

<Supported Storage List of SIOS Protection Suite for Linux v9>

Last Updated: January 8, 2016

Vendor (*1)	Storage Model	Bus Type	Connect Type (*2)	Support Status	Required ARK (i.e. Multipath ARK)	Supported LK Version (*3)	Note
Dell EqualLogic: PS4100 PS4110 PS6100 PS6110 PS6210		iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	With a large number of luns (over 20), change the REMOTETIMEOUT setting in /etc/default/LifeKeeper to REMOTETIMEOUT=600.
			Single Path (DMMP)	YES	DMMP ARK		
MD3800f MD3820f MD3860f		FC	vSphere (RDM)	No	-	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		
MD3800i MD3820i MD3860i		iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	
			Single Path	No	-		
MD3400 MD3420 MD3460		SAS	vSphere (RDM)	No	-	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		

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DELL	SCv2000 Series: SCv2000 SCv2020 SCv2080	FC	vSphere (RDM)	No	-	-	
			Multi Path (DMMP)	No	-		
			Single Path	No	-		
		iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	
			Single Path	No	-		
		SAS	vSphere	No	-	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		
		Dell Storage SC4020	FC	vSphere (RDM)	No	-	
	Multi Path (DMMP)			No	-		
	Single Path			No	-		
	iSCSI		Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	
Single Path (DMMP)			No	-			
Dell Compellent SC8000	FC		vSphere (RDM)	No	-	-	
		Multi Path (DMMP)	No	-			
		Single Path	No	-			
	iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1		
		Single Path (DMMP)	No	-			

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Fujitsu	ETERNUS DX90	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	When using the LifeKeeper DMMP ARK for multipath configurations it is necessary to set the following parameters in /etc/multipath.conf. ----- prio alua path_grouping_policy group_by_prio failback immediate no_path_retry 10 path_checker tur ----- * When using the ETERNUS Multipath Driver or using the vSphere(RDM) for multipath configurations, no configuration parameters need to be set.
			Multi Path (DMMP)	YES	DMMP ARK		
			Multi Path (EMPD)	YES	No Multipath ARK		
			Single Path	YES	No Multipath ARK		
	ETERNUS: DX60 DX80 DX410 DX440 DX8100 DX8400 DX8700 DX60 S2 DX80 S2 DX90 S2 DX410 S2 DX440 S2 DX8100 S2 DX8700 S2 DX60 S3 DX100 S3 DX200 S3 DX500 S3 DX600 S3 DX8700 S3 DX8900 S3 DX200F	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Multi Path (EMPD)	YES	No Multipath ARK		
			Single Path	YES	No Multipath ARK		
		iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	
			Multi Path (EMPD)	YES	No Multipath ARK		
			Single Path	YES	No Multipath ARK		

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Hitachi Data Systems	BR1200	SAS	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	Both the single path and multipath configurations require the RDAC driver. Only the BR1200 configuration using the RDAC driver is supported. The BR1200 configuration using HDLM (HDLM ARK) is not supported.
			Multi Path (RDAC)	YES	No Multipath ARK		
			Single Path (RDAC)	YES	No Multipath ARK		
	BR1250	SAS	vSphere (RDM)	No	-	v9.0 - v9.0.1	Both the single path and multipath configurations require the NEC SPS ARK. The BR1250 configuration using HDLM (HDLM ARK) is not supported. SPS NEC iStorage StoragePathSavior (NECSPS) Recovery Kit is not supported by RHEL7.x
			Multi Path (NECSPS)	YES	NEC SPS ARK		
			Single Path (NECSPS)	YES	NEC SPS ARK		
	BR1650E	FC	vSphere (RDM)	No	-	v9.0 - v9.0.1	
			Multi Path (HDLM)	YES	HDLM ARK		
			Single Path	No	-		
		iSCSI	Multi Path (HDLM)	No	-	-	
			Single Path	No	-		
	BR1650S	FC	vSphere (RDM)	No	-	v9.0 - v9.0.1	
Multi Path (HDLM)			YES	HDLM ARK			
Single Path			No	-			
iSCSI		Multi Path (HDLM)	No	-	-		
		Single Path	No	-			

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	Hitachi Unified Storage: Hitachi Unified Storage 110 (HUS 110) Hitachi Unified Storage 130 (HUS 130) Hitachi Unified Storage 150 (HUS 150)	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
			Multi Path (HDLM)	YES	HDLM ARK		
			Single Path	No	-		
		iSCSI	Multi Path (HDLM)	No	-	-	
			Single Path	No	-		
	Hitachi Unified Storage VM (HUS VM)	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
			Multi Path (HDLM)	YES	HDLM ARK		
			Single Path	No	-		
	VSP: VSP G100 VSP G200 VSP G400 VSP G600 VSP G800 VSP G1000	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
			Multi Path (HDLM)	YES	HDLM ARK		
			Multi Path (DMMP)	YES	DMMP ARK		
Single Path			YES	No Multipath ARK			

