

Vormetric Transparent Encryption Agent Compatibility Matrix

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Vormetric Data Security Agent for Linux

Interoperability

Table 1: Linux Interoperability with Third Party Applications

Product	Version	OS	Notes
IBM Infosphere Guardium	v8.0, v9.0, v10.1 (VTE 5.2.5.29 and later release)	Linux	Compatible
Imperva Securesphere	v9.0, v9.5, v10.5, v11.5, v12 (VTE 6.0.3 GA and later releases)	Linux	Compatible
Symantec Net-backup	7.6.1.2 (VTE 5.2.5.29 and 6.0.0.137) 7.7.3 (VTE 6.0.1)	Linux	Compatible
McAfee Enterprise Endpoint	v10.6.5 (VTE 6.1.3.53/6.2.0.116)	Red Hat 7 Redhat 8	Compatible
Trend Micro Deep Security	v12.0.347 (VTE 6.3.0.115)	Red Hat 7 Redhat 8	Compatible
Quantum StorNext	6.0.6 and 6.2.0	Red Hat 7.4+	LDT is not supported

Note: Guardium and Imperva are not supported with LDT and Docker.

ESG (Efficient Storage GuardPoint) Support

Table 2: Efficient Storage GuardPoint Support

VTE Agent	VTE and DSM Versions Supporting ESG	Operating Systems Supported	Virtualization Platforms Supported	Storage Systems Supported
VTE for Linux	VTE Version: 6.2.0.116 and onward DSM Version: 6.3.0 and onward	RHEL 7.5 and onward RHEL 8 and onward SLES 12 SP3 ~ 12 SP5 SLES 15 and onward Ubuntu 18	VMWare (RDMs and VVols)	Pure FlashArray (minimum version 5.3.7)
VTE for Windows	VTE Version: 6.3.0.115 and onward DSM Version: 6.3.0 and onward	Windows 2012 Windows 2016 Windows 2019	Hyper-V, VMWare (RDMs and VVols)	Pure FlashArray (minimum version 5.3.7)

Notes:

- For technical details and use case guidelines for both Linux and Windows, see the “Efficient Storage” chapter in the *VTE Agent Installation and Configuration Guide*.
- For the OS, file system, and database applications supported with ESG on file system use cases, see the existing file system compatibility tables.
- For details about the compatible Pure Storage versions, the Pure Storage requirements, and other Pure Storage features supported with VTE, see your Pure Storage documentation.
- Limitations for Windows ES GuardPoint Support:
 - Windows dynamic disks are *not* supported.
 - Clusters and DFS/DFSR with shared disk scenarios are *not* supported.
 - All applications accessing the Pure LUN directly must be closed during the initialization and IDT process.
 - GuardPoint may fail to apply if resources are used. User may need to reboot the system to complete the GuardPoint.
 - User must not use any tools to manage the disk during these operations.

Linux Agent Raw Device Support Matrix

- Vormetric supports up to 6000 raw (sevm) devices.
- KVM VirtIO driver is supported from VTE 6.1.2 GA release (6.1.2.15)

Note: Raw devices are not supported with LDT and Docker.

Red Hat, CentOS, and OEL non-UEK 6.7-6.10 Raw Device Support

Table 3: Red Hat 6.7-6.10 | CentOS 6.7-6.10 | OEL non-UEK 6.7-6.10 (x86_64)³

Database			
Oracle 11gR2/12c/18c/19c	DB2 9.7/10.1/10.5	Informix 11.5/ 11.7/ 12.1	Sybase ASE 15/161
RAW	RAW	RAW ²	RAW ²
Native LVM	Native LVM	Native LVM	Native LVM
ASM			
VxVM V6	VxVM V6		VxVM V6

Notes:

1. Sybase 16 is tested on RAW devices only.
2. You must configure support for RAW Character Devices manually.
3. VTE 6.3.0 and onward VTE releases support only Redhat 6.10 GA (Kernel 2.6.32-754.el6.x86_64) and later

Red Hat, CentOS, and OEL non-UEK 7.0-7.8 Raw Device Support

Table 4: Red Hat 7.0-7.8 | CentOS 7.0-7.8 | OEL non-UEK 7.0-7.8 (x86_64)^{1,2}

Database		
Oracle 11gR2/12c/18c/19c	DB2 9.7/10.1/10.5/11.1	Sybase ASE 16
RAW	RAW	RAW
Native LVM		
ASM		

Notes:

1. VTE 6.3.0 and onward releases support only RHEL 7.5 GA (Kernel 3.10.0-862.el7.x86_64) and later.
2. Support for RAW Character Devices must be configured manually.

Red Hat, CentOS, and OEL non-UEK 8 Raw Device Support

Table 5: Red Hat 8.0-8.2 | CentOS 8.0-8.2 | OEL non-UEK 8.0-8.2 (x86_64)^{1,2}

Database	
Oracle 12c/18c/19c	DB2 10.5/11.1
RAW	RAW
Native LVM	
ASM	

Notes:

1. VTE 6.3.0 supports only RHEL 8.0 GA and later.
2. Support for RAW Character Devices must be configured manually.

SLES 11 Raw Device Support

Table 6: SLES 11 SP3/SP4 | SP3-SP4 Xen (X86_64)³

Database			
Oracle 11gR2/12c/18c/19c	DB2 9.7/10.1/10.5/11.1	Informix 11.5/11.7/ 12.1	Sybase ASE 15/161
RAW	RAW	RAW ²	RAW ²
Native LVM	Native LVM	Native LVM	Native LVM
ASM			
VxVM V6	VxVM V6		VxVM V6

Notes:

1. Sybase 16 is tested on RAW only.
2. Support for RAW Character Devices must be configured manually.
3. VTE 6.3.0 and onward VTE releases do not support SLES11 SP3, SLES11 SP3 Teradata and SLES11 SP4.

SLES 12 Raw Device Support

Table 7: SLES 12, SLES 12 SP1, SLES 12 SP2, SLES 12 SP3, SLES 12 SP4, and SLES 12 SP5 (X86_64)²

Database			
Oracle 11gR2/12c/18c/19c	DB2 9.7/10.1/10.5/11.1	Informix 11.5/11.7/12.1	Sybase ASE 16
RAW	RAW	RAW ¹	RAW
Native LVM		Native LVM	
ASM			
VxVM v6			

Notes:

1. Support for RAW Character Devices must be configured manually.
2. VTE 6.3.0 and onward VTE releases only support SLES12 SP3 (Kernel 4.4.126-94.22.1) and later.

SLES 15 Raw Device Support

Table 8: SLES 15, SLES 15 SP1 (X86_64)

Database	
Oracle 11gR2/12c/18c/19c	DB2 9.7/10.1/10.5/11.1
RAW	RAW ¹
Native LVM	
ASM	
VxVM v6	

Note:

1. Support for RAW Character Devices must be configured manually.

Redhat 6.10/7.5 ACFS Support with Secvm

Table 9: Oracle ACFS/Secvm support on Redhat 6.10/7.5 (X86_64)

Database			
OS Platform	Oracle Database Application	DSM Policy	VTE Builds supporting ACFS
Redhat 6.10 (x86_64)	Oracle 12 C/Oracle 12 C RAC	Encryption-only, no access control, no auditing, and do not execute binaries stored in the ACFS file system	6.0.3.111 6.1.1.10 6.1.2.15
Redhat 7.5 (x86_64)	Oracle 12 C/Oracle 12 C RAC	Encryption-only, no access control, no auditing, and do not execute binaries stored in the ACFS file system	6.0.3.111 6.1.1.10 6.1.2.15

Note: For ACFS file systems mounted over Efficient Storage GuardPoints, refer to the “Efficient Storage” chapter of the *VTE Agent Installation and Configuration Guide*.

Table 10: Oracle ACFS/Secvm Stack with Red Hat 6.10/7.5 (x86_64)

Oracle RAC
Oracle ACFS (File System)
Oracle ADVM (Volume Manager)
Oracle ASM (Storage Manager)
SecVM
Block Device(s)

Linux Agent File System Support Matrix

Red Hat, CentOS, and OEL non-UEK 6.7-6.10 File System Support

Table 11: Red Hat 6.7- 6.10 | CentOS 6.7-6.10 | OEL non-UEK 6.7-6.10 (X86_64)^{1,3}

File System	Database							
Unstructured data	Oracle 11gR2 12c/18c/19c	DB2 9.7 10.1 10.5 11.1	Informix 11.5 11.7 12.1	Sybase 16	MySQL 5.5 5.6	MongoDB	Cassandra	Couchbase 4.5
EXT3	EXT3	EXT3	EXT3		EXT3			
EXT4	EXT4	EXT4	EXT4	EXT4	EXT4	EXT4	EXT4	EXT4
NFS V4/V3	NFS V4/ V3	NFS V4/V3			NFS V4/V3			
XFS	XFS	XFS		XFS	XFS	XFS		
AWS EFS ²								

Notes:

1. Refer to “Red Hat Kernel Support” on page 22 for supported kernel versions on Red Hat.
2. AWS EFS support with and without on-premises Direct Connect.
3. VTE 6.3.0 and onward VTE releases support only Redhat 6.10 GA (Kernel 2.6.32-754.el6.x86_64) and later.

LDT Feature for Red Hat, CentOS, and OEL non-UEK 6.7-6.10 File System Support

Table 12: Red Hat 6.7-6.10 | CentOS 6.7-6.10 | OEL non-UEK 6.7-6.10 (X86_64)¹

File System	Database				
Unstructured data	Oracle 11gR2 12c/18c/19c	DB2 9.7 10.1 10.5 11.1	Sybase 16	MySQL 5.5 5.6	MongoDB
EXT3	EXT3	EXT3		EXT3	
EXT4	EXT4	EXT4	EXT4	EXT4	EXT4
XFS	XFS	XFS	XFS	XFS	XFS

Note:

1. VTE 6.3.0 and onward VTE releases support only Redhat 6.10 GA (Kernel 2.6.32-754.el6.x86_64) and later.

Red Hat, CentOS, and OEL non-UEK 7.0 - 7.8 File System Support

Table 13: Red Hat 7.0-7.8 | CentOS 7.0-7.8 | OEL non-UEK 7.0-7.8 (X86_64)^{1,4}

File System	Database										
Unstructured Data	Oracle 11gR2 12c/18c/19c	DB2 9.7 10.1 10.5 11.1	Informix 11.5 11.7 12.1	Sybase 16	MySQL 5.5 5.6 Maria DB	Postgre SQL	MongoDB	Cassandra	Couchbase 4.5	GreenPlum 5.21.0 Standalone & Cluster	HP Vertica 9.0.1
EXT3	EXT3	EXT3	EXT3		EXT3						
EXT4	EXT4	EXT4	EXT4	EXT4	EXT4		EXT4	EXT4			
NFS V4/V3	NFS V4/ V3	NFS V4/V3			NFS V4/V3						
XFS	XFS	XFS		XFS	XFS	XFS	XFS		XFS	XFS ³	XFS
AWS EFS											

Notes:

1. Refer to “Red Hat Kernel Support” on page 22 for supported kernel versions on Red Hat.
2. AWS EFS support with and without on-premises Direct Connect.
3. GreenPlum is supported only in Red Hat 7.5 and later.
4. VTE 6.3.0 and onward releases support only RHEL 7.5 GA (Kernel 3.10.0-862.el7.x86_64) and later.

LDT Feature for Red Hat, CentOS, and OEL non-UEK 7.0-7.8 File System Support

Table 14: Red Hat 7.0-7.8 | CentOS 7.0-7.8 | OEL non-UEK 7.0-7.8 (X86_64)²

File System	Database							
	Oracle 11gR2 12c/18c/19c	DB2 9.7 10.1 10.5 11.1	Sybase 16	MySQL 5.5 5.6 Maria DB	Postgre SQL	MongoDB	GreenPlum 5.21.0 Standalone & Cluster	HP Vertica 9.0.1
EXT3	EXT3	EXT3		EXT3				
EXT4	EXT4	EXT4	EXT4	EXT4		EXT4		
XFS	XFS	XFS	XFS	XFS	XFS	XFS	XFS ¹	XFS

Notes:

1. GreenPlum is supported only in Red Hat 7.5 and later.
2. VTE 6.3.0 and onward releases support only RHEL 7.5 GA (Kernel 3.10.0-862.el7.x86_64) and later.

