

Data Protection Advisor

Software Compatibility Guide

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Version 6.5, 6.4

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Preface

As part of an effort to improve its product lines, EMC periodically releases revisions of its software and hardware. Therefore, some functions described in this document might not be supported by all versions of the software or hardware currently in use. The product release notes provide the most up-to-date information on product features.

Contact your EMC technical support professional if a product does not function properly or does not function as described in this document.

Note

This document was accurate at publication time. Go to EMC Online Support (<https://support.emc.com>) to ensure that you are using the latest version of this document.

Purpose

This compatibility guide provides information on servers, databases, operating systems, and all components of a data protection environment supported by DPA.

ISO9001 certification

The management system governing the design and development of this product is ISO 9001:2015 certified.

Audience

This document is intended for the administrator who is involved in managing DPA.

Related documentation

The DPA documentation set includes the following publications:

- Data Protection Advisor Custom Reporting Guide*
- Data Protection Advisor Data Collection Reference Guide*
- Data Protection Advisor Installation and Administration Guide*
- Data Protection Advisor Migrator Technical Notes*
- Data Protection Advisor online help system*
- Data Protection Advisor Product Guide*
- Data Protection Advisor Release Notes*
- Data Protection Advisor Report Reference Guide*
- Programmers' Guide to Using DPA REST API*
- Data Protection Advisor Security Configuration Guide*
- Data Protection Advisor Software Compatibility Guide*
- Other Technical Notes/White Papers*

Special notice conventions that are used in this document

EMC uses the following conventions for special notices:

NOTICE

Identifies content that warns of potential business or data loss.

Note

Contains information that is incidental, but not essential, to the topic.

Typographical conventions

EMC uses the following type style conventions in this document:

Table 1 Style conventions

Bold	Used for names of interface elements, such as names of buttons, fields, tab names, and menu paths (what the user specifically selects or clicks)
<i>Italic</i>	Used for full titles of publications that are referenced in text
Monospace	Used for: <ul style="list-style-type: none"><input type="checkbox"/> System code<input type="checkbox"/> System output, such as an error message or script<input type="checkbox"/> Pathnames, file names, prompts, and syntax<input type="checkbox"/> Commands and options
<i>Monospace italic</i>	Used for variables
Monospace bold	Used for user input
[]	Square brackets enclose optional values
	Vertical bar indicates alternate selections - the bar means "or"
{ }	Braces enclose content that the user must specify, such as x or y or z
...	Ellipses indicate non-essential information that is omitted from the example

Where to get help

EMC support, product, and licensing information can be obtained as follows:

Product information

For documentation, release notes, software updates, or information about EMC products, go to EMC Online Support at <https://support.emc.com>.

Technical support

Go to EMC Online Support at <https://support.emc.com>, and click **Service Center**. Several options for contacting EMC Technical Support appear on the site. Note that to open a service request, you must have a valid support agreement. Contact your EMC sales representative for details about obtaining a valid support agreement or with questions about your account.

Online communities

Go to the EMC Community Network at <https://community.emc.com> for peer contacts, conversations, and content on product support and solutions. Interactively engage online with customers, partners, and certified professionals for all EMC products.

Your comments

Your suggestions help to improve the accuracy, organization, and overall quality of the user publications. Send your opinions of this document to DPAD.Doc.Feedback@emc.com

Chapter 1: DPA version 18.1 and above

Compatibility information related to Data Protection Advisor 18.1 and above has been migrated to E-Lab Navigator.

Please use the following link and then click on the “Data Protection Advisor” link to access this content:

<https://elabnavigator.emc.com/eln/modernHomeDataProtection>

Chapter 2: DPA version 6.5

Compatibility for DPA 6.5 is explained in this section.

This section contains the following topics:

- [Supported operating systems](#)
- [Software compatibility](#)
- [Hardware compatibility](#)
- [Replication Analysis](#)

Supported operating systems

DPA Server platforms

Memory requirements

- 16 GB RAM/4 cores for the DPA Datastore server
- 16 GB RAM/4 cores for the DPA Application

Server Hard Disk Drive requirements:

- 18 GB of locally attached disk storage for the Application server
- 20 GB of locally attached disk storage for the Datastore Server
- 3GB of free space are required for database upgrade

Note

Co-located Application and Datastore systems are not supported in production systems. Although the installer provides a co-located system option, when it is selected, a dialogue stating that it is not supported in a production system displays.

