

EMC DATA PROTECTION ADVISOR SOFTWARE COMPATIBILITY GUIDE

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Notes:

- Data Protection Advisor 6.0 and later does not create a hyperlink in the EMC NetWorker Management Console to launch the DPA console. On Data Protection Advisor 5.8 SP5 and earlier, EMC NetWorker Management Console versions 3.2.x and 3.4 are supported.
- DPA Server platforms are compatible with earlier DPA collector/agent releases. However, when using earlier DPA collectors/agents, you can collect data only up to the capabilities of that collector/agent version. New functionality added in, for example, DPA 6.1 is not available unless you are running a DPA 6.1 agent.

Data Protection Advisor 6.1 SP1 and 6.1 SP2

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>Support for 64-bit operating systems only Minimum requirements are: For Separate Application: 16 GB RAM and 4cores/ CPU and for Datastore: 8 GB RAM, 2 cores / CPUs; Co-hosted/combined DPA Application and DataStore systems are <i>not</i> supported</p> <p>If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers. The Linux operating system is recommended for better performance, and both DPA hosts should use the same operating system</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2008, 2008 R2, 2012, 2012 R2 (x64 only) ▪ Red Hat Linux ES/AS 5, 6.0, 6.2, 6.4 (64-bit), 6.5 <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ▪ Solaris 10, 11 SPARC (64-bit) - DPA 6.1 SP1 is the last supported version <ul style="list-style-type: none"> ○ Requires GNU tar before executing the DPA installer ○ libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains ▪ Solaris 10, 11 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on the physical machines from applications running in other zones ▪ SUSE Linux 11 x86 (64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 8.0, 9, 10 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 6.0, 6.0.1, 6.0 SP2, 6.1, 6.1 SP1, 6.1 SP2, 7.0, 7.0 SP1, 7.0 SP2, 7.1 ▪ EMC NetWorker 7.5, 7.5 SP1, 7.5 SP2, 7.6, 7.6 SP2, 7.6 SP3, 7.6 SP4, 7.6 SP5, 8.0, 8.0 SP1, 8.0 SP2, 8.0 SP3, 8.1, 8.1 SP1, 8.2 ▪ DD Boost for Enterprise Applications (DDBEA), by using Oracle RMAN for Oracle RMAN only ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 6.2, 6.2.1, 6.2.2, 7.0, 8.0 <ul style="list-style-type: none"> ○ 6.2 supports server side deduplication. 7.0 supports server and client side deduplication ▪ IBM Tivoli Storage Manager 5.5, 6.1, 6.2, 6.3, 6.4, 6.4.1 <ul style="list-style-type: none"> ○ 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 ▪ Symantec NetBackup 7.0, 7.1, 7.5, 7.6 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 12.x, 2010, 2012 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0, 5.1, 5.5 <ul style="list-style-type: none"> ○ Not supported on AIX hosts 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4, 5.5 is supported only with DPA 6.1 SP1 Agent Patch b109 and later <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series running 3.1, 4.0 ▪ Symantec NetBackup 5200 Appliance series <ul style="list-style-type: none"> ○ Supported as Master Server only <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 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 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ 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 	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ All server platforms identified in the Operating System column > DPA Server platforms are supported <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (64-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Raw devices are not supported ▪ Red Hat Linux ES/AS (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris SPARC (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit, 64-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, 7.5.1, 7.6 on the

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>installed</p> <ul style="list-style-type: none"> o libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains <p>DPA Data Collection Agent platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for agent process and 2 GB of free hard disk space (for log files and the pfile data store)</p> <ul style="list-style-type: none"> ▪ AIX 5.3, 6.1, 7.1 (Power) <ul style="list-style-type: none"> o Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2, 2012, 2012 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> o Windows Server 2003 requires Microsoft hot fix KB-938397 o Install the latest operating system service packs o WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 4, 5, 6.0, 6.2, 6.4 (32-bit, 64-bit), 6.5 <ul style="list-style-type: none"> o Run the Update Agent (up2date) to ensure that the latest operating system patches are installed o libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains ▪ Solaris 9, 10, 11 SPARC (64-bit) or 10, 11 (x86_64) <ul style="list-style-type: none"> o Requires a minimum of an UltraSPARC III CPU or x86 64-bit CPU o Requires GNU tar before executing the DPA installer o Solaris 9 requires Patch 111711-11 and Patch 111712-11 o Install Solaris patch cluster o libaio is recommended to be installed on the 	<p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2005, 2008, 2008 R2, 2012 ▪ Oracle 10g, 10g R2, 11g, 11g R2 <ul style="list-style-type: none"> o AIX 5.3, 6.1, 7.1 o HP-UX 11i v1, 11i v2, 11i v3 o Red Hat Linux ES/AS 4, 5, 6 (32-bit, 64-bit) o Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) o Solaris 9, 10, 11 SPARC o SUSE Linux 10, 11, 12 (32-bit, 64-bit) o Oracle ASM is supported on Linux with ASMLib o Oracle RAC is supported ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4, 9.0, 9.1, 9.2.2 <ul style="list-style-type: none"> o AIX 5.3, 6.1, 7.1 o HP-UX 11i v1, 11i v2, 11i v3 o Red Hat Linux ES/AS 4, 5, 6 (32-bit, 64-bit) o Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) o Solaris 9, 10, 11 SPARC o SUSE Linux 10, 11, 12 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.4 SP4, 3.5, 3.5 SP1, 4.0, 4.1 <ul style="list-style-type: none"> o Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2, or later for performance monitoring o Performance CS monitoring is available for RecoverPoint 4.0 or later <p>Web applications</p> <ul style="list-style-type: none"> ▪ Microsoft SharePoint 2013 <ul style="list-style-type: none"> o Connecting to SharePoint through https:// is supported only with DPA 6.1 SP1 Server Patch 221 	<p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx <p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>Discovery host, which is the Solutions Enabler host used to connect to the EMC array</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> o 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 EMC array ▪ EMC 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 <ul style="list-style-type: none"> o 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 EMC array o OE 05.32 requires Solutions Enabler 7.4.0.17 or 7.5 on the Discovery host o OE 05.33 requires Solutions Enabler 7.6 or later on the Discovery host ▪ EMC VPLEX running GeoSynchrony 5.1, 5.1 Patch 1, 5.1 Patch 2, 5.1 Patch 3 with RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2003, 2007, 2010 <ul style="list-style-type: none"> o 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 <ul style="list-style-type: none"> o All notes identified in the Software Compatibility column > Databases are supported

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>system and available in the system LD_LIBRARY_PATH for performance gains</p> <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains <p>Web browsers</p> <p>Flash 12 or later for the UI. Java is part of distribution for DPA backend component use. No Java version requirements for the browser or UI.</p> <ul style="list-style-type: none"> ▪ Apple Safari 6.0 ▪ Firefox 20.0 ▪ Google Chrome 26.0 ▪ Internet Explorer 9, 10 ▪ Opera is not supported 			

Data Protection Advisor 6.1

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>Support for 64-bit operating systems only Minimum requirements are: For Separate Application and Datastore: 8 GB RAM, 2 cores / CPUs; Co-hosted/combined DPA Application and DataStore systems are NOT supported. If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers.</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2008, 2008 R2, 2012, 2012 R2 (x64 only) ▪ Red Hat Linux ES/AS 5, 6.0, 6.2, 6.4 (64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ▪ Solaris 10, 11 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires GNU tar before executing the DPA installer ○ libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains ▪ Solaris 10, 11 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on the physical machines from applications running in other zones ▪ SUSE Linux 11 x86 (64-bit) <ul style="list-style-type: none"> ○ 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 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 8.0, 9, 10 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 6.0, 6.0.1, 6.0 SP2, 6.1, 6.1 SP1, 6.1 SP2, 7.0, 7.0 SP1 ▪ EMC NetWorker 7.5, 7.5 SP1, 7.5 SP2, 7.6, 7.6 SP2, 7.6 SP3, 7.6 SP4, 7.6 SP5, 8.0, 8.0 SP1, 8.0 SP2, 8.0 SP3, 8.1, 8.1 SP1 ▪ DD Boost for Enterprise Applications (DDBEA), by using Oracle RMAN for Oracle RMAN only ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 6.2, 6.2.1, 6.2.2, 7.0, 8.0 <ul style="list-style-type: none"> ○ 6.2 supports server side deduplication. 7.0 supports server and client side deduplication ▪ IBM Tivoli Storage Manager 5.5, 6.1, 6.2, 6.3, 6.4, 6.4.1 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 7.0, 7.1, 7.5, 7.6 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 12.x, 2010, 2012 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0, 5.1, 5.5 <ul style="list-style-type: none"> ○ Not supported on AIX hosts 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series running 3.1, 4.0 ▪ Symantec NetBackup 5200 Appliance series <ul style="list-style-type: none"> ○ Supported as Master Server only <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 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 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ 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 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx 	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ All server platforms identified in the Operating System column > DPA Server platforms are supported <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (64-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Raw devices are not supported ▪ Red Hat Linux ES/AS (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris SPARC (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit, 64-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, 7.5.1, 7.6 on the

