

Veritas[™] Risk Advisor Release Notes

AIX, ESXi, HP-UX, Linux, Solaris, Windows Server

7.2.3

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Release Notes

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Veritas Services and Operations Readiness Tools (SORT)

Veritas Services and Operations Readiness Tools (SORT) is a website that provides information and tools to automate and simplify certain time-consuming administrative tasks. Depending on the product, SORT helps you prepare for installations and upgrades, identify risks in your datacenters, and improve operational efficiency. To see what services and tools SORT provides for your product, see the data sheet: https://sort.veritas.com/data/support/SORT_Data_Sheet.pdf

About this document

This document provides important information about Veritas Risk Advisor (VRA) 7.2.3. Review this entire document before you install and use VRA 7.2.3.

Getting more information or help

- For the latest information about updates, patches, and software issues regarding this release, see the following Late Breaking News (LBN): https://www.veritas.com/support/en_US/article.TECH68401
- For more information about system requirements and software limitations, see the following documents:
 - Veritas Risk Advisor Support Requirements
 - Veritas Risk Advisor Deployment Requirements
- If you forget or lose the VRA administrator password, contact Veritas Technical Support.

Overview of Veritas Risk Advisor

VRA is a risk detection and management solution that enables organizations to diagnose high availability (HA) and disaster recovery (DR) vulnerabilities (gaps) and optimize data protection. It empowers enterprises to effectively manage business continuity implementations to ensure that critical business data is protected at all times.

VRA is an agentless discovery and monitoring tool that automatically scans your enterprise infrastructure to detect vulnerabilities in the HA/DR configurations. It alerts you to any potential gaps, best practice violations, and service level agreement (SLA) breaches.

The information and insight provided by VRA includes:

- Detailed information about the current data protection and HA/DR risks and the prioritized actions that you
 can take to fix them
- Recommendations for improving HA/DR performance based on best practices and recovery objectives
- Differences that it identifies between the production, standby, and DR systems
- Auditing and compliance documentation, including a topology map of your production environment, DR configuration, and dependencies



The following changes have been introduced in this release.

New features

This VRA release introduces new features in the following areas:

Area	New feature
Cisco UCS Blade Servers	Support has been added for Cisco Unified Computing Systems (UCS) Blade
support	Servers. VRA now collects all the needed information through UCS Manager,
	identifies all relevant components of UCS Blade Servers and analyzes them for
	potential risks – both as individual components and as the whole system
Dell EMC Unity support	Support has been added for Dell EMC Unity storage array. VRA now collects the
	information through EMC Unisphere and analyses it for potential risks
SLA Policies for Mirroring	VRA now allows defining dedicated SLA policies to enforce mirroring for Active-
	Active storage technologies which support mirroring, such as EMC VPLEX, IBM
	SVC and others

Documentation packaging change

Beginning with release 7.2, VRA documentation will not be included in the tar ball with the VRA software. You can access the VRA docs at the following location:

https://sort.veritas.com/documents

Note: You need to select Risk Advisor in the Product list.

New privileged commands

The following new read-only privileged commands are required:

Command	Required for scanning
/sbin/crm_mon	Linux Cluster (RHEL7)
/sbin/pcs	Linux Cluster (RHEL7)

Please refer to the *Veritas Risk Advisor Deployment Guide* for information regarding privileged command requirements for newly supported platforms.



Additional changes and enhancements

The following additional changes and enhancements have been introduced in this release.

New system properties

The following system properties are added:

Category	Property	Description
Collection	Unity port	Default value is 443
Collection - Admin	vCenter scanning	Default value is False
	exception to	
	different log file	
Collection - Admin	The number of	
	Unity probes the	
	system can run in	Default value is 2
	parallel	Changing this property requires system restart
Collection - Admin	The number of UCS	
	probes the system	Default value is 2
	can run in parallel	Changing this property requires system restart
Collection Timeouts	Timeout for	
	scanning all Unity in	
	minutes	Default value is 180
Collection Timeouts	Timeout for a single	Default value is 60
	Unity scan, in	
	minutes	
Collection Timeouts	Timeout for	
	scanning all UCS in	
	minutes	Default value is 180
Collection Timeouts	Timeout for a single	Default value is 90
	UCS scan, in	
	minutes	
Collection –	Unity Certificate	Default value is True
Security	revocation check	
Collection –	UCS Certificate	Default value is True
Security	revocation check	

