



DELL Technologies PowerFlex Software User Guide

[Home](#) » [DELL Technologies](#) » DELL Technologies PowerFlex Software User Guide 

Contents

- 1 [DELL Technologies PowerFlex Software](#)
- 2 [Product Information](#)
- 3 [Product Usage Instructions](#)
- 4 [Code Current Release Information](#)
- 5 [Are You Code Current?](#)
- 6 [Recent Release Information](#)
- 7 [Dell PowerFlex: Introduction to Replication](#)
- 8 [Dell PowerFlex: Maintenance Modes](#)
- 9 [Deploying SingleStore Database on Dell PowerFlex](#)
- 10 [Did you know?](#)
- 11 [Dell Technologies Notifications](#)
- 12 [Dell Technologies Top Service Topics](#)
- 13 [Publish Standard Support Dates – Software and Hardware](#)
- 14 [Subscribe to our newsletter](#)
- 15 [Documents / Resources](#)
 - 15.1 [References](#)
- 16 [Related Posts](#)



DELL Technologies PowerFlex Software



Product Information

The product mentioned in the user manual is the Dell EMC PowerFlex rack. It is a consolidated connectivity solution from Dell Technologies Services that integrates SupportAssist Enterprise and Secure Remote Services capabilities. The PowerFlex rack allows for easy upgrading of software releases and offers support for various PowerEdge servers.

Product Usage Instructions

To ensure that you are using the latest version of the PowerFlex rack software, it is important to check if you are code current. Being code current means running code less than 12 months old or the latest compatible version for your system. If your code version number is below 3.6.3.0, 3.5.7.0, 3.4.7.0, or 3.3.12.0, it is recommended to plan an upgrade. To determine the supported and certified versions of software and firmware components, refer to the Dell EMC Converged Platforms & Solutions Code Release Certification Matrix (RCM) portal. The portal can be accessed at <https://ciccodeportal.dell.com/#/home>. The Secure Connect Gateway technology is an integral part of the PowerFlex rack. To register the product to the Gateway, you will need an Access Key and PIN. Prior to the Secure Connect Gateway launch, work with your account teams to ensure you have a fully registered account on dell.com/support.

For detailed instructions on upgrading the PowerFlex rack to the current software releases, refer to the Dell EMC PowerFlex rack Upgrade Guide Revision 9.5. The guide covers upgrade procedures with and without PowerFlex Manager, and provides a step-by-step process for upgrading a PowerFlex rack. For information on the logical build of the PowerFlex rack and its factory settings, refer to the Dell EMC PowerFlex rack Factory Logical Build Guide Revision 11.3. This guide provides detailed instructions on building the PowerFlex rack according to the recommended configuration. If you require assistance or additional information while using the PowerFlex Manager, refer to the Dell EMC PowerFlex Manager Online Help Version 3.8, Revision 2. This resource provides support for various PowerEdge servers and highlights the changes made in the latest release.

Code Current Release Information

Are You Code Current?

https://dellservices.lightning.force.com/lightning/r/Lightning_Knowledge__kav/ka06P000000TcU4QAK/view



Are You Code Current? Being code current is running code less than 12 months old and/or is the latest compatible version for your system. If your code version number is below 3.6.3.0, 3.5.7.0, 3.4.7.0 and 3.3.12.0 then you should plan to upgrade.


Refer to the Dell EMC Converged Platforms & Solutions Code Release Certification Matrix(RCM) portal to see the supported, certified versions of software and firmware components. The portal can be accessed at the following site: <https://cicodeportal.dell.com/#/home>. RCM release notes and other documentation are located on the following Dell Technologies support site.

Important Announcement – PowerFlex 14G (R640 and R740XD) will reach End of Life (EOL) and will no longer be available for purchase on August 7, 2023.

- Affected 14G offers include PowerFlex rack, appliance and VxFlex Ready Nodes.
- This EOL does not impact PowerFlex 14G R840.
 - This platform will continue to be available for ordering.
 - The EOL date for the PowerFlex R840 has not yet been identified

Important Announcement – Technical Resource Center (TRC) Decommission

The TRC was in November 2022. All existing documentation has been migrated to the Dell Technologies PowerFlex rack Support Product Page the central location for all Dell Technologies product documentation. Please bookmark the following link to the RCM (Release Certification Matrix) to directly access RCM release details: <https://cicodeportal.dell.com/#/home>.