Docker Feature for Red Hat, CentOS, and OEL non-UEK 7.0 - 7.8 File System Support

Table 15: Red Hat 7.0-7.8 | CentOS | OEL non-UEK 7.0-7.8 (X86_64)

Docker Host	Container (Image-based and container-based)		
	RHEL/CentOS	SLES	Ubuntu
RHEL/CentOS 7.0 with Docker engine 1.10 or later	RHEL/CentOS 6.6/6.7/6.8 RHEL/CentOS 7.0/7.1/7.2	SLES 11 SP3 SLES 11 SP4 SLES 12 SP0 SLES 12 SP1	Ubuntu 16.04.1
RHEL/CentOS 7.1 with Docker engine 1.10 or later	RHEL/CentOS 6.6/6.7/6.8 RHEL/CentOS 7.0/7.1/7.2	SLES 11 SP3 SLES 11 SP4	Ubuntu 16.04.1

Docker Host	Container (Image-based and container-based)		
	RHEL/CentOS	SLES	Ubuntu
		SLES 12 SP0 SLES 12 SP1	
RHEL/CentOS 7.2 with Docker engine 1.12 or later	RHEL/CentOS 6.6/6.7/6.8 RHEL/CentOS 7.0/7.1/7.2	SLES 11 SP3 SLES 11 SP4 SLES 12 SP0 SLES 12 SP1	Ubuntu 16.04.1
RHEL/CentOS 7.3 with Docker engine 1.12 or later	RHEL/CentOS 6.6/6.7/6.8 RHEL/CentOS 7.0/7.1/7.2/7.3	SLES 11 SP3 SLES 11 SP4 SLES 12 SP0 SLES 12 SP1	Ubuntu 16.04.1
RHEL/CentOS 7.4 with Docker engine 1.12 or later	RHEL/CentOS 6.6/6.7/6.8 RHEL/CentOS 7.0/7.1/7.2/7.4	SLES 11 SP3 SLES 11 SP4 SLES 12 SP0 SLES 12 SP1	Ubuntu 16.04.3
RHEL/CentOS 7.5 with Docker engine 1.12 or later	RHEL/CentOS 6.6/6.7/6.8/6.9/6.10 RHEL/CentOS 7.0/7.1/7.2/7.4/7.5	SLES 11 SP3 SLES 11 SP4 SLES 12 SP2 SLES 12 SP3	Ubuntu 16.04.4
RHEL/CentOS 7.6 with Docker engine 1.12 or later	RHEL/CentOS 6.6/6.7/6.8/6.9/6.10 RHEL/CentOS 7.0/7.1/7.2/7.4/7.5/7.6	SLES 11 SP3 SLES 11 SP4 SLES 12 SP2 SLES 12 SP3	Ubuntu 16.04.5 Ubuntu 18.04
RHEL/CentOS 7.7 with Docker engine 1.12 or later	RHEL/CentOS 6.6/6.7/6.8/6.9/6.10 RHEL/CentOS 7.5/7.6/7.7	SLES 12 SP3 SLES 12 SP4 SLES 12 SP5 SLES 15	Ubuntu 16.04 Ubuntu 18.04
RHEL/CentOS 7.8 with Docker engine 1.12 or later	RHEL/CentOS 6.6/6.7/6.8/6.9/6.10 RHEL/CentOS 7.5/7.6/7.7/7.8	SLES 12 SP3 SLES 12 SP4 SLES 12 SP5 SLES 15	Ubuntu 16.04 Ubuntu 18.04

Table 16: Red Hat 7.0-7.8 | CentOS | OEL non-UEK 7.0-7.8 (X86_64)

Docker Host	Container (Image-based and container-based)		
	RHEL/CentOS	SLES	Ubuntu
	RHEL/CentOS 6.7 ~ 6.10 RHEL/CentOS 7.0 ~ 7.8	SLES 11 SP3/SP4 SLES 12 SP2/12 SP3/SP4/SP5 SLES 15	Ubuntu 16.04.3/4 Ubuntu 18.04
RHEL/CentOS 7.0/7.1/7.2/7.3/7.4/7.5/7.6/7.7/7.8	EXT4 XFS NFSv3 NFSv4	EXT3 EXT4 XFS NFSv3 NFSv4	EXT4 XFS NFSv3 NFSv4

Table 17: OpenShift Support on Docker: Red Hat 7.4 – 7.7 | CentOS | OEL non-UEK 7.4 – 7.7 (X86_64)

OpenShift Version	Docker Host
OCP 3.4 or later version	RHEL/CentOS 7.4/7.5/7.6/7.7

Table 18: Kubernetes Support on Docker: Red Hat 7.4/7.5, CentOS, and OEL non-UEK 7.4/7.5 (X86_64)

Kubernetes Version	Docker Host	Docker Version
Kubectl 1.10 or later version	RHEL/Centos7.5	1.13
Kubectl 1.09 or later version	RHEL/Centos7.4	1.12 and 1.13

Table 19: Kubernetes Support on Docker: Red Hat 7.3/7.4, CentOS, and OEL non-UEK 7.3/7.4 (X86_64)

Mesos Version	Docker Host	Docker Version
Mesos:1.4.1	Rhel/Centos7.3/7.4	1.12.6

Red Hat 8 File System Support

Table 20: Red Hat 8.0-8.2 (X86_64)^{1 2}

File System	Database			
Unstructured Data	Oracle 11gR2 12c/18c/19c	DB2 9.7 10.1 10.5 11.1	MySQL 5.5 5.6 Maria DB	MongoDB
EXT3	EXT3	EXT3	EXT3	
EXT4	EXT4	EXT4	EXT4	EXT4
NFS V4/V3	NFS V4/ V3	NFS V4/V3	NFS V4/V3	
XFS	XFS	XFS	XFS	XFS

Notes:

1. Refer to “Red Hat Kernel Support” on page 22 for kernels supported on Red Hat.
2. Thales has performed validation with VTE for these databases on Red Hat 8, but the database vendors may not have completed their Red Hat validation yet.

LDT Feature for Red Hat 8 File System Support

Table 21: Red Hat 8.0-8.2 (X86_64)¹

File System	Database			
Unstructured data	Oracle 12c/18c/19c	DB2 11.1	MySQL 5.5 5.6 Maria DB	MongoDB
EXT3	EXT3	EXT3	EXT3	
EXT4	EXT4	EXT4	EXT4	EXT4
XFS	XFS	XFS	XFS	

Note:

1. Thales has performed validation with VTE for these databases on Red Hat 8, but the database vendors may not have completed their Red Hat validation yet.

Docker Feature for Red Hat 8.0 File System Support

Table 22: Red Hat 8.0 (X86_64)

Docker Host	Container (Image-based and container-based)		
	RHEL/CentOS	SLES	Ubuntu
RHEL/CentOS 8.0 with Docker engine 1.13 ¹ or later	RHEL 6.6 – 6.10 RHEL 7.0 – 7.6 RHEL 8.0	SLES 12 SP4 SLES 15	Ubuntu 16.04.5 – 16.04.6 Ubuntu 18.04.0 – 18.04.2

Table 23: Red Hat 8.0 (X86_64)

Docker Host	Container (Image-based and container-based)		
	RHEL/CentOS	SLES	Ubuntu
	RHEL/CentOS 6.7 ~ 6.10 RHEL/CentOS 7.0 ~ 7.6 RHEL 8.0	SLES 12 SP4 SLES 15	Ubuntu 16.04.5–16.04.6 Ubuntu 18.04–18.04.2
RHEL 8.0	EXT4 XFS NFSv3 NFSv4	EXT3 EXT4 XFS NFSv3 NFSv4	EXT4 XFS NFSv3 NFSv4

HDFS Support

Table 24: Red Hat 6.6-6.7 & 7.2-7.5, and SLES 11 SP3/Teradata (X86_64)

HDFS Access Control	Platform Support	File System	Note
Hortonworks (HDP) 2.2 Apache Hadoop 2.6.0	RHEL 6	EXT4	Supported from VTE 5.2.4 LDT is not supported
		XFS	
Hortonworks (HDP) 2.3 Apache Hadoop 2.7.1	RHEL 6	EXT4	Supported from VTE 5.2.5 LDT is not supported
		XFS	
Hortonworks (HDP) 2.4/2.5 Apache Hadoop 2.7.1	RHEL 6	EXT4	Supported from VTE 6.0
		XFS	
Hortonworks (HDP) 2.6 Apache Hadoop 2.7.1	RHEL 6	EXT4	Supported from VTE 6.0.2
		XFS	
Hortonworks (HDP) 2.4/2.5 Apache Hadoop 2.7.1	RHEL 7.2-7.3	EXT4	Supported from VTE 6.0
		XFS	
Hortonworks (HDP) 2.6 Apache Hadoop 2.7.3	RHEL 7.2-7.4	EXT4	Supported from VTE 6.0.2
		XFS	
Hortonworks (HDP) 2.6.4 Apache Hadoop 2.7.3	RHEL 7.5	EXT4	Supported from VTE 6.0.3.68
		XFS	
Hortonworks (HDP) 3.0.0 Apache Hadoop 3.1.0	RHEL 7.4	EXT4	Supported from VTE 6.1.2.15
		XFS	
Hortonworks (HDP) 3.0.0 Apache Hadoop 3.1.1	RHEL 7.5	EXT4	Supported from VTE 6.1.2.15
		XFS	
Hortonworks (HDP) 3.1.0 Apache Hadoop 3.1.1	RHEL 7.7	EXT4	Supported from VTE 6.2.1.24
		XFS	
Cloudera (CDH) 5.9 Apache Hadoop 2.6.0	RHEL 7.2-7.4	EXT4	Supported from VTE 6.0 LDT is not supported
		XFS	
Cloudera (CDH) 5.12 Apache Hadoop 2.6.0	RHEL 7.2	EXT4	Supported from VTE 6.0.2 LDT is not supported
		XFS	

HDFS Access Control	Platform Support	File System	Note
Cloudera (CDH) 5.14 Apache Hadoop 2.6.0	RHEL 7.3	EXT4	Supported from VTE 6.0.3 LDT is not supported
		XFS	
EMR 5.11.1 Apache Hadoop 2.7.3	Amazon Linux	Default EXT4	Supported from VTE 6.1.0
Hortonworks (HDP) 2.6.0.3-8	SLES 11 SP3 Teradata Kernel	XFS	Support from 6.1.2 GA (6.1.2.15) LDT is not supported

Red Hat Kernel Support

Table 25: Red Hat Kernels Supported

Note: The VTE version shown in these tables is the *minimum* VTE version that supports the associated kernel. All future releases of VTE will *also* support that kernel unless specifically noted in the table.

For example, “3.10.0-693.el7.x86_64 (VTE 6.0.1.58)” means that the Red Hat kernel 3.10.0-693.el7.x86_64 is supported in VTE release 6.0.1.58 *and later*.

The only exception to this is for the Pre-Spectre/Meltdown kernels that Thales ended support for starting with VTE 6.3.0.115 (GA). VTE for Linux 6.3.0 has the following kernel requirements:

- RHEL 6.10 GA (Kernel 2.6.32-754.el6.x86_64) and later
- RHEL 7.5 GA (Kernel 3.10.0-862.el7.x86_64) and later
- RHEL 8.0 GA and later

For details, see the “Advisories” section in the *Vormetric Transparent Encryption for Linux Release Notes* for Release 6, Version 6.3.0.115, published on March 31, 2020.

Red Hat, CentOS, and OEL non-UEK Kernels Supported (by Version)	
6.7	6.8
2.6.32-573.el6.x86_64 2.6.32-573.1.1.el6.x86_64 2.6.32-573.3.1.el6.x86_64 2.6.32-573.7.1.el6.x86_64 (VTE 5.2.3.73) 2.6.32-573.8.1.el6.x86_64 (VTE 5.2.3.77)/(VTE 5.2.4.37 GA) 2.6.32-573.12.1.el6.x86_64 (VTE 5.2.4.42) 2.6.32-573.18.1.el6.x86_64 (VTE 5.2.4.47)	2.6.32-642.el6.x86_64 (VTE 5.2.4.70) 2.6.32-642.1.1.el6.x86_64 (VTE 5.2.4.70) 2.6.32-642.3.1.el6.x86_64 (VTE 5.2.4.76) 2.6.32-642.4.2.el6.x86_64 (VTE 5.2.5.36) 2.6.32-642.6.1.el6.x86_64 (VTE 5.2.5.41) 2.6.32-642.6.2.el6.x86_64 (VTE 5.2.5.41) 2.6.32-642.11.1.el6.x86_64 (VTE 5.2.5.54/6.0.0.137 GA)

Red Hat, CentOS, and OEL non-UEK Kernels Supported (by Version)	
6.7	6.8
2.6.32-573.22.1.el6.x86_64 (VTE 5.2.4.55) 2.6.32-573.26.1.el6.x86_64 (VTE 5.2.4.66) 2.6.32-573.49.3.el6.x86_64 (VTE 5.2.5.105 /6.0.0.167/6.0.1.68/6.0.2.72)	2.6.32-642.13.1.el6.x86_64 (VTE 5.2.5.57/6.0.0.148) 2.6.32-642.13.2.el6.x86_64 (VTE 5.2.5.67/6.0.0.154) 2.6.32-642.15.1.el6.x86_64 (VTE 5.2.5.67/6.0.0.154)