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Data Collection Agent platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for agent process and 2 GB of free hard disk space (for log files and the pfile data store)</p> <ul style="list-style-type: none"> ▪ AIX 5.3, 6.1, 7.1 (Power) <ul style="list-style-type: none"> ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2, 2012, 2012 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Windows Server 2003 requires Microsoft hot fix KB-938397 ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 4, 5, 6.0, 6.2, 6.4 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ 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 9, 10, 11 SPARC (64-bit) or 10, 11 (x86_64) <ul style="list-style-type: none"> ○ Requires a minimum of an UltraSPARC III CPU or x86 64-bit CPU ○ Requires GNU tar before executing the DPA installer ○ Solaris 9 requires Patch 111711-11 and Patch 111712-11 ○ 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 	<p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2005, 2008, 2008 R2, 2012 ▪ Oracle 10g, 10g R2, 11g, 11g R2 <ul style="list-style-type: none"> ○ 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 2003, 2003 R2, 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 is supported ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4, 9.0, 9.1, 9.2.2 <ul style="list-style-type: none"> ○ 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 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 9, 10, 11 SPARC ○ SUSE Linux 10, 11, 12 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.4 SP4, 3.5, 3.5 SP1, 4.0 <ul style="list-style-type: none"> ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2, or later for performance monitoring ○ Performance CS monitoring is available for RecoverPoint 4.0 or later <p>Web applications</p> <ul style="list-style-type: none"> ▪ Microsoft SharePoint 2013 	<p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>Discovery host, which is the Solutions Enabler host used to connect to the EMC array</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ 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 EMC array ▪ EMC 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 <ul style="list-style-type: none"> ○ 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 EMC 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 ▪ EMC VPLEX running GeoSynchrony 5.1, 5.1 Patch 1, 5.1 Patch 2, 5.1 Patch 3 with RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2003, 2007, 2010 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ All notes identified in the Software Compatibility column > Databases are supported

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>SCSI disks</p> <ul style="list-style-type: none"> ○ Tape Drive Performance system data applies only to Solaris hosts <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains <p>Web browsers</p> <p>Requires Flash 1.1.2.x or later. Java is installed with DPA. No Java version requirements</p> <ul style="list-style-type: none"> ▪ Apple Safari 6.0 ▪ Firefox 20.0 ▪ Google Chrome 26.0 ▪ Internet Explorer 9, 10 ▪ Opera is not supported 			

Data Protection Advisor 6.0 SP1

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>Support for 64-bit operating systems only Minimum requirements are: For Separate Application and Datastore: 8 GB RAM, 2 cores / CPUs; For Combined Application and Datastore: 8 GB RAM, 4 cores / CPUs (Co-hosted deployments are not recommended for production environments). If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers.</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2008, 2008 R2, 2012 (x64 only) ▪ Red Hat Linux ES/AS 5, 6 (64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running. XFS is not supported on RHEL 6. If XFS is not running, you may not be able to publish reports to PDF or HTML. The troubleshooting section of the DPA Installation and Administration Guide provides a workaround ▪ Solaris 10, 11 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires GNU tar before executing the DPA installer ○ libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains ▪ Solaris 10, 11 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on the physical machines from applications 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0, 9 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 4.0, 4.1.2, 5.0, 6.0, 6.0.1, 6.0 SP2, 6.1, 6.1 SP1, 7.0, 7.0 SP1 <ul style="list-style-type: none"> ○ 7.0 is supported only with DPA Agent Patch 42 ▪ EMC NetWorker 7.4, 7.4 SP2, 7.4 SP3, 7.4 SP4, 7.5, 7.5 SP1, 7.5 SP2, 7.6, 7.6 SP2, 7.6 SP3, 7.6 SP4, 7.6 SP5, 8.0, 8.0 SP1, 8.0 SP2, 8.0 SP3, 8.1, 8.1 SP1 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.5, 6.0, 6.1, 6.2, 6.2.1, 7.0 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ○ 6.2 supports server side deduplication. 7.0 supports server and client side deduplication ▪ IBM Tivoli Storage Manager 5.5, 6.1, 6.2, 6.3 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1, 7.5, 7.6 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series running 3.1, 4.0 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 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 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ 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 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx 	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ All server platforms identified in the Operating System column > DPA Server platforms are supported <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Raw devices are not supported ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, or 7.5.1 on the

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>running in other zones</p> <ul style="list-style-type: none"> ▪ SUSE Linux 11 x86 (64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running. If XFS is not running, you may not be able to publish reports to PDF or HTML. The troubleshooting section of the DPA Installation and Administration Guide provides a workaround ○ libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains <p>DPA Data Collection Agent platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for agent process and 2 GB of free hard disk space (for log files and the pfile data store)</p> <ul style="list-style-type: none"> ▪ AIX 5.3, 6.1, 7.1 (Power) <ul style="list-style-type: none"> ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2, 2012 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 4, 5, 6 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running. XFS is not supported on RHEL 6. If XFS is not running, you may not be able to publish reports to PDF or HTML. The troubleshooting section of the DPA Installation and Administration Guide 	<ul style="list-style-type: none"> ▪ Symantec Backup Exec 11.x, 12.x, 2010, 2012 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0, 5.1 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2005, 2008, 2008 R2, 2012 ▪ Oracle 10g, 10g R2, 11g, 11g R2 <ul style="list-style-type: none"> ○ 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 2003, 2003 R2, 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 is supported ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4, 9.0, 9.1, 9.2.2 <ul style="list-style-type: none"> ○ 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 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 9, 10, 11 SPARC ○ SUSE Linux 10, 11, 12 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.4 SP4, 3.5, 3.5 SP1, 4.0 <ul style="list-style-type: none"> ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2, or later for performance monitoring ○ Performance CS monitoring is available for RecoverPoint 4.0 or later <p>Web applications</p> <ul style="list-style-type: none"> ▪ Microsoft SharePoint 2013 	<p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>Discovery host, which is the Solutions Enabler host used to connect to the EMC array</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.4.0.6, 7.5, 7.5.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC 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 <ul style="list-style-type: none"> ○ OE 05.31 requires Solutions Enabler 7.4.0.6, 7.5, 7.5.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC 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 ▪ EMC VPLEX running GeoSynchrony 5.1, 5.1 Patch 1, 5.1 Patch 2, 5.1 Patch 3 with RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010 <ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>provides a workaround</p> <ul style="list-style-type: none"> o libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains <ul style="list-style-type: none"> ▪ Solaris 9, 10, 11 SPARC (64-bit) or 10, 11 (x86_64) <ul style="list-style-type: none"> o Requires a minimum of an UltraSPARC III CPU or x86 64-bit CPU o Requires GNU tar before executing the DPA installer o Solaris 9 requires Patch 111711-11 and Patch 111712-11 o Install Solaris patch cluster o libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains o Disk Status requests are only supported on Solaris hosts running kernel 2.6 or later on SCSI disks o Tape Drive Performance system data applies only to Solaris hosts ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> o X Font Server (xfs) must be running. If XFS is not running, you may not be able to publish reports to PDF or HTML. The troubleshooting section of the DPA Installation and Administration Guide provides a workaround o libaio is recommended to be installed on the system and available in the system LD_LIBRARY_PATH for performance gains <p>Web browsers Requires Flash 1.1.2.x or later. Java is installed with DPA. No Java version requirements</p> <ul style="list-style-type: none"> ▪ Apple Safari 6.0 ▪ Firefox 20.0 ▪ Google Chrome 26.0 ▪ Internet Explorer 9, 10 ▪ Opera is not supported 			<ul style="list-style-type: none"> ▪ Microsoft SQL Server 2000, 2005, 2008, 2008 R2, 2012 ▪ Oracle 10g, 10g R2, 11g, 11g R2 <ul style="list-style-type: none"> o All notes identified in the Software Compatibility column > Databases are supported