Secure Connect Gateway

The [Secure Connect Gateway 5.0](#) (SCG) technology is the next generation consolidated connectivity solution from Dell Technologies Services. SupportAssist Enterprise and Secure Remote Services capabilities are integrated into secure connect gateway technology.

In preparation of Secure Connect Gateway launch, work with your account teams to confirm you have a full registered account on dell.com/support. An Access Key and PIN will be required to register the product to the Gateway.

To securely configure connectivity, you'll need to generate an access key.

☐ Remind me later

Install, configure, and upgrade >

Quick links

- [Generate Access key](#) ⓘ
- [Add to Custom Group](#)
- [View all your assets](#)
- [Get support notifications](#)

For additional information visit the [Secure Connect Gateway product page](#).

Recent Release Information

Recent Release Information

Dell EMC PowerFlex rack Administration Guide Revision 11.3

Release Highlights

- Features
- Updated content for:
 - Modes to deploy PowerFlex Manager
 - Service node scenarios
 - Link to supported RCM version page
- Added content for:
 - Configure vCenter high availability
 - Cisco Smart Account licensing information
- Removed support for Trusted Platform Module

For full details of the revision 11.3 Dell EMC PowerFlex rack Administration Guide, go to the Dell Technologies Product Support site, sign into your Support Account, click the Documentation tab, then select Manuals and Documents.

Dell EMC PowerFlex rack Upgrade Guide Revision 9.5

Release Highlights

This guide describes how to upgrade PowerFlex rack to the current software releases. The guide covers upgrade procedures with and without PowerFlex Manager.

The guide is presented in the order in which a PowerFlex rack should be upgraded. The upgrade of SDC, VMware ESXi, and firmware are done over a single reboot instead of three or more. This reduces the time required to upgrade nodes.

- Features
 - Initial upgrade procedures

- Upgrade PowerFlex rack with PowerFlex Manager
- Upgrade PowerFlex rack without PowerFlex Manager
- Updates:
- Modify SVM RAM size to upgrade to PowerFlex 3.5.x
- SVM system validation in PowerFlex versions 3.5 or later
- Validate or modify the SVM disk size

For full details of the revision 9.5 Dell EMC PowerFlex rack Upgrade Guide, go to the Dell Technologies Product Support site, click the Documentation tab, and select Manuals and Documents.

Dell EMC PowerFlex rack Factory Logical Build Guide Revision 11.3 Release Highlights

- Features
 - Added the following topic:
- Downgrade Cisco Nexus switches with NX-OS 10.x

For full details of the revision 11.3 PowerFlex rack Factory Logical Build Guide, go to the Dell Technologies Product Support site, sign into your Support Account, click the Documentation tab, then select Manuals and Documents.

Dell EMC PowerFlex Manager Online Help Version 3.8, Revision 2 Release Highlights

- Features
 - Support for additional PowerEdge servers:
 - PowerFlex R650 and R750 with PowerFlex storage-only nodes
 - PowerFlex R650 and R750 with PowerFlex compute-only nodes
 - PowerFlex R650 and R750 with PowerFlex hyperconverged nodes
 - PowerFlex R6525 with PowerFlex compute-only nodes
 - Removal of CloudLink timeout setting: CloudLink timeout setting has been removed from SVM and PowerFlex storage-only node configurations for new installs of 6.9 or 7.0, and for upgrades from CloudLink 6.9 to 7.0.
 - Low disk space alert display at 90%: PowerFlex Manager now displays the low disk space alert at 90%. Previously, the alert displayed at 95%.
 - Validation for digitally signed compliance files: PowerFlex Manager validates the digital signature on compliance files thus verifying the authenticity of the file. A compliance file must be in an available state in order for PowerFlex Manager to add the file. If a compliance file fails validation because it is unsigned, it needs your approval before it can be used.
 - Support for a non-HA management deployment: PowerFlex Manager now supports a non-high availability management deployment on PowerFlex storage-only nodes.
 - Support for additional network configurations:
 - PowerFlex Manager now supports an additional switch port configurations and teaming and bonding configurations for full and partial network automation.
 - PowerFlex Manager partial network automation now supports 10G and 100G node.
 - Support through integration with the Secure Connect Gateway ensuring better alignment with Dell

Technologies services initiatives to enhance the user experience.