Category	Property	Description
Gap Rules	Maximum allowed	Default value is 70
	% of virtual cluster	
	nodes on a single	
	host or blade server	
	system	
Gap Rules	Maximum allowed	Default value is 70
	% of virtual	
	machines in an	
	affinity rule scope	
	on a single blade	
	server system	
Automatic Import	Update	Default value is False
	configuration for	
	existing hosts	
Business Entity	Override current	Default value is True
Import	Business Entities	
	when importing	
	Business Entities	
	from CMDB	
Host Comparison	The interval time	Default value is 30
	between each	
	worksheet cleaner,	
	in seconds	
Web Service API	Parallel task queue	Default value is False
Web Service API	Parallel task queue	Default value is 10
	depth	
Housekeeping	Advanced - sending	Default value is Always,
	log data mode	possible values are Always, Heavy Duty Only, Backup Only

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Category	Property	Description
Reports	VMware VM options to ignore in Host Configuration Differences report	Default value changed to evcCompatibilityMode,sched.swap.derivedName,nvram, migrate.migrationId,migrate.hostlog,migrate.hostLogState, vm.genid,vm.genidX,scsi0.sasWWID,vmotion.checkpointSVGASize, vmotion.checkpointFBSize,vmware.tools.requiredversion, tools.remindInstall,tools.guest.desktop.autolock, vmware.tools.internalversion,toolsInstallManager.updateCounter, guestinfo.vf.tc.clientLicenseState,debugStub.linuxOffsets, unity.customColor,unity.wasCapable,softPowerOff, replay.supported,usb:0.deviceType,.*pciSlotNumber,.*.present, .*CPUID.*,guest.commands.sharedSecretLogin.com.vmware.vin, kernel.sched_domain.*,*.sasWWID,machine.id

Data collection enhancements

The following enhancements are included:

ID	Description
P-8459	NetApp SnapMirror replication state collection
N-1325	Enable scanning Infinibox versions 3.0 and 4.0
N-1252	Improvements in SVC modeling for better Active-Active support
N-1251	Improvements in VPLEX modeling for better Active-Active support
P-8446	Separate httpd commands in the linux_lb.sh script
G-2128	SRDF replication state was not identified (Metro / ActiveBias)
N-1529	File system managed by cluster and configured in OS
N-1443	RedHat Cluster Suite Ver.7 support

Risk detection enhancements

The following risk detection enhancements are included:

ID	Description
G-1925	Add Area and labels to SAN switch tickets
G-2028	Do not compare Linux Kernel parameter net.core.netdev_rss_key

Application enhancements

The following application enhancements are included:

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ID	Description
N-1479	WS API function for running a scan task
N-1478	WS API function for updating DB views
N-1477	WS API function for running a scheduled report task
N-1463	WS API function for scanning multiple host simultaneously
N-1375	WS API function for Suppressing a Ticket
N-918	WS API function for Exporting a Ticket as HTML
N-915	WS API function for Comparison group creation
N-1377	Ability to cancel WS task being executed
A-1110	Ability to ignore all differences in the entire worksheet
A-868	Host comparison tab - picker should only show resources that are in the scan scope
N-913	Avoid Duplicated Comparison Tickets
P-8146	Remove hosts from comparison groups when removed from the scanning scope
N-911	Search Comparison Groups
N-1376	Ability to assign color to labels
A-987	Management Console Scope editing dialog usability issues
A-1059	Add an option to prevent overriding current Business Entities when importing from CMDB
A-952	Add an option to process only new hosts when importing from CMDB
A-1081	Prevent collector connection to be affected by port scanning
N-1379	Added "Clusters" to Host Configuration Differences report scope selection table
A-1026	Alert the user regarding insufficient memory for the VRA Oracle database
A-1025	Add ability for XML generic connector to save sent ticket as a file
A-1060	External Ticket queue reached limit - add ability to control queue size

Important Notes

Review the following important notes about the various VRA configurations.

Oracle database locale requirement

The Oracle instance used as the backend database for VRA must be configured with the English Locale. This requirement is complementary to other requirements identified in the Deployment guide and/or other documents.

Internet Explorer requirement

Internet Explorer (IE) Enhanced Security must be disabled on the VRA server. Accessing the VRA application

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using IE on the VRA server when IE Enhanced Security is enabled can lead to configuration errors. This requirement is complementary to other requirements identified in the Deployment guide and/or other documents.