- The DPA Application server and DPA Datastore servers must not be used to run other applications. The DPA Application server host and DPA Datastore server host resources must be dedicated to DPA.
- If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers
- The DPA installer has a soft threshold of 7892 MB and a hard threshold of 5844 MB. The soft threshold allows the installation to continue, but the hard threshold does not.
- Automatic sizing and tuning of internal DPA resource usage takes place during installation. If resources (CPU, Memory) are taken away from the installation by other applications performance of DPA could be adversely affected.
- Operating systems:
 - Support for 64-bit operating systems only
 - Microsoft Windows Server 2008 R2, 2012, 2012 R2 (x64 only), 2016
 - Red Hat Linux ES/AS 6.0, 6.2, 6.4, 6.5 (64-bit), 6.8, 7, 7.1, 7.2, 7.3, 7.4
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - SUSE Linux 12 x86 (64-bit)
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - libaio is recommended to be installed on the system and available in the system
 - LD_LIBRARY_PATH for performance gains

DPA Data Collection Agent platforms

The DPA Data Collection Agents require a minimum of 100 MB on Red Hat and SUSE Linux and Windows, and 200 MB on AIX and HPUX of free hard disk space for agent process. The DPA Data Collection Agents also require 2 GB of free hard disk space for log files and the pfile data store.

- AIX 6.1, 7.1 (Power)
 - Install the `bos.perf.libperfstat 6.1.9.45 (TL9)` or higher file set to gather performance statistics
- HP-UX 11i v3 (IA-64)
- Microsoft Windows Server all versions run on 64-bit only: 2008, 2008 R2, 2012, 2012 R2, 2016
 - Install the latest operating system service packs
 - WMI must be installed to gather performance data on Windows hosts
- Red Hat Linux 5.5, 6.0, 6.2, 6.4, 6.5, 6.8, 6.9, 6.10, 7.0, 7.1, 7.2, 7.3, 7.4, 7.5 (64 bit)
 - Run the Update Agent (`up2date`) to ensure that the latest operating system patches are installed
 - `libaio` is recommended to be installed on the system and available in the system `LD_LIBRARY_PATH` for performance gains
 - 32-bit Agent support has been discontinued as of 6.5.0 Patch 147 and higher
- Solaris 10, 11 SPARC (64-bit) or 10, 11 (x86_64)
 - Requires a minimum of an UltraSPARC III CPU or x86 64-bit CPU
 - Requires GNU tar before executing the DPA installer Install Solaris patch cluster
 - `libaio` is recommended to be installed on the system and available in the system `LD_LIBRARY_PATH` for performance gains
 - Disk Status requests are only supported on Solaris hosts running kernel 2.6 or later on SCSI disks
 - Tape Drive Performance system data applies only to Solaris hosts
- SUSE Linux 11, 12 (64-bit)
 - `libaio` is recommended to be installed on the system and available in the system `LD_LIBRARY_PATH` for performance gains
 - 32-bit Agent support has been discontinued as of 6.5.0 Patch 147 and higher

Troubleshooting tools

Supported troubleshooting tools are:

EMC Secure Remote Support Gateway 3.0.4 and later (ESRS-VE)

Internet communication security protocols

DPA installations require Transport Layer Security (TLS) v 1.2 or later.

Web browsers

Java is part of the distribution for DPA back-end component use. There are no Java version requirements for the browser or web console.

DPA supports the following web browsers:

- Apple Safari
- Firefox
- Google Chrome

- Internet Explorer
- Windows 10 Edge Browser
- Opera is not supported

DPA requires that Flash plugin 12 or later is installed for the web console.

Software compatibility

Backup and Recovery

DPA supports the following Backup and Recovery applications and versions:

- CA BrightStor ARCserve 11.5, 12, 12.5, 16.5
 - Supported only on Windows hosts
- CommVault Simpana 9, 10, 11
 - Supported only on Windows hosts
- Avamar 7.0.x, 7.1.x, 7.2, 7.3, 7.4, 7.5, 7.5.1
- NetWorker 8.1.x, 8.2.x, *9.0.x, 9.1, 9.2, 9.2.1
 - *minimum version supported is 9.0.0.4
- DD Boost for Enterprise Applications (DDBEA)
 - DB2 v10.5, 11.1
 - Oracle RMAN Oracle 10g, 10g R2, 11g, 11g R2, 12c
 - Oracle ASM is supported on Linux with ASMLib
 - Oracle RAC with SCAN is supported
 - SAP HANA V1SPS12, 2.0
 - Microsoft SQL Server 2005, 2008, 2008 R2, 2012, 2014, 2016
- HP Command View EVA 8.00.02
- HP Data Protector 6.2.x, 7.0, 8.0, 8.1, 9.0, 10.0
- IBM Spectrum Protect (formerly Tivoli Storage Manager) 6.2, 6.3, 6.4.x, 7.1, 8.1
 - When using Gresham Clareti EDT for device control, DPA communicates with EDT to gather configuration information. EDT 6.3 to 8.0 are supported in this configuration
- Oracle Recovery Manager (RMAN) 9i, 10g, 1.1g, 11g R2, 12c
- Veritas NetBackup (Symantec NetBackup) 7.0, 7.1, 7.5, 7.6, 7.7, 8.0
 - NetBackup tape performance data can only be gathered from NetBackup installed on Windows. However, tape drive performance data can also be gathered on Solaris platforms through the Tape Drive Performance request
- Symantec PureDisk 6.0, 6.1, 6.2, 6.5
 - Supported only on SUSE 10 hosts
- Symantec Backup Exec 12.x, 2010, 2012, 2014
 - Supported only on Windows hosts