- Enhanced performance for PowerFlex storage-only nodes: When the CPU of a PowerFlex storage-only node has 16 cores or more, the Storage Data Server (SDS) changes to have 12 threads.
- Enhanced performance for PowerFlex storage-only nodes: When the CPU of a PowerFlex storage-only node has 16 cores or more, the Storage Data Server (SDS) changes to have 12 threads.
- Support for Fine-Granularity Metadata cache:
 - PowerFlex Manager support of Fine-Granularity Metadata cache option, which enhances system performance.
 - Fine-Granularity Metadata cache option is available only on compression enabled PowerFlex hyperconverged nodes and PowerFlex storage-only nodes.
 - PowerFlex Gateway must be running version 3.5.x or 3.6.x.
- Removal of support for Windows automation:
 - PowerFlex Manager has removed the automated deployment of Windows onto PowerFlex compute-only nodes.
 - Windows services created before 3.8 must be removed.
- Support for CloudLink 7.1:
 - Support for deployment of the CloudLink Center 7.1 VM from PowerFlex Manager.
 - Utilization of PowerFlex Manager to upgrade CloudLink Center from 7.0 to 7.1

For full details of the version 3.8 Dell EMC PowerFlex Manager Online Help pdf document go to the Dell Technologies Support site, sign into your Support Account, click the Documentation tab, then select Manuals and Documents.

Dell PowerFlex: Introduction to Replication

Document Highlights

The PowerFlex software-defined infrastructure platform delivers flexibility, elasticity, and simplicity with predictable performance and resiliency at scale. As PowerFlex continues to evolve, the addition of native asynchronous replication expanded the set of included enterprise storage services. Customers require disaster recovery and replication features to meet business and compliance requirements. Other replication use-cases include offloading demanding analytics workloads, isolating them from mission-critical workloads to other business-critical systems.

Features

- PowerFlex asynchronous replication
 - Asynchronous replication overview
 - Journaling versus snapshotting
 - Journal capacity reservations
 - Journal intervals and data flow
 - Replication topologies
- Deploying and configuring PowerFlex clusters for replication
 - Deployment and configuration
 - Replication Consistency Groups
- Replication monitoring
 - Monitoring and configuration

- Target volume access mode
- Networking considerations
 - TCP/IP port considerations
 - Additional IP address
 - Network bandwidth consideration
 - Remote replication networking
- System component, network, and process failure considerations
- Replication technical limits

For full details of the Dell PowerFlex: Introduction to Replication documentation go to the Dell Technologies Infohub, click on Integrated Products, then PowerFlex and select White Papers.

Dell PowerFlex: Maintenance Modes

Document Highlights

Dell PowerFlex software-defined storage provides multiple options for performing maintenance on SDS nodes in a PowerFlex cluster. This white paper compares the maintenance modes in PowerFlex software-defined storage systems.

- Chapters
 - PowerFlex overview
 - Architecture
- Software-defined infrastructure
- Maintenance options
 - Considerations and limitations of PMM
- Considerations and limitations
- Mixing maintenance methodologies
- Concurrent operations in a single Protection Domain
- Initiating PMM with degraded capacity
- Considerations for nondisruptive upgrades
 - Spare capacity consideration
 - Summary
 - References

For full details of the Dell PowerFlex: Maintenance Modes document go to the Dell Technologies Infohub, click on Integrated Products, then PowerFlex and select White Papers.

Deploying SingleStore Database on Dell PowerFlex

Document Highlights

This technical paper describes the deployment of a SingleStore database in PowerFlex. This paper also explains how to configure PowerFlex software-defined storage in a VMware vSphere environment and deploy it with a single-layer HCI architecture option.

Chapters

- Product overview

- PowerFlex delivery of transformational value
- PowerFlex software components
- PowerFlex consumption options
- Flexible consumption-based billing options
- SingleStore overview and cluster components
- VMware vSphere overview
- vSphere 7
- Solution architecture
 - Logical architecture
 - Network design
 - PowerFlex design
 - SingleStore design
- SingleStore cluster deployment on PowerFlex
 - Creating VMs
 - SingleStore pre-requisites
 - Deploying SingleStore clusters
- Testing and validation
 - Benchmark tool
 - Data generation and database load
 - Test scenarios
 - Validation results
- Conclusion
- Best practices
 - PowerFlex rack best practices
 - PowerFlex best practices
 - PowerFlex networking and server node best practices
 - SingleStore best practices
- References
 - Dell Technologies documentation
 - VMware documentation
 - SingleStore documentation

For full details of the Deploying SingleStore Database on Dell PowerFlex document go to the Dell Technologies Infohub, click on Integrated Products, then PowerFlex and select White Papers.

Did you know?