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Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>Support for 64-bit operating systems only Minimum requirements are: For Separate Application and Datastore: 8 GB RAM, 2 cores / CPUs; For Combined Application and Datastore: 8 GB RAM, 4 cores / CPUs (Co-hosted deployments are not recommended for production environments). If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2008, 2008 R2, 2012 (x64 only) ▪ Red Hat Linux ES/AS 5, 6 (64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running. XFS is not supported on RHEL 6 ▪ Solaris 10, 11 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires GNU tar before executing the DPA installer ▪ Solaris 10, 11 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on the physical machines from applications running in other zones ▪ SUSE Linux 11 x86 (64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0, 9 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 4.0, 4.1.2, 5.0, 6.0, 6.0.1, 6.0 SP2, 6.1, 6.1 SP1 ▪ EMC NetWorker 7.4, 7.4 SP2, 7.4 SP3, 7.4 SP4, 7.5, 7.5 SP1, 7.5 SP2, 7.6, 7.6 SP2, 7.6 SP3, 7.6 SP4, 7.6 SP5, 8.0, 8.0 SP1, 8.0 SP3, 8.1, 8.1 SP1 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.5, 6.0, 6.1, 6.2, 6.2.1, 7.0 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ○ 6.2 supports server side deduplication. 7.0 supports server and client side deduplication ▪ IBM Tivoli Storage Manager 5.5, 6.1, 6.2, 6.3 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1, 7.5, 7.6 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 11.x, 12.x, 2010 <ul style="list-style-type: none"> ○ Supported only on Windows hosts 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series running 3.1, 4.0 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 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 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ 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 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx 	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ All server platforms identified in the Operating System column > DPA Server platforms are supported <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Raw devices are not supported ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4, or 7.5 on the Discovery

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>database or Oracle RMAN</p> <p>DPA Data Collection Agent platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for agent process and 2 GB of free hard disk space (for log files and the pfile data store)</p> <ul style="list-style-type: none"> ▪ AIX 5.3, 6.1, 7.1 (Power) <ul style="list-style-type: none"> ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2, 2012 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 4, 5, 6 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running. XFS is not supported on RHEL 6 ○ Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle database or Oracle RMAN ▪ Solaris 9, 10, 11 SPARC (64-bit) or 10, 11 (x86_64) <ul style="list-style-type: none"> ○ Requires a minimum of an UltraSPARC III CPU or x86 64-bit CPU ○ Requires GNU tar before executing the DPA installer ○ Solaris 9 requires Patch 111711-11 and Patch 111712-11 ○ Install Solaris patch cluster ○ 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 	<ul style="list-style-type: none"> ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Clusters</p> <ul style="list-style-type: none"> ▪ Symantec Cluster Server (VCS) 5.0, 5.1 <ul style="list-style-type: none"> ○ Supported only on Linux and Solaris hosts ▪ Microsoft Cluster Server (MSCS) <ul style="list-style-type: none"> ○ Microsoft Windows 2003, 2003 R2, 2008 <p>Virtualized environments</p> <ul style="list-style-type: none"> ▪ Linux, Solaris, and Windows virtual machine in a VMware or Hyper-V environment <ul style="list-style-type: none"> ○ EMC recommends that the server CPU specification be at least 20% higher than a non-virtual environment ○ There must be cycles reserved on the physical host allocated to the VMware or Hyper-V virtual machine guest running DPA without contention from other guests ○ The memory of the VMware guest running DPA must be completely retained inside the memory of the VMware host and not set to be swapped out <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2005, 2008, 2008 R2 ▪ Oracle 10g, 10g R2, 11g, 11g R2 <ul style="list-style-type: none"> ○ 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 2003, 2003 R2, 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 <ul style="list-style-type: none"> ○ Oracle RAC is supported ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4, 9.0, 9.1, 9.2.2 <ul style="list-style-type: none"> ○ AIX 5.3, 6.1, 7.1 ○ HP-UX 11i v1, 11i v2, 11i v3 	<p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>host, which is the Solutions Enabler host used to connect to the EMC array</p> <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.4.0.6 or 7.5 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC VNX 5100, 5300, 5500, 5700, 7500 running OE for Block 05.31, 05.32 with MirrorView/A, MirrorView/S, SnapView, SANCopy, VNX Advanced Snaps, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <ul style="list-style-type: none"> ○ OE 05.31 requires Solutions Enabler 7.4.0.6 or 7.5 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ○ OE 05.32 requires Solutions Enabler 7.4.0.17 or 7.5 on the Discovery host ▪ EMC VPLEX running GeoSynchrony 5.1, 5.1 Patch 1, 5.1 Patch 2, 5.1 Patch 3 with RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010 <ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups ▪ Microsoft SQL Server 2000, 2005, 2008, 2008 R2 ▪ Oracle 10g, 10g R2, 11g, 11g R2 <ul style="list-style-type: none"> ○ All notes identified in the Software Compatibility column > Databases are supported

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ X Font Server (xfs) must be running ○ Install libaio 0.3.104 and libaio-devel 0.3.104 (if DPA is monitoring an Oracle database or Oracle RMAN) <p>Web browsers Requires Flash 10.1.x or later. Java is installed with DPA. No Java version requirements</p> <ul style="list-style-type: none"> ▪ Apple Safari ▪ Firefox 1.5 or later ▪ Google Chrome ▪ Internet Explorer 7.0 or later 	<ul style="list-style-type: none"> ○ Red Hat Linux ES/AS 4, 5, 6 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 9, 10, 11 SPARC ○ SUSE Linux 10, 11, 12 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.4 SP4, 3.5, 3.5 SP1 <ul style="list-style-type: none"> ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2, or later for performance monitoring 		

Data Protection Advisor 5.8 SP5

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers.</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ Supports iAnywhere or Microsoft SQL Server 2005 or 2008 as a DPA database repository ▪ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.105 and libaio-devel 0.3.105 (if DPA is monitoring an Oracle database or Oracle RMAN) ▪ Solaris 9, 10 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires the Solaris patch cluster and J2SE cluster patches ○ Solaris 9 requires a minimum of patches 111711-11, 111712-11, 111722-04 ○ Supports iAnywhere or Oracle 9i, 10g, 11g (R1, R2) as a DPA database repository ▪ Solaris 10 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.1, 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0, 9 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 3.7, 3.7.1, 4.0, 4.1.2, 5.0, 6.0, 6.0 SP1, 6.0 SP2, 6.1, 6.1 SP1, 6.1 SP2, 7.0, 7.0 SP1 ▪ EMC HomeBase 6.2, 6.3, 6.4, 6.5 <ul style="list-style-type: none"> ○ DPA 5.8 SP5 is the last version of DPA to include qualified support for HomeBase ○ Not supported on HP-UX or SUSE hosts ○ Support for AIX and Solaris hosts only with HomeBase BMR ▪ EMC NetWorker 7.3, 7.4, 7.4.2, 7.4.3, 7.4.4, 7.5, 7.5.1, 7.5.2, 7.6, 7.6.2, 7.6.3, 7.6.4, 7.6.5, 8.0, 8.0 SP1, 8.0 SP2, 8.0 SP3, 8.1, 8.1 SP1 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.0, 5.5, 6.0, 6.1, 6.2, 6.2.1, 7.0, 8.0 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ○ 6.2 supports server side deduplication. 7.0 supports server and client side deduplication ▪ IBM Tivoli Storage Manager 5.2.2, 5.3, 5.4, 5.4.1, 5.5, 6.1, 6.2, 6.3 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1, 7.5, 7.6 <ul style="list-style-type: none"> ○ NetBackup tape performance data can only be gathered from NetBackup installed on 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2, 5.3, 5.4 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series 1500, 3000 <ul style="list-style-type: none"> ○ DPA 5.8 SP5 is the last version of DPA to include qualified support for these devices ▪ EMC Disk Library Series 4000 running 2.1, 2.2, 3.0, 3.1, 3.2 ▪ FalconStor Hardware Virtual Tape Library devices <ul style="list-style-type: none"> ○ DPA 5.8 SP5 is the last version of DPA to include qualified support for these devices ▪ Fujitsu ETERNUS CS Data Protection Appliance <ul style="list-style-type: none"> ○ DPA 5.8 SP5 is the last version of DPA to include qualified support for these devices ○ Monitoring is performed by an external script that is provided by Fujitsu Technology Solutions and not by the DPA Collector process. The <i>EMC Data Protection Advisor Installation and Administration Guide</i> provides more information ▪ NetApp filers running OnTAP 6.5.1, 7 <ul style="list-style-type: none"> ○ DPA 5.8 SP5 is the last version of DPA to include qualified support for NetApp filers ▪ NetApp NearStore VTL running OnTAP 6.5.1, 7 ▪ Quantum DXi 3500, 5500, 7500 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 3500, 3583, 3584 ▪ Oracle StorageTek SL24, SL48, SL500 (excluding 	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ▪ Solaris 9, 10; Solaris 10 Zones SPARC (64-bit) <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Raw devices are not supported ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ ASM is not supported ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ ASM is not supported ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC ControlCenter 5.2, 6.0, 6.1 <ul style="list-style-type: none"> ○ DPA 5.8 SP5 is the last version of DPA to include qualified support for EMC ControlCenter ○ Discovery host operating system may only be Windows