- ❑ VMware vSphere Data Protection 5.1, 5.5, 5.8, 6.0 appliance
- ❑ VMware Infrastructure ESX 4.0, 4.1 and ESXi 4.1, 5.0, 5.1, 5.5, 6.0, 6.5
 - ❑ Not supported on AIX hosts

Cloud computing platforms

DPA supports the following cloud computing solutions platforms:

- ❑ Microsoft Azure
 - ❑ Avamar — Avamar 7.5
 - ❑ NetWorker — NetWorker 9.1
 - ❑ Data Domain — DDVE 3.1 (DDOS 6.1)
- ❑ Amazon Web Services
 - ❑ Avamar — Avamar 7.5
 - ❑ NetWorker — NetWorker 9.1
 - ❑ Data Domain — DDVE 3.1 (DDOS 6.1)

Databases

DPA supports the following databases:

- ❑ Microsoft SQL Server 2005, 2008, 2008 R2, 2012, 2014, 2016
- ❑ Oracle 10g, 10g R2, 11g, 11g R2, 12c
 - ❑ AIX 5.3, 6.1, 7.1
 - ❑ HP-UX 11i v1, 11i v2, 11i v3
 - ❑ Red Hat Linux ES/AS 4, 5, 6 (32 bit, 64 bit)
 - ❑ Microsoft Windows 2008, 2008 R2 (32 bit, 64 bit)
 - ❑ Solaris 9, 10, 11 SPARC
 - ❑ SUSE Linux 10, 11, 12 (32-bit, 64-bit)
 - ❑ Oracle ASM is supported on Linux with ASMLib
 - ❑ Oracle RAC with SCAN is supported
- ❑ PostgreSQL 8.4, 9.0, 9.1, 9.2, 9.3, 9.6
 - ❑ AIX 5.3, 6.1, 7.1
 - ❑ HP-UX 11i v1, 11i v2, 11i v3
 - ❑ Red Hat Linux ES/AS 4, 5, 6 (32 bit, 64 bit)
 - ❑ Microsoft Windows 2008, 2008 R2 (32 bit, 64 bit)
 - ❑ Solaris 9, 10, 11 SPARC
 - ❑ SUSE Linux 10, 11, 12 (32 bit, 64 bit)

Replication

DPA supports the following Replication applications and versions:

- ❑ EMC RecoverPoint for Virtual Machines 4.2, 5.0, 5.1.1
- ❑ EMC RecoverPoint 4.0, 4.1, 4.3, 4.4, 5.0, 5.1
 - ❑ Performance CS monitoring is available for RecoverPoint 4.0, 4.1, 4.4

Web applications

DPA supports the following Web applications and versions:

- ❑ Microsoft SharePoint 2013 with Office 365
 - ❑ Supports connecting to SharePoint through https://

ProtectPoint

DPA supports the following ProtectPoint versions:

ProtectPoint 1.0, 2.0

- ❑ Hosts with Discovery Solutions Enabler 8 only installations can discover Vmax3
- ❑ Solutions Enabler 8 host installations are supported on Linux 64-bit operating systems
- ❑ vDisk info will not be collected if either of the following is true:
 - ❑ The DD version is earlier than 5.5
 - ❑ vDisk licensing is disabled

Clustered platforms

DPA supports the following clustered environments:

- ❑ Microsoft Failover Cluster 2012
- ❑ Veritas Cluster Server 7 (“InfoScale Availability”) on Linux

Hardware compatibility

Backup and Storage devices

DPA supports the following backup and storage devices and versions:

- ❑ Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0
- ❑ Data Domain Appliances running 5.3, 5.4, 5.5, 5.6, 5.7, 6.0, 6.1.0
 - ❑ DDVE 3.0 (uses DDOS 6.0)
 - ❑ DDVE 3.1 (uses DDOS 6.1)
 SNMP v1&v2 is supported.
- ❑ EDL Series running 3.1, 4.0
 - SNMP v1&v2 is supported.