Red Hat, CentOS, and OEL non-UEK Kernels Supported (by Version)	
6.9	6.10
2.6.32-696.el6.x86_64 (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 2.6.32-696.1.1.el6.x86_64 (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 2.6.32-696.3.1.el6.x86_64 (VTE 6.0.1.43) 2.6.32-696.3.2.el6.x86_64 (VTE 6.0.1.43) 2.6.32-696.6.3.el6.x86_64 (VTE 6.0.1.51) 2.6.32-696.10.1.el6.x86_64 (VTE 6.0.1.65) 2.6.32-696.10.2.el6.x86_64 (VTE 6.0.1.65) 2.6.32-696.10.3.el6.x86_64 (VTE 6.0.2.49 GA) 2.6.32-696.13.2.el6.x86_64 (VTE 6.0.2.49 GA) 2.6.32-696.16.1.el6.x86_64 (VTE 6.0.2.57) 2.6.32-696.18.7.el6.x86_64 (VTE 5.2.5.103/VTE 6.0.0.161/VTE 6.0.1.66/6.0.2.69) 2.6.32-696.20.1.el6.x86_64 (VTE 6.0.2.82 /6.0.3.18 GA) 2.6.32-696.23.1.el6.x86_64 (VTE 6.0.3.23) 2.6.32-696.28.1.el6.x86_64 (VTE 6.0.3.68) 2.6.32-696.30.1.el6.x86_64 (VTE 6.0.3.68)	2.6.32-754.el6.x86_64 (VTE 6.0.3.75) 2.6.32-754.2.1.el6.x86_64 (VTE 6.0.3.78/6.0.3.111) 2.6.32-754.3.5.el6.x86_64 (VTE 6.0.3.111/6.1.0.110 GA) 2.6.32-754.6.3.el6.x86_64 (VTE 6.1.1.7) 2.6.32-754.9.1.el6.x86_64 (VTE 6.1.2.15) 2.6.32-754.10.1.el6.x86_64 (VTE 6.1.2.21) 2.6.32-754.11.1.el6.x86_64 (VTE 6.1.2.24/6.1.3.23) 2.6.32-754.12.1.el6.x86_64 (VTE 6.1.3.38) 2.6.32-754.14.2.el6.x86_64 (VTE 6.1.3.53) 2.6.32-754.15.3.el6.x86_64 (VTE 6.1.3.63) 2.6.32-754.17.1.el6.x86_64 (VTE 6.1.3.69) 2.6.32-754.18.2.el6.x86_64 (VTE 6.2.0.116) 2.6.32-754.22.1.el6.x86_64 (VTE 6.2.0.116) 2.6.32-754.23.1.el6.x86_64 (VTE 6.2.0.125) 2.6.32-754.24.2.el6.x86_64 (VTE 6.2.1.44) 2.6.32-754.24.3.el6.x86_64 (VTE 6.2.1.44) 2.6.32-754.25.1.el6.x86_64 (VTE 6.2.1.58) 2.6.32-754.27.1.el6.x86_64 (VTE 6.2.1.70) 2.6.32-754.28.1.el6.x86_64 (VTE 6.2.1.70) 2.6.32-754.29.1.el6.x86_64 (VTE 6.3.0.127) 2.6.32-754.29.2.el6.x86_64 (VTE 6.3.0.127) 2.6.32-754.30.2.el6.x86_64 (VTE 6.3.0.127/6.3.1.38 GA) 2.6.32-754.31.1.el6.x86_64 (VTE 6.3.1.38 GA) 2.6.32-754.33.1.el6.x86_64 (VTE 6.3.1.38 GA)

Red Hat, CentOS, and OEL non-UEK Kernels Supported (by Version)		
7.0	7.1	7.2
3.10.0-123.el7.x86_64 3.10.0-123.1.2.el7.x86_64 3.10.0-123.4.2.el7.x86_64 3.10.0-123.4.4.el7.x86_64 3.10.0-123.6.3.el7.x86_64 3.10.0-123.8.1.el7.x86_64 3.10.0-123.9.2.el7.x86_64 3.10.0-123.9.3.el7.x86_64 3.10.0-123.13.1.el7.x86_64 3.10.0-123.13.2.el7.x86_64 3.10.0-123.20.1.el7.x86_64	3.10.0-229.el7.x86_64 3.10.0-229.1.2.el7.x86_64 3.10.0-229.4.2.el7.x86_64 3.10.0-229.7.2.el7.x86_64 3.10.0-229.11.2.el7.x86_64 3.10.0-229.14.2.el7.x86_64 3.10.0-229.20.1.el7.x86_64 (VTE 5.2.3.76) /(VTE 5.2.4.37 GA)	3.10.0-327.el7.x86_64 (VTE 5.2.4.42) 3.10.0-327.3.1.el7.x86_64 (VTE 5.2.4.42) 3.10.0-327.4.4.el7.x86_64 (VTE 5.2.4.42) 3.10.0-327.4.5.el7.x86_64 (VTE 5.2.4.47) 3.10.0-327.10.1.el7.x86_64 (VTE 5.2.4.53) 3.10.0-327.13.1.el7.x86_64 (VTE 5.2.4.55) 3.10.0-327.18.2.el7.x86_64 (VTE 5.2.4.66) 3.10.0-327.22.2.el7.x86_64 (VTE 5.2.4.76) 3.10.0-327.28.2.el7.x86_64 (VTE 5.2.4.81/5.2.5.29 GA) 3.10.0-327.28.3.el7.x86_64 (VTE 5.2.5.36) 3.10.0-327.36.1.el7.x86_64 (VTE 5.2.5.41) 3.10.0-327.36.2.el7.x86_64 (VTE 5.2.5.41) 3.10.0-327.36.3.el7.x86_64 (VTE 5.2.5.41)

Red Hat, CentOS, and OEL non-UEK Kernels Supported (by Version)		
7.3	7.4	7.5
3.10.0-514.el7.x86_64 (VTE 5.2.5.47) 3.10.0-514.2.2.el7.x86_64 (VTE 5.2.5.54/6.0.0.137 GA) 3.10.0-514.6.1.el7.x86_64 (VTE 5.2.5.57/6.0.0.148) 3.10.0-514.6.2.el7.x86_64 (VTE 5.2.5.67/6.0.0.154) 3.10.0-514.10.2.el7.x86_64 (VTE 5.2.5.67/6.0.0.154) 3.10.0-514.16.1.el7.x86_64 (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 3.10.0-514.21.1.el7.x86_64 (VTE 6.0.1.43) 3.10.0-514.21.2.el7.x86_64 (VTE 6.0.1.43) 3.10.0-514.26.1.el7.x86_64 (VTE 6.0.1.51) 3.10.0-514.26.2.el7.x86_64 (VTE 6.0.1.51) 3.10.0-514.36.5.el7.x86_64 (VTE 5.2.5.105/6.0.0.167/6.0.1.68/6.0.2.72)	3.10.0-693.el7.x86_64 (VTE 6.0.1.58) 3.10.0-693.1.1.el7.x86_64 (VTE 6.0.1.58) 3.10.0-693.2.1.el7.x86_64 (VTE 6.0.1.65) 3.10.0-693.2.2.el7.x86_64 (VTE 6.0.1.65) 3.10.0-693.5.2.el7.x86_64 (VTE 6.0.2.57) 3.10.0-693.11.1.el7.x86_64 (VTE 6.0.2.64) 3.10.0-693.11.6.el7.x86_64 (VTE 6.0.1.66/6.0.2.69) 3.10.0-693.17.1.el7.x86_64 (VTE 6.0.2.82/6.0.3.18 GA) 3.10.0-693.21.1.el7.x86_64 (VTE 6.0.3.23)	3.10.0-862.el7.x86_64 (VTE 6.0.3.68) 3.10.0-862.2.3.el7.x86_64 (VTE 6.0.3.68) 3.10.0-862.3.2.el7.x86_64 (VTE 6.0.3.68) 3.10.0-862.3.3.el7.x86_64 (VTE 6.0.3.68) 3.10.0-862.6.3.el7.x86_64 (VTE 6.0.3.76) 3.10.0-862.9.1.el7.x86_64 (VTE 6.0.3.78/6.0.3.111) 3.10.0-862.11.6.el7.x86_64 (VTE 6.0.3.111/6.1.0.110 GA) 3.10.0-862.14.4.el7.x86_64 (VTE 6.1.1.5)

Red Hat, CentOS, and OEL non-UEK Kernels Supported (by Version)		
7.6	7.7	7.8
3.10.0-957.el7.x86_64 (VTE 6.1.2.15) 3.10.0-957.1.3.el7.x86_64 (VTE 6.1.2.15) 3.10.0-957.5.1.el7.x86_64 (VTE 6.1.2.22) 3.10.0-957.10.1.el7.x86_64 (VTE 6.1.3.28) 3.10.0-957.12.1.el7.x86_64 (VTE 6.1.3.41) 3.10.0-957.12.2.el7.x86_64 (VTE 6.1.3.53) 3.10.0-957.21.2.el7.x86_64 (VTE 6.1.3.54) 3.10.0-957.21.3.el7.x86_64 (VTE 6.1.3.63) 3.10.0-957.27.2.el7.x86_64 (VTE 6.2.0.116) 3.10.0-957.35.2.el7.x86_64 (VTE 6.2.0.133)	3.10.0-1062.el7.x86_64 (VTE 6.2.0.116) 3.10.0-1062.1.1.el7.x86_64 (VTE 6.2.0.116) 3.10.0-1062.1.2.el7.x86_64 (VTE 6.2.0.125) 3.10.0-1062.4.1.el7.x86_64 (VTE 6.2.0.133) 3.10.0-1062.4.2.el7.x86_64 (VTE 6.2.1.44) 3.10.0-1062.4.3.el7.x86_64 (VTE 6.2.1.44) 3.10.0-1062.7.1.el7.x86_64 (VTE 6.2.1.48) 3.10.0-1062.9.1.el7.x86_64 (VTE 6.2.1.54) 3.10.0-1062.12.1.el7.x86_64 (VTE 6.2.1.70) 3.10.0-1062.18.1.el7.x86_64 (VTE 6.2.1.70)	3.10.0-1127.el7.x86_64 (VTE 6.3.0.117) 3.10.0-1127.8.2.el7.x86_64 (VTE 6.3.0.127) 3.10.0-1127.10.1.el7.x86_64 (VTE 6.3.0.127/VTE 6.3.1.38 GA) 3.10.0-1127.13.1.el7.x86_64 (VTE 6.3.1.38) 3.10.0-1127.18.2.el7.x86_64 (VTE 6.3.1.38) 3.10.0-1127.19.1.el7.x86_64 (VTE 6.3.1.38)

Red Hat, CentOS, and OEL non-UEK Kernels Supported (by Version)		
8.0	8.1	8.2
4.18.0-80.el8.x86_64 (VTE 6.1.3.46) 4.18.0-80.1.2.el8_0.x86_64 (VTE 6.1.3.53) 4.18.0-80.4.2.el8_0.x86_64 (VTE 6.1.3.63) 4.18.0-80.7.1.el8_0.x86_64 (VTE 6.2.0.116) 4.18.0-80.7.2.el8_0.x86_64 (VTE 6.2.0.116) 4.18.0-80.11.1.el8_0.x86_64 (VTE 6.2.0.116) 4.18.0-80.11.2.el8_0.x86_64 (VTE 6.2.0.125)	4.18.0-147.el8.x86_64 (VTE 6.2.1.33) 4.18.0-147.0.2.el8_1.x86_64 (VTE 6.2.1.44) 4.18.0-147.0.3.el8_1.x86_64 (VTE 6.2.1.44) 4.18.0-147.3.1.el8_1.x86_64 (VTE 6.2.1.58) 4.18.0-147.5.1.el8_1.x86_64 (VTE 6.2.1.70) 4.18.0-147.8.1.el8_1.x86_64 (VTE 6.3.0.115)	4.18.0-193.el8.x86_64 (VTE 6.3.0.130) 4.18.0-193.1.2.el8_2.x86_64 (VTE 6.3.0.130) 4.18.0-193.6.3.el8_2.x86_64 (VTE 6.3.1.38) 4.18.0-193.13.2.el8_2.x86_64 (VTE 6.3.1.38) 4.18.0-193.14.3.el8_2.x86_64 (VTE 6.3.1.38) 4.18.0-193.19.1.el8_2.x86_64 (VTE 6.3.1.38)

SLES 11 File System Support

Table 26: SLES 11 SP3/SP4/Xen (X86_64)^{1,3}

File System	Database							
Unstructured data	Oracle 11gR2 12c/18c/19c	DB2 9.7 10.1 10.5 11.1	Informix 11.5 11.7 12.1	Sybase 16	MySQL 5.5/ 5.6	MongoDB	Cassandra	Couchbase 4.5
EXT3	EXT3	EXT3	EXT3	EXT3	EXT3	EXT3	EXT3	EXT3
NFS V4/V3	NFS V4/V3	NFS V4/ V3			NFS V4/V3			
XFS	XFS	XFS			XFS	XFS		
AWS EFS ²								

Notes:

1. Refer to “SLES Kernel Support” on page 30 for supported kernels on SLES.
2. AWS EFS supported with and without on-premises Direct Connect.
3. VTE 6.3.0 and onward VTE releases do not support SLES11 SP3, SLES11 SP3 Teradata and SLES11 SP4.

LDT feature for SLES 11 File System Support

Table 27: SLES 11 SP3-SP4 | SP3-SP4 Xen (X86_64)¹

File System	Database				
Unstructured data	Oracle 11gR2 12c/18c/19c	DB2 9.7, 10.1 10.5, 11.1	Sybase 16	MySQL 5.5/ 5.6	MongoDB
EXT3	EXT3	EXT3	EXT3	EXT3	EXT3
XFS	XFS	XFS		XFS	XFS

Note:

1. VTE 6.3.0 and onward VTE releases do not support SLES11 SP3, SLES11 SP3 Teradata and SLES11 SP4.

SLES 12 File System Support

Table 28: SLES 12/SLES 12 Xen, SLES 12 SP1/Xen, SLES 12 SP2, SLES 12 SP3, SLES 12 SP4, and SLES 12 SP5 (X86_64)^{1,3}

File System	Database						
	Oracle 11gR2 12c/18c/19c	DB2 9.7, 10.1 10.5, 11.1	Informix 11.5, 11.7, 12.1	Sybase 16	Maria DB	MongoDB	Cassandra
EXT3					EXT3		
EXT4	EXT4			EXT4	EXT4		
NFS V4/V3					NFS V4/V3		
XFS	XFS	XFS		XFS	XFS	XFS	
AWS EFS ²							

Notes:

1. Refer to “SLES Kernel Support” on page 30 for supported kernels on SLES.
2. AWS EFS support with and without on-premises Direct Connect.
3. VTE 6.3.0 and onward VTE releases only support SLES12 SP3 (Kernel 4.4.126-94.22.1) and later.

