Appliance User Guide

Arcserve Unified Data Protection Version 10.1 CICSETVE[®]

Appliance User Guide

Arcserve Unified Data Protection

Version 10.1

The Table of Contents appears on the left pane. To view all topics, click the $^{\rm OC}$ icon available on top.

arcserve

Legal Notice

This Documentation, which includes embedded help systems and electronically distributed materials, (hereinafter referred to as the "Documentation") is for your informational purposes only and is subject to change or withdrawal by Arcserve at any time. This Documentation is proprietary information of Arcserve and may not be copied, transferred, reproduced, disclosed, modified or duplicated, in whole or in part, without the prior written consent of Arcserve.

If you are a licensed user of the software product(s) addressed in the Documentation, you may print or otherwise make available a reasonable number of copies of the Documentation for internal use by you and your employees in connection with that software, provided that all Arcserve copyright notices and legends are affixed to each reproduced copy.

The right to print or otherwise make available copies of the Documentation is limited to the period during which the applicable license for such software remains in full force and effect. Should the license terminate for any reason, it is your responsibility to certify in writing to Arcserve that all copies and partial copies of the Documentation have been returned to Arcserve or destroyed.

TO THE EXTENT PERMITTED BY APPLICABLE LAW, ARCSERVE PROVIDES THIS DOCUMENTATION "AS IS" WITHOUT WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NONINFRINGEMENT. IN NO EVENT WILL ARCSERVE BE LIABLE TO YOU OR ANY THIRD PARTY FOR ANY LOSS OR DAMAGE, DIRECT OR INDIRECT, FROM THE USE OF THIS DOCUMENTATION, INCLUDING WITHOUT LIMITATION, LOST PROFITS, LOST INVESTMENT, BUSINESS INTERRUPTION, GOODWILL, OR LOST DATA, EVEN IF ARCSERVE IS EXPRESSLY ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH LOSS OR DAMAGE.

The use of any software product referenced in the Documentation is governed by the applicable license agreement and such license agreement is not modified in any way by the terms of this notice.

The manufacturer of this Documentation is Arcserve.

Provided with "Restricted Rights." Use, duplication or disclosure by the United States Government is subject to the restrictions set forth in FAR Sections 12.212, 52.227-14, and 52.227-19(c)(1) - (2) and DFARS Section 252.227-7014(b)(3), as applicable, or their successors.

© 2025 Arcserve, including its affiliates and subsidiaries. All rights reserved. Any third party trademarks or copyrights are the property of their respective owners.

Contact Arcserve Support

The Arcserve Support team offers a rich set of resources for resolving your technical issues and provides easy access to important product information.

Contact Support

With Arcserve Support:

- You can get in direct touch with the same library of information that is shared internally by our Arcserve Support experts. This site provides you with access to our knowledge-base (KB) documents. From here you easily search for and find the product-related KB articles which contain field-tested solutions for many top issues and common problems.
- You can use our Live Chat link to instantly launch a real-time conversation between you and the Arcserve Support team. With Live Chat, you can get immediate answers to your concerns and questions, while still maintaining access to the product.
- You can participate in the Arcserve Global User Community to ask and answer questions, share tips and tricks, discuss best practices and participate in conversations with your peers.
- You can open a support ticket. By opening a support ticket online, you can expect a callback from one of our experts in the product area you are inquiring about.
- You can access other helpful resources appropriate for your Arcserve product.

Arcserve Appliance Return Policy

A valid RMA (Return Material Authorization) number is required to return a product to Arcserve. Contact the Arcserve Technical Support department to obtain an RMA number. Refer to <u>arcserve.com/support</u> to contact customer care. Support team can inform where to send the RMA data.

Returns are subject to a re-stocking fee of 10%. Exceptions are: 1) If an order was fulfilled incorrectly, Arcserve will accept RMA and provide full credit; 2) If a defective item is returned within 30 days, Arcserve will accept RMA and provide full credit; and 3) If there are hardware technical issues that are unresolved by support after a reasonable period of time to resolve, Arcserve will accept RMA and provide a hardware swap for a unit of equivalent value.

Information needed for the RMA request:

- Product serial number (located on the back of the appliance)
- Arcserve Order Number
- Partner contact name
- Partner phone number
- Partner Email address
- Customer contact name (if available)
- Phone number (if available)
- Email address (if available)
- Description of problem and any troubleshooting already performed.
- Shipping service requested and shipping address.