Top tips for keeping your Dell Technologies environment compliant

- Dell Technologies Technical Alerts and Security Advisories
- Dell Technologies strives to provide customers with timely information, guidance, and mitigation options to minimize risks associated with security vulnerabilities. It is recommended to run the most recent version of the software available and apply any security updates at the earliest opportunity.
- Did you know you can view the Dell Technologies Technical Alerts and Security Advisories on the Dell

- Technologies Support site? You can also subscribe to receive these notifications via email automatically.
- Please reference the knowledge base articles below located on the Dell Technologies Support site for details and instructions.
- Instructions for registering for an online account to access tools and content for your hardware and software products or upgrading an existing account, visit the following knowledge base article: [How to register for access to Dell Technologies Online Support or Upgrade an Existing Account](#)
- To view all the Security Advisories and Notices for all Dell Technologies products, visit the following site: [Security Advisories and Notices](#)
- For easy access to resources and solutions to help you quickly find answers to your consumer and enterprise security questions, visit the [Dell Technologies Security and Trust Center](#)
- To subscribe to Dell Technical Advisories and Security Advisories, refer to the Knowledgebase article: [How to subscribe to Dell Technical Advisories \(DTAs\) and Dell Security Advisories \(DSAs\)](#)

Dell Technologies Notifications

Dell Technical Advisories (DTA)		
DTA ID	Title	Date
DTA 203932	PowerFlex: Corruption With RMcachc Enabled	05 Oct 2022
DTA 203520	PowerFlex: After MDM switchover, SDSs cannot reconnect and MDMs are crashing	17 Oct 2022

Dell Technologies Top Service Topics

The following Knowledge Base articles were referenced often in the previous 90 days:

Dell Technologies Knowledge Base Articles	
Article Number	Title
000203573	PowerFlex: How To Collect PowerFlex Manager Platform (PFMP) And PFMP Installer Support Data
000203939	Dell Container Storage Interface (CSI) Drivers: Controller pods restarting intermittently
000202755	PowerFlex: NVDIMM: Unable to add dax device
000202412	Issue when upgrading CloudLink with PowerFlex Manager
000199107	LIA Authentication Shows Invalid When The Lia_trusted_ips Option Is In Use
000200778	Container Storage Interface (CSI) Drivers Family: When a node goes down, the block volumes that are attached to the node cannot be attached to another node
000200466	PowerFlex Manager 3.8.0 RCM/IC upgrade issues and patch
000204010	PowerFlex: SDC for ESXi failed with "Could not find a trusted signer: unable to get local issuer certificate"

000203573	PowerFlex: How To Collect PowerFlex Manager Platform (PFMP) And PFMP Installer Support Data
000184617	PowerFlex Top DH Recommended Actions
000198214	PowerFlex Manager - How to manually upgrade PowerFlex Manager without SRS
000188307	PowerFlex Manager – How to configure network settings in PowerFlex Manager templates
000198214	PowerFlex Manager: Backups may fail in version 3.8.0.8187 due to log4j remediation changes
000188603	PowerFlex: How to redeploy a PowerFlex Gateway
000200466	PowerFlex Manager 3.8.0 RCM/IC upgrade issues and patch

Note: Items listed here are a subset of all the KB articles created or updated in the last month. For additional KB content, visit Online Support Search.

Publish Standard Support Dates – Software and Hardware

- Updated Dell Converged Infrastructure, Midrange and Enterprise Storage, and Storage Networking Product
- Support Policy is available here: <https://www.dell.com/support/kbdoc/en-ie/000185734?lang=en>.
- These tables provide the published Standard Support dates for PowerFlex Software and Hardware.

Product	Standard Support Dates	Software Code
PowerFlex Software	29 May 2020 - 30 May 2023	3.5
PowerFlex Software	22 Aug 2020 - 30 May 2023	3.5.1
PowerFlex Software	3 Nov 2020 – 30 May 2023	3.5.1.1
PowerFlex Software	2 Dec 2020 – 30 May 2023	3.5.1.2
PowerFlex Software	12 May 2021 - 30 May 2023	3.5.1.3
PowerFlex Software	30 Sep 2021- 30 May 2023	3.5.1.4
PowerFlex Software	16 Jun 2021 - 16 Jun 2024	3.6
PowerFlex Software	02 Aug 2021 - 16 Jun 2024	3.6.0.1
PowerFlex Software	30 Sep 2021 - 16 Jun 2024	3.6.0.2
PowerFlex Software for ESXi OS	03 Nov 2020 - 30 May 2023	3.5.1.1