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>the physical machines from applications running in other zones</p> <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 x86 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository. SUSE 11 is not supported with iAnywhere ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN <p>DPA Collector platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for the Collector process and 2 GB of free hard disk space for log files and the pfile data store</p> <ul style="list-style-type: none"> ▪ AIX 5.3, 6.1 <ul style="list-style-type: none"> ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 3, 4, 5, 6 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Red Hat 6 is supported only on the DPA Collector. The DPA Server platform does not support Red Hat 6 ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running. XFS is not supported on RHEL 6 	<p>Windows. However, tape drive performance data can also be gathered on Solaris platforms through the Tape Drive Performance request</p> <ul style="list-style-type: none"> ▪ Symantec PureDisk 6.0, 6.1, 6.2, 6.5 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 9.1, 10, 11, 12, 12.5, 2010, 2012 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) . Raw devices are not supported ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.5 <ul style="list-style-type: none"> ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2 or later for performance monitoring 	<p>SL8500)</p> <ul style="list-style-type: none"> ▪ Oracle StorageTek ACSLS 7.1, 7.2, 7.3 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0 ▪ Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000, 48000 ▪ Cisco 95xx ▪ Crossroads 4150, 4250, 4450, 4520, 8000 ▪ McData ES-1000, ES-3016, ES-3032 ▪ McData EB1200, ED1200, ED5000, ED6064 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx <p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<ul style="list-style-type: none"> ○ Connecting to the ECC API from the DPA Collector remotely is not supported with ECC 6.1 <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 6.5, 7.0, 7.1, 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, or 7.5.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ○ Engenuity 5568 or later is required to display RDF recovery points ○ Consistent split action must be performed with Solutions Enabler 6.4 or later ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, or 7.5.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC VNX 5100, 5200, 5300, 5400, 5500, 5600, 5700, 5800, 7500, 7600, 8000 running OE for Block 05.31 with MirrorView/A, MirrorView/S, SnapView, SANCopy, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4, 7.5, or 7.5.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<ul style="list-style-type: none"> ○ Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle database or Oracle RMAN ▪ Solaris 8, 9, 10 SPARC or x86 (64-bit) <ul style="list-style-type: none"> ○ Requires a minimum of an UltraSPARC III CPU or an x86 64-bit CPU (Solaris 10 only) ○ Requires the Solaris patch cluster ○ Solaris 8 requires Solaris patches 108434-17, 108435-17, and 111721-04 ○ Solaris 9 requires Solaris patches 111711-11, 111712-11, and 111722-04 ○ 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 ▪ Solaris 10 zone <ul style="list-style-type: none"> ○ Must be installed on a local zone. Can be installed on multiple local zones on a server. Collector shouldn't be installed on the global zone when it has also been installed on a local zone ○ The following information may not be gathered: Information about the disks on the machine, network interfaces on the zone, or HBAs used by the zone ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN 	<p>Web browsers</p> <ul style="list-style-type: none"> ▪ Firefox 1.5 or later ▪ Google Chrome ▪ Internet Explorer 5.5 or later (Windows XP, 2000, 2003) ▪ Internet Explorer 7.0 or later (Windows Vista, Windows 7). Java Runtime Environment 1.7 ▪ Mozilla 1.8 or later ▪ Java Runtime Environment 1.5.0_12 to 1.5.0_15 ▪ Requires a minimum of 512 MB of memory and 50 MB of disk space 		<ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups ▪ Microsoft SQL Server 2000, 2005, 2008, 2008 R2 ▪ Oracle 8.1x, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit). Raw devices are not supported ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10 (32-bit, 64-bit)

Data Protection Advisor 5.8 SP4

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers. Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ Supports iAnywhere or Microsoft SQL Server 2005 or 2008 as a DPA database repository ▪ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.105 and libaio-devel 0.3.105 (if DPA is monitoring an Oracle database or Oracle RMAN) ▪ Solaris 9, 10 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires the Solaris patch cluster and J2SE cluster patches ○ Solaris 9 requires a minimum of patches 111711-11, 111712-11, 111722-04 ○ Supports iAnywhere or Oracle 9i, 10g, 11g (R1, R2) as a DPA database repository ▪ Solaris 10 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on the physical machines from applications 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.1, 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0, 9 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 3.7, 3.7.1, 4.0, 4.1.2, 5.0, 6.0, 6.0 SP2, 6.1 ▪ EMC HomeBase 6.2, 6.3, 6.4, 6.5 <ul style="list-style-type: none"> ○ Not supported on HP-UX or SUSE hosts ○ Support for AIX and Solaris hosts only with HomeBase BMR ▪ EMC NetWorker 7.3, 7.4, 7.4.2, 7.4.3, 7.4.4, 7.5, 7.5.1, 7.5.2, 7.6, 7.6.2, 7.6.3, 8.0 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.0, 5.5, 6.0, 6.1, 6.2, 6.2.1, 7.0 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ○ 6.2 supports server side deduplication. 7.0 supports server and client side deduplication ▪ IBM Tivoli Storage Manager 5.2.2, 5.3, 5.4, 5.4.1, 5.5, 6.1, 6.2, 6.3 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1, 7.5 <ul style="list-style-type: none"> ○ 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 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series 1500, 3000 ▪ EMC Disk Library Series 4000 running 2.1, 2.2, 3.0, 3.1, 3.2 ▪ FalconStor Hardware Virtual Tape Library devices ▪ Fujitsu ETERNUS CS Data Protection Appliance <ul style="list-style-type: none"> ○ Monitoring is performed by an external script that is provided by Fujitsu Technology Solutions and not by the DPA Collector process. The <i>EMC Data Protection Advisor Installation and Administration Guide</i> provides more information ▪ NetApp filers running OnTAP 6.5.1, 7 ▪ NetApp NearStore VTL running OnTAP 6.5.1, 7 ▪ Quantum DXi 3500, 5500, 7500 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 3500, 3583, 3584 ▪ Oracle StorageTek SL24, SL48, SL500 (excluding SL8500) ▪ Oracle StorageTek ACSLS 7.1, 7.2, 7.3 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver</p>	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ▪ Solaris 9, 10; Solaris 10 Zones SPARC (64-bit) <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Raw devices are not supported ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ ASM is not supported ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ ASM is not supported ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC ControlCenter 5.2, 6.0, 6.1 <ul style="list-style-type: none"> ○ Discovery host operating system may only be Windows ○ Connecting to the ECC API from the DPA Collector remotely is not supported with ECC 6.1

