Veritas™ Risk Advisor Support Requirements

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

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VERITAS

Veritas Risk Advisor Support Requirements

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Chapter 1

Support requirements for Veritas Risk Advisor

This document includes the following topics:

- "Host requirements" on page 10
- "Scanned entities" on page 12

Host requirements

This section describes the system requirements for hosts that are installing Veritas Risk Advisor (VRA).

The recommended server configuration is as follows:

Table 1-1 VRA server requirements

# of scanned hosts	# of cores[a]	RAM	Free disk space[b]	Operating system
Up to 100	4	8 GB	100 GB	Windows Server 2008 R2 or Windows Server 2012 or Windows Server 2016[c], Standard or Enterprise Edition 64-bit
100-500	4	16 GB	200 GB	
500-1,000	4	32 GB	250 GB	
1,000-1,500	4	48 GB	300 GB	
1,500-2,500	4	64 GB	350 GB	
2,500-5,000	8	88 GB	400 GB	
Above 5,000	Specific sizing required			

a.If Oracle database is installed locally, it is recommended to have at least two different sockets
b.If Oracle database is installed remotely, the free disk space can be up to 40% lower
c.If your organization does not plan to use Windows Remote Management (WinRM) to collect data from Windows servers, you can also use Windows Server 2003/2008 64-bit.

The following server requirements also apply:

- Database: Oracle 11g or 12c (12.1.0.2.0 or 12.2.0.1.0) Standard or Enterprise installed with full database administrator rights. Oracle client must be installed if using a remote Oracle database. In this case it is also highly important to maintain low latency (1ms) and high-speed connectivity.
- It is recommended to use Solid State Drive (SSD) for VRA server and especially for Oracle database server to achieve optimal performance
- Server: Apache Tomcat 8.5 (the only supported version). Product is automatically installed if not already on your system.
- Web client access:
  - Internet Explorer 11, Mozilla Firefox or Google Chrome.
  - HTTP/HTTPS access from clients to the VRA server through port 8080/8443 (configurable).

VRA web user interface is best displayed and operated with Full HD resolution (1080p) on minimum 21" screens with aspect ratio of 16:9.

VRA requires administrator rights on the VRA application server.

1: If your organization does not plan to use Windows Remote Management (WinRM) to collect data from Windows servers, you can also use Windows Server 2003/2008 64-bit.

Note: If VMware is used, it is recommended that you reserve the required CPU and memory.

The recommended collector configuration is as follows:

Table 1-2 Collector requirements

# of scanned hosts	CPUs/cores	RAM	Free disk space	Operating system
Up to 100	2 Intel / AMD	8 GB	40 GB	Windows Server 2008 R2 or Windows Server 2012 or Windows Server 2016[a] Standard or Enterprise Edition 64-bit; Linux[b]
100-500	2 Intel/ AMD	16 GB	50 GB	
500-1,000	4 Intel / AMD	32 GB	60 GB	
Above 1,000	Specific sizing required			

a.If your organization does not plan to use Windows Remote Management (WinRM) to collect data from Windows servers, you can also use Windows Server 2003/2008 64-bit.
b.Collectors installed on Linux cannot scan Windows hosts

VRA collectors require administrator rights on the server.

Note: If VMware is used, it is recommended that you reserve the required CPU and memory.

Scanned entities

This section describes the various servers, storage arrays, and databases that VRA can scan, as well other VRA support requirements.

Servers

Table 1-3 describes the servers that VRA can scan.

Table 1-3 Servers that VRA can scan

Server	Operating system version	Processor architecture
AIX	4 and above	Power3 series and later
HP-UX	11 and above	PA8700/8800/8900, IA64, IA64 Dual Core Montecito
Linux Red Hat/SUSE	RedHat Advanced Server, SUSE	Intel EM64T, AMD Opteron
Solaris	8 and above	UltraSPARC II/III/IV/T1/T2/T2+, SPARC64-V/VI /VII series SPARC-T4/T5/M5/M6/M7/M8
Solaris x64	8 and above	Intel EM64T, AMD Opteron
Windows	Windows XP/2000/ 2003/2008/2012/2016	Intel EM64T, AMD Opteron
ESX, ESXi	3.5 and above	
Hyper-V	Hyper-V Server 2012 R2 and above	

Storage arrays

Table 1-4 describes the storage arrays that VRA can scan.