LDT Feature for SLES 12 File System Support

Table 29: SLES 12/SLES 12 Xen, SLES 12 SP1/SLES 12 SP1 Xen, SLES 12 SP2, SLES 12 SP,| SLES 12 SP4, and SLES 12 SP5 (X86_64)¹

File System	Database			
Unstructured data	Oracle 11gR2 12c/18c/19c	DB2 9.7, 10.1 10.5, 11.1	Sybase 16	Maria DB
EXT3				EXT3
EXT4	EXT4		EXT4	EXT4
XFS	XFS	XFS	XFS	XFS

Note:

1. VTE 6.3.0 and onward VTE releases only support SLES12 SP3 (Kernel 4.4.126-94.22.1) and later.

SLES 15 File System Support

Table 30: SLES 15, SLES 15 SP1 (X86_64)¹

File System	Database			
	Oracle 11gR2 12c/18c/19c	DB2 9.7, 10.1 10.5, 11.1	Maria DB	MongoDB
EXT3			EXT3	
EXT4	EXT4		EXT4	
NFS V4/V3			NFS V4/V3	
XFS	XFS	XFS	XFS	XFS
AWS EFS ³				

Notes:

1. Refer to “SLES Kernel Support” on page 30 for supported kernels on SLES.
2. AWS EFS support with and without on-premises Direct Connect.

LDT Feature for SLES 15 File System Support

Table 31: SLES 15, SLES 15 SP1 (X86_64)

File System	Database			
Unstructured data	Oracle 11gR2 12c/18c/19c	DB2 9.7, 10.1 10.5, 11.1	Sybase 16	Maria DB
EXT3				EXT3
EXT4	EXT4		EXT4	EXT4
XFS	XFS	XFS	XFS	XFS

SLES Kernel Support

Table 32: SLES Kernels Supported

Note: The VTE version shown in this table is the *minimum* VTE version that supports the associated kernel. All future releases of VTE will *also* support that kernel unless specifically noted in the table.

For example, “4.12.14-122.23-default (VTE 6.3.1.38)” means that the SLES kernel 4.12.14-122.23-default is supported in VTE release 6.3.1.38 *and later*.

The only exception to this is for the Pre-Spectre/Meltdown kernels that Thales ended support for starting with VTE 6.3.0.115 (GA). VTE for Linux 6.3.0 has the following kernel requirements:

- SLES12 SP3 (Kernel 4.4.126-94.22.1) and later
- SLES15 GA and later

For details, see the “Advisories” section in the *Vormetric Transparent Encryption for Linux Release Notes* for Release 6, Version 6.3.0.115, published on March 31, 2020.

SLES 11 SP3 Kernels Supported	SLES 11 SP3 Xen Kernels Supported
All previous versions released by SUSE 3.0.101-0.47.67-default (VTE 5.2.3.73) 3.0.101-0.47.71-default (VTE 5.2.3.80)/(VTE 5.2.4.37 GA) 3.0.101-0.47.79-default (VTE 5.2.4.66) 3.0.101-0.47.86-default (VTE 5.2.5.41) 3.0.101-0.47.90-default (VTE 5.2.5.41)	All previous versions released by SUSE 3.0.101-0.47.67-xen (VTE 5.2.3.73) 3.0.101-0.47.71-xen (VTE 5.2.3.80)/(VTE 5.2.4.37 GA) 3.0.101-0.47.79-xen (VTE 5.2.4.66) 3.0.101-0.47.86-xen (VTE 5.2.5.41) 3.0.101-0.47.90-xen (VTE 5.2.5.41)

SLES 11 SP3 Kernels Supported	SLES 11 SP3 Xen Kernels Supported
3.0.101-0.47.93-default (VTE 5.2.5.57/6.0.0.148)	3.0.101-0.47.93-xen (VTE 5.2.5.57/6.0.0.148)
3.0.101-0.47.96-default (VTE 5.2.5.67/6.0.0.154)	3.0.101-0.47.96-xen (VTE 5.2.5.67/6.0.0.154)
3.0.101-0.47.99-default (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA)	3.0.101-0.47.99-xen (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA)
3.0.101-0.47.102-default (VTE 6.0.1.51)	3.0.101-0.47.102-xen (VTE 6.0.1.51)
3.0.101-0.47.105-default (VTE 6.0.1.51)	3.0.101-0.47.105-xen (VTE 6.0.1.51)
3.0.101-0.47.106.5-default (VTE 6.0.1.65)	3.0.101-0.47.106.5-xen (VTE 6.0.1.65)
3.0.101-0.47.106.8-default (VTE 6.0.2.49 GA)	3.0.101-0.47.106.8-xen (VTE 6.0.2.49 GA)

Teradata Supported SLES 11 SP3 Kernels	Teradata Supported SLES 12 SP3 Kernels
3.0.101-0.50.TDC.1.R.0-default (VTE 5.2.4.55)	4.4.140-96.54.TDC-default (VTE 6.3.1.47)
3.0.101-0.66.TDC.1.R.0-default (VTE 5.2.4.55)	
3.0.101-0.72.TDC.1.R.0-default (VTE 5.2.4.55)	
3.0.101-0.77.TDC.1.R.0-default (VTE 5.2.4.55)	
3.0.101-0.80.TDC.1.R.0-default (VTE 5.2.4.55)	
3.0.101-0.89.TDC.1.R.0-default (VTE 5.2.4.81 /5.2.5.29 GA)	
3.0.101-0.93.TDC.1.R.0-default (VTE 5.2.5.41)	
3.0.101-0.101.TDC.1.R.0-default (VTE 5.2.5.47)	
3.0.101-0.110.TDC.1.R.0-default (VTE 5.2.5.54)	
3.0.101-0.113.TDC.1.R.0-default (VTE 5.2.5.57/6.0.0.148)	
3.0.101-0.116.TDC.1.R.0-default (VTE 5.2.5.67/6.0.0.154)	
3.0.101-0.119.TDC.1.R.0-default (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA)	
3.0.101-0.119.TDC.1.R.1-default (VTE 6.0.1.43)	
3.0.101-0.125.TDC.1.R.0-default (VTE 6.0.1.51)	
3.0.101-0.132.TDC.1.R.0-default (VTE 6.0.2.49 GA)	
3.0.101-0.149.TDC.1.R.0-default (VTE 6.0.2.82/6.0.3.18 GA)	
3.0.101-0.156.TDC.1.R.0-default (VTE 6.0.3.68)	
3.0.101-0.163.TDC.1.R.0-default (VTE 6.0.3.75)	
3.0.101-0.166.TDC.1.R.0-default (VTE 6.0.3.79/6.0.3.111)	
3.0.101-0.181.TDC.1.R.0-default (VTE 6.1.1.5)	
3.0.101-0.187.TDC.1.R.0-default (VTE 6.1.2.22)	
3.0.101-0.190.TDC.1.R.0-default (VTE 6.1.2.22)	
3.0.101-0.200.TDC.1.R.0-default (VTE 6.1.3.69)	
3.0.101-0.207.TDC.1.R.0-default (VTE 6.1.3.69)	
3.0.101-0.210.TDC.1.R.0-default (VTE 6.2.0.116)	
3.0.101-0.216.TDC.1.R.0-default (VTE 6.2.0.130)	
3.0.101-0.219.TDC.1.R.0-default (VTE 6.2.1.48)	
3.0.101-0.225.TDC.1.R.0-default (VTE 6.2.1.48)	

SLES 11 SP4 Kernels Supported	SLES 11 SP4 Xen Kernels Supported
<p>3.0.101-63-default 3.0.101-65-default (VTE 5.2.3.76)/(VTE 5.2.4.37 GA) 3.0.101-68-default (VTE 5.2.4.42) 3.0.101-71-default (VTE 5.2.4.55) 3.0.101-77-default (VTE 5.2.4.76) 3.0.101-80-default (VTE 5.2.4.81/ 5.2.5.29 GA) 3.0.101-84-default (VTE 5.2.5.41) 3.0.101-88-default (VTE 5.2.5.54/6.0.0.137 GA) 3.0.101-91-default (VTE 5.2.5.57 /6.0.0.148) 3.0.101-94-default (VTE 5.2.5.62/6.0.0.148) 3.0.101-97-default (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 3.0.101-100-default (VTE 6.0.1.37 GA) 3.0.101-104-default (VTE 6.0.1.51) 3.0.101-107-default (VTE 6.0.1.58) 3.0.101-108.7-default (VTE 6.0.1.65) 3.0.101-108.10-default (VTE 6.0.2.49 GA) 3.0.101-108.13-default (VTE 6.0.2.49 GA) 3.0.101-108.18-default (VTE 6.0.2.64) 3.0.101-108.21-default (VTE 5.2.5.103/VTE 6.0.0.161/VTE 6.0.1.66/6.0.2.69) 3.0.101-108.35-default (VTE 6.0.3.23) 3.0.101-108.38-default (VTE 6.0.3.68) 3.0.101-108.41-default (VTE 6.0.3.68) 3.0.101-108.48-default (VTE 6.0.3.75) 3.0.101-108.52-default (VTE 6.0.3.75) 3.0.101-108.57-default (VTE 6.0.3.79/6.0.3.111) 3.0.101-108.60-default (VTE 6.0.3.111/6.1.0.110 GA) 3.0.101-108.63-default (VTE 6.0.3.111/6.1.0.110 GA) 3.0.101-108.68-default (VTE 6.0.3.111/6.1.0.110 GA) 3.0.101-0.216.TDC.1.R.0-default (VTE 6.2.0.130)</p>	<p>3.0.101-63-xen 3.0.101-65-xen (VTE 5.2.3.76)/(VTE 5.2.4.37 GA) 3.0.101-68-xen (VTE 5.2.4.42) 3.0.101-71-xen (VTE 5.2.4.55) 3.0.101-77-xen (VTE 5.2.4.76) 3.0.101-80-xen (VTE 5.2.4.81/ 5.2.5.29 GA) 3.0.101-84-xen (VTE 5.2.5.41) 3.0.101-88-xen (VTE 5.2.5.54/6.0.0.137 GA) 3.0.101-91-xen (VTE 5.2.5.57 /6.0.0.148) 3.0.101-94-xen (VTE 5.2.5.62/6.0.0.148) 3.0.101-97-xen (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 3.0.101-100-xen (VTE 6.0.1.37 GA) 3.0.101-104-xen (VTE 6.0.1.51) 3.0.101-107-xen (VTE 6.0.1.58) 3.0.101-108.7-xen (VTE 6.0.1.65) 3.0.101-108.10-xen (VTE 6.0.2.49 GA) 3.0.101-108.13-xen (VTE 6.0.2.49 GA) 3.0.101-108.18-xen (VTE 6.0.2.64) 3.0.101-108.21-xen (VTE 5.2.5.103/VTE 6.0.0.161/VTE 6.0.1.66/6.0.2.69) 3.0.101-108.35-default (VTE 6.0.3.23) 3.0.101-108.38-xen (VTE 6.0.3.68) 3.0.101-108.41-xen (VTE 6.0.3.68) 3.0.101-108.48-xen (VTE 6.0.3.75) 3.0.101-108.52-xen (VTE 6.0.3.75) 3.0.101-108.57-xen (VTE 6.0.3.79/6.0.3.111) 3.0.101-108.60-xen (VTE 6.0.3.111/6.1.0.110 GA) 3.0.101-108.63-xen (VTE 6.0.3.111/6.1.0.110 GA) 3.0.101-108.68-xen (VTE 6.0.3.111/6.1.0.110 GA)</p>

SLES 11 SP4 Kernels Supported	SLES 11 SP4 Xen Kernels Supported
3.0.101-108.71-default (VTE 6.1.1.5) 3.0.101-108.74-default (VTE 6.1.1.6) 3.0.101-108.77-default (VTE 6.1.1.13) 3.0.101-108.81-default (VTE 6.1.1.13) 3.0.101-108.84-default (VTE 6.1.2.15) 3.0.101-108.87-default (VTE 6.1.3.30) 3.0.101-108.90-default (VTE 6.1.3.58) 3.0.101-108.95-default (VTE 6.1.3.69) 3.0.101-108.98-default (VTE 6.1.3.81) 3.0.101-108.101-default (VTE 6.2.0.116) 3.0.101-108.108-default (VTE 6.2.1.44)	3.0.101-108.71-xen (VTE 6.1.1.5) 3.0.101-108.74-xen (VTE 6.1.1.6) 3.0.101-108.77-xen (VTE 6.1.1.13) 3.0.101-108.81-xen (VTE 6.1.1.13) 3.0.101-108.84-xen (VTE 6.1.2.15) 3.0.101-108.87-xen (VTE 6.1.3.30) 3.0.101-108.90-xen (VTE 6.1.3.58) 3.0.101-108.95-xen (VTE 6.1.3.69) 3.0.101-108.98-xen (VTE 6.1.3.81) 3.0.101-108.101-xen (VTE 6.2.0.116) 3.0.101-108.108-xen (VTE 6.2.1.44)