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Vendor (*1)	Storage Model	Bus Type	Connect Type (*2)	Support Status	Required ARK (i.e. Multipath ARK)	Supported LK Version (*3)	Note
3PAR: 3PAR StoreServ 7200 3PAR StoreServ 7200c		FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	Note: 3PAR StoreServ 7200 returns a reservation conflict with the default path checker. To avoid this conflict, set the following parameter in "/etc/default/LifeKeeper": DMMP_REGISTRATION_TYPE=hba
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		
		iSCSI	Multi Path (DMMP)	No	-	-	
			Single Path	No	-		
		3PAR : 3PAR StoreServ 7400 3PAR StoreServ 7400c 3PAR StoreServ 7440c 3PAR StoreServ 7450 3PAR StoreServ 7450c		FC	vSphere (RDM)	YES	No Multipath ARK
Multi Path (DMMP)	YES				DMMP ARK		
Single Path	No				-		
iSCSI	Multi Path (DMMP)			YES	DMMP ARK	v9.0 - v9.0.1	Note: 3PAR StoreServ 7400 iSCSI returns a reservation conflict. To avoid this conflict, set the following parameter in "/etc/default/LifeKeeper": DMMP_REGISTER_IGNORE=TRUE
	Single Path (DMMP)			No	-		
3PAR StoreServ 10400				FC	vSphere (RDM)	YES	No Multipath ARK
		Multi Path (DMMP)	YES		DMMP ARK		
		Single Path	No		-		
		iSCSI	Multi Path (DMMP)	No	-	-	
			Single Path	No	-		

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Vendor (*1)	Storage Model	Bus Type	Connect Type (*2)	Support Status	Required ARK (i.e. Multipath ARK)	Supported LK Version (*3)	Note
HP	3PAR StoreServ 10800	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	Note: 3PAR StoreServ 10800 FC returns a reservation conflict with the default path checker setting. To avoid this conflict, set the following parameter in "/etc/default/LifeKeeper": DMMP_REGISTRATION_TYPE=hba User friendly device mapping is not supported. Set the following parameter in "multipath.conf" "user_friendly_names no" * When using the vSphere(RDM) for multipath configurations, no configuration parameters need to be set.
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		
		iSCSI	Multi Path (DMMP)	No	-		
			Single Path	No	-		
	MSA: MSA1040 MSA2040	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		
		iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	
			Single Path	No	-		
		SAS	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
	Multi Path (DMMP)		YES	DMMP ARK			
	Single Path		No	-			
	StoreVirtual 4330	FC	vSphere (RDM)	No	-	-	
Multi Path (DMMP)			No	-			
Single Path			No	-			
iSCSI		Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1		
		Single Path	No	-			

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	StoreVirtual 4730	FC	vSphere (RDM)	No	-	-	
			Multi Path (DMMP)	No	-		
			Single Path	No	-		
		iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	
			Single Path	No	-		
	StoreVirtual (LeftHand) Series LeftHand OS version 11.0 / 11.5	iSCSI	Multi Path (DMMP)	YES	DMMP ARK	v9.0 - v9.0.1	LeftHand OS (SAN/iQ) version 11.0 / 11.5 is supported in HP StoreVirtual (LeftHand) storage. All StoreVirtual series are supported, including StoreVirtual VSA as the virtual storage appliance.
			Single Path	No	-		
	HP P9500	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	YES	No Multipath ARK		
3PAR: 3PAR StoreServ 8200 3PAR StoreServ 8400 3PAR StoreServ 8440 3PAR StoreServ 8450	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1		
		Multi Path (DMMP)	YES	DMMP ARK			
		Single Path	No	-			