Table 1-4 Storage arrays that VRA can scan

Storage array	Supported replications	Comments
EMC Symmetrix (all series) **Note:** EMC Cellera is not supported.	SRDF, BCV, Clone, Snap, RecoverPoint	Using SymCLI **Note:** You must install SymCLI on at least one host.
EMC CLARiiON/VNX **Note:** CLARiiON/VNX devices connected to hosts via iSCSI are not supported.	SnapView, MirrorView, SAN Copy, RecoverPoint	NaviSecCLI 6.24 and above RecoverPoint 3 and above
EMC VPLEX	RecoverPoint	VPLEX 5.2 and above Using the VPLEX Management Server
EMC ScaleIO	RecoverPoint	Version 2.0 and above
EMC Isilon	Remote Sync, Snapshot	
EMC DataDomain		
EMC Unity	RecoverPoint	Using EMC Unisphere
EMC XtremIO	Snapshot	API version 4.2 and above
Hitachi HDS/HP XP	TrueCopy, UniversalReplicator, ShadowImage, QuickShadow	Using Hitachi HiCommand/HP Command View 4 and above
Hitachi HCP	Native	Version 8.1 and above
NetApp Filer / NetApp Cluster (cDOT only)	SnapMirror, SnapVault	Using Ontap 6 and above
IBM DS (6000, 8000)	FlashCopy, MetroMirror, GlobalCopy, GlobalMirror	Using DSCLI

Table 1-4 Storage arrays that VRA can scan (Continued)

Storage array	Supported replications	Comments
IBM DS (3000, 4000, 5000)	FlashCopy, MetroMirror, GlobalMirror	Using SMCLI
IBM XIV / A9000	Snapshot, RemoteMirror	Using XCLI
IBM V7000/SVC	FlashCopy, MetroMirror, GlobalMirror	
HP 3PAR	Snapshot, RemoteCopy	Using 3PAR InForm CLI
Infinidat InfiniBox	Snapshot, Clone, RemoteCopy	

Management Consoles

Table 1-5 describes the console applications that VRA can scan.

Table 1-5 Console applications that VRA can scan

Application	Version	Comments
ECC (by EMC)	5 and above	
HiCommand (by Hitachi)	4 and above	
Command View (by HP)	4 and above	
vCenter (by VMware)	3.5 and above	Including SRM, Zerto and NSX. Note that NSX can also be scanned directly
VMware NSX		NSX-V (vSphere)
System Center Virtual Machine Manager (by Microsoft)	2012 R2 and above	
HMC (by IBM)	7 and above	
Oracle Enterprise Manager	11 and above	Scanning Exadata machines requires OEM version 12 and above
Oracle GoldenGate Monitor	11g release 1 and above	
NetApp OnCommand Unified Manager Core	5 and above	
UCS Manager (by Cisco)	3 and above	
OneView (by HP)		
BIG-IP (by F5)	13.1 and above	

Databases

Table 1-6 describes the databases that VRA can scan.

Table 1-6 Databases that VRA can scan

Database	Version	Comments
Oracle	8 and above	Including RAC, ASM, DataGuard and GoldenGate Scanned either directly or via OEM
Microsoft SQL Server	2005 and above	MS SQL Server Always On - 2012 and above
Sybase	12.5 and above	
IBM DB2	8 and above	

Multipath programs

Table 1-7 describes the multipath programs that VRA supports.

Table 1-7 Multipath programs that VRA supports

Software	Comments
AIX MPIO	
EMC PowerPath	
Hitachi Dynamic Link Manager (HDLM)	
HP-UX PVLinks	
IBM Subsystem Device Driver (SDD)	
Linux MPIO	
NetApp DSM	
Solaris MPxIO	
Veritas Dynamic Multi-Pathing	
Windows 2008 MPIO	

Note: Unless explicitly noted in Table 1-7, all versions of the multipath software are supported.

Logical volume managers

VRA can scan the following logical volume managers (LVMs):

- AIX-native LVM
- HP-UX-native LVM
- Linux LVM2
- Oracle ASM
- Solaris ZFS
- Veritas Volume Manager (VxVM) - Including Veritas Volume Replicator
- Windows Logical Disk Management

Clusters

VRA supports the following clusters:

- HP Serviceguard (MC/SG)
- HP PolyServe
- IBM PowerHA
- Microsoft Cluster
- Oracle RAC
- Veritas Cluster Server 5.0 and later; prior to release 6.1, this product was known as Veritas Cluster Server
- VMware ESX Cluster
- RedHat Cluster Suite

Application Servers

VRA supports the following application servers:

- Apache Tomcat on Linux
- IBM WebSphere on Linux and AIX
- Oracle WebLogic on Linux and AIX

SAN Fabric Switches

VRA supports the following SAN fabric switches:

- Cisco MDS 9000 Family
  - Direct scan or using Cisco Data Center Network Manager
- Brocade
  - Direct scan or using Brocade Network Advisor
  - Fabric OS 7.0 and above is supported
  - In Virtual Fabric environments, Fabric OS 7.3 and above is required
  - When using Brocade Network Advisor, version 12.3 and above with REST API is required
- HP Virtual Connect