Scanning HP 3PAR using InForm CLI proxy

When using InForm CLI proxy to scan HP 3PAR arrays, it is mandatory to use encrypted passwords.

Scanning NetApp storage systems using SSL

If an error is experienced when connecting to NetApp storage systems using SSL, perform one of the following changes to resolve the connection error:

- Enable TLS on the target NetApp storage system using the option tls.enable on command.
- Comment the following line in the java.security file of the Java installation used by the master/collector servers:

jdk.tls.disabledAlgorithms=SSLv3

The default path for the file is C:\Program Files\Java\jre1.8.0_40\lib\security.

This option was uncommented on Java v8.31.

Java Requirements for Viewing Topology

- Every Windows system requiring access to the VRA Web User Interface must be installed with Java Run Time Environment (JRE) 8. Java must be enabled for Internet Explorer.
- On 64-bit Windows versions, it is generally recommended to install both 32-bit and 64-bit versions of JRE to avoid compatibility issues relating to 64-bit vs. 32-bit computing.
- If Internet Explorer 64-bit is used, ensure JRE 64-bit is installed. Alternatively, if Internet Explorer 32-bit is
 used, ensure JRE 32-bit is installed.

Using the Backup Host Role

To avoid false tickets regarding storage access or SAN I/O configuration inconsistency that involves backup servers, configure the backup servers inside a business entity and assign the 'Backup' role.

Enabling data collection from vSphere Infrastructure Navigator (VIN)

In order to enable remote data collection from VIN, the following steps must be performed on the VIN appliance:

- Edit the /opt/vadm-engine/webapps/jolokia/WEB-INF/classes/jolokia-access.xml configuration file and specify the IP Address of the VRA collector that will connect VIN.
- Run the /opt/vadm-engine/bin/disable_security.sh script in order to enable remote connection (disables some of the local security configurations such as firewalls).
- Restart the VIN discovery engine by running /etc/init.d/vadm-engine restart.

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• Check connection by browsing to the http://[VIN IP]:8080/jolokia URL.

Scan of Storage and Replication Management servers

It is recommended to scan all production/DR storage management servers as hosts in step 4 of the configuration wizard – also in the case they are already scanned through step 2. Scanning the servers as hosts ensures all replication group information is collected and analyzed.

Scan of Windows hosts through WMI

Scanning of Windows hosts updated with KB3139940 might fail with Access Is Denied message. To overcome this failure, please make sure that the user configured to authenticate to this server is a member of the Local Administrator group on the VRA server. As of version 7.2.1, VRA provides also an alternative method of scanning Windows servers using WMI which requires PowerShell version 5.1 or higher.

Recommended display size and resolution

VRA's web user interface is best displayed and operated with Full HD resolution (1080p) on minimum 21" screens with aspect ratio of 16:9. Using smaller screens and/or coarser resolution might cause some screens to be partially displayed – in these cases browser's zoom-out function might be used to entirely display the specific screen.

Fixed issues

This VRA release includes the following fixed issues.

Scan and data collection issues

The following issues are resolved:

ID	Description
G-2125	False tickets opened due to wrong connection between PV to SV - XIV storage array
P-8482	Incorrect Hitachi array Id returned by aix_sv.awk in certain cases
N-1413	VPLEX parsing issue
N-1411	PVtoSV - aix_sv.awk parsing issue when lscfg contains Symmetrix (no vpd)
G-2131	OracleASMDiskGroup performance issues
P-8366	Incorrect raw data parsing for property virtualFCAdapters of item AIXLPARProfile
N-1390	Solaris vxdmp_storage.awk issue - creating invalid HDS array

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ID	Description
N-1380	aix_sv parsing issue caused false tickets
N-1351	PV2SV scan issue on Windows
P-8461	Paths are considered as standalone PVs and false tickets are opened (single path etc)
P-8480	ESXi PV does not connect to VPLEX virtual volume
P-8413	Incorrect PVs generated when ZFS status is degraded
P-8427	Unspecified command error in linux VM scanning
P-8456	Gap 01032MSCSRD false tickets opened due to cluster resource dependency collection
	issue
G-2096	Wrong collection of SnapMirror replication lag led to false tickets
N-1253	Greyed out duplications of HDS storage arrays, false tickets opened
N-1239	linux collector does not collect all pv aliases (some are missing)
N-1235	Missing data for RecoverPoint replication - false SLA tickets opened
N-1219	Gap 00325SSIOP Single SAN I/O path false tickets opened in specific case
N-1198	BNA Scan failed to correlate discovered switches
P-7890	Error connecting ASMDiskGroup to PV - Linux

