01.04 and B.01.04.01 w/patch PHSS_2799 1) B.01.04 and B.01.04.01 w/patch	A.01.00 A.01.01 A.02.00 A.03.00 A.01.00 A.01.01 A.02.00 A.03.00	LVM, Shared LVM (SLVM)	N/A	N/A
SG A.11.14 for HP-UX 11.0 and 11i v1 NEW FEATURES									
Intro Date March 2002									
SG New Features <small>Note, Extended Distance Cluster (EDC) is a SG configuration and all SG compatibility should be assumed unless otherwise stated</small>		SGeRAC New Features <small>Additional information can be found in the release notes at www.hp.com/go/hpux-serviceguard-docs</small>			SG SMS New Features <small>Additional information can be found in the release notes at: www.hp.com/go/hpux-serviceguard-docs</small>				
<ul style="list-style-type: none"> SG Mgr admin support, includes Quorum Server support Performance Enhancements in control scripts Defect fixes Support for up to 150 packages (note patch PHSS_26056 or later is required)		• All New SG Features			N/A				

Serviceguard and Integrity VM Support			
Integrity VM Release	VM's as Serviceguard Packages Serviceguard running on the HP-UX VM host	VM's as HP-UX Serviceguard Nodes Serviceguard running on the HP-UX VM guest	VM's as Linux Serviceguard Nodes Serviceguard running on the Linux VM guest
A.01.20 Runs on 11i v2 hosts only	Serviceguard release: - A.11.16 - A.11.17 - A.11.17 with SMS A.01.00 ^(*)	Serviceguard release: - Not supported	Serviceguard release: - Not supported
A.02.00 Runs on 11i v2 hosts only	Serviceguard release: - A.11.16 - A.11.17 - A.11.17 with SMS A.01.00 ^(*)	Serviceguard release: - A.11.16 - A.11.17 - A.11.17 with SMS A.01.00 ^(*)	Serviceguard release: - Not supported
A.03.00 Runs on 11i v2 hosts only	Serviceguard release: - A.11.16 - A.11.17 - A.11.17 with SMS A.01.00 ^(*) - A.11.18 - A.11.18 with SMS A.01.01 ^(*)	Serviceguard release: - A.11.16 - A.11.17 - A.11.17 with SMS A.01.00 ^(*) - A.11.17.01 (11i v3) - A.11.18 (11i v2, 11i v3) - A.11.18 with SMS A.01.01 (11i v2) ^(*)	Serviceguard release: - A.11.18 (Linux Red Hat Release 4 Update 4,5)
A.03.50 Runs on 11i v2 (Dec 2007 or later) VM hosts only	Serviceguard release: - A.11.16 - A.11.17 - A.11.17 with SMS A.01.00 ^(*) - A.11.18 - A.11.18 with SMS A.01.01 ^(*) - A.11.18 with SMS A.02.00 ^(*)	Serviceguard release: - A.11.16 - A.11.17 - A.11.17 with SMS A.01.00 ^(*) - A.11.17.01 (11i v3) - A.11.18 (11i v2, 11i v3) - A.11.18 with SMS A.01.01 (11i v2) ^(*) - A.11.18 with SMS A.02.00 (11i v2) ^(*) - A.11.18 with SMS A.02.00 (11i v3) ^(*)	Serviceguard release: - A.11.18 (Linux Red Hat Release 4 Update 4/5, SLES10 Update 1)
B.04.00 Runs on 11i v3 (Sept 2008 or later) VM Hosts only	Serviceguard release: - A.11.18 - A.11.18 with SMS A.02.00 ^(*) - A.11.19 - A.11.19 with SMS A.02.01 ^(*)	Serviceguard release: - A.11.18 (11i v2, 11i v3) - A.11.18 with SMS A.02.00 (11i v2, 11i v3) ^(*) - A.11.19 (11i v2, 11i v3) - A.11.19 with SMS A.02.01 (11i v2, 11i v3) ^(1,2)	Serviceguard release: - A.11.18 (Linux Red Hat Release 4 Update 5, SLES10 Update 1/2) - A.11.19 (Linux SLES10 Update1,2)
B.04.10 ^(*) Runs on 11i v3 (April 2009 or later) VM Hosts only	Serviceguard release: - A.11.18 - A.11.18 with SMS A.02.00 ^(*) - A.11.19 - A.11.19 with SMS A.02.01, A.02.01.01, A.03.00 ^(*) - A.11.20 - A.11.20 with SMS A.03.01 ^(*)	Serviceguard release: - A.11.18 (11i v2, 11i v3) - A.11.18 with SMS A.02.00 (11i v2, 11i v3) ^(1,2) - A.11.19 (11i v2, 11i v3) - A.11.19 with SMS A.02.01 or A.02.01.01 (11i v2, 11i v3) ^(*) - A.11.19 with SMS A.03.00 (11i v3) ^(*) - A.11.20 - A.11.20 with SMS A.03.01 (11i v3) ^(*)	Serviceguard release: - A.11.18 (Linux Red Hat Release 4 Update 5, SLES10 Update1,2) - A.11.19 (Linux SLES10 Update 1,2)
B.04.20 ^(*) B04.20.5 ^(*) Runs on 11i v3 (March 2010 or later) VM Hosts only	Serviceguard release: - A.11.19 - A.11.19 with SMS A.02.01, A.02.01.01 or A.03.00 ^(*) - A.11.20 - A.11.20 with SMS A.03.01 ^(*)	Serviceguard Release: - A.11.19 (11i v2 and 11i v3) ^(*) - A.11.19 with SMS A.02.01, A.02.01.01 (11i v2 and 11i v3) ^(*) - A.11.19 with SMS A.03.00 (11i v3) ^(*) - A.11.20 - A.11.20 with SMS A.03.01 (11i v3) ^(*)	Serviceguard for Linux release: - A.11.19 (Linux SLES 10 Update 1&2)
B.04.30 Runs on 11i v3 (April 2011 or later) VM Hosts only	Serviceguard release: - A.11.20 - A.11.20 with SG SMS A.03.01 ^(*) , A.03.02, A.04.0x ^(*) - NPV disk monitoring support with the patch HPVM 4.3-PK2	Serviceguard release: - A.11.20 - A.11.20 with SG SMS A.03.01 ^(*) , A.03.02, A.04.0x ^(*)	Serviceguard for Linux release: - None - Linux is no longer supported beginning with 4.3