- ❑ Symantec NetBackup 5200, 5230 Appliance series
 - ❑ Supported as a Master Server only

Tape Libraries

DPA supports the following tape libraries and versions:

- ❑ Quantum Scalar 100, 1000, 10K, i2000, i500
- ❑ Fujitsu LT270, LT250
- ❑ HP ESL G3
- ❑ HP StorageWorks MSL6060
- ❑ IBM TS 3100, 3200, 3500, 3583
- ❑ NetApp NearStore VTL running OnTAP 6.5.1, 7
- ❑ Oracle StorageTek SL24, SL48, SL500 (excluding SL8500)
- ❑ Oracle StorageTek ACSLS 7.1, 7.2, 7.3, 8.0, 8.1, 8.3
- ❑ Sun StorEdge L-Series (excluding L5500)

Fibre Channel Switches

DPA gathers data only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver.

- ❑ Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0
- ❑ Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000
- ❑ Cisco 95xx
- ❑ Crossroads 4150, 4250, 4450, 8000
- ❑ McData ES-1000, ES-3016, ES-3032
- ❑ McData EB1200, ED1200, ED5000, ED6064

SNMP v1&v2 is supported.

IP Switches

DPA supports the following IP Switches:

- ❑ Any switch that supports SNMP MIB 2
- ❑ Cisco 29xx, 35xx, 37xx, 65xx

SNMP v1&v2 is supported.

Xsigo I/O Appliance

DPA supports the following Xsigo I/O Appliance versions:

- ❑ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5,

3.0.5 SNMP v1&v2 is supported.

Replication Analysis

DPA Server platforms

Memory requirements

- 16 GB RAM/4 cores for the DPA Datastore server
- 16 GB RAM/4 cores for the DPA Application

Server Hard Disk Drive requirements:

- 18 GB of locally attached disk storage for the Application server
- 20 GB of locally attached disk storage for the Datastore Server
 - 3GB of free space are required for database upgrade

Note

Co-located Application and Datastore systems are not supported in production systems. Although the installer provides a co-located system option, when it is selected, a dialogue stating that it is not supported in a production system displays.

- The DPA Application server and DPA Datastore servers must not be used to run other applications. The DPA Application server host and DPA Datastore server host resources must be dedicated to DPA.
- If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers
- The DPA installer has a soft threshold of 7892 MB and a hard threshold of 5844 MB. The soft threshold allows the installation to continue, but the hard threshold does not.
- Automatic sizing and tuning of internal DPA resource usage takes place during installation. If resources (CPU, Memory) are taken away from the installation by other applications performance of DPA could be adversely affected.
- Operating systems:
 - Support for 64-bit operating systems only
 - Microsoft Windows Server 2008 R2, 2012, 2012 R2, 2016 (x64 only)
 - Red Hat Linux ES/AS 6.0, 6.2, 6.4, 6.5 (64-bit), 6.8, 7, 7.1, 7.2, 7.3
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - SUSE Linux 12 x86 (64-bit)
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - libaio is recommended to be installed on the system and available in the system
 - `LD_LIBRARY_PATH` for performance gains

Discovery/Solutions Enabler

DPA supports the following Discovery/Solutions Enabler versions and platforms:

- Windows 64 bit—Solutions Enabler 7.2.1 up to 8.0 host platforms
- Windows 32 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms

- Raw devices are not supported
- AIX 64 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - Supported only when performing discovery on Symmetrix
- Red Hat Linux ES/AS 64 bit—Solutions Enabler 7.2.1 up to 8.0 host platforms
 - Enginuity version 5977 requires Solutions Enabler 8.0 or later on the Discovery host
 - Support for raw devices only when residing on a volume group
 - The libstdc++.so.6 library must exist on the host
- Red Hat Linux ES/AS 32 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - Support for raw devices only when residing on a volume group
 - The libstdc++.so.6 library must exist on the host
- SUSE Linux 64 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - The libstdc++.so.6 library must exist on the host
- SUSE Linux 32 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - The libstdc++.so.6 library must exist on the host
- Solaris SPARC (64 bit)—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - Sun clustering is not supported on SPARC
 - Support for raw devices only when residing on a volume group

EMC storage arrays

DPA supports the following storage arrays for Replication Analysis:

- Symmetrix DMX, VMAX 10K/VMAXe, VMAX 20K/VMAX, VMAX 40K with TimeFinder (BCV, Clone, Snap), SRDF (Synch, A-Synch, Concurrent, Cascading, SRDF/CE, SRDF/STAR), or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR
 - Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, 7.5.1, 7.6, 8.0 on the Discovery host, which is the Solutions Enabler host used to connect to the array
- CLARiiON CX, AX4-5, CX3, and CX4 running FLARE 02.19 or later with MirrorView/A, MirrorView/S, SnapView, SANCOPY, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR
 - Requires Solutions Enabler 7.4.0.6, 7.5, 7.5.1, 7.6 on the Discovery host, which is the Solutions Enabler host used to connect to the array
- VNX 5100, 5200, 5300, 5400, 5500, 5600, 5700, 5800, 7500, 7600, 8000 running OE for Block 05.31, 05.32, 05.33 with MirrorView/A, MirrorView/S, SnapView, SANCOPY, VNX Advanced Snaps, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR
 - OE 05.31 requires Solutions Enabler 7.4.0.6, 7.5, 7.5.1, 7.6 on the Discovery host, which is the Solutions Enabler host used to connect to the array
 - OE 05.32 requires Solutions Enabler 7.4.0.17 or 7.5 on the Discovery host
 - OE 05.33 requires Solutions Enabler 7.6 or later on the Discovery host
- VPLEX running GeoSynchrony 5.1, 5.1 Patch 1, 5.1 Patch 2, 5.1 Patch 3, 5.2, 5.3, 5.4 with RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR

Applications supported for Replication Analysis

DPA supports the following applications and versions for Replication Analysis:

- Microsoft Exchange 2003, 2007, 2010
 - Supports both standalone Exchange 2010 database servers and Database Availability Groups
- Microsoft SQL Server 2005, 2008, 2008 R2, 2012
- Oracle 10g, 10g R2, 11g, 11g R2
 - All notes identified in the [Databases](#) are supported

Chapter 3: DPA version 6.4

Compatibility for DPA 6.4 is explained in this section.

This section contains the following topics:

- [Supported operating systems](#)
- [Software compatibility](#)
- [Hardware compatibility](#)
- [Replication Analysis](#)

Supported operating systems

DPA Server platforms

Memory requirements

- 16 GB RAM/4 cores for the DPA Datastore server
- 16 GB RAM/4 cores for the DPA Application

Server Hard Disk Drive requirements:

- 18 GB of locally attached disk storage for the Application server
- 20 GB of locally attached disk storage for the Datastore Server
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Note

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- The DPA installer has a soft threshold of 7892 MB and a hard threshold of 5844 MB. The soft threshold allows the installation to continue, but the hard threshold does not.
- Automatic sizing and tuning of internal DPA resource usage take place during installation. If resources (CPU, Memory) are taken away from the installation by other applications performance of DPA could be adversely affected.
- Operating systems:
 - Support for 64-bit operating systems only
 - Microsoft Windows Server 2008 R2, 2012, 2012 R2 (x64 only), 2016
 - Red Hat Linux ES/AS 6.0, 6.2, 6.4, 6.5 (64-bit), 6.8, 7, 7.1, 7.2, 7.3, 7.4
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - SUSE Linux 12 x86 (64-bit)
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - libaio is recommended to be installed on the system and available in the system
 - LD_LIBRARY_PATH for performance gains

DPA Data Collection Agent platforms

The DPA Data Collection Agents require a minimum of 100 MB on Red Hat and SUSE Linux and Windows, and 200 MB on AIX and HPUX of free hard disk space for agent process. The DPA Data Collection Agents also require 2 GB of free hard disk space for log files and the pfile data store.

- AIX 6.1, 7.1 (Power)
 - Install the `bos.perf.libperfstat 6.1.9.45 (TL9)` or higher file set to gather performance statistics
- HP-UX 11i v3 (IA-64)
- Microsoft Windows Server all versions run on 64-bit only: 2008, 2008 R2, 2012, 2012 R2, 2016
 - Install the latest operating system service packs
 - WMI must be installed to gather performance data on Windows hosts
- Red Hat Linux 5.5, 6.0, 6.2, 6.4, 6.5 (32-bit and 64-bit), 6.8, 7, 7.1, 7.2, 7.3, 7.4
 - Run the Update Agent (`up2date`) to ensure that the latest operating system patches are installed
 - `libaio` is recommended to be installed on the system and available in the system `LD_LIBRARY_PATH` for performance gains
- Solaris 10, 11 SPARC (64-bit) or 10, 11 (x86_64)
 - Requires a minimum of an UltraSPARC III CPU or x86 64-bit CPU
 - Requires GNU tar before executing the DPA installer Install Solaris patch cluster
 - `libaio` is recommended to be installed on the system and available in the system `LD_LIBRARY_PATH` for performance gains
 - Disk Status requests are only supported on Solaris hosts running kernel 2.6 or later on SCSI disks
 - Tape Drive Performance system data applies only to Solaris hosts
- SUSE Linux 11, 12 (32-bit and 64-bit)
 - `libaio` is recommended to be installed on the system and available in the system `LD_LIBRARY_PATH` for performance gains