The RMA number must be clearly marked on the outside of the packaging. All RMAs must be shipped using adequate packaging. All RMAs should be shipped using a reputable carrier that offers package tracking and insurance. Any shipping damage or lost RMAs is the responsibility of customer.

Table of Contents

| Chapter 1: About Arcserve Appliance Documentation1 |
|---|
| Language Support 2 |
| Product Documentation |
| Chapter 2: Introducing the Arcserve Appliance 5 |
| Introduction |
| Arcserve Unified Data Protection |
| Arcserve Unified Data Protection Agent for Linux |
| Arcserve Backup |
| Replication and High Availability10 |
| Safety Precautions |
| What is Included in the Box12 |
| What is Included in the Box of Appliance 10000 Series12 |
| What is Included in the Box of Appliance 9000 Series13 |
| What is Included in the Box of Appliance X Series |
| What is Not Included in the Box16 |
| Available Models |
| Model 10012BU-10048BU17 |
| Model 10048DR-10576DR |
| Models 9012 - 9504DR20 |
| Model X Series |
| Controls and Indicators25 |
| Front Panel 10012BU-10048BU25 |
| Drive Carriers LED |
| Control Panel |
| Information LED |
| Front Panel 10048DR-10576DR |
| Drive Carriers LED |
| Control Panel |
| Information LED |
| Front Panel 9012-9048 |
| Front Panel 9072DR - 9504DR |
| Front Panel X Series |
| Rear Panel 10012BU-10048BU |

| Power Supply Indicators | |
|--|--------|
| Rear Panel 10048DR-10576DR | |
| Power Supply Indicators | |
| Rear Panel 9012-9048 | |
| Rear Panel 9072DR-9504DR | |
| Rear Panel X Series | |
| Top View 10012BU-10048BU Series | 40 |
| Ports Used by the Appliance | 41 |
| Arcserve UDP | 42 |
| Components installed on Microsoft Windows | |
| Components installed on Linux | 49 |
| Node protected by UDP Linux remotely | |
| Arcserve Backup | 52 |
| Appliance for Linux Support | 53 |
| Chapter 3: Upgrading Arcserve UDP on the Appliance | |
| How to Apply a License After Upgrading Arcserve Software | 56 |
| Upgrade Sequence on Arcserve Appliance | 57 |
| Upgrade the Arcserve Appliance Used as Arcserve UDP Console and RPS | 58 |
| Upgrade the Arcserve Appliance Used as Arcserve UDP RPS | 59 |
| Upgrade Steps When Two or More Arcserve Appliance Are Used in the Environm | nent60 |
| Upgrade the Arcserve UDP Linux Agent on the Arcserve Appliance | 61 |
| Upgrade the Arcserve Backup on the Arcserve Appliance | 62 |
| Upgrade Sequence for UDP Console, RPS, and Agent | 63 |
| Chapter 4: Configuring the Arcserve Appliance | 64 |
| How to Configure Network Settings for Arcserve Appliance | 65 |
| How to Set Up the Arcserve Appliance | 69 |
| Configure Arcserve Appliance as Gateway | |
| Chapter 5: Working with Arcserve Appliance | |
| Activate Arcserve Product on the Appliance | 80 |
| Create a Plan Using Arcserve Appliance Wizard | 81 |
| Add Nodes to a Plan | 82 |
| Add Nodes by Hostname/IP Address | 83 |
| Add Nodes by Active Directory | 85 |
| Add vCenter/ESX Nodes | 87 |
| Add Hyper-V Nodes | 89 |
| Create a Backup Plan for Linux Nodes | 91 |
| | |