Scan management and troubleshooting issues

The following issues are resolved:

ID	Description
A-1075	SCVMM 2016 scan issue
P-8317	Improve message in case of CIFS error
P-8424	LINUX - Incorrect scan issue reported for VCS HAHB
P-8474	Is and cat commands in multiple scripts are presented without full path
P-8360	Property OShugePages is not declared in scanner knowledge file
P-8380	VxDMP scanning issue appears altough the module is disabled
P-8439	Timed-out requests are written the to log instead of just writing their IR.
P-8454	Agent SYMCLI scan issue
P-8452	Corrupted response file load causing Java heap on Master server
P-8435	SRM scanning issues - unsupported symbols in raw data
N-1001	Scan issue on ALL windows servers after upgrade
P-8469	Host Solaris partial scan and no scan issues

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ID	Description
P-8476	Hitachi array scan reports an error and the scan never ends

Risk detection issues

The following issues are resolved:

ID	Description
N-1412	dataTime not calculated for backend emc clones of used VPLEX volumes
N-1393	Gap00887OracleClusterware - Never-ending loop causing DA to hang
G-2117	Gap 00700SLA failed in specific scenario
G-2118	Exception in gap 00512_VCSReplicationResource failed in specific scenario
G-2119	Gap00242HostAccessingRemoteDevices tickets got closed mistakenly
G-2090	Non impactful 00595LFSCBCN tickets opened for virtual cisco usb drives
G-2086	Gap 00280DatabaseBP failed in specific scenario
N-1224	Gap 00318SANIOSHSTG false ticket opened in specific scenario
N-1181	Gap 00222APUSUR false ticket opened in specific scenario
A-895	Non-impactful difference reported as risk for AIX netsvc configuration
G-1947, N-1515	Gap 00245DeadPath false ticket opened in specific scenario
G-2029	Gap 00304TRESTRCTMIS false ticket opened in specific scenario
G-2049	Gap 00500VCSONNOMOUNT false ticket opened in specific scenario
G-2127	Gap 00280DatabaseBP failed in specific scenario

Application and user interface issues

The following issues are resolved:

ID	Description
A-1075	"Send to external ticket system" + ticket suppression from ticket Topology do not work
A-1030	DB View SAPI_NAS_REPLICATION is missing data
N-1381	Out of memory failure during scan
A-1082	System Property: "Load all tickets on Tickets tab select" doesn't load tickets
A-1014	Support package sent by VRA through email is corrupted (partial)
A-1029	Failure to un-suppress numerous gaps
A-1023	SAPI_VM_TO_REPLICATION_GROUP contains incorrect data
A-1011	SymptomsRunner couldn't finish successfully - fails DA

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ID	Description
N-1175	Disksets failed to run (exception)
A-996	Typing characters in "Labels" does not issue an error message
N-1133	Comparison screen doesn't refresh properly
N-1091	Wrong scan group name
A-901	WS API - Tasks are hanging and must be deleted manually
A-963	Fail to manage host scan when there are multiple solaris zones with the same name
A-815	EXP files aren't directed to the DailyDump/WeeklyDump folders
N-1017	Wrong position of warning signs in tickets tab
A-1020	License Usage report does not present Exadata systems consuming licenses
N-886	Add license field is too small in Firefox
A-1006	Ticket notes field is too small
N-1196	Tab alignment issue in Firefox
N-1197	Add Labels alignment issue in Firefox

Known issues

This VRA release has the following known issues planned to be fixed in future releases. If you contact Technical Support about one of these issues, please refer to the incident number in brackets.

Ticket and report issues

The following ticket and report issues exist:

ID	Description	Workaround
[A-14]	Due to a large number of HBA properties, the Host HBA	Export the report to excel.
	Comparison report may not be readable when executed for	
	Linux and exported as PDF/RTF.	
[A-19]	After suppressing a gap and performing multiple ticket	-
	searches, the history tab of a ticket of the suppressed gap	
	may show multiple suppression records.	
[A-510]	Report: What-If Impact Analysis: Report generation fails	-
	under certain circumstances.	