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>running in other zones</p> <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 x86 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository. SUSE 11 is not supported with iAnywhere ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN <p>DPA Collector platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for the Collector process and 2 GB of free hard disk space for log files and the pfile data store</p> <ul style="list-style-type: none"> ▪ AIX 5.2, 5.3, 6.1 <ul style="list-style-type: none"> ○ DPA 5.8 SP4 is the last version of DPA to include qualified support for AIX 5.2 ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 3, 4, 5, 6 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Red Hat 6 is supported only on the DPA Collector. The DPA Server platform does not support Red Hat 6 ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running. XFS is 	<ul style="list-style-type: none"> ▪ Symantec PureDisk 6.0, 6.1, 6.2, 6.5 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 9.1, 10, 11, 12, 12.5, 2010 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) . Raw devices are not supported ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.5 <ul style="list-style-type: none"> ○ Not supported on SUSE hosts ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2 or later for performance monitoring <p>Web browsers</p> <ul style="list-style-type: none"> ▪ Firefox 1.5 or later ▪ Google Chrome ▪ Internet Explorer 5.5 or later (Windows XP, 2000, 	<ul style="list-style-type: none"> ▪ Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0 ▪ Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000, 48000 ▪ Cisco 95xx ▪ Crossroads 4150, 4250, 4450, 4520, 8000 ▪ McData ES-1000, ES-3016, ES-3032 ▪ McData EB1200, ED1200, ED5000, ED6064 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx <p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 6.5, 7.0, 7.1, 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ○ Enginuity 5568 or later is required to display RDF recovery points ○ Consistent split action must be performed with Solutions Enabler 6.4 or later ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC VNX 5100, 5300, 5500, 5700, 7500 running OE for Block 05.31 with MirrorView/A, MirrorView/S, SnapView, SANCopy, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010 <ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups ▪ Microsoft SQL Server 2000, 2005, 2008, 2008 R2 ▪ Oracle 8.1x, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>not supported on RHEL 6</p> <ul style="list-style-type: none"> ○ Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle database or Oracle RMAN ▪ Solaris 8, 9, 10 SPARC or x86 (64-bit) <ul style="list-style-type: none"> ○ Requires a minimum of an UltraSPARC III CPU or an x86 64-bit CPU (Solaris 10 only) ○ Requires the Solaris patch cluster ○ Solaris 8 requires Solaris patches 108434-17, 108435-17, and 111721-04 ○ Solaris 9 requires Solaris patches 111711-11, 111712-11, and 111722-04 ○ 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 ▪ Solaris 10 zone <ul style="list-style-type: none"> ○ Must be installed on a local zone. Can be installed on multiple local zones on a server. Collector shouldn't be installed on the global zone when it has also been installed on a local zone ○ The following information may not be gathered: Information about the disks on the machine, network interfaces on the zone, or HBAs used by the zone ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN 	<p>2003)</p> <ul style="list-style-type: none"> ▪ Internet Explorer 7.0 or later (Windows Vista, Windows 7). Java Runtime Environment 1.7 ▪ Mozilla 1.8 or later ▪ Java Runtime Environment 1.5.0_12 to 1.5.0_15 ▪ Requires a minimum of 512 MB of memory and 50 MB of disk space 		<ul style="list-style-type: none"> ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit). Raw devices are not supported ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10 (32-bit, 64-bit)

Data Protection Advisor 5.8 SP3

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>If running DPA in a virtualized [hardware/environment] the allocated CPU and memory must be reserved for the DPA servers.</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ Supports iAnywhere or Microsoft SQL Server 2005 or 2008 as a DPA database repository ▪ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.105 and libaio-devel 0.3.105 (if DPA is monitoring an Oracle database or Oracle RMAN) ▪ Solaris 9, 10 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires the Solaris patch cluster and J2SE cluster patches ○ Supports iAnywhere or Oracle 9i, 10g, 11g (R1, R2) as a DPA database repository ○ Solaris 9 requires a minimum of patches 111711-11, 111712-11, 111722-04 ▪ Solaris 10 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.1, 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0, 9 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 3.7, 3.7.1, 4.0, 4.1.2, 5.0, 6.0, 6.0 SP2, 6.1 ▪ EMC HomeBase 6.2, 6.3, 6.4, 6.5 <ul style="list-style-type: none"> ○ Not supported on HP-UX or SUSE hosts ○ Support for AIX and Solaris hosts only with HomeBase BMR ▪ EMC NetWorker 7.3, 7.4, 7.4.2, 7.4.3, 7.4.4, 7.5, 7.5.1, 7.5.2, 7.6, 7.6.2, 7.6.3, 8.0 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.0, 5.5, 6.0, 6.1, 6.2, 6.2.1, 7.0 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ○ 6.2 supports server side deduplication. 7.0 supports server and client side deduplication ▪ IBM Tivoli Storage Manager 5.2.2, 5.3, 5.4, 5.4.1, 5.5, 6.1, 6.2, 6.3 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1, 7.5 <ul style="list-style-type: none"> ○ 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 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1, 5.2 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series 1500, 3000 ▪ EMC Disk Library Series 4000 running 2.1, 2.2, 3.0, 3.1, 3.2 ▪ FalconStor Hardware Virtual Tape Library devices ▪ Fujitsu ETERNUS CS Data Protection Appliance <ul style="list-style-type: none"> ○ Monitoring is performed by an external script that is provided by Fujitsu Technology Solutions and not by the DPA Collector process. The <i>EMC Data Protection Advisor Installation and Administration Guide</i> provides more information ▪ NetApp filers running OnTAP 6.5.1, 7 ▪ NetApp NearStore VTL running OnTAP 6.5.1, 7 ▪ Quantum DXi 3500, 5500, 7500 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 3500, 3583, 3584 ▪ Oracle StorageTek SL24, SL48, SL500 (excluding SL8500) ▪ Oracle StorageTek ACSLS 7.1, 7.2, 7.3 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if supported by the HBA vendor's device driver</p>	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ▪ Solaris 9, 10; Solaris 10 Zones SPARC (64-bit) <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ ASM is not supported ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ ASM is not supported ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC ControlCenter 5.2, 6.0, 6.1 <ul style="list-style-type: none"> ○ Discovery host operating system may only be Windows ○ Connecting to the ECC API from the DPA Collector remotely is not supported with ECC 6.1 ▪ EMC Symmetrix DMX, VMAX 10K/VMAXe,

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>the physical machines from applications running in other zones</p> <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 x86 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN <p>DPA Collector platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for the Collector process and 2 GB of free hard disk space for log files and the pfile data store</p> <ul style="list-style-type: none"> ▪ AIX 5.2, 5.3, 6.1 <ul style="list-style-type: none"> ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle database or Oracle RMAN ▪ Solaris 8, 9, 10 SPARC or x86 (64-bit) <ul style="list-style-type: none"> ○ Requires a minimum of an UltraSPARC III 	<ul style="list-style-type: none"> ▪ Symantec PureDisk 6.0, 6.1, 6.2, 6.5 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 9.1, 10, 11, 12, 12.5, 2010 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.5 <ul style="list-style-type: none"> ○ Not supported on SUSE hosts ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2 or later for performance monitoring <p>Web browsers</p> <ul style="list-style-type: none"> ▪ Firefox 1.5 or later ▪ Google Chrome ▪ Internet Explorer 5.5 or later (Windows XP, 2000, 2003) 	<ul style="list-style-type: none"> ▪ Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0 ▪ Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000, 48000 ▪ Cisco 95xx ▪ Crossroads 4150, 4250, 4450, 4520, 8000 ▪ McData ES-1000, ES-3016, ES-3032 ▪ McData EB1200, ED1200, ED5000, ED6064 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx <p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>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</p> <ul style="list-style-type: none"> ○ Requires Solutions Enabler 6.5, 7.0, 7.1, 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ○ Enginuity 5568 or later is required to display RDF recovery points ○ Consistent split action must be performed with Solutions Enabler 6.4 or later <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC VNX 5100, 5300, 5500, 5700, 7500 running OE for Block 05.31 with MirrorView/A, MirrorView/S, SnapView, SANCopy, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010 <ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1x, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<ul style="list-style-type: none"> ○ CPU or an x86 64-bit CPU (Solaris 10 only) ○ Requires the Solaris patch cluster ○ Solaris 8 requires Solaris patches 108434-17, 108435-17, and 111721-04 ○ Solaris 9 requires Solaris patches 111711-11, 111712-11, and 111722-04 ○ 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 ■ Solaris 10 zone <ul style="list-style-type: none"> ○ Must be installed on a local zone. Can be installed on multiple local zones on a server. Collector shouldn't be installed on the global zone when it has also been installed on a local zone ○ The following information may not be gathered: Information about the disks on the machine, network interfaces on the zone, or HBAs used by the zone ■ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN 	<ul style="list-style-type: none"> ■ Internet Explorer 7.0 or later (Windows Vista, Windows 7). Java Runtime Environment 1.7 ■ Mozilla 1.8 or later ■ Java Runtime Environment 1.5.0_12 to 1.5.0_15 ■ Requires a minimum of 512 MB of memory and 50 MB of disk space 		<ul style="list-style-type: none"> ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit). Raw devices are not supported ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10 (32-bit, 64-bit)