| Create a Backup Plan to a Tape Device | 92 |
|---|-------------|
| Create an On-Appliance Virtual Standby Plan | 93 |
| Create Plan to Backup the Linux Backup Server | 94 |
| Setting-up to Perform Linux Instant VM Job to Local Appliance Hyper-V | 97 |
| Migrate Arcserve UDP Console Using ConsoleMigration.exe | |
| Perform Migration between Arcserve Appliances | |
| Solution | |
| Modify the Input Source of Pre-installed Linux Backup Server | |
| Chapter 6: Monitoring the Appliance Server Remotely | |
| Working with Integrated Dell Remote Access Controller (iDRAC) | |
| Monitor and Manage Integrated Dell Remote Access Controller (iDRAC) | |
| Find the IP address of Integrated Dell Remote Access Controller for 9000 Series | (iDRAC) 111 |
| Find the IP address of Integrated Dell Remote Access Controller for X Series (iDR | AC)112 |
| Configure DHCP or Static IP address of iDRAC | 114 |
| Working with Baseboard Management Controller (BMC) | 118 |
| Monitor and Manage Baseboard Management Controller (BMC) | |
| How to Find the IP address of BMC | |
| Find the IP address using BIOS | 120 |
| Find the IP address in POST screen | |
| Configure the DHCP or Static IP Address of BMC | |
| Configuring UEFI BIOS | 121 |
| Configuring the IP Address of BMC | 122 |
| Configure the DHCP IP Address using the DHCP Server | |
| Configure the Static IP Address using BIOS | 122 |
| Connecting to BMC using BIOS | |
| Chapter 7: Restoring or Repairing the Arcserve Appliance | |
| Debug Factory Reset | |
| Installing the Arcserve Appliance | |
| How to Install Arcserve Backup 19.0 | 131 |
| How to Install 10012BU-10048BU Series Appliance | 138 |
| How to Install 10048DR-10576DR Series Appliance | 139 |
| How to Install 9012-9048 Series Appliance | |
| How to Install 9072-9504DR Series Appliance | 139 |
| How to Install X Series Appliance | |
| Apply Arcserve UDP Factory Reset in 10012BU-10576DR Series Appliance . | |
| Factory Reset from BIOS | |

| Factory Reset from Arcserve UDP Console | 142 |
|--|-------------|
| Apply Arcserve UDP Factory Reset Using Boot Option in 9012-9504DR Series App ance | oli- 144 |
| Apply Arcserve UDP Factory Reset Using Boot Option in X Series Appliance | 146 |
| Clear Configuration and Apply Appliance Factory Reset | 149 |
| Remove and Replace a Hard Drive | 151 |
| Perform Bare Metal Recovery (BMR) without Preserving Data in 9012-9504DR Serving Appliance | er- 153 |
| Perform Bare Metal Recovery (BMR) and Preserving Data in 9012-9504DR Series Appliance | ; 167 |
| Chapter 9: Performing Appliance Capacity Expansion | . 174 |
| Working with Expansion Kit in Arcserve Appliance 10048DR-10576DR Models | 174 |
| Working with Arcserve Appliance Expansion Kit - X Series Models | 178 |
| Working with SSD Flash Expansion Kit in Arcserve X Series Appliance | 180 |
| Working with Expansion Kit in Arcserve Appliance 9072-9504 DR Models | 187 |
| Working with SSD Flash Expansion Kit in Arcserve Appliance 9072-9504 DR Models | 192 |
| Chapter 10: Working with Network Configuration | . 196 |
| Understanding the Network Configuration Details | |
| How to Disable DHCP Server | 201 |
| How to Configure IP Address for the Preinstalled Linux Backup Server | 202 |
| How to Enable Round Robin on the DNS Server to Balance Load | 204 |
| How to Check Network Status on Appliance | |
| Chapter 11: Understanding Safety Precautions | . 206 |
| General Safety Precautions | |
| Electrical Safety Precautions | 209 |
| FCC Compliance | |
| Electrostatic Discharge (ESD) Precautions | 211 |
| Upgrading Firmware for Arcserve Appliance 10000 Series | . 212 |
| Download the Firmware Upgraded Package | 212 |
| Upgrade Firmware | 212 |
| How to Upgrade BMC firmware | 212 |
| How to Upgrade BIOS firmware | 216 |
| Verify the Updated Firmware | 219 |
| Viewing Firmware Version for Arcserve Appliance 10000 Series | .220 |
| Chapter 11: Upgrading Firmware for Arcserve Appliance 9000 Series | 222 |
| Upgrade BIOS Firmware for Arcserve Appliance 9000 Series | |
| | |