Data Domain DataProcessor tool

Use the Data Domain DataProcessor tool to collect data and run reports on client aggregation and file age. The minimum requirements for using the Data Domain DataProcessor Collector tool are:

- Linux 64-bit
- Windows 64-bit
- Java Runtime Environment 1.7 and later (64-bit)
- 100 GB disk space for the host on which the DataProcessor tool runs
- 6.2 and later Server and Agent to collect the extra information

Troubleshooting tools

Supported troubleshooting tools are:

EMC Secure Remote Support Gateway 3.0.4 and later (ESRS-VE)

Internet communication security protocols

DPA installations require Transport Layer Security (TLS) v 1.2 or later.

Web browsers

Java is part of the distribution for DPA back-end component use. There are no Java version requirements for the browser or web console.

DPA supports the following web browsers:

- Apple Safari
- Firefox
- Google Chrome
- Internet Explorer
- Windows 10 Edge Browser
- Opera is not supported

DPA requires that Flash plugin 12 or later is installed for the web console.

Software compatibility

Backup and Recovery

DPA supports the following Backup and Recovery applications and versions:

- CA BrightStor ARCserve 11.5, 12, 12.5, 16.5
 - Supported only on Windows hosts
- CommVault Simpana 9, 10, 11
 - Supported only on Windows hosts
- Avamar 7.0.x, 7.1.x, 7.2, 7.3, 7.4, 7.5
- NetWorker 8.1.x, 8.2.x, *9.0.x , 9.1, 9.2
 - *minimum version supported is 9.0.0.4
- DD Boost for Enterprise Applications (DDBEA)
 - DB2 v10.5, 11.1
 - Oracle RMAN Oracle 10g, 10g R2, 11g, 11g R2, 12c
 - Oracle ASM is supported on Linux with ASMLib
 - Oracle RAC with SCAN is supported
 - SAP HANA V1SPS12
 - Microsoft SQL Server 2005, 2008, 2008 R2, 2012, 2014, 2016
- HP Command View EVA 8.00.02
- HP Data Protector 6.2.x, 7.0, 8.0, 8.1, 9.0
- IBM Spectrum Protect (formerly Tivoli Storage Manager) 6.2, 6.3, 6.4.x, 7.1, 8.1
 - When using Gresham Clareti EDT for device control, DPA communicates with EDT to gather configuration information. EDT 6.3 to 8.0 are supported in this configuration
- Oracle Recovery Manager (RMAN) 9i, 10g, 1.1g, 11g R2, 12c

- ❑ Symantec NetBackup 7.0, 7.1, 7.5, 7.6, 7.7, 8.0
 - ❑ NetBackup tape performance data can only be gathered from NetBackup installed on Windows. However, tape drive performance data can also be gathered on Solaris platforms through the Tape Drive Performance request
- ❑ Symantec PureDisk 6.0, 6.1, 6.2, 6.5
 - ❑ Supported only on SUSE 10 hosts
- ❑ Symantec Backup Exec 12.x, 2010, 2012, 2014
 - ❑ Supported only on Windows hosts
- ❑ VMware vSphere Data Protection 5.1, 5.5, 5.8, 6.0 appliance
- ❑ VMware Infrastructure ESX 4.0, 4.1 and ESXi 4.1, 5.0, 5.1, 5.5, 6.0
 - ❑ Not supported on AIX hosts

Cloud computing platforms

DPA supports the following cloud computing solutions platforms:

- ❑ Microsoft Azure
 - ❑ Avamar — Avamar 7.5
 - ❑ NetWorker — NetWorker 9.1
 - ❑ Data Domain — DDVE 3.1 (DDOS 6.1)
- ❑ Amazon Web Services
 - ❑ Avamar — Avamar 7.5
 - ❑ NetWorker — NetWorker 9.1
 - ❑ Data Domain — DDVE 3.1 (DDOS 6.1)