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Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers.</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ Supports iAnywhere or Microsoft SQL Server 2005 or 2008 as a DPA database repository ▪ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.105 and libaio-devel 0.3.105 (if DPA is monitoring an Oracle database or Oracle RMAN) ▪ Solaris 9, 10 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires the Solaris patch cluster and J2SE cluster patches ○ Supports iAnywhere or Oracle 9i, 10g, 11g (R1, R2) as a DPA database repository ○ Solaris 9 requires a minimum of patches 111711-11, 111712-11, 111722-04 ▪ Solaris 10 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.1, 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0, 9 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 3.7, 3.7.1, 4.0, 4.1.2, 5.0, 6.0, 6.1 <ul style="list-style-type: none"> ○ Not supported on HP-UX or SUSE hosts ○ Support for AIX and Solaris hosts only with HomeBase BMR ▪ EMC HomeBase 6.2, 6.3, 6.4, 6.5 <ul style="list-style-type: none"> ○ Not supported on HP-UX or SUSE hosts ○ Support for AIX and Solaris hosts only with HomeBase BMR ▪ EMC NetWorker 7.3, 7.4, 7.4.2, 7.4.3, 7.4.4, 7.5, 7.5.1, 7.5.2, 7.6, 7.6.2, 7.6.3 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.0, 5.5, 6.0, 6.1, 6.2 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ○ 6.2 supports server side deduplication ▪ IBM Tivoli Storage Manager 5.2.2, 5.3, 5.4, 5.4.1, 5.5, 6.1, 6.2, 6.3 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 9.1, 10, 11, 12, 12.5, 2010 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series 1500, 3000 ▪ EMC Disk Library Series 4000 running 2.1, 2.2, 3.0, 3.1, 3.2 ▪ FalconStor Hardware Virtual Tape Library devices ▪ Fujitsu ETERNUS CS Data Protection Appliance <ul style="list-style-type: none"> ○ Monitoring is performed by an external script that is provided by Fujitsu Technology Solutions and not by the DPA Collector process. The <i>EMC Data Protection Advisor Installation and Administration Guide</i> provides more information ▪ NetApp filers running OnTAP 6.5.1 or later ▪ NetApp NearStore VTL running OnTAP 6.5.1 or later ▪ Quantum DXi 3500, 5500, 7500 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 3500, 3583, 3584 ▪ Oracle StorageTek SL24, SL48, SL500 (excluding SL8500) ▪ Oracle StorageTek ACSLS 7.1, 7.2, 7.3 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if</p>	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ▪ Solaris 9, 10; Solaris 10 Zones SPARC (64-bit) <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ ASM is not supported ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ ASM is not supported ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC ControlCenter 5.2, 6.0, 6.1 <ul style="list-style-type: none"> ○ Discovery host operating system may only be Windows ○ Connecting to the ECC API from the DPA Collector remotely is not supported with ECC 6.1 ▪ EMC Symmetrix DMX, VMAX 10K/VMAXe,

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>the physical machines from applications running in other zones</p> <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 x86 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN <p>DPA Collector platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for the Collector process and 2 GB of free hard disk space for log files and the pfile data store</p> <ul style="list-style-type: none"> ▪ AIX 5.2, 5.3, 6.1 <ul style="list-style-type: none"> ○ DPA 5.8 and service packs is the last version of DPA to include qualified support for AIX 5.2 ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle 	<ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1, 5.0 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.5 <ul style="list-style-type: none"> ○ Not supported on SUSE hosts ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2 or later for performance monitoring <p>Web browsers</p> <ul style="list-style-type: none"> ▪ Firefox 1.5 or later ▪ Google Chrome ▪ Internet Explorer 5.5 or later (Windows XP, 2000, 2003) ▪ Internet Explorer 7.0 or later (Windows Vista, Windows 7). Java Runtime Environment 1.7 ▪ Mozilla 1.8 or later ▪ Java Runtime Environment 1.5.0_12 to 1.5.0_15 	<p>supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0 ▪ Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000, 48000 ▪ Cisco 95xx ▪ Crossroads 4150, 4250, 4450, 4520, 8000 ▪ McData ES-1000, ES-3016, ES-3032 ▪ McData EB1200, ED1200, ED5000, ED6064 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx <p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>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</p> <ul style="list-style-type: none"> ○ Requires Solutions Enabler 6.5, 7.0, 7.1, 7.2, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ○ Enginuity 5568 or later is required to display RDF recovery points ○ Consistent split action must be performed with Solutions Enabler 6.4 or later <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC VNX 5100, 5300, 5500, 5700, 7500 running OE for Block 05.31 with MirrorView/A, MirrorView/S, SnapView, SANCopy, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1, 7.3.1, 7.3.2, 7.4 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010 <ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1x, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>database or Oracle RMAN</p> <ul style="list-style-type: none"> ▪ Solaris 8, 9, 10 SPARC or x86 (64-bit) <ul style="list-style-type: none"> ○ Requires a minimum of an UltraSPARC III CPU or an x86 64-bit CPU (Solaris 10 only) ○ Requires the Solaris patch cluster ○ Solaris 8 requires Solaris patches 108434-17, 108435-17, and 111721-04 ○ Solaris 9 requires Solaris patches 111711-11, 111712-11, and 111722-04 ○ 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 ▪ Solaris 10 zone <ul style="list-style-type: none"> ○ Must be installed on a local zone. Can be installed on multiple local zones on a server. Collector shouldn't be installed on the global zone when it has also been installed on a local zone ○ The following information may not be gathered: Information about the disks on the machine, network interfaces on the zone, or HBAs used by the zone ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN 	<ul style="list-style-type: none"> ▪ Requires a minimum of 512 MB of memory and 50 MB of disk space 		<ul style="list-style-type: none"> ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit). Raw devices are not supported ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10 (32-bit, 64-bit)

Data Protection Advisor 5.8 SP1

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers.</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ Supports iAnywhere or Microsoft SQL Server 2005 or 2008 as a DPA database repository ▪ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.105 and libaio-devel 0.3.105 (if DPA is monitoring an Oracle database or Oracle RMAN) ▪ Solaris 9, 10 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires the Solaris patch cluster and J2SE cluster patches ○ Supports iAnywhere or Oracle 9i, 10g, 11g (R1, R2) as a DPA database repository ○ Solaris 9 requires a minimum of patches 111711-11, 111712-11, 111722-04 ▪ Solaris 10 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.1, 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 3.7, 3.7.1, 4.0, 4.1.2, 5.0, 6.0 ▪ EMC HomeBase 6.2, 6.3, 6.4, 6.5 <ul style="list-style-type: none"> ○ Not supported on HP-UX or SUSE hosts ○ Support for AIX and Solaris hosts only with HomeBase BMR ▪ EMC NetWorker 7.3, 7.4, 7.4.2, 7.4.3, 7.4.4, 7.5, 7.5.1, 7.5.2, 7.6, 7.6.2 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.0, 5.5, 6.0, 6.1, 6.2 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ▪ IBM Tivoli Storage Manager 5.2.2, 5.3, 5.4, 5.4.1, 5.5, 6.1, 6.2 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 9.1, 10, 11, 12, 12.5, 2010 <ul style="list-style-type: none"> ○ Supported only on Windows hosts 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0, 5.1 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series 1500, 3000 ▪ EMC Disk Library Series 4000 running 2.1, 2.2, 3.0, 3.1, 3.2 ▪ FalconStor Hardware Virtual Tape Library devices ▪ Fujitsu ETERNUS CS Data Protection Appliance <ul style="list-style-type: none"> ○ Monitoring is performed by an external script that is provided by Fujitsu Technology Solutions and not by the DPA Collector process. The <i>EMC Data Protection Advisor Installation and Administration Guide</i> provides more information ▪ NetApp filers running OnTAP 6.5.1 or later ▪ NetApp NearStore VTL running OnTAP 6.5.1 or later ▪ Quantum DXi 3500, 5500, 7500 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 3500, 3583, 3584 ▪ Oracle StorageTek SL24, SL48, SL500 (excluding SL8500) ▪ Oracle StorageTek ACSLS 7.1, 7.2, 7.3 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if</p>	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ▪ Solaris 9, 10; Solaris 10 Zones SPARC (64-bit) <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ ASM is not supported ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ ASM is not supported ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC ControlCenter 5.2, 6.0, 6.1 <ul style="list-style-type: none"> ○ Discovery host operating system may only be Windows ○ Connecting to the ECC API from the DPA Collector remotely is not supported with ECC 6.1 ▪ EMC Symmetrix DMX, VMAX, VMAXe with