| Viewing Firmware Version for Arcserve Appliance 10000 Series | |
|--|--|
| Method 1: View BIOS firmware version from iDRAC Web Interface | |
| Method 2: View BIOS firmware version from BIOS Arcserve Appliance 9000 series | 225 |
| Download the Updated Package for BIOS | |
| Upgrade BIOS | |
| Verify the Updated BIOS | 226 |
| Verify Updated BIOS using System Logs | |
| Verify Updated BIOS from iDRAC Web Interface or BIOS | |
| Upgrade iDRAC Firmware for Arcserve Appliance 9000 Series | |
| Viewing iDRAC Firmware Version | |
| View iDRAC Firmware Version from iDRAC Web Interface | 228 |
| Method 2: View iDRAC Firmware Version from BIOS Arcserve Appliance 9000 series \ldots | 229 |
| How to Change the iDRAC Password | 230 |
| Download the Updated Package for iDRAC | |
| Upgrade iDRAC | 231 |
| Verify Updated iDRAC | |
| Verify Updated iDRAC using System Logs | |
| Verify Updated iDRAC from iDRAC Web Interface or BIOS | 233 |
| | |
| Upgrade Firmware for Arcserve Appliance X Series | |
| Upgrade Firmware for Arcserve Appliance X Series | |
| | 234 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series | 234 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series | 234 234 234 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface | 234 234 234 235 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series | 234 234 234 234 235 236 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series | 234 234 234 235 235 236 236 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS | 234 234 234 235 236 236 237 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS | 234 234 234 235 236 236 236 237 237 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS Upgrade iDRAC Firmware for Arcserve Appliance X Series | 234 234 234 235 236 236 237 237 237 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS Upgrade iDRAC Firmware for Arcserve Appliance X Series Viewing iDRAC Firmware Version | 234 234 234 235 236 236 237 237 237 237 237 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS Upgrade iDRAC Firmware for Arcserve Appliance X Series Viewing iDRAC Firmware Version Method 1: View iDRAC firmware version from iDRAC Web Interface | 234 234 235 236 236 237 237 237 237 237 238 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS Upgrade iDRAC Firmware for Arcserve Appliance X Series Viewing iDRAC Firmware Version Method 1: View iDRAC firmware version from iDRAC Web Interface Method 2: View iDRAC firmware version from BIOS Arcserve Appliance X series | 234 234 235 236 236 237 237 237 237 237 238 239 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS Upgrade iDRAC Firmware for Arcserve Appliance X Series Viewing iDRAC Firmware Version Method 1: View iDRAC firmware version from iDRAC Web Interface Method 2: View iDRAC firmware version from BIOS Arcserve Appliance X series Download the Updated Package for iDRAC | 234 234 234 235 236 236 237 237 237 237 237 238 239 239 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS Upgrade iDRAC Firmware for Arcserve Appliance X Series Viewing iDRAC Firmware Version Method 1: View iDRAC firmware version from iDRAC Web Interface Method 2: View iDRAC firmware version from BIOS Arcserve Appliance X series Download the Updated Package for iDRAC Upgrade iDRAC | 234 234 234 235 236 236 237 237 237 237 238 239 239 239 |
| Upgrade BIOS Firmware for Arcserve Appliance X Series Viewing BIOS Firmware Version Method 1: View BIOS firmware version from iDRAC Web Interface Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series Download the Updated Package for BIOS Upgrade BIOS Verify Updated BIOS Upgrade iDRAC Firmware for Arcserve Appliance X Series Viewing iDRAC Firmware Version Method 1: View iDRAC firmware version from iDRAC Web Interface Method 2: View iDRAC firmware version from BIOS Arcserve Appliance X series Download the Updated Package for iDRAC Wethod 2: View iDRAC firmware version from BIOS Arcserve Appliance X series Viewing iDRAC firmware version from BIOS Arcserve Appliance X series Viewing iDRAC firmware version from BIOS Arcserve Appliance X series Download the Updated Package for iDRAC Upgrade iDRAC | 234 234 234 235 236 236 237 237 237 237 237 238 239 239 240 241 |

| Linux Backup Server Cannot Communicate with Any Node in the Network . | 244 |
|---|-----|
| Linux Backup Server Cannot Get the Network DNS Suffix | |
| Default Time Zone on the Appliance | |
| Licenses Error even when the licenses are available | |
| Chapter 13: Applying Best Practices | |
| Best Practices for Network Configuration | |
| Best Practices for Windows Defender with PowerShell cmdlets | |
| Configure Preinstalled Linux Backup Server to External Network | |
| Best Practice for Creating Deduplication Datastore across Volumes | 254 |
| Chapter 14: Acknowledgements | |
| PuTTY | |

Chapter 1: About Arcserve Appliance Documentation

Arcserve Appliance User Guide helps you understand how to use Arcserve Appliance. To understand about Arcserve Appliance, view Introduction. Rest of the sections help you install and use Arcserve Appliance.

This section contains the following topics:

| Language Support | 2 |
|-----------------------|---|
| Product Documentation | 3 |

Language Support

A translated product (sometimes referred to as a localized product) includes local language support for the user interface of the product, online help and other documentation, as well as local language default settings for date, time, currency, and number formats.

This release is available only in English.

Product Documentation

For all Arcserve UDP related documentation, click this link for the <u>Arcserve Docu-</u><u>mentation</u>.