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IBM	IBM SAN Volume Controller * * IBM TotalStorage Proven	FC	vSphere (RDM)	No	-	v9.0 - v9.0.1		
			Multi Path (DMMP)	YES	DMMP ARK			
			Single Path (DMMP)	YES	No Multipath ARK			
		iSCSI	Multi Path (DMMP)	No	-	-		
			Single Path (DMMP)	No	-			
	IBM Storwize V7000	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1		
			Multi Path (DMMP)	YES	DMMP ARK			
			Single Path (DMMP)	No	-			
		iSCSI	Multi Path (DMMP)	YES	DMMP ARK Quorum/Witness Server Kit	v9.0 - v9.0.1		The IBM Storwize V7000 (Firmware Version 6.3.0.1) has been certified by partner testing using iSCSI (iscsi-initiator-utils-6.2.0.872-34.el6.x86_64) with DMMP (device-mapper-1.02.66-6.el6, device-mapper-multipath-0.4.9-46.el6). The test was performed with LifeKeeper for Linux v7.5 using RHEL 6.2. Restriction: IBM Storwize V7000 must be used in combination with the Quorum/Witness Server Kit and STONITH. See the online documentation for the LifeKeeper version that you are using for more information. http://docs.us.sios.com/
			Single Path (DMMP)	No	-			
	IBM Storwize V3700	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1		
			Multi Path (DMMP)	YES	DMMP ARK			
			Single Path (DMMP)	No	-			
iSCSI		Multi Path (DMMP)	No	-	-			
		Single Path (DMMP)	No	-				
SAS		vSphere (RDM)	No	-	-			
		Multi Path (DMMP)	No	-				
		Single Path (DMMP)	No	-				

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IBM XIV Storage System		FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	If you are creating more than 32 LUNs on an IBM XIV Storage System using LifeKeeper, please contact IBM for further details.			
			Multi Path (DMMP)	YES	DMMP ARK					
			Single Path (DMMP)	YES	DMMP ARK					
		iSCSI	Multi Path (DMMP)	No	-	-				
			Single Path (DMMP)	No	-					
NEC	NEC iStorage: M10e M11e M100 M110 M300 M310	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	SPS NEC iStorage StoragePathSavior (NECSPPS) Recovery Kit is not supported by RHEL7.x			
			Multi Path (NECSPPS)	YES	NECSPPS ARK					
			Single Path (NECSPPS)	YES	NECSPPS ARK					
		iSCSI	Multi Path (NECSPPS)	YES	NECSPPS ARK	v9.0 - v9.0.1				
			Single Path (NECSPPS)	No	NECSPPS ARK					
		SAS	vSphere (RDM)	No	-	v9.0 - v9.0.1				
			Multi Path (NECSPPS)	Yes	NECSPPS ARK					
			Single Path (NECSPPS)	Yes	NECSPPS ARK					
		NEC iStorage: M500 M510 M700 M710		FC	vSphere (RDM)	YES		No Multipath ARK	v9.0 - v9.0.1	SPS NEC iStorage StoragePathSavior (NECSPPS) Recovery Kit is not supported by RHEL7.x
					Multi Path (NECSPPS)	YES		NECSPPS ARK		
					Single Path (NECSPPS)	YES		NECSPPS ARK		
				iSCSI	Multi Path (NECSPPS)	YES		NECSPPS ARK	v9.0 - v9.0.1	
Single Path (NECSPPS)	No				-					

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Pure Storage	FA-400 Series	FC	vSphere (RDM)	YES	No Multipath ARK	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		
		iSCSI	Multi Path (DMMP)	No	-	-	
			Single Path	No	-		
	FlashArray//m Series	FC	vSphere (RDM)	No	-	v9.0 - v9.0.1	
			Multi Path (DMMP)	YES	DMMP ARK		
			Single Path	No	-		

(*1): EMC storage for use

LifeKeeper acquired the E-Lab certification. See the matrix below for the EMC storage support.
<http://www.emc.com/interoperability>

(*3): Supported version of LifeKeeper

This document is written for LifeKeeper for Linux v9.
 If you are using a previous version of LifeKeeper, you must refer to the Release Notes for that version for the supported storage list.

(*2): Connecting Configurations

vSphere (RDM)	Connected a shared disk using Raw Device Mapping (RDM) on the VMWare ESX server
Multi Path (DMMP)	Multipath configuration of the shared disk using the Device Mapper Multipath driver
Multi Path (EMPD)	Multipath configuration of the shared disk using the ETERNUS Multipath Driver
Multi Path (HDLM)	Multipath configuration of the shared disk using the Hitachi Dynamic Link Manager driver
Multi Path (RDAC)	Multipath configuration of the shared disk using the IBM Redundant Disk Array Controller driver
Multi Path (NECSPS)	Multipath configuration of the shared disk using the iStorage StoragePathSavior driver
Single Path (DMMP)	Single path configuration of the shared disk using the Device Mapper Multipath driver
Single Path (RDAC)	Single path configuration of the shared disk using the IBM Redundant Disk Array Controller
Single Path	Single path connection not using a specific multipath driver