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>the physical machines from applications running in other zones</p> <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 x86 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN <p>DPA Collector platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for the Collector process and 2 GB of free hard disk space for log files and the pfile data store</p> <ul style="list-style-type: none"> ▪ AIX 5.2, 5.3, 6.1 <ul style="list-style-type: none"> ○ DPA 5.8 and service packs is the last version of DPA to include qualified support for AIX 5.2 ○ Install the bos.perf.libperfstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle 	<ul style="list-style-type: none"> ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1 and ESXi 4.1 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3, 3.4, 3.4 SP1, 3.4 SP2, 3.4 SP3, 3.5 <ul style="list-style-type: none"> ○ Not supported on SUSE hosts ○ Performance monitoring reports are not available for RecoverPoint 3.4 and 3.4 SP1. Upgrade to RecoverPoint 3.4.1.1, 3.4 SP2 or later for performance monitoring <p>Web browsers</p> <ul style="list-style-type: none"> ▪ Firefox 1.5 or later ▪ Google Chrome ▪ Internet Explorer 5.5 or later (Windows XP, 2000, 2003) ▪ Internet Explorer 7.0 or later (Windows Vista, Windows 7). Java Runtime Environment 1.7 ▪ Mozilla 1.8 or later ▪ Java Runtime Environment 1.5.0_12 to 1.5.0_15 ▪ Requires a minimum of 512 MB of memory and 	<p>supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0 ▪ Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000, 48000 ▪ Cisco 95xx ▪ Crossroads 4150, 4250, 4450, 4520, 8000 ▪ McData ES-1000, ES-3016, ES-3032 ▪ McData EB1200, ED1200, ED5000, ED6064 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx <p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>TimeFinder (BCV, Clone, Snap), SRDF (Synch, A-Synch, Concurrent, Cascading, SRDF/CE, SRDF/STAR) or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR</p> <ul style="list-style-type: none"> ○ Requires Solutions Enabler 6.5, 7.0, 7.1, 7.2, 7.3.0.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ○ Enginuity 5568 or later is required to display RDF recovery points ○ Consistent split action must be performed with Solutions Enabler 6.4 or later <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC VNX running OE for Block 05.31 with MirrorView/A, MirrorView/S, SnapView, SANCopy, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1, 7.3.0.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010 <ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1x, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit). Raw devices

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>database or Oracle RMAN</p> <ul style="list-style-type: none"> ▪ Solaris 8, 9, 10 SPARC or x86 (64-bit) <ul style="list-style-type: none"> ○ Requires a minimum of an UltraSPARC III CPU or an x86 64-bit CPU (Solaris 10 only) ○ Requires the Solaris patch cluster ○ Solaris 8 requires Solaris patches 108434-17, 108435-17, and 111721-04 ○ Solaris 9 requires Solaris patches 111711-11, 111712-11, and 111722-04 ○ 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 ▪ Solaris 10 zone <ul style="list-style-type: none"> ○ Must be installed on a local zone. Can be installed on multiple local zones on a server. Collector shouldn't be installed on the global zone when it has also been installed on a local zone ○ The following information may not be gathered: Information about the disks on the machine, network interfaces on the zone, or HBAs used by the zone ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN 	<p>50 MB of disk space</p>		<p>are not supported</p> <ul style="list-style-type: none"> ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10 (32-bit, 64-bit)

Data Protection Advisor 5.8

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>DPA Server platforms</p> <p>If running DPA in a virtualized environment the allocated CPU and memory must be reserved for the DPA servers.</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ Supports iAnywhere or Microsoft SQL Server 2005 or 2008 as a DPA database repository ▪ Red Hat Linux ES/AS 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle database or Oracle RMAN ▪ Solaris 9, 10 SPARC (64-bit) <ul style="list-style-type: none"> ○ Requires the Solaris patch cluster and J2SE cluster patches ○ Supports iAnywhere or Oracle 9i, 10g, 11g (R1, R2) as a DPA database repository ○ Solaris 9 requires a minimum of patches 111711-11, 111712-11, 111722-04 ▪ Solaris 10 Zones <ul style="list-style-type: none"> ○ Install DPA on a local zone or multiple local zones on a server. Do not install DPA on the global zone if it is installed also on a local zone ○ If you are running multiple Solaris zones on a server, the requirements for the machine may be higher than the minimum specifications listed in this section. The requirements depend on the load placed on 	<p>Backup/Recovery</p> <ul style="list-style-type: none"> ▪ CA BrightStor ARCserve 11.1, 11.5, 12, 12.5 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ CommVault Simpana 6.1.0, 7.0, 8.0 <ul style="list-style-type: none"> ○ Supported only on Windows hosts ▪ EMC Avamar 3.7, 3.7.1, 4.0, 4.1.2, 5.0, 6.0 ▪ EMC HomeBase 6.2, 6.3, 6.4, 6.5 <ul style="list-style-type: none"> ○ Not supported on HP-UX or SUSE hosts ○ Support for AIX and Solaris hosts only with HomeBase BMR ▪ EMC NetWorker 7.3, 7.4, 7.4.2, 7.4.3, 7.4.4, 7.5, 7.5.1, 7.5.2, 7.6, 7.6.2 ▪ HP Command View EVA 8.00.02 ▪ HP Data Protector 5.0, 5.5, 6.0, 6.1, 6.2 <ul style="list-style-type: none"> ○ 6.1 requires the following HP Data Protector patches: PHSS_39513 (HP-UX IA-64), PHSS_39512 (HP-UX PA-RISC), DPLNX_00077 (Linux), DPSOL_00371 (Solaris), DPWIN_00417 (Windows) ▪ IBM Tivoli Storage Manager 5.2.2, 5.3, 5.4, 5.4.1, 5.5, 6.1, 6.2 <ul style="list-style-type: none"> ○ 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, 11g, 11g R2 ▪ Symantec NetBackup 6.5, 7.0, 7.1 <ul style="list-style-type: none"> ○ 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 <ul style="list-style-type: none"> ○ Supported only on SUSE 10 hosts ▪ Symantec Backup Exec 9.1, 10, 11, 12, 12.5, 2010 <ul style="list-style-type: none"> ○ Supported only on Windows hosts 	<p>Backup and Storage devices</p> <ul style="list-style-type: none"> ▪ EMC Celerra NS120, NS480, NS960 running DART 5.5, 5.6, 6.0, 7.0 ▪ EMC Data Domain Appliances running 4.4.2, 4.5, 4.6, 4.7, 4.8, 4.9, 5.0 <ul style="list-style-type: none"> ○ Tape Drive and Tape Library Status and Configuration information is returned on 4.8 and later ▪ EMC Disk Library Series 1500, 3000 ▪ EMC Disk Library Series 4000 running 2.1, 2.2, 3.0, 3.1, 3.2 ▪ FalconStor Hardware Virtual Tape Library devices ▪ Fujitsu ETERNUS CS Data Protection Appliance <ul style="list-style-type: none"> ○ Monitoring is performed by an external script that is provided by Fujitsu Technology Solutions and not by the DPA Collector process. The <i>EMC Data Protection Advisor Installation and Administration Guide</i> provides more information ▪ NetApp filers running OnTAP 6.5.1 or later ▪ NetApp NearStore VTL running OnTAP 6.5.1 or later ▪ Quantum DXi 3500, 5500, 7500 <p>Tape Libraries</p> <ul style="list-style-type: none"> ▪ Quantum Scalar 100, 1000, 10K, i2000, i500, i6000 ▪ Fujitsu LT270, LT250 ▪ HP ESL G3 ▪ HP StorageWorks MSL6060 ▪ IBM TS 3500, 3583, 3584 ▪ Oracle StorageTek SL24, SL48, SL500 (excluding SL8500) ▪ Oracle StorageTek ACSLS 7.1, 7.2, 7.3 ▪ Sun StorEdge L-Series (excluding L5500) <p>Fibre Channel Switches</p> <p>Data is gathered only for the Fibre Channel HBA Configuration, Status, and Performance functions if</p>	<p>DPA Server platforms</p> <ul style="list-style-type: none"> ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ▪ Solaris 9, 10; Solaris 10 Zones SPARC (64-bit) <p>Discovery/Solutions Enabler host platforms</p> <ul style="list-style-type: none"> ▪ AIX (32-bit) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ▪ HP-UX 64-bit (PA-RISC only) <ul style="list-style-type: none"> ○ Supported only when performing discovery on Symmetrix ○ For 11i v1, install PHCO_24504, PHSS_36004, PHCO_31923, PHCO_35743, PHKL_34805 before DPA discovery ▪ Microsoft Windows (32-bit, 64-bit) ▪ Red Hat Linux ES/AS (32-bit) <ul style="list-style-type: none"> ○ Support for raw devices only when residing on a volume group ○ ASM is not supported ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information ▪ Solaris (64-bit) <ul style="list-style-type: none"> ○ Sun clustering is not supported on SPARC ○ ASM is not supported ○ Support for raw devices only when residing on a volume group ▪ SUSE Linux (32-bit) <ul style="list-style-type: none"> ○ The libstdc++.so.6 library must exist on the host to retrieve VDISK information <p>EMC storage arrays</p> <ul style="list-style-type: none"> ▪ EMC ControlCenter 5.2, 6.0, 6.1 <ul style="list-style-type: none"> ○ Discovery host operating system may only be Windows ○ Connecting to the ECC API from the DPA Collector remotely is not supported with ECC 6.1 ▪ EMC Symmetrix DMX, VMAX, VMAXe with