<p>HPVM/vPar B.06.10</p> <p>Runs on 11i v3 (March 2012 or later) VM Hosts only</p>	<p>Serviceguard release:</p> <ul style="list-style-type: none"> - A.11.20 - A.11.20 with SG SMS A.03.01 (*1,2,3), A.03.02, A.04.0x (*1,3) - NPIV disk monitoring support - DIO network interface monitoring support 	<p>Serviceguard release:</p> <ul style="list-style-type: none"> - A.11.20 - A.11.20 with SG SMS A.03.01 (*1,2,3), A.03.02, A.04.0x (*1,3) 	<p>Serviceguard for Linux release:</p> <ul style="list-style-type: none"> - None - Linux is no longer supported beginning with 4.3
<p>*1) Since Oracle RAC is not supported in VM guests, and Oracle single-instance and RAC is not recommended for use on VM hosts, support for the Serviceguard Storage Management Suite (SMS) A.01.00 / A.01.01 / A.02.00 / A.02.01 / A.03.00 / A.03.01 with HP Integrity Virtual Machines is limited to the following bundles:</p> <p><u>VM Hosts:</u></p> <p>T2771xx HP Serviceguard Storage Management</p> <p>T2772xx HP Serviceguard Storage Management Premium</p> <p>T2775xx HP Serviceguard Cluster File System</p> <p><u>VM Guests:</u></p> <p>T2771xx HP Serviceguard Storage Management</p> <p>T2772xx HP Serviceguard Storage Management Premium</p> <p>T2773xx HP Serviceguard Storage Management for Oracle</p> <p>T2774xx HP Serviceguard Storage Management for Oracle Premium</p> <p>T2775xx HP Serviceguard Cluster File System</p> <p>T2776xx HP Serviceguard Cluster File System for Oracle</p>			
<p>*2) The following Serviceguard Storage Management Suite (SMS) A.01.00 / A.01.01 / A.02.00 / A.02.01 / A.03.00 / A.03.01 capabilities are not supported in HP Integrity VM guests:</p> <ul style="list-style-type: none"> - Cross Platform Data Sharing (CDS) disk format (VxVM disk groups must be created using the "cds=off" option) - Enclosure Based Names (EBN) 			
<p>*3) Not supported with HPVM 4.2 NPIV (N_Port ID Virtualization) or PI (PI = Portable Image) features.</p>			
<p>*4) Only Serviceguard A.11.19 and A.11.20 is supported with Integrity VM (B.04.10, B.04.20, B.04.20.5) Online VM Migration</p>			
<p>*5) Please reference the following document for device support information on Symantec products for use with HP Integrity Virtual Machines (http://docs.hp.com/en/5992-4022/5992-4022.htm)</p>			

**HP Integrity VM (B.04.10, B.04.20, B.04.20.5) Host Support Matrix for
Serviceguard Storage Management Suite (SMS) Version A.02.01, A.03.00, A.03.01
Products Installed on VM Host**