SLES 12 Kernels Supported	SLES 12 Xen Kernels Supported
3.12.28-4-default	3.12.28-4-xen
3.12.32-33-default	3.12.32-33-xen
3.12.36-38-default	3.12.36-38-xen
3.12.38-44-default	3.12.38-44-xen
3.12.39-47-default	3.12.39-47-xen
3.12.43-52.6-default	3.12.43-52.6-xen
3.12.43-52.10-default	3.12.44-52.10-xen
3.12.44-52.18-default (VTE 5.2.3.76)	3.12.44-52.18-xen (VTE 5.2.3.76)
3.12.48-52.27-default (VTE 5.2.3.76)	3.12.48-52.27-xen (VTE 5.2.3.76)
3.12.51-52.31-default (VTE 5.2.3.80)/(VTE 5.2.4.37 GA)	3.12.51-52.31-xen (VTE 5.2.3.80)/(VTE 5.2.4.37 GA)
3.12.51-52.34-default (VTE 5.2.4.47)	3.12.51-52.34-xen (VTE 5.2.4.47)
3.12.51-52.39-default (VTE 5.2.4.47)	3.12.51-52.39-xen (VTE 5.2.4.47)
3.12.55-52.42-default (VTE 5.2.4.53)	3.12.55-52.42-xen (VTE 5.2.4.53)
3.12.55-52.45-default (VTE 5.2.4.70)	3.12.55-52.45-xen (VTE 5.2.4.53)
3.12.60-52.49-default (VTE 5.2.4.76)	3.12.60-52.49-xen (VTE 5.2.4.76)
3.12.60-52.54-default (VTE 5.2.4.76)	3.12.60-52.54-xen (VTE 5.2.4.76)
3.12.60-52.57-default (VTE 5.2.5.41)	3.12.60-52.57-xen (VTE 5.2.5.41)
3.12.60-52.60-default (VTE 5.2.5.54/6.0.0.137 GA)	3.12.60-52.60-xen (VTE 5.2.5.54/6.0.0.137 GA)
3.12.60-52.63-default (VTE 5.2.5.57/6.0.0.148)	3.12.60-52.63-xen (VTE 5.2.5.57/6.0.0.148)
3.12.61-52.66-default (VTE 5.2.5.62/6.0.0.148)	3.12.61-52.66-xen (VTE 5.2.5.62/6.0.0.148)
3.12.61-52.69-default (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA)	3.12.61-52.69-xen (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA)
3.12.61-52.72-default (VTE 6.0.1.37 GA)	3.12.61-52.72-xen (VTE 6.0.1.37 GA)
3.12.61-52.77-default (VTE 6.0.1.51)	3.12.61-52.77-xen (VTE 6.0.1.51)
3.12.61-52.80-default (VTE 6.0.1.51)	3.12.61-52.80-xen (VTE 6.0.1.51)
3.12.61-52.83-default (VTE 6.0.1.58)	3.12.61-52.83-xen (VTE 6.0.1.58)
3.12.61-52.86-default (VTE 6.0.1.58)	3.12.61-52.86-xen (VTE 6.0.1.58)
3.12.61-52.92-default (VTE 6.0.1.65)	3.12.61-52.92-xen (VTE 6.0.1.65)
3.12.61-52.101-default (VTE 6.0.2.57)	3.12.61-52.101-xen (VTE 6.0.2.57)
3.12.61-52.106-default (VTE 6.0.2.64)	3.12.61-52.106-xen (VTE 6.0.2.64)

SLES 12 SP1 Kernels Supported	SLES 12 SP1 Xen Kernels Supported
3.12.49-11-default (VTE 5.2.4.42)	3.12.49-11-Xen (VTE 5.2.4.42)
3.12.51-60.20-default (VTE 5.2.4.42)	3.12.51-60.20-Xen (VTE 5.2.4.42)
3.12.51-60.25-default (VTE 5.2.4.47) .59-60.41	3.12.51-60.25-Xen (VTE 5.2.4.47)
3.12.53-60.30-default (VTE 5.2.4.53)	3.12.53-60.30-Xen (VTE 5.2.4.53)
3.12.57-60.35-default (VTE 5.2.4.55)	3.12.57-60.35-Xen (VTE 5.2.4.55)
3.12.59-60.41-default (VTE 5.2.4.76)	3.12.59-60.41-Xen (VTE 5.2.4.76)
3.12.59-60.45-default (VTE 5.2.4.76)	3.12.59-60.45-Xen (VTE 5.2.4.76)
3.12.62-60.62-default (VTE 5.2.4.81/ 5.2.5.29 GA)	3.12.62-60.62-Xen (VTE 5.2.4.81/ 5.2.5.29 GA)
3.12.62-60.64.8-default (VTE 5.2.5.41)	3.12.62-60.64.8-Xen (VTE 5.2.5.41)
3.12.67-60.64.18-default (VTE 5.2.5.54/6.0.0.137 GA)	3.12.67-60.64.18-Xen (VTE 5.2.5.54/6.0.0.137 GA)
3.12.67-60.64.21-default (VTE 5.2.5.54/6.0.0.137 GA)	3.12.67-60.64.21-Xen (VTE 5.2.5.54/6.0.0.137 GA)
3.12.67-60.64.24-default (VTE 5.2.5.57 /6.0.0.148)	3.12.67-60.64.24-Xen (VTE 5.2.5.57/6.0.0.137 GA)
3.12.67-60.64.29-default (VTE 5.2.5.62/6.0.0.148)	3.12.69-60.64.29-Xen (VTE 5.2.5.62/6.0.0.148)
3.12.69-60.64.32-default (VTE 5.2.5.67/6.0.0.154)	3.12.69-60.64.32-Xen (VTE 5.2.5.67/6.0.0.154)
3.12.69-60.64.35-default (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA)	3.12.69-60.64.35-Xen (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA)
3.12.74-60.64.40-default (VTE 6.0.1.37 GA)	3.12.74-60.64.40-Xen (VTE 6.0.1.37 GA)
3.12.74-60.64.45-default (VTE 6.0.1.51)	3.12.74-60.64.45-xen (VTE 6.0.1.51)
3.12.74-60.64.48-default (VTE 6.0.1.51)	3.12.74-60.64.48-xen (VTE 6.0.1.51)
3.12.74-60.64.51-default (VTE 6.0.1.58)	4.4.59-92.20-default (VTE 6.0.1.51)
3.12.74-60.64.54-default (VTE 6.0.1.58)	4.4.59-92.24-default (VTE 6.0.1.51)
3.12.74-60.64.60-default (VTE 6.0.1.65/6.0.2.57)	4.4.59-92.29-default (VTE 6.0.1.51)
3.12.74-60.64.66-default (VTE 6.0.2.64)	3.12.74-60.64.51-xen (VTE 6.0.1.58)
	3.12.74-60.64.54-xen (VTE 6.0.1.58)
	3.12.74-60.64.60-xen (VTE 6.0.1.65/6.0.2.57)
	3.12.74-60.64.66-xen (VTE 6.0.2.64)

SLES 12 SP2 Kernels Supported	SLES 12 SP3 Kernels Supported
<p>4.4.21-69-default (VTE 5.2.5.47) 4.4.21-81-default (VTE 5.2.5.54/6.0.0.137 GA) 4.4.21-84-default (VTE 5.2.5.54/6.0.0.137 GA) 4.4.21-90-default (VTE 5.2.5.54/6.0.0.137 GA) 4.4.49-92.11-default (VTE 5.2.5.67/6.0.0.154) 4.4.49-92.14-default (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 4.4.59-92.17-default (VTE 6.0.1.37 GA) 4.4.74-92.32-default (VTE 6.0.1.58) 4.4.74-92.35-default (VTE 6.0.1.58) 4.4.74-92.32-default (VTE 6.0.1.58) 4.4.74-92.35-default (VTE 6.0.1.58) 4.4.74-92.38-default (VTE 6.0.1.65) 4.4.90-92.45-default (VTE 6.0.2.57) 4.4.90-92.50-default (VTE 6.0.2.64) 4.4.103-92.53-default (VTE 6.0.2.69) 4.4.103-92.56-default (VTE 5.2.5.103/VTE 6.0.0.161/VTE 6.0.1.66/6.0.2.69) 4.4.114-92.64-default (VTE 6.0.2.82/6.0.3.18 GA) 4.4.114-92.67-default (VTE 6.0.3.23) 4.4.120-92.70-default (VTE 6.0.3.68) 4.4.121-92.73-default (VTE 6.0.3.79/6.0.3.111) 4.4.121-92.80-default (VTE 6.0.3.79/6.0.3.111) 4.4.121-92.85-default (VTE 6.0.3.79/6.0.3.111)</p>	<p>4.4.73-5-default (VTE 6.0.1.65) 4.4.82-6.3-default (VTE 6.0.1.65) 4.4.82-6.6-default (VTE 6.0.1.65) 4.4.82-6.9-default (VTE 6.0.2.49 GA) 4.4.92-6.18-default (VTE 6.0.2.57) 4.4.92-6.30-default (VTE 6.0.2.64) 4.4.103-6.33-default (VTE 6.0.2.69) 4.4.103-6.38-default (VTE 6.0.1.66/6.0.2.69) 4.4.114-94.11-default (VTE 6.0.2.82/6.0.3.18 GA) 4.4.114-94.14-default (VTE 6.0.3.23) 4.4.120-94.17-default (VTE 6.0.3.68) 4.4.126-94.22-default (VTE 6.0.3.68) 4.4.131-94.29-default (VTE 6.0.3.75) 4.4.132-94.33-default (VTE 6.0.3.75) 4.4.138-94.39-default (VTE 6.0.3.75) 4.4.140-94.42-default (VTE 6.0.3.79/6.0.3.111) 4.4.143-94.47-default (VTE 6.0.3.111/6.1.0.110 GA) 4.4.155-94.50-default (VTE 6.1.1.5) 4.4.156-94.57-default (VTE 6.1.1.7) 4.4.156-94.61-default (VTE 6.1.1.13) 4.4.156-94.64-default (VTE 6.1.1.13) 4.4.162-94.69-default (VTE 6.1.1.13) 4.4.162-94.72-default (VTE 6.1.1.13) 4.4.175-94.79-default (VTE 6.1.3.28) 4.4.176-94.88-default (VTE 6.1.3.37) 4.4.178-94.91-default (VTE 6.1.3.53) 4.4.180-94.97-default (VTE 6.1.3.63)</p>

SLES 12 SP4 Kernels Supported	SLES 12 SP5 Kernels Supported
<p>4.12.14-94.41-default (VTE 6.1.3.21) 4.12.14-95.3-default (VTE 6.1.3.21) 4.12.14-95.6-default (VTE 6.1.3.28) 4.12.14-95.13-default (VTE 6.1.3.37) 4.12.14-95.16-default (VTE 6.1.3.53) 4.12.14-95.19-default (VTE 6.1.3.63) 4.12.14-95.24-default (VTE 6.1.3.81) 4.12.14-95.29-default (VTE 6.2.0.116) 4.12.14-95.32-default (VTE 6.2.0.125) 4.12.14-95.37-default (VTE 6.2.1.33) 4.12.14-95.40-default (VTE 6.2.1.44) 4.12.14-95.45-default (VTE 6.2.1.65) 4.12.14-95.48-default (VTE 6.2.1.70) 4.12.14-95.51-default (VTE 6.3.0.130) 4.12.14-95.54-default (VTE 6.3.1.38)</p>	<p>4.12.14-120-default (VTE 6.2.1.58) 4.12.14-122.7-default (VTE 6.2.1.65) 4.12.14-122.12-default (VTE 6.2.1.65) 4.12.14-122.17-default (VTE 6.2.1.70) 4.12.14-122.20-default (VTE 6.3.0.130) 4.12.14-122.23-default (VTE 6.3.1.38) 4.12.14-122.26-default (VTE 6.3.1.38) 4.12.14-122.29-default (VTE 6.3.1.38) 4.12.14-122.32-default (VTE 6.3.1.38)</p>
SLES 15 Kernels Supported	SLES 15 SP1 Kernels Supported
<p>4.12.14-23-default (VTE 6.1.1.9) 4.12.14-25.3-default (VTE 6.1.1.9) 4.12.14-25.6-default (VTE 6.1.1.9) 4.12.14-25.13-default (VTE 6.1.1.9) 4.12.14-25.16-default (VTE 6.1.1.9) 4.12.14-25.19-default (VTE 6.1.1.9) 4.12.14-25.22-default (VTE 6.1.1.9) 4.12.14-25.25-default (VTE 6.1.1.13) 4.12.14-25.28-default (VTE 6.1.2.22) 4.12.14-150.14-default (VTE 6.1.3.37) 4.12.14-150.17-default (VTE 6.1.3.53) 4.12.14-150.22-default (VTE 6.1.3.63) 4.12.14-150.27-default (VTE 6.1.3.81) 4.12.14-150.32-default (VTE 6.2.0.116) 4.12.14-150.35-default (VTE 6.2.0.125) 4.12.14-150.38-default (VTE 6.2.1.31) 4.12.14-150.41-default (VTE 6.2.1.44) 4.12.14-150.47-default (VTE 6.2.1.65)</p>	<p>4.12.14-195-default (VTE 6.2.0.116) 4.12.14-197.4-default (VTE 6.2.0.116) 4.12.14-197.7-default (VTE 6.2.0.116) 4.12.14-197.10-default (VTE 6.2.0.116) 4.12.14-197.15-default (VTE 6.2.0.116) 4.12.14-197.18-default (VTE 6.2.0.125) 4.12.14-197.21-default (VTE 6.2.1.31) 4.12.14-197.26-default (VTE 6.2.1.44) 4.12.14-197.29-default (VTE 6.2.1.58) 4.12.14-197.34-default (VTE 6.2.1.70) 4.12.14-197.37-default (VTE 6.3.0.115) 4.12.14-197.40-default (VTE 6.3.0.130) 4.12.14-197.45-default (VTE 6.3.1.38) 4.12.14-197.48-default (VTE 6.3.1.38) 4.12.14-197.51-default (VTE 6.3.1.38)</p>