Databases

DPA supports the following databases:

- ❑ Microsoft SQL Server 2005, 2008, 2008 R2, 2012, 2014, 2016
- ❑ Oracle 10g, 10g R2, 11g, 11g R2, 12c
 - ❑ AIX 5.3, 6.1, 7.1
 - ❑ HP-UX 11i v1, 11i v2, 11i v3
 - ❑ Red Hat Linux ES/AS 4, 5, 6 (32 bit, 64 bit)
 - ❑ Microsoft Windows 2008, 2008 R2 (32 bit, 64 bit)
 - ❑ Solaris 9, 10, 11 SPARC
 - ❑ SUSE Linux 10, 11, 12 (32-bit, 64-bit)
 - ❑ Oracle ASM is supported on Linux with ASMLib
 - ❑ Oracle RAC with SCAN is supported
- ❑ PostgreSQL 8.4, 9.0, 9.1, 9.2, 9.3, 9.6

- AIX 5.3, 6.1, 7.1
- HP-UX 11i v1, 11i v2, 11i v3
- Red Hat Linux ES/AS 4, 5, 6 (32 bit, 64 bit)
- Microsoft Windows 2008, 2008 R2 (32 bit, 64 bit)
- Solaris 9, 10, 11 SPARC
- SUSE Linux 10, 11, 12 (32 bit, 64 bit)

Replication

DPA supports the following Replication applications and versions:

- EMC RecoverPoint for Virtual Machines 4.2, 5.0
- EMC RecoverPoint 4.0, 4.1, 4.3, 4.4, 5.0
 - Performance CS monitoring is available for RecoverPoint 4.0, 4.1, 4.4

Web applications

DPA supports the following Web applications and versions:

- Microsoft SharePoint 2013 with Office 365
 - Supports connecting to SharePoint through https://

ProtectPoint

DPA supports the following ProtectPoint versions:

ProtectPoint 1.0, 2.0

- Hosts with Discovery Solutions Enabler 8 only installations can discover Vmax3
- Solutions Enabler 8 host installations are supported on Linux 64-bit operating systems
- vDisk info will not be collected if either of the following is true:
 - The DD version is earlier than 5.5
 - vDisk licensing is disabled

Hardware compatibility

Backup and Storage devices

DPA supports the following backup and storage devices and versions:

- Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0
- Data Domain Appliances running 5.3, 5.4, 5.5, 5.6, 5.7, 6.0, 6.1.0
 - DDVE 3.0 (uses DDOS 6.0)
 - DDVE 3.1 (uses DDOS 6.1)SNMP v1&v2 is supported.
- EDL Series running 3.1, 4.0

SNMP v1&v2 is supported.

- Symantec NetBackup 5200, 5230 Appliance series
 - Supported as a Master Server only

Tape Libraries

DPA supports the following tape libraries and versions:

- Quantum Scalar 100, 1000, 10K, i2000, i500
- Fujitsu LT270, LT250
- HP ESL G3
- HP StorageWorks MSL6060
- IBM TS 3100, 3200, 3500, 3583
- NetApp NearStore VTL running OnTAP 6.5.1, 7
- Oracle StorageTek SL24, SL48, SL500 (excluding SL8500)
- Oracle StorageTek ACSLS 7.1, 7.2, 7.3, 8.0, 8.1, 8.3
- Sun StorEdge L-Series (excluding L5500)

Fibre Channel Switches

DPA gathers data only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver

- Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0
- Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000
- Cisco 95xx
- Crossroads 4150, 4250, 4450, 8000
- McData ES-1000, ES-3016, ES-3032
- McData EB1200, ED1200, ED5000, ED6064

SNMP v1&v2 is supported.

IP Switches

DPA supports the following IP Switches:

- Any switch that supports SNMP MIB 2
- Cisco 29xx, 35xx, 37xx, 65xx

SNMP v1&v2 is supported.

Xsigo I/O Appliance

DPA supports the following Xsigo I/O Appliance versions:

- VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5,

3.0.5 SNMP v1&v2 is supported.

Replication Analysis

DPA Server platforms

Memory requirements

- 16 GB RAM/4 cores for the DPA Datastore server
- 16 GB RAM/4 cores for the DPA Application

Server Hard Disk Drive requirements:

- 18 GB of locally attached disk storage for the Application server
- 20 GB of locally attached disk storage for the Datastore Server
 - 3GB of free space are required for database upgrade

Note

Co-located Application and Datastore systems are not supported in production systems. Although the installer provides a co-located system option, when it is selected, a dialogue stating that it is not supported in a production system displays.