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<p>the physical machines from applications running in other zones</p> <ul style="list-style-type: none"> ▪ SUSE Linux 9, 10, 11 x86 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running ○ Supports iAnywhere, Oracle 9i, 10g, 11g (R1, R2), or PostgreSQL 7.4 to 8.4 as a DPA database repository ○ Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN <p>DPA Collector platforms Requires a minimum of 100 MB (Red Hat and SUSE Linux, Solaris, Windows) or 200 MB (AIX, HP-UX) of free hard disk space for the Collector process and 2 GB of free hard disk space for log files and the pfile data store</p> <ul style="list-style-type: none"> ▪ AIX 5.2, 5.3, 6.1 <ul style="list-style-type: none"> ○ DPA 5.8 and service packs is the last version of DPA to include qualified support for AIX 5.2 ○ Install the bos.perf.libperstat file set to gather performance statistics ▪ HP-UX 11i v1 (PA-RISC) or 11i v2, 11i v3 (PA-RISC and IA-64) ▪ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ IA-64 is not supported ○ Install the latest operating system service packs ○ WMI must be installed to gather performance data on Windows hosts ▪ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) <ul style="list-style-type: none"> ○ When using 64-bit architecture, the Collector is run as a 32-bit process ○ Run the Update Agent (up2date) to ensure that the latest operating system patches are installed ○ X Font Server (xfs) must be running 	<ul style="list-style-type: none"> ▪ VMware Infrastructure ESX 3.5, 4.0, 4.1, and ESXi 4.1 <ul style="list-style-type: none"> ○ Not supported on AIX hosts <p>Databases</p> <ul style="list-style-type: none"> ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) ▪ PostgreSQL 7.4, 8.0, 8.1, 8.2, 8.3, 8.4 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit) ○ Solaris 8, 9, 10 SPARC ○ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <p>Replication</p> <ul style="list-style-type: none"> ▪ EMC RecoverPoint 3.0, 3.1, 3.2, 3.3 <ul style="list-style-type: none"> ○ Not supported on SUSE hosts <p>Web browsers</p> <ul style="list-style-type: none"> ▪ Firefox 1.5 or later ▪ Internet Explorer 5.5 or later (Windows XP, 2000, 2003) ▪ Internet Explorer 7.0 or later (Windows Vista, Windows 7). Java Runtime Environment 1.7 ▪ Mozilla 1.8 or later ▪ Java Runtime Environment 1.5.0_12 to 1.5.0_15 ▪ Requires a minimum of 512 MB of memory and 50 MB of disk space 	<p>supported by the HBA vendor's device driver</p> <ul style="list-style-type: none"> ▪ Any switch that supports Fibre Alliance MIB v2.2, v3.0, v4.0 ▪ Brocade 2400, 2800, 3250, 3800, 3850, 3900, 4100, 12000, 24000, 48000 ▪ Cisco 95xx ▪ Crossroads 4150, 4250, 4450, 4520, 8000 ▪ McData ES-1000, ES-3016, ES-3032 ▪ McData EB1200, ED1200, ED5000, ED6064 <p>IP Switches</p> <ul style="list-style-type: none"> ▪ Any switch that supports SNMP MIB 2 ▪ Cisco 29xx, 35xx, 37xx, 65xx <p>Xsigo I/O Appliance</p> <ul style="list-style-type: none"> ▪ VP780 I/O Director running Xsigo OS 2.7.1.1, 2.8.5, 3.0.5 	<p>TimeFinder (BCV, Clone, Snap), SRDF (Synch, A-Synch, Concurrent, Cascading, SRDF/CE, SRDF/STAR) or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR</p> <ul style="list-style-type: none"> ○ Requires Solutions Enabler 6.5, 7.0, 7.1, or 7.2 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ○ Enginuity 5568 or later is required to display RDF recovery points ○ Consistent split action must be performed with Solutions Enabler 6.4 or later <ul style="list-style-type: none"> ▪ EMC 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 <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array ▪ EMC VNX running OE for Block 05.31 with MirrorView/A, MirrorView/S, SnapView, SANCopy, Clone, or RecoverPoint (synchronous and asynchronous): CDP, CLR, CRR <ul style="list-style-type: none"> ○ Requires Solutions Enabler 7.2.1 on the Discovery host, which is the Solutions Enabler host used to connect to the EMC array <p>Applications supported for Replication Analysis</p> <ul style="list-style-type: none"> ▪ Microsoft Exchange 2000, 2003, 2007, 2010 <ul style="list-style-type: none"> ○ Supports both standalone Exchange 2010 database servers and Database Availability Groups ▪ Microsoft SQL Server 2000, 2005, 2008 ▪ Oracle 8.1x, 9i, 10g, 11g, 11g R2 <ul style="list-style-type: none"> ○ AIX 5.2, 5.3, 6.1 ○ HP-UX 11i v1, 11i v2, 11i v3 ○ Red Hat Linux ES/AS 3, 4, 5 (32-bit, 64-bit) ○ Microsoft Windows Server 2003, 2003 R2, 2008, 2008 R2 (32-bit, 64-bit). Raw devices

Operating System	Software compatibility	Hardware compatibility	Replication Analysis
<ul style="list-style-type: none"> o Install libaio 0.3.105 and libaio-devel 0.3.105 if DPA is monitoring an Oracle database or Oracle RMAN ▪ Solaris 8, 9, 10 SPARC or x86 (64-bit) <ul style="list-style-type: none"> o Requires a minimum of an UltraSPARC III CPU or an x86 64-bit CPU (Solaris 10 only) o Requires the Solaris patch cluster o Solaris 8 requires Solaris patches 108434-17, 108435-17, and 111721-04 o Solaris 9 requires Solaris patches 111711-11, 111712-11, and 111722-04 o Disk Status requests are only supported on Solaris hosts running kernel 2.6 or later on SCSI disks o Tape Drive Performance system data applies only to Solaris hosts ▪ Solaris 10 zone <ul style="list-style-type: none"> o Must be installed on a local zone. Can be installed on multiple local zones on a server. Collector shouldn't be installed on the global zone when it has also been installed on a local zone o The following information may not be gathered: Information about the disks on the machine, network interfaces on the zone, or HBAs used by the zone ▪ SUSE Linux 9, 10, 11 (32-bit, 64-bit) <ul style="list-style-type: none"> o Run the Update Agent (up2date) to ensure that the latest operating system patches are installed o X Font Server (xfs) must be running o Install libaio 0.3.104 and libaio-devel 0.3.104 if DPA is monitoring an Oracle database or Oracle RMAN 			<ul style="list-style-type: none"> are not supported o Solaris 8, 9, 10 SPARC o SUSE Linux 9, 10 (32-bit, 64-bit)

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