SAP HANA Support (LDT is supported on SAP HANA)

Table 33: SAP HANA Support

SAP HANA Version	Platform Support	File System	Note
1.00.102.00.1442292917	RHEL 6.6 and RHEL 6.7	EXT4	5.2.5 only
		XFS	5.2.5 only
1.00.120.00.1462275491	SLES 11 SP3 and SLES 11 SP4	EXT3	5.2.5 and 6.0.1
		XFS	5.2.5 and 6.0.1
1.00.120.00.1462275491	SLES 12 SP2	EXT4	6.0.1 Patch (6.0.1.51)
		XFS	6.0.1 Patch (6.0.1.51)
1.00.102.00.1442292917	RHEL 6.8	EXT4	6.0.1 Patch (6.0.1.58)
		XFS	6.0.1 Patch (6.0.1.58)
1.00.122.06.1485334242	SLES 12 SP2 (AWS)	EXT4	6.0.3 GA (6.0.3.18)
		XFS	6.0.3 GA (6.0.3.18)
1.00.122.06.1485334242	SLES 12 SP3	EXT4	6.0.3. Patch (6.0.3.75)
		XFS	6.0.3. Patch (6.0.3.75)
1.00.122.06.1485334242	SLES 12 SP3 Supports new CBC-CS1 key	EXT4	6.1.0 GA (6.1.0.110)
		XFS	6.1.0 GA (6.1.0.110)
1.00.122.06.1485334242	RHEL 7.5/ RHEL 7.4	EXT4	6.0.3. Patch (6.0.3.75)
		XFS	6.0.3. Patch (6.0.3.75)
1.00.122.06.1485334242	RHEL 7.5/ RHEL 7.4 Supports new CBC-CS1 key	EXT4	6.1.0 GA (6.1.0.110)
		XFS	
1.00.122.06.1485334242	SLES 12 SP3 (MS Azure)	EXT4	

SAP HANA Version	Platform Support	File System	Note
	Supports new CBC-CS1 key	XFS	6.0.3 patch (6.0.3.75) 6.1.2 GA (6.1.2.15)
1.00.122.06.1485334242	Redhat 7.4 (MS Azure) Supports new CBC-CS1 key	EXT4	6.0.3 patch (6.0.3.75) 6.1.2 GA (6.1.2.15)
		XFS	
2.00.000.00.1479874437	SLES 12 SP2	EXT4	6.0.1 Patch (6.0.1.43)
		XFS	6.0.1 Patch (6.0.1.43)
2.00.000.00.1479874437	RHEL 7.2	EXT4	6.0.1 Patch (6.0.1.51)
		XFS	6.0.1 Patch (6.0.1.51)
2.00.030.00.1522210459	SLES 12 SP3	EXT4	6.0.3. Patch (6.0.3.75)
		XFS	6.0.3. Patch (6.0.3.75)
2.00.030.00.1522210459	RHEL 7.5/7.4	EXT4	6.0.3. Patch (6.0.3.75)
		XFS	6.0.3. Patch (6.0.3.75)
2.00.030.00.1522210459	RHEL 7.5/7.4 Supports new CBC-CS1 key	EXT4	6.1.0 GA (6.1.0.110)
		XFS	6.1.0 GA (6.1.0.110)
2.00.030.00.1522210459	SLES 12 SP3 Supports new CBC-CS1 key	EXT4	6.1.0 GA (6.1.0.110)
		XFS	6.1.0 GA (6.1.0.110)
2.00.030.00.1522210459	SLES 12 SP3 (MS Azure) Supports new CBC-CS1 key	EXT4	6.0.3 patch (6.0.3.75) 6.1.2 GA (6.1.2.15)
		XFS	Support System Replication HA
2.00.030.00.1522210459	Redhat 7.4 (MS Azure) Supports new CBC-CS1 key	EXT4	6.0.3 patch (6.0.3.75) 6.1.2 GA (6.1.2.15)
		XFS	Support SAP HANA System Replication
2.00.030.00.1522210459	SLES 12 SP4 (supported with CBC-CS1)	EXT4	6.1.3 Patch (6.1.3.28)
		XFS	6.1.3 Patch (6.1.3.28)

SAP HANA Version	Platform Support	File System	Note
2.00.040.00.1553674765	SLES 15	EXT4	6.2.1 GA (6.2.1.24)
		XFS	6.2.1 GA (6.2.1.24)
2.00.040.00.1553674765	RHEL 8	EXT4	6.2.1 GA (6.2.1.24)
		XFS	6.2.1 GA (6.2.1.24)
SLES LTSS Kernels Supported by VTE with SAP HANA			
SLES 11 SP3 LTSS: 3.0.101-0.47.90-default (5.2.5.105/6.0.1.68/6.0.2.73)			
SLES 12 SP1 LTSS: 3.12.74-60.64.69-default (5.2.5.105/6.0.1.68/6.0.2.73)			

Note: Test configuration coverage included Physical, Virtual (VMWare ESX), Virtustream environment and AWS.

Ubuntu 16.04 File System Support

Table 34: Ubuntu 16.04.3, 16.04.4, 16.04.5, 16.04.6 (x86_64)^{1,3}

File System	Database					
Unstructured data	DB2 10.1 10.5 11.1	Informix 12.1	MySQL 5.5/5.6	MongoDB	Cassandra	Couchbase 4.5
EXT4	EXT4	EXT4	EXT4	EXT4	EXT4	EXT4
NFS V3/V4	NFS V3/V4		NFS V4/V3			
XFS	XFS		XFS	XFS	XFS	
AWS EFS ²						

- Notes:**
1. Refer to Ubuntu Kernels Supported for a list of supported Kernels on Ubuntu
 2. AWS EFS support with and without on-premise Direct Connect
 3. VTE 6.3.0 and onward VTE releases only support 4.4.0-108-generic & 4.15.0-20-generic and later (No support for the 4.8, 4.10, or 4.13 kernel series)

LDT Feature for Ubuntu 16.04 File System Support

Table 35: Ubuntu 16.04.3 | 16.04.4 | 16.04.5 | 16.04.6 (x86_64)¹

File System	Database			
Unstructured data	DB2 10.1 10.5 11.1	MySQL 5.5/5.6	PostgreSQL	MongoDB
EXT3	EXT3	EXT3	EXT3	EXT3
EXT4	EXT4	EXT4	EXT4	EXT4
XFS	XFS	XFS	XFS	XFS

- Note:**
1. VTE 6.3.0 and onward VTE releases only support 4.4.0-108-generic & 4.15.0-20-generic and later (No support for the 4.8, 4.10, or 4.13 kernel series)

Ubuntu 18.04 File System Support

Table 36: Ubuntu 18.04, 18.04.1, 18.04.2, 18.04.3 (x86_64)^{1,3}

File System	Database					
Unstructured data	DB2 10.1 10.5 11.1	Informix 12.1	MySQL 5.5/5.6	MongoDB	Cassandra	Couchbase 4.5
EXT4	EXT4	EXT4	EXT4	EXT4	EXT4	EXT4
NFS V3/V4	NFS V3/V4		NFS V4/V3			
XFS	XFS		XFS	XFS	XFS	
AWS EFS ²						

Notes:

1. Refer to “Ubuntu Kernels Supported” on page 43 for a list of supported kernels on Ubuntu.
2. AWS EFS support with and without on-premises Direct Connect.
3. VTE 6.3.0 and onward VTE releases only support 4.15.0-20-generic & 5.3.0-19-generic kernels

LDT Feature for Ubuntu 18.04 File System Support

Table 37: Ubuntu 18.04, 18.04.1, 18.04.2, 18.04.3 (x86_64)¹

File System	Database			
Unstructured data	DB2 10.1 10.5 11.1	MySQL 5.5/5.6	PostgreSQL	MongoDB
EXT3	EXT3	EXT3	EXT3	EXT3
EXT4	EXT4	EXT4	EXT4	EXT4
XFS	XFS	XFS	XFS	XFS

Note:

VTE 6.3.0 and onward VTE releases only support 4.15.0-20-generic & 5.3.0-19-generic kernels.

Ubuntu Kernels Supported

Table 38: Ubuntu Kernels Supported

Note: The VTE version shown in this table is the *minimum* VTE version that supports the associated kernel. All future releases of VTE will *also* support that kernel unless specifically noted in the table.

For example, “4.4.0-184-generic (VTE 6.3.1.45)” means that the Ubuntu kernel 4.4.0-184-generic is supported in VTE release 6.3.1.45 *and later*.

The only exception to this is for the Pre-Spectre/Meltdown kernels that Thales ended support for starting with VTE 6.3.0.115 (GA). VTE for Linux 6.3.0 has the following kernel requirements:

- Ubuntu 16.04
 - 4.4.0-108-generic and later
 - 4.15.0-20-generic and later
 - No support for the 4.8, 4.10, or 4.13 kernel series
- SLES15 GA and later
 - GA kernel 4.15.0-20-generic and later
 - GA kernel 5.3.0-19-generic and later

For details, see the “Advisories” section in the *Vormetric Transparent Encryption for Linux Release Notes* for Release 6, Version 6.3.0.115, published on March 31, 2020.

Ubuntu Kernels Supported (by Version)		
16.04	16.04.1	16.04.2
4.4.0-21-generic (VTE 5.2.4.66) to 4.4.0-22-generic (VTE 5.2.4.66) 4.4.0-24-generic (VTE 5.2.4.70) 4.4.0-28-generic (VTE 5.2.4.76)	4.4.0-31-generic (VTE 5.2.4.76) 4.4.0-34-generic (VTE 5.2.4.81/ 5.2.5.29 GA) 4.4.0-36-generic (VTE 5.2.5.36) 4.4.0-38-generic (VTE 5.2.5.36) 4.4.0-42-generic (VTE 5.2.5.41) 4.4.0-43-generic (VTE 5.2.5.41) 4.4.0-45-generic (VTE 5.2.5.41) 4.4.0-47-generic (VTE 5.2.5.47) 4.4.0-51-generic (VTE 5.2.5.54) 4.4.0-53-generic (VTE 5.2.5.54) 4.4.0-57-generic (VTE 5.2.5.57/6.0.0.148) 4.4.0-59-generic (VTE 5.2.5.57/6.0.0.148) 4.4.0-62-generic (VTE 5.2.5.62/6.0.0.148) 4.8.0-28-generic (VTE 5.2.5.67/6.0.0.154) 4.8.0-30-generic (VTE 5.2.5.67/6.0.0.154) 4.8.0-32-generic (VTE 5.2.5.67/6.0.0.154)	4.4.0-63-generic (VTE 5.2.5.67/6.0.0.154) 4.4.0-64-generic (VTE 5.2.5.67/6.0.0.154) 4.4.0-66-generic (VTE 5.2.5.67/6.0.0.154) 4.4.0-67-generic (VTE 5.2.5.67/6.0.0.154) 4.4.0-70-generic (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 4.4.0-71-generic (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 4.4.0-72-generic (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 4.4.0-75-generic (VTE 6.0.1.37 GA) 4.4.0-77-generic (VTE 6.0.1.37 GA) 4.4.0-78-generic (VTE 6.0.1.37 GA) 4.4.0-79-generic (VTE 6.0.1.43) 4.4.0-81-generic (VTE 6.0.1.43) 4.4.0-83-generic (VTE 6.0.1.51)