Model	Standard Support Dates
PowerFlex Custom Node 1.14	18 Dec 2020 - N/A
PowerFlex rack	08 Dec 2020 - N/A
PowerFlex Appliance R640	11 Oct 2017 – 04 Feb 2023
PowerFlex Appliance R640XD	11 Oct 2017 – 04 Feb 2023
PowerFlex Appliance R650	01 Nov 2021 - N/A
PowerFlex Appliance R6525	01 Nov 2021 - N/A
PowerFlex Appliance R750	01 Nov 2021 - N/A
PowerFlex Appliance R840	11 Oct 2017 – 04 Feb 2023
PowerFlex custom Node R625	01 Nov 2021 - N/A
PowerFlex custom Node R650	01 Nov 2021 - N/A
PowerFlex custom Node R750	01 Nov 2021 - N/A

Subscribe to our newsletter

This newsletter is available via Product Update notifications provided by Dell Technologies Online Support. Learn about how you can subscribe [here](#).

Access the SolVe website here



We want to hear from you!

Please take a few minutes to fill out this short survey and let us know what you think of the Newsletter. Simply click below:

Proactive Newsletter Communication Survey

Please feel free to suggest any modifications.

Copyright © 2021 Dell Inc. or its subsidiaries. All Rights Reserved. Dell, EMC, Dell Technologies and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Published February 2023

Dell believes the information in this publication is accurate as of its publication date.

The information is subject to change without notice.

THE INFORMATION IN THIS PUBLICATION IS PROVIDED "AS-IS." DELL MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WITH RESPECT TO THE INFORMATION IN THIS PUBLICATION, AND SPECIFICALLY DISCLAIMS IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. USE, COPYING, AND DISTRIBUTION OF ANY DELL SOFTWARE DESCRIBED IN THIS PUBLICATION REQUIRES AN APPLICABLE SOFTWARE LICENSE.

Published in USA

Documents / Resources










[DELL Technologies PowerFlex Software](#) [pdf] User Guide

PowerFlex Software, Software

References

- [Support | Dell US](#)
- [Support | Dell US](#)
- [Smartsheet Forms](#)
- [RCM](#)
- [dellservices.lightning.force.com/lightning/r/Lightning_Knowledge__kav/ka06P000000TcU4QAK/view](#)
- [Dell Technologies Info Hub](#)
- [Submit Form](#)
- [Security and Trust Center | Dell USA](#)
- [Support for PowerFlex rack | Documentation | Dell Ireland](#)
- [Support for Secure Connect Gateway | Overview | Dell US](#)
- [Support for PowerFlex rack | Overview | Dell US](#)
- [LIA Authentication Shows Invalid When The Lia_trusted_ips Option Is In Use | Dell US](#)
- [PowerFlex Manager 3.8.0 RCM/IC upgrade issues and patch | Dell US](#)
- [Issue when upgrading CloudLink with PowerFlex Manager | Dell US](#)
- [PowerFlex: Corruption With RMcachE Enabled | Dell US](#)
- [PowerFlex: How To Collect PowerFlex Manager Platform \(PFMP\) And PFMP Installer Support Data | Dell US](#)
- [PowerFlex: SDC for ESXi failed with "Could not find a trusted signer: unable to get local issuer certificate" | Dell US](#)
- [Dell End-of-Life Documents for converged infrastructure, midrange and enterprise storage, and storage networking products | Dell Ireland](#)
- [Login or Register | Dell US](#)
- [Login or Register | Dell US](#)
- [How to Register for Access to Dell Technologies Online Support or Upgrade an Existing Account | Dell US](#)
- [PowerFlex Top DH Recommended Actions | Dell US](#)
- [PowerFlex Manager – How to configure network settings in PowerFlex Manager templates | Dell US](#)
- [PowerFlex: How to redeploy a PowerFlex Gateway | Dell US](#)
- [PowerFlex Manager: Backups may fail in version 3.8.0.8187 due to log4j remediation changes | Dell US](#)
- [PowerFlex Manager 3.8.0 RCM/IC upgrade issues and patch | Dell US](#)

-  [PowerFlex: NVDIMM: Unable to add dax device | Dell US](#)
-  [Login or Register | Dell US](#)
-  [PowerFlex: How To Collect PowerFlex Manager Platform \(PFMP\) And PFMP Installer Support Data | Dell US](#)
-  [Login or Register | Dell US](#)
-  [Login or Register | Dell US](#)
-  [Security Advisories & Notices | Dell US](#)
-  [Secure Connect Gateway | Dell USA](#)

[Manuals+](#)