ID	Description	Workaround
[A-551]	VMware Summary report contains incorrect set of ESXi	-
	hosts; some hosts are potentially not marked for the scan	
	while other scanned hosts may fail to be included.	
[A-578]	Gap Id 1601 (Snapshots enabled for Zerto Virtual Manager -	-
	ZVM) - when ticket is exported, impact contains ">".	
[G-1504	Gap Id 360 (NFS options inconsistency) may generate large	Suppress the ticket.
	tickets or non-impactful tickets.	
[G-1580]	Gap Id 700 (SLA) may fail reporting an exception in the log	-
	file.	
[G-1591]	Gap Id 80459 (Network redundancy and resiliency) may	Suppress the ticket.
	open incorrect tickets for iSCSI environments.	
[G-1602]	Gap Id 700 (SLA) may fail when replication target set is	-
	defined as "Any Site".	
[G-1634]	Gap Id 225 (Mixture of database files) may open tickets that	Suppress the ticket.
	include no details under the description section.	
[G-1716]	Gap Id 306 (Inconsistent Database Replication) may fail	-
	reporting an exception in the log file.	
[G-1734]	Gap Id 335 (SAN switch single point of failure) may open	Suppress the ticket.
	incorrect tickets for logical ISL between logical Brocade	
	switches.	
[P-3314]	When rollback segments and data files are separated, VRA	Suppress the ticket.
	may generate false tickets about database files stored on a	
	mixture of RAID types.	
[P-5975]	When cluster nodes are scanned using different collectors,	Suppress the ticket.
	VRA may generate false tickets if the collectors' times are not	
	synced.	
[P-6484]	In specific scenarios, when a replication source becomes the	-
	target and the target becomes the source, VRA does not	
	calculate the data age for the replication. This error may	
	occur when, between two scans, the source is changed to be	
	the target and the target is changed to be the source.	

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ID	Description	Workaround
[G-1791]	Gap Id 500 (VCS Online mount resource failure) may open	-
	inaccurate tickets reporting incorrect file systems and block	
	devices mismatches.	
[P-8161]	Gap Id 420 (vMotion not configured) may open non-impactful	-
	tickets when vMotion is enabled on distributed virtual	
	switches.	
[P-8118]	Gap Ids 213 and 250 may open tickets with no textual	-
	description.	
[G-1829]	VRA does not take Affinity and VM to host rules into	-
	consideration in certain Gap signatures and non-impactful	
	tickets may be opened.	

Topology view issues

The following topology view issues exist:

ID	Description	Workaround
[A-534]	Incorrect Topology connection between 3PAR Vol and Masking Configuration.	-
[P-8095]	NetApp vServers are not presented in the topology as storage arrays.	-

Application issues

The following application issues exist:

ID	Description	Workaround
[A-10]	When adding Host URL in the Active Directory Configuration	-
	screen, the size of the list box is decreased with each host	
	URL added.	
[A-21]	Deleted Domains will be presented in the domain field of the	-
	Add User dialogue.	
[A-377]	The dashboard may present inactive collectors as collectors	-
	that are down.	

ID	Description	Workaround
[A-384]	The system enables users to select credentials type which	-
	are unsupported for Active Directory authentication, such as	
	"Rotating Password" and "SSH Public Key".	
[A-431]	In exceptionally large VRA environments, the creation of the	-
	SAPI_STORAGE_MASKING database view may require a	
	long period, up to several hours.	
[A-438]	When exporting information presented in the step 2 of the	-
	Configuration Wizard to Excel, some of the columns in the	
	output file contain object ID instead of name.	
[A-448]	In rare conditions, users may experience an HTTP 404 Page	Delete the cookies from
	not Found error when accessing the VRA user interface.	IE, open a new browser
		window and login.
[A-511]	Error when adding SYMCLI proxy with no description.	Add a description when
		adding a SYMCLI proxy.
[A-512, P-8104]	Windows host/storage proxy cannot be scanned using	Redefine the credential
	credential sets defined with domain suffix (e.g.	with domain prefix (e.g.
	user@domain).	domain\user).
[A-521, A-520, A-	In certain conditions, Gap Tuning page fails to un-suppress	-
523]	tickets or suppresses tickets that should not be suppressed.	
[A-532]	Changing policy for EMC CLARiiON/VNX array with no	-
	associated proxy may fail.	
[A-55]	Users may see and edit scheduled reports tasks that were	-
	created by other users, potentially for entities external to their	
	own user scope.	
[A-575]	Failure to define custom gap using "Not Empty Result Set"	-
	Condition.	
[A-579]	Installer starts the Tomcat8 service even when the checkbox	-
	is unchecked	
[A-69]	In some cases, a detailed error message regarding the AD	Review the rg.0.log file for
	connection error is not presented.	additional information or
		contact Support.
[G-1717]	The Business Continuity Risk Report may present incorrect	-
	number of Storage arrays scanned under certain conditions.	1