HP Software Product (installed in VM host)	Serviceguard VM as Package Configurations VM as Serviceguard package and VM as Serviceguard node configurations are supported running on the same VM hosts in separate Serviceguard clusters	VM as Serviceguard Node Configurations VM as Serviceguard node configurations support only whole-disk backingstore virtual disks and cannot use any volume manager or file system features available on the VM host VM as Serviceguard package and VM as Serviceguard node configurations are supported running on the same VM hosts in separate Serviceguard clusters
T2771xx - HP Serviceguard Storage Management	Yes, VM as Serviceguard package configurations requiring only whole-disk backingstore virtual disks (e.g., VM guests using online VM migration) cannot use any volume manager or file system features available on the VM host	Yes
T2773xx - HP Serviceguard Storage Management for Oracle	Yes, VM as Serviceguard package configurations requiring only whole-disk backingstore virtual disks (e.g., VM guests using online VM migration) cannot use any volume manager or file system features available on the VM host Oracle single-instance DBs are not supported for use on VM hosts; however other Serviceguard Storage Management Suite functions (e.g., volume snapshots / checkpoints) are supported on the VM host	Yes, Oracle single-instance DBs are not supported for use on VM hosts; however other Serviceguard Storage Management Suite functions (e.g., volume snapshots / checkpoints) are supported on the VM host
T2774xx - HP Serviceguard Storage Management for Oracle Premium	Yes, VM as Serviceguard package configurations requiring only whole-disk backingstore virtual disks (e.g., VM guests using online VM migration) cannot use any volume manager or file system features available on the VM host Oracle single-instance DBs are not supported for use on VM hosts; however other Serviceguard Storage Management Suite functions (e.g., volume snapshots / checkpoints) are supported on the VM host	Yes, Oracle RAC DBs are not supported for use on VM hosts or VM guests
T2775xx - HP Serviceguard Cluster File System	Yes, VM as Serviceguard package configurations requiring only whole-disk backingstore virtual disks (e.g., VM guests using online VM migration) cannot use any volume manager or file system features available on the VM host	Yes
T2777xx - HP Serviceguard Cluster File System for RAC	No, Oracle RAC DBs are not supported for use on VM hosts or VM guests	No, Oracle RAC DBs are not supported for use on VM hosts or VM guests

**HP Integrity VM (B.04.10, B.04.20, B.04.20.5) Guest Support Matrix for
Serviceguard Storage Management Suite (SMS) Version A.02.01, A.03.00, A.03.01
Products Installed in VM Guest**

HP Software Product (installed in VM guest)	Online VM Migration - VM as Serviceguard Package VM as Serviceguard package configurations requiring only whole-disk backingstore virtual disks (e.g., VM guests using online VM migration) cannot use any volume manager or file system features available on the VM host	Online VM Migration – VM as Serviceguard Node	Offline Migration (hpvmigrate)		Offline Migration - VM as Serviceguard Package Failover VM as Serviceguard package configurations requiring only whole-disk backingstore virtual disks (e.g., VM guests using online VM migration) cannot use any volume manager or file system features available on the VM host
T2771xx - HP Serviceguard Storage Management	No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations	No, Online migration of VMs as Serviceguard node configurations is not supported at this time	Yes, Cross Platform Data Sharing (CDS) disk format (i.e., VxVM and CVM disk groups must be created using the "cds=off" option) and Enclosure Based Names (EBN) are not supported in VM guests		No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations
T2773xx - HP Serviceguard Storage Management for Oracle	No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations	No, Online migration of VMs as Serviceguard node configurations is not supported at this time	Yes, Cross Platform Data Sharing (CDS) disk format (i.e., VxVM and CVM disk groups must be created using the "cds=off" option)		No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations
T2774xx - HP Serviceguard Storage Management for Oracle Premium	No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations	No, Online migration of VMs as Serviceguard node configurations is not supported at this time	Yes, Cross Platform Data Sharing (CDS) disk format (i.e., VxVM and CVM disk groups must be created using the "cds=off" option) and Enclosure Based Names (EBN) are not supported in VM guests		No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations
T2775xx - HP Serviceguard Cluster File System	No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations	No, Online migration of VMs as Serviceguard node configurations is not supported at this time	Yes, Cross Platform Data Sharing (CDS) disk format (i.e., VxVM and CVM disk groups must be created using the "cds=off" option) and Enclosure Based Names (EBN) are not supported in VM guests		No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations
T2777xx - HP Serviceguard Cluster File System for RAC	No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations	No, Online migration of VMs as Serviceguard node configurations is not supported at this time	No, Oracle RAC DBs are not supported for use on VM hosts or VM guests		No, Serviceguard SMS requires Serviceguard running in the VM guest, which is not supported in VM as Serviceguard package configurations