Ubuntu Kernels Supported (by Version)		
16.04	16.04.1	16.04.2
	4.8.0-34-generic (VTE 5.2.5.67/6.0.0.154) 4.8.0-36-generic (VTE 5.2.5.67/6.0.0.154)	4.4.0-87-generic (VTE 6.0.1.58) 4.4.0-89-generic (VTE 6.0.1.58) 4.8.0-36-generic (VTE 5.2.5.67/6.0.0.154) 4.8.0-39-generic (VTE 5.2.5.67/6.0.0.154) 4.8.0-41-generic (VTE 5.2.5.67/6.0.0.154) 4.8.0-42-generic (VTE 5.2.5.67/6.0.0.154) 4.8.0-44-generic (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 4.8.0-45-generic (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 4.8.0-46-generic (VTE 5.2.5.76/6.0.0.161/6.0.1.37 GA) 4.8.0-49-generic (VTE 6.0.1.37 GA) 4.8.0-51-generic (VTE 6.0.1.37 GA) 4.8.0-52-generic (VTE 6.0.1.37 GA) 4.8.0-53-generic (VTE 6.0.1.43) 4.8.0-54-generic (VTE 6.0.1.43) 4.8.0-56-generic (VTE 6.0.1.43) 4.8.0-58-generic (VTE 6.0.1.51) 4.10.0-14-generic (VTE 6.0.1.43) 4.10.0-19-generic (VTE 6.0.1.43) 4.10.0-20-generic (VTE 6.0.1.43) 4.10.0-21-generic (VTE 6.0.1.43) 4.10.0-22-generic (VTE 6.0.1.43) 4.10.0-24-generic (VTE 6.0.1.43) 4.10.0-26-generic (VTE 6.0.1.51) 4.10.0-27-generic (VTE 6.0.1.58) 4.10.0-28-generic (VTE 6.0.1.58) 4.10.0-30-generic (VTE 6.0.1.58)

Ubuntu Kernels Supported (by Version)	
16.04.3	16.04.4
4.4.0-87-generic (VTE 6.0.1.58)	4.4.0-119-generic (VTE 6.0.3.68)
4.4.0-91-generic (VTE 6.0.1.58)	4.4.0-121-generic (VTE 6.0.3.68)
4.4.0-92-generic (VTE 6.0.1.58)	4.4.0-122-generic (VTE 6.0.3.68)
4.4.0-93-generic (VTE 6.0.1.65)	4.4.0-124-generic (VTE 6.0.3.68)
4.4.0-96-generic (VTE 6.0.1.65)	4.4.0-127-generic (VTE 6.0.3.75)
4.4.0-97-generic (VTE 6.0.2.49 GA)	4.4.0-128-generic (VTE 6.0.3.75)
4.4.0-98-generic (VTE 6.0.2.57)	4.4.0-130-generic (VTE 6.0.3.79/6.0.3.111)
4.4.0-101-generic (VTE 6.0.2.57)	4.4.0-131-generic (VTE 6.0.3.111/6.1.0.110 GA)
4.4.0-103-generic (VTE 6.0.2.64)	4.4.0-133-generic (VTE 6.0.3.111)
4.4.0-104-generic (VTE 6.0.2.64)	4.4.0-134-generic (VTE 6.1.0.112)
4.4.0-108-generic (VTE 6.0.1.68/6.0.2.72)	4.4.0-135-generic (VTE 6.1.1.5)
4.4.0-109-generic (VTE 6.0.1.68/6.0.2.72)	4.4.0-137-generic (VTE 6.1.1.7)
4.4.0-112-generic (VTE 6.0.2.73)	
4.4.0-116-generic (VTE 6.0.3.23)	4.13.0-16-generic (VTE 6.0.3.23)
4.4.0-119-generic (VTE 6.0.3.68)	4.13.0-17-generic (VTE 6.0.3.23)
	4.13.0-19-generic (VTE 6.0.3.23)
4.10.0-32-generic (VTE 6.0.1.58)	4.13.0-21-generic (VTE 6.0.3.23)
4.10.0-33-generic (VTE 6.0.1.65)	4.13.0-25-generic (VTE 6.0.3.23)
4.10.0-35-generic (VTE 6.0.1.65)	4.13.0-26-generic (VTE 6.0.3.23)
4.10.0-37-generic (VTE 6.0.2.49 GA)	4.13.0-31-generic (VTE 6.0.3.23)
4.10.0-38-generic (VTE 6.0.2.57)	4.13.0-32-generic (VTE 6.0.3.23)
4.10.0-40-generic (VTE 6.0.2.57)	4.13.0-36-generic (VTE 6.0.3.23)
4.10.0-42-generic (VTE 6.0.2.64)	4.13.0-37-generic (VTE 6.0.3.23)
	4.13.0-38-generic (VTE 6.0.3.68)
	4.13.0-39-generic (VTE 6.0.3.68)
	4.13.0-41-generic (VTE 6.0.3.75)
	4.13.0-43-generic (VTE 6.0.3.75)
	4.13.0-45-generic (VTE 6.0.3.75)
	4.15.0-13-generic (VTE 6.0.3.75)
	4.15.0-15-generic (VTE 6.0.3.75)
	4.15.0-20-generic (VTE 6.0.3.75)
	4.15.0-22-generic (VTE 6.0.3.75)
	4.15.0-23-generic (VTE 6.0.3.75)
	4.15.0-24-generic (VTE 6.0.3.79/6.0.3.111)

Ubuntu Kernels Supported (by Version)	
16.04.5	16.04.6
4.4.0-138-generic (VTE 6.1.1.13) 4.4.0-139-generic (VTE 6.1.2.17) 4.4.0-140-generic (VTE 6.1.2.20) 4.4.0-141-generic (VTE 6.1.2.21) 4.4.0-142-generic (VTE 6.1.2.23) 4.15.0-29-generic (VTE 6.0.3.111/6.1.0.110 GA) 4.15.0-30-generic (VTE 6.0.3.112/6.1.0.110 GA) 4.15.0-32-generic (VTE 6.0.3.113/6.1.0.111) 4.15.0-33-generic (VTE 6.1.0.112) 4.15.0.34-generic (VTE 6.1.1.5) 4.15.0.36-generic (VTE 6.1.1.7) 4.15.0-38-generic (VTE 6.1.1.13) 4.15.0-39-generic (VTE 6.1.2.17) 4.15.0-42-generic (VTE 6.1.2.20) 4.15.0-43-generic (VTE 6.1.2.21) 4.15.0-45-generic (VTE 6.1.2.23)	4.4.0-143-generic (VTE 6.1.3.30) 4.4.0-145-generic (VTE 6.1.3.37) 4.4.0-146-generic (VTE 6.1.3.46) 4.4.0-148-generic (VTE 6.1.3.53) 4.4.0-150-generic (VTE 6.1.3.63) 4.4.0-151-generic (VTE 6.1.3.69) 4.4.0-154-generic (VTE 6.1.3.74) 4.4.0-157-generic (VTE 6.1.3.81) 4.4.0-159-generic (VTE 6.2.0.116) 4.4.0-161-generic (VTE 6.2.0.116) 4.4.0-164-generic (VTE 6.2.0.125) 4.4.0-165-generic (VTE 6.2.0.130) 4.4.0-166-generic (VTE 6.2.1.31) 4.4.0-168-generic (VTE 6.2.1.44) 4.4.0-169-generic (VTE 6.2.1.44) 4.4.0-170-generic (VTE 6.2.1.54) 4.4.0-171-generic (VTE 6.2.1.65) 4.4.0-173-generic (VTE 6.2.1.70) 4.4.0-174-generic (VTE 6.2.1.73) 4.4.0-176-generic (VTE 6.2.1.75) 4.4.0-177-generic (VTE 6.3.0.121) 4.4.0-178-generic (VTE 6.3.0.130) 4.4.0-179-generic (VTE 6.3.0.135) 4.4.0-184-generic (VTE 6.3.1.47) 4.4.0-185-generic (VTE 6.3.1.61) 4.4.0-186-generic (VTE 6.3.1.61) 4.4.0-187-generic (VTE 6.3.1.67) 4.4.0-189-generic (VTE 6.3.1.67) 4.15.0-45-generic (VTE 6.1.3.28) 4.15.0-46-generic (VTE 6.1.3.28) 4.15.0-47-generic (VTE 6.1.3.37) 4.15.0-48-generic (VTE 6.1.3.46) 4.15.0-50-generic (VTE 6.1.3.53) 4.15.0-51-generic (VTE 6.1.3.63)

Ubuntu Kernels Supported (by Version)	
16.04.5	16.04.6
	4.15.0-52-generic (VTE 6.1.3.69) 4.15.0-54-generic (VTE 6.1.3.74) 4.15.0-55-generic (VTE 6.1.3.81) 4.15.0-58-generic (VTE 6.2.0.116) 4.15.0-60-generic (VTE 6.2.0.116) 4.15.0-62-generic (VTE 6.2.0.116) 4.15.0-64-generic (VTE 6.2.0.125) 4.15.0-65-generic (VTE 6.2.0.130) 4.15.0-66-generic (VTE 6.2.1.31) 4.15.0-69-generic (VTE 6.2.1.44) 4.15.0-70-generic (VTE 6.2.1.44) 4.15.0-72-generic (VTE 6.2.1.54) 4.15.0-74-generic (VTE 6.2.1.65) 4.15.0-76-generic (VTE 6.2.1.70) 4.15.0-88-generic (VTE 6.2.1.73) 4.15.0-91-generic (VTE 6.2.1.75) 4.15.0-96-generic (VTE 6.3.0.121) 4.15.0-99-generic (VTE 6.3.0.130) 4.15.0-101-generic (VTE 6.3.0.135) 4.15.0-106-generic (VTE 6.3.1.47) 4.15.0-107-generic (VTE 6.3.1.52) 4.15.0-112-generic (VTE 6.3.1.61)

Ubuntu Kernels Supported (by Version)	
18.04	18.04.2
4.15.0-20-generic kernel (VTE 6.0.3.75)	4.15.0-45-generic (VTE 6.1.3.28)
4.15.0-22-generic kernel (VTE 6.0.3.75)	4.15.0-46-generic (VTE 6.1.3.28)
4.15.0-23-generic kernel (VTE 6.0.3.75)	4.15.0-47-generic (VTE 6.1.3.37)
4.15.0-24-generic kernel (VTE 6.0.3.79/6.0.3.111)	4.15.0-48-generic (VTE 6.1.3.46)
4.15.0-29-generic (VTE 6.0.3.111/6.1.0.110 GA)	4.15.0-50-generic (VTE 6.1.3.53)
4.15.0-30-generic (VTE 6.0.3.112/6.1.0.110 GA)	4.15.0-51-generic (VTE 6.1.3.63)
4.15.0-32-generic (VTE 6.0.3.113/6.1.0.111)	4.15.0-52-generic (VTE 6.1.3.69)
4.15.0-33-generic (VTE 6.1.0.112)	4.15.0-54-generic (VTE 6.1.3.74)
4.15.0-34-generic (VTE 6.1.1.5)	
4.15.0-36-generic (VTE 6.1.1.7)	4.18.0-13-generic (VTE 6.1.3.28)
4.15.0-38-generic (VTE 6.1.1.13)	4.18.0-14-generic (VTE 6.1.3.28)
4.15.0-39-generic (VTE 6.1.2.17)	4.18.0-15-generic (VTE 6.1.3.28)
4.15.0-42-generic (VTE 6.1.2.20)	4.18.0-16-generic (VTE 6.1.3.28)
4.15.0-43-generic (VTE 6.1.2.21)	4.18.0-17-generic (VTE 6.1.3.37)
4.15.0-44-generic (VTE 6.1.2.23)	4.18.0-18-generic (VTE 6.1.3.46)
4.15.0-45-generic (VTE 6.1.2.23)	4.18.0-20-generic (VTE 6.1.3.53)
	4.18.0-21-generic (VTE 6.1.3.63)
	4.18.0-22-generic (VTE 6.1.3.69)
	4.18.0-24-generic (VTE 6.1.3.74)
	4.18.0-25-generic (VTE 6.1.3.74)

Ubuntu Kernels Supported (by Version)		
18.04.3	18.04.4	18.04.5
4.15.0-55-generic (VTE 6.1.3.81) 4.15.0-58-generic (VTE 6.2.0.116) 4.15.0-60-generic (VTE 6.2.0.116) 4.15.0-62-generic (VTE 6.2.0.116) 4.15.0-64-generic (VTE 6.2.0.125) 4.15.0-65-generic (VTE 6.2.0.130) 4.15.0-66-generic (VTE 6.2.1.31) 4.15.0-69-generic (VTE 6.2.1.44) 4.15.0-70-generic (VTE 6.2.1.44) 4.15.0-72-generic (VTE 6.2.1.54) 4.15.0-74-generic (VTE 6.2.1.65) 4.15.0-76-generic (VTE 6.2.1.70) 4.15.0-88-generic (VTE 6.2.1.73) 5.0.0-15-generic (VTE 6.2.1.24) 5.0.0-16-generic (VTE 6.2.1.24) 5.0.0-17-generic (VTE 6.2.1.24) 5.0.0-19-generic (VTE 6.2.1.24) 5.0.0-20-generic (VTE 6.2.1.24) 5.0.0-23-generic (VTE 6.2.1.24) 5.0.0-25-generic (VTE 6.2.1.24) 5.0.0-27-generic (VTE 6.2.1.24) 5.0.0-29-generic (VTE 6.2.1.24) 5.0.0-31-generic (VTE 6.2.1.31) 5.0.0-32-generic (VTE 6.2.1.31) 5.0.0-35-generic (VTE 6.2.1.44) 5.0.0-36-generic (VTE 6.2.1.44) 5.0.0-37-generic (VTE 6.2.1.54)	4.15.0-91-generic (VTE 6.2.1.75) 4.15.0-96-generic (VTE 6.3.0.121) 4.15.0-99-generic (VTE 6.3.0.130) 4.15.0-101-generic (VTE 6.3.0.135) 4.15.0-106-generic (VTE 6.3.1.47) 4.15.0-108-generic (VTE 6.3.1.52) 4.15.0-109-generic (VTE 6.3.1.52) 4.15.0-111-generic (VTE 6.3.1.61) 4.15.0-112-generic (VTE 6.3.1.61) 4.15.0-115-generic (VTE 6.3.1.70) 5.3.0-19-generic (VTE 6.3.0.115) 5.3.0-22-generic (VTE 6.3.0.115) 5.3.0-23-generic (VTE 6.3.0.115) 5.3.0-24-generic (VTE 6.3.0.115) 5.3.0-26-generic (VTE 6.3.0.115) 5.3.0-28-generic (VTE 6.3.0.115) 5.3.0-40-generic (VTE 6.3.0.115) 5.3.0-42-generic (VTE 6.3.0.115) 5.3.0-45-generic (VTE 6.3.0.121) 5.3.0-46-generic (VTE 6.3.0.121) 5.3.0-51-generic (VTE 6.3.0.130) 5.3.0-53-generic (VTE 6.3.0.135) 5.3.0-59-generic (VTE 6.3.1.47) 5.3.0-61-generic (VTE 6.3.1.52) 5.3.0-62-generic (VTE 6.3.1.52) 5.3.0-64-generic (VTE 6.3.1.61)	5.3.0-65-generic (VTE 6.3.1.67)