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ID	Description	Workaround
[P-7835]	When exporting information presented in the "View	-
	Databases" dialogue to Excel, some of the columns in the	
	output file contain object ID instead of name.	
[P-8067]	Duplicate system events logged when SAN switches are	-
	scanned.	
[P-8202]	When testing SMTP configuration and authentication fails, an	Check your email to
	incorrect message is presented regarding successfully	ensure a test email was in
	completing the test.	fact received.
[A-633, P-8195]	When entering an invalid character or white space in the IP	-
	field of a target management or storage proxy, scan may fail	
	and the scan symbol will continue to spin.	
[A-635]	Agent cannot be deleted from the Agents page if it was	First delete the agent in
	already uninstalled on the server	the GUI and only then
		perform the uninstall
		operation.
[A-683]	When send ticket by email fails, no notification is presented	-
	to the user.	
[A-696]	Change CLI path under the Scan Troubleshooting page is	-
	occasionally disabled.	
[A-971]	Cloakware plugin "stop" VRA logs	

Scanning issues

The following scanning issues exist:

ID	Description	Workaround
[A-25]	The Scan Status report does not include information	Review the status of the
	regarding scan of management consoles.	consoles in the
		Configuration tab or in the
		System Log report.
[A-353]	In rare cases, the "Command with high importance timed out"	-
	scan issue may fail to include the name of the script.	
[A-505]	SRM may fail with the following message: "Unsupported	Contact support.
	version URI urn:srm0/2.0".	

ID	Description	Workaround
[P-4310]	VRA shows unsupported storage array devices as direct-	Suppress the tickets or
	attached storage (DAS) devices, which may open false	avoid scanning hosts that
	tickets.	use storage that VRA
		does not support.
[P-4438]	If VRA scans a database when the database is suspended,	-
	most queries may fail.	
[P-5049]	VRA cannot discover DB2 on a UNIX host that is scanned	Scan the host directly and
	through a proxy.	not through the proxy.
[P-5934]	VRA ignores NICs that are configured as "unplumb" on	-
	Solaris hosts.	
[P-6053]	Free space information is not available for Logical volumes	-
	on Windows 2003 Servers.	
[P-6480]	VRA may fail to discover the correct LUN for UNIX hosts	Contact Support for
	accessing IBM DS or XIV storage.	assistance.
[P-6481]	VRA may fail to present IBM DS GlobalMirror replication.	Contact Support for
		assistance.
[P-6962]	When the password contains special characters, EMC VNX	Change the password
	arrays scan fails.	such that no special chars
		are included.
[P-6964]	If the security level on a "Naviseccli" server is set to	Reduce the security level
	MEDIUM, EMC VNX scan hangs.	on the Naviseccli server to
		allow scanning.
[P-7041]	Information regarding inactive disk groups is not always	-
	collected.	
[P-7196]	In rare cases, HBA model, driver and firmware info is not	-
	available for Linux systems.	
[P-7659]	When executing a scan of a vCenter with no hosts, the scan	-
	fails.	
[P-7667]	When HMC is scanned in an IBM Flex environment, the scan	Contact support for
	may fail.	assistance.
[P-7773]	In certain cases when multiple VCS clusters with the same	-
	name exist, VRA may incorrectly merge these clusters to a	
	single one.	