- The DPA Application server and DPA Datastore servers must not be used to run other applications. The DPA Application server host and DPA Datastore server host resources must be dedicated to DPA.
- If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers
- The DPA installer has a soft threshold of 7892 MB and a hard threshold of 5844 MB. The soft threshold allows the installation to continue, but the hard threshold does not.
- Automatic sizing and tuning of internal DPA resource usage takes place during installation. If resources (CPU, Memory) are taken away from the installation by other applications performance of DPA could be adversely affected.
- Operating systems:
 - Support for 64-bit operating systems only
 - Microsoft Windows Server 2008 R2, 2012, 2012 R2, 2016 (x64 only)
 - Red Hat Linux ES/AS 6.0, 6.2, 6.4, 6.5 (64-bit), 6.8, 7, 7.1, 7.2, 7.3
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - SUSE Linux 12 x86 (64-bit)
 - Run the Update Agent (up2date) to ensure that the latest operating system patches are installed
 - libaio is recommended to be installed on the system and available in the system
 - LD_LIBRARY_PATH for performance gains

Discovery/Solutions Enabler

DPA supports the following Discovery/Solutions Enabler versions and platforms:

- ❑ Windows 64 bit—Solutions Enabler 7.2.1 up to 8.0 host platforms
- ❑ Windows 32 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - ❑ Raw devices are not supported
- ❑ AIX 64 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - ❑ Supported only when performing discovery on Symmetrix
- ❑ Red Hat Linux ES/AS 64 bit—Solutions Enabler 7.2.1 up to 8.0 host platforms
 - ❑ Enginuity version 5977 requires Solutions Enabler 8.0 or later on the Discovery host
 - ❑ Support for raw devices only when residing on a volume group
 - ❑ The libstdc++.so.6 library must exist on the host
- ❑ Red Hat Linux ES/AS 32 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - ❑ Support for raw devices only when residing on a volume group
 - ❑ The libstdc++.so.6 library must exist on the host
- ❑ SUSE Linux 64 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - ❑ The libstdc++.so.6 library must exist on the host
- ❑ SUSE Linux 32 bit—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - ❑ The libstdc++.so.6 library must exist on the host
- ❑ Solaris SPARC (64 bit)—Solutions Enabler 7.2.1 up to 7.6 host platforms
 - ❑ Sun clustering is not supported on SPARC
 - ❑ Support for raw devices only when residing on a volume group

EMC storage arrays

DPA supports the following storage arrays for Replication Analysis:

- ❑ Symmetrix DMX, VMAX 10K/VMAXe, VMAX 20K/VMAX, VMAX 40K with TimeFinder (BCV, Clone, Snap), SRDF (Synch, A-Synch, Concurrent, Cascading, SRDF/CE, SRDF/STAR), or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR
 - ❑ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, 7.5.1, 7.6, 8.0 on the Discovery host, which is the Solutions Enabler host used to connect to the array
- ❑ CLARiiON CX, AX4-5, CX3, and CX4 running FLARE 02.19 or later with MirrorView/A, MirrorView/S, SnapView, SANCOPY, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR
 - ❑ Requires Solutions Enabler 7.4.0.6, 7.5, 7.5.1, 7.6 on the Discovery host, which is the Solutions Enabler host used to connect to the array
- ❑ VNX 5100, 5200, 5300, 5400, 5500, 5600, 5700, 5800, 7500, 7600, 8000 running OE for Block 05.31, 05.32, 05.33 with MirrorView/A, MirrorView/S, SnapView, SANCOPY, VNX Advanced Snaps, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR
 - ❑ OE 05.31 requires Solutions Enabler 7.4.0.6, 7.5, 7.5.1, 7.6 on the Discovery host, which is the Solutions Enabler host used to connect to the array
 - ❑ OE 05.32 requires Solutions Enabler 7.4.0.17 or 7.5 on the Discovery host
 - ❑ OE 05.33 requires Solutions Enabler 7.6 or later on the Discovery host

- VPLEX running GeoSynchrony 5.1, 5.1 Patch 1, 5.1 Patch 2, 5.1 Patch 3, 5.2, 5.3, 5.4 with RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR

Applications supported for Replication Analysis

DPA supports the following applications and versions for Replication Analysis:

- Microsoft Exchange 2003, 2007, 2010
 - Supports both standalone Exchange 2010 database servers and Database Availability Groups
- Microsoft SQL Server 2005, 2008, 2008 R2, 2012
- Oracle 10g, 10g R2, 11g, 11g R2
 - All notes identified in the [Databases](#) are supported