Vormetric Data Security Agent for Cloud Environment

General VTE Support for AWS AMI and Microsoft Azure on Linux:

- VTE supports Ubuntu, SLES, and Red Hat OS images/platforms given baseline support and VTE support exists.
- Please refer to Matrices/tables in section "Vormetric Data Security Agent for Linux" for existing VTE supported OS platforms and applications

VTE Support on AWS EFS, AWS S3 File Storage Gateway, AWS Hadoop/HDFS: EMR and Hortonworks

VTE supports Amazon Elastic File System (EFS) on both AWS Cloud and AWS Direct Connect (on-premises) configurations. Refer to the Matrix tables in the section "Vormetric Data Security Agent for Linux".

- VTE supports Amazon S3 File Storage Gateway on cloud tiering and hybrid cloud backup. S3 buckets and their objects are mountable NFS to clients (one or more) in the AWS or on-premises for data backup/restore with encryption protected by VTE
- AWS Hadoop Hortonworks is now supported
- Amazon EMR with S3 & S3 File Storage Gateway is now supported

Amazon Linux

Table 39: Amazon Linux File System Support

File System	Database		
Unstructured data	DB2 10.1 10.5 11.1	MySQL 5.5/5.6	MongoDB
EXT3	EXT3	EXT3	EXT3
EXT4	EXT4	EXT4	EXT4
XFS	XFS	XFS	XFS
NFSv4	NFSv4	NFSv4	

Note: Raw device is not supported with Amazon Linux.

Table 40: Amazon Linux Kernels Supported

Amazon Linux 2017.09 Kernels
4.9.51-10.52.amzn1.x86_64 (6.0.3.18 GA)
4.9.58-18.51.amzn1.x86_64 (6.0.3.18 GA)
4.9.58-18.55.amzn1.x86_64 (6.0.3.18 GA)
4.9.62-21.56.amzn1.x86_64 (6.0.3.18 GA)
4.9.70-22.55.amzn1.x86_64 (6.0.3.18 GA)
4.9.70-25.242.amzn1.x86_64 (6.0.3.18 GA)
4.9.75-25.55.amzn1.x86_64 (6.0.3.18 GA)
4.9.76-3.78.amzn1.x86_64 (6.0.3.18 GA)
4.9.77-31.58.amzn1.x86_64 (6.0.3.18 GA)
4.9.81-35.56.amzn1.x86_64 (6.0.3.23)
4.9.91-40.57.amzn1.x86_64 (6.0.3.68/6.0.3.111)

AWS AMI

Refer to the Matrix tables in the section "Vormetric Data Security Linux Agent" for AWS AMI image (distributions) and application support.

Microsoft Azure (Linux)

Refer to Matrices/tables in section "Vormetric Data Security Linux Agent" for existing VTE supported OS platforms and applications for MS Azure distributions and application support.

Table 41: Azure Files Supported Linux VTE distributions

VTE on Azure Files SMB 2.1 and 3.0 Protocol Support			
OS vs Azure Files Access	SMB 2.1 (VMs from Azure cloud only)	SMB 3.0 (VMs from Azure cloud only)	Mount Azure files from on Premises machine (SMB 3.0 only)
Ubuntu 16.04	YES	YES	YES
RHEL 6.9	NO	NO	NO

VTE on Azure Files SMB 2.1 and 3.0 Protocol Support			
OS vs Azure Files Access	SMB 2.1 (VMs from Azure cloud only)	SMB 3.0 (VMs from Azure cloud only)	Mount Azure files from on Premises machine (SMB 3.0 only)
RHEL 7.4	YES	YES	YES ¹
SLES 11 SP4	NO	NO	NO
SLES 12 SP2/SP3	YES	YES	YES ¹

Notes:

1. VTE supports Ubuntu, SLES, and Red Hat mounted in Azure File Storage assuming baseline support and that VTE supports the OS and file system combination.

The Following features and configurations are not supported:

- Live Data Transformation
- Azure Blob storage
- Rest API to Azure file storage
- azcopy utility to access Blob or file storage

Vormetric Data Security Agent for Windows

Windows Application Interoperability

Table 42: Windows interoperability with IBM Infosphere Guardium and Imperva Securesphere

Product	Version	OS	Notes
IBM Infosphere Guardium	v10.1.4 (supported from 6.0.3 GA onward)	Windows	Compatible
Imperva Securesphere	v9.0, v9.5, v10.5, v11	Windows 2012 R2	Compatible

Table 43: Windows VTE LDT Interoperability with backup applications

Product	Version	Notes
Symantec Net-backup	7.6.0, 7.6.1.4, 7.6.04, 8.1.1	Compatible
Symantec Backup Exec 2012, 2016	2012, 2016	Compatible
UltraBackup	10.0	Compatible
Microsoft Backup with VSS ¹	Win2012, Win2016, Win2019	Compatible

Notes:

1. Thales has tested the backup applications with Volume Shadow Copy Service (VSS) for backup and restore.

Table 44: Windows VTE LDT Interoperability with Active-Passive clusters

Product	Version	Notes
Microsoft Cluster	2012 R2/2016/2019	SQL Servers, File Server Compatible
Veritas Cluster	6.02	Compatible

Table 45: Windows VTE Quantum StorNext Support

Product	Version	Notes
Quantum StorNext	2012 R2/2016	<ul style="list-style-type: none"> Structured data is not supported (i.e. database application) LDT is not supported CBC-CS1 key is not supported

Table 46: Windows File System Support

File System		Database							Apps			
Windows	Unstructured data	Oracle 10gR1 11gR1 11gR2 12c/18c	DB2 95/9.7 10.1 10.5 11.1	Informix 11.5 11.7 12.1	MySQL 5.5 5.6	MS SQL 2012 ^b 2014 ^b 2016 ^b 2017 2019	MS SQL on MS AZURE 2012 2017	MongoDB 3.2, 3.4	SharePoint 2010/ 2013/ 2016	Active Directory 2012/ 2016	Active Directory on MS Azure 2012R2	Microsoft Exchange DAG 2016
Windows 2012/R2 (x64) ^{a,c}	NTFS/CIFS/ReFS	NTFS	NTFS	NTFS	NTFS	NTFS ^b		NTFS	NTFS	NTFS		
Windows7 SP1 (X32/x64) ^a	NTFS/CIFS											
Windows 8/8.1 (X32/x64) ^a	NTFS/CIFS											
Windows 10 (X32/x64) ^a	NTFS/CIFS											
Windows 2016 (x64) ^a	NTFS/CIFS/ReFS	NTFS	NTFS	NTFS	NTFS	NTFS ^b		NTFS	NTFS	NTFS		NTFS
Windows 2016 Core (x64) ^a	NTFS/CIFS/ReFS	NTFS	NTFS	NTFS	NTFS	NTFS ^b		NTFS	NTFS	NTFS		
Windows 2019 (x64) ^a	NTFS/CIFS/ReFS	NTFS				NTFS ^b						
MS Azure Windows 2012 R2	NTFS/CIFS/ReFS						NTFS				NTFS	
MS Azure Windows 2016	NTFS/CIFS/ReFS						NTFS					

Notes:

a: Supports AES-NI.

b: Always encrypted, Always on, and File Table features are tested and supported.

Additionally, Azure file storage is supported.

LDT Feature for Windows File System Support

Table 47: Windows (x32/x64-bit)

File System		Database							Apps		
Windows	Unstructured data	Oracle 10gR1 11gR1 11gR2 12c/18c	DB2 9.5/9.7 10.1 10.5 11.1	Informix 11.5 11.7 12.1	MySQL 5.5 5.6	MS SQL 2012 ^b 2014 ^b 2016 ^b 2017 2019	MS SQL on MS AZURE 2012 2017	MongoDB 3.2, 3.4	SharePoint 2010/ 2013/ 2016	Active Directory on MS Azure 2012R2	Microsoft Exchange DAG 2016
Windows 2012/R2 (x64) ^{a,d}	NTFS/ReFS	NTFS	NTFS	NTFS	NTFS	NTFS ^b		NTFS	NTFS		
Windows7 SP1 (X32/x64) ^a	NTFS		NTFS	NTFS							
Windows 8.1 (X32/ x64) ^a	NTFS		NTFS	NTFS							
Windows 10 (X32/ x64) ^a	NTFS		NTFS	NTFS							
Windows 2016 (x64) ^{ac}	NTFS	NTFS	NTFS	NTFS	NTFS	NTFS ^b		NTFS	NTFS		NTFS
Windows 2016 Core (x64) ^{ac}	NTFS	NTFS	NTFS	NTFS	NTFS	NTFS ^b		NTFS	NTFS		
Windows 2019 (x64) ^{ac}	NTFS	NTFS				NTFS ^b					
MS Azure Windows 2012 R2	NTFS						NTFS			NTFS	

File System		Database							Apps		
Windows	Unstructured data	Oracle 10gR1 11gR1 11gR2 12c/18c	DB2 9.5/9.7 10.1 10.5 11.1	Informix 11.5 11.7 12.1	MySQL 5.5 5.6	MS SQL 2012 ^b 2014 ^b 2016 ^b 2017 2019	MS SQL on MS AZURE 2012 2017	MongoDB 3.2, 3.4	SharePoint 2010/ 2013/ 2016	Active Directory on MS Azure 2012R2	Microsoft Exchange DAG 2016
MS Azure Windows 2016	NTFS						NTFS				

Notes:

a: Supports AES-NI.

b: Always encrypted, Always on, and File Table features are tested and supported.

c: LDT support for Windows 2016 testing is completed but there is no ReFS support.

Additionally, LDT is not supported on a CIFS file system.

AV Support

Table 48: Anti-virus support on Windows (x32/x64-bit)

Product	Version	OS	Notes
Symantec End Point Protection	v12.1, v14.0.1_MP2 (VTE 6.1.3, VTE 6.2, VTE 6.3)	Windows 2012R2, Windows 2016, Windows 2019	Compatible
McAfee Complete Endpoint Protection Business	8.8.0900 (VTE 6.1.3, VTE 6.2, VTE 6.3)	Windows 2012R2, Windows 2016, Windows 2019	Compatible
Trend Micro for Small Business	11.0		
Microsoft Defender	4.18		

DSM and VTE Agent Software Version Compatibility

The following table shows the compatibility between the DSM and VTE agent.

Table 49: DSM vs. VTE Agent Version Support

✓ — Compatible. ✗ — Not compatible.

DSM Version	VTE Agent Version														
	5.2.3	5.2.4	5.2.5	6.0	6.0.1	6.0.2	6.0.3	6.1.0	6.1.1	6.1.2	6.1.3	6.2.0	6.2.1	6.3.0	6.3.1
5.2.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗
5.3.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗
5.3.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✗
6.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.0.1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.0.2	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.0.3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.1.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.2.0	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.3.0	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

DSM Version	VTE Agent Version														
	5.2.3	5.2.4	5.2.5	6.0	6.0.1	6.0.2	6.0.3	6.1.0	6.1.1	6.1.2	6.1.3	6.2.0	6.2.1	6.3.0	6.3.1
6.4.0	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.4.1	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.4.2	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

End of Support Information

The following third-party products are no longer supported by VTE.

Table 50: End of Support Information

Product	Last VTE Version with Product Support
VxFS File System	6.1.3

About Thales eSecurity

Thales eSecurity is the leader in advanced data security solutions and services that deliver trust wherever information is created, shared or stored. We ensure that the data belonging to companies and government is both secure and trusted in any environment - on premise, in the cloud, in data centers or big data environments - without sacrificing business agility. Security doesn't just reduce risk, it's an enabler of the digital initiatives that now permeate our daily lives - digital money, e-identities, healthcare, connected cars and with the Internet of Things (IoT) even household devices. Thales provides everything an organization needs to protect and manage its data, identities and intellectual property and meet regulatory compliance - through encryption, advanced key management, tokenization, privileged user control and high assurance solutions. Security professionals around the globe rely on Thales to confidently accelerate their organization's digital transformation. Thales eSecurity is part of Thales Group.

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