ID	Description	Workaround
[P-7978]	LUN Map info is not collected for IBM V7000, Storwize and	-
	SVC.	
[P-8007, P-8006]	Brocade and HP Virtual Connect switches scan may fail and	-
	a scan issue will not be reported.	
[P-8020]	Unnecessary scan issue for 3PAR showr* commands when	Suppress the scan issue.
	remote copy is not licensed.	
[P-8035]	NaviCLI and InformCLI scan may wait on user prompt and	Such settings should be
	fail with timeout. Certain storage proxies may enter user-	completed prior to
	interactive mode upon executing the first command by a	scanning with VRA, as
	user, and ask to approve certain initial settings.	interactive mode will
		cause the scan to hang.
[P-8039]	Unnecessary scan issue reported for symcfg command when	Suppress the scan issue.
	no RDF replications are configured.	
[P-8061]	Unnecessary scan issue for Microsoft MPIO when the	Suppress the scan issue.
	mpclaim.exe command returns a "No MPIO disks are	
	present" message.	
[P-8177]	HBA data collection may fail on certain Windows 2003	-
	servers.	
[A-688]	Killed scan tasks appears as "Timed out".	-
[P-8443], [P-8421]	Unable to scan Oracle DB due to VIP not found on host	
[P-8440]	SCVMM Hyper-V replicas with same name as primary cannot	
	be scanned	
[P-8438]	Exception on vCenter scanning within Full Cycle when	
	parallel scan of vCenters is enabled	
[P-8389]	VG not connected to PV on HPUX hosts with DMP	
[P-8379], [P-8365]	Cisco DCNM zone collection issues	
[P-8337]	Invalid Windows HDS HDLM string format	
[P-8408]	Solaris zones discovery incorrectly assumes uniqueness of	
	zone names	
[P-8491]	Some properties of Oracle DB are not collected when DBs	
	are scanned via OEM	

Limitations

You may encounter the following limitations when working with VRA.

Assigning a profile to an Active Directory group

- When assigning a profile to an AD Universal Group, the VRA master server must have access to the Global Catalog of the AD Forest.
- When assigning a profile to an AD Local Domain Group, VRA will not be able to assign the Profile to AD
 Users from a different Domain even though such configuration is valid within AD. In other words an AD
 user can log in to VRA (with all the correct profiles assigned) only if each AD Local Domain Group it belongs
 to is part of the same AD Domain the AD user belongs to.

Oracle database discovery

To discover Oracle databases, start the Oracle process or ensure that the /etc/oratab or /var/opt/oracle/oratab file is present.

Recovery point objective (RPO)/service level agreement (SLA)

VRA also has the following RPO/SLA limitations:

- RPO/SLA is not supported for active HDS asynchronous HUR replication.
- RPO/SLA for NetApp only works for direct replication from primary devices.
- RPO/SLA for CLARiiON only works for direct replication from primary devices.
- RPO/SLA for HP 3PAR only works for direct replication from primary devices.
- RPO/SLA is not calculated for EMC CLARiiON MirrorView/S.
- RPO/SLA is not calculated for IBM DS.

Incorrect time logged in system log files when DLS is not automatically updated

VRA log files may log incorrect timestamp when the VRA server is not configured with automatic Day Light Saving adjustment.

VRA Database Views include a subset of the information collected from target systems

VRA Database Views do not include information regarding VMware Virtual Networking, Database Tablespaces, Installed Software and Kernel Parameters, RecoverPoint consistency groups, LV mirroring, Application Servers and does not include historical data.

In specific cases scan error messages are not sufficiently informative

The Scan Troubleshooting screen occasionally presents scan error messages that include the error code but no additional details.

Workaround: Run the erroneous command or script manually to see the full scan error message. If further assistance required, contact Support.

Incorrect tickets may open when target systems are not scanned successfully

When certain target systems are not scanned successfully, VRA may open incorrect tickets as a result. **Workaround**: Search for the symbol specifying whether scan issues exist in the ticket summary, and review any scan issues reported in the ticket or in the Scan Troubleshooting prior to reviewing the risk details.

Incorrect tickets may open when file read permission is not granted

When VRA cannot read or list a file or a directory, incorrect tickets may open.

Workaround: Take particular care to grant the required privileges for the user configured for the scan, as described in the VRA deployment guide [A-619].

When importing objects into VRA, special characters are converted

When importing names and properties of objects from CSV/CMDB/API, special characters such as "&", 'no-break-space' and certain UTF8 chars are converted to alphanumeric chars. [A87, A105]

SSH key supports only keys with less than 4000 characters

The SSH key supports only those keys that contain less than 4000 characters. [P6645]

HMC is required in order to scan IBM VIO environments

If HMC is not available and IVM is used, contact Support for assistance. [P6835]

CSV Import of Business Entities does not create new sites

The Import process will use the site field to correctly match hosts specified in the CSV file to existing hosts, but will not create the sites if they do not exist in the system. [A-15]

Workaround: Use step 3 of the Configuration Wizard to define any missing sites (manually or through CSV import).

Incorrect replication mode and state collected for an array included in the symavoid file

When a scanned Symmetrix array is included in the symavoid file on a SYMCLI server, it will not correctly report the status and mode of replications for the array.

Workaround: Take care to use SYMCLI servers that can effectively report on the replication mode and status – both for the source and target arrays.

SAN switches installed with unsupported versions should not be scanned

Refrain from scanning a Fabric if it includes switches that are installed with an unsupported version. For information regarding supported versions, refer to the VRA Support Requirements document. [P-7971]

JDBC-SSL is not supported for database scanning

It is not possible to connect and scan databases using JDBC SSL. [P-7964]

Linux Software RAID devices managed by mdadm are unsupported

As a result, VRA may report a non-actionable scan issue regarding unknown mdadm host physical volumes not connected to storage volumes. [A-618]

SAN switches are not automatically removed when no longer discovered by their proxy

SAN switches are not automatically deleted when their proxy no longer discovers them. [A-522]

Modal dialogs cannot be moved on the screen

Modal dialogs (pop-up windows) cannot be moved on the screen – use mouse wheel to scroll when needed.

Firefox does not support Java applets in its new versions

Starting from version 53 (released April 2017), Firefox does no longer support Java plugins and thus the Topology widget might not work properly (in version 52 the Java plugin support is disabled by default but can be turned on). In order to continue running VRA on Firefox, consider using the Firefox 52 ESR (Extended Support Release) 32-bit version.

Topology module might refresh when scrolling other pages on Firefox

Topology module might refresh (flicker) when scrolling other pages (for example – ticket info) on Firefox – this is due to a known Firefox issue published by Mozilla.

Upgrading to this release

For information about installing VRA, see the *Veritas Risk Advisor User's Guide*. In addition, review the *Veritas Risk Advisor Deployment Guide* for guidance about the VRA infrastructure requirements and the preparations needed for scanning your datacenters.

You can upgrade to VRA 7.2.3 only from version 7.2.2. If a system has an earlier version of the product installed, you must upgrade to version 7.2.2 before upgrading to version 7.2.3.

Consider the following before you begin the upgrade process:

- Carefully read the release notes in full, and make any necessary changes to the VRA infrastructure and/or to user account permissions as required, and ensure sufficient free disk space is available on the master server.
- Verify that you have an up-to-date backup of the VRA server disk drives using your standard backup tools,

and an up-to-date VRA database export. A database export can be generated using the EXPDP or EXP Oracle commands.

- Once the upgrade on the master VRA server is completed and the Tomcat service starts, VRA automatically
 checks and upgrades the VRA collectors. There is no manual collector upgrade process. For gradual collector
 upgrade, disable the collectors before initiating the upgrade on the master server, and gradually enable the
 collectors you wish to upgrade following the completion of the software upgrade on the master server.
- The upgrade requires that you completely stop all VRA operations, including data collections and data analysis. While it is fully automatic, the length of the upgrade process may require several hours to complete in large environments. During this time, it is important not to restart the VRA server or terminate the upgrade task. In addition, it is essential that the Oracle database used by VRA be available throughout the upgrade process.

To upgrade from version 7.2.2 to version 7.2.3

- 1. Login as a local administrator to the master VRA server.
- 2. Run the VRA_7_2_3.exe file as an administrator.
- 3. On the Welcome screen, click Next.
- 4. When prompted, select Yes, upgrade VRA 7.2.2 to 7.2.3.
- 5. Accept the License Agreement and click **Next**.
- 6. Accept the GNU License Agreement and click **Next**.
- 7. Specify whether to perform a database export prior to upgrading and whether to start Tomcat 8 after the upgrade completes, and click **Next**. Veritas recommends that you keep the default settings.
- 8. Click **Install** to begin the software upgrade process. This process may require up to several hours to complete, depending on the size of the scanned environment.
- 9. Click **Finish** to close the installer.