The Arcserve UDP Knowledge Center consists of the following documentation:

Arcserve UDP Solutions Guide

Provides detailed information on how to use the Arcserve UDP solution in a centrally-managed Console environment. This guide includes such information as how to install and configure the solution, how to protect and restore your data, how to get reports, and how to manage Arcserve High Availability. Procedures are centered around use of the Console and includes how to use the various protection Plans.

Arcserve UDP Release Notes

Provides high-level description of the major features, system requirements, known issues, documentation issues, and limitations of Arcserve Unified Data Protection.

Arcserve UDP Agent for Windows User Guide

Provides detailed information on how to use Arcserve UDP Agent in a Windows operating system. This guide includes such information as how to install and configure the agent and how to protect and restore your Windows nodes.

Arcserve UDP Agent for Linux User Guide

Provides detailed information on how to use Arcserve UDP Agent in a Linux operating system. This guide includes such information as how to install and configure the agent and how to protect and restore your Linux nodes.

Chapter 2: Introducing the Arcserve Appliance

This section contains the following topics:

| Introduction | |
|---------------------------------|----|
| Safety Precautions | 11 |
| What is Included in the Box | |
| What is Not Included in the Box | 16 |
| Available Models | 17 |
| Controls and Indicators | 25 |
| Ports Used by the Appliance | 41 |

Introduction

Arcserve Appliance is the first complete and most cost-effective data protection appliance, featuring Assured Recovery[™]. Each Arcserve Appliance is a self-contained, "set and forget" backup and recovery solution. Architected with cloud-native capabilities, its unmatched ease of deployment and usability combine with a broad set of features such as global source-based deduplication, multi-site replication, tape support, and automated data recovery capabilities. The Arcserve Appliance delivers unmatched operational agility and efficiency, and truly simplifies disaster recovery activities.

Arcserve Appliance is fully integrated with the industry-leading Arcserve Unified Data Protection software pre-installed in state-of-the art hardware. The appliance provides a complete and integrated data protection solution for all users to not only meet your current demands, but also the ever-changing backup, archive, and disaster recovery (DR) requirements of the future.

The following software are pre-installed in the Arcserve Appliance:

- Arcserve UDP
- Arcserve Unified Data Protection Agent for Linux
- Arcserve Backup

Arcserve Appliance is defined with Hardware Warranty. For more information about Appliance warranty, see <u>Appliance Warranty</u>.

Arcserve Unified Data Protection

The Arcserve UDP software is a comprehensive solution to protect complex IT environments. The solution protects your data residing in various types of nodes such as Windows, Linux, and virtual machines on VMware ESX Servers or Microsoft Hyper-V Servers. You can back up data to either a local machine or a recovery point Server. A recovery point Server is a central Server where backups from multiple sources are stored.

For more information about supported operating systems, see <u>Compatibility</u> <u>Matrix</u>.

Arcserve UDP provides the following capabilities:

- Back up the data to deduplication/non-deduplication datastores on recovery point Servers
- Back up recovery points to tape, using integration with Arcserve Backup (which is also included within the appliance)
- Create virtual standby machines from backup data
- Replicate backup data to recovery point Servers and remote recovery point Servers
- Restore backup data and performs Bare Metal Recovery (BMR)
- Copy selected data backup files to a secondary backup location
- Configure and manage Arcserve Full System High Availability (HA) for critical Servers in your environment

Arcserve UDP replicates backup data that is saved as recovery points from one Server to another recovery point Server. You can also create virtual machines from the backup data that can act as standby machines when the source node fails. The standby virtual machine is created by converting recovery points to VMware ESX or Microsoft Hyper-V virtual machine format.

The Arcserve UDP solution provides integration with Arcserve High Availability. After you create scenarios in Arcserve High Availability, you can then manage and monitor your scenarios and perform operations like adding or deleting destination machines.

For more information, see <u>Arcserve UDP Solution Guide</u>.

Arcserve Unified Data Protection Agent for Linux

Arcserve Unified Data Protection Agent for Linux is a disk-based backup product that is designed for Linux operating systems. It provides a fast, simple, and reliable way to protect and recover critical business information. Arcserve Unified Data Protection Agent for Linux tracks changes on a node at the block level and then backs up only those changed blocks in an incremental process. As a result, it lets you perform frequent backups, reducing the size of each incremental backup (and the backup window) and providing a more up-to-date backup. Arcserve Unified Data Protection Agent for Linux also provides the capability to restore files or folders and perform a bare metal recovery (BMR) from a single backup. You can store the backup information either on a Network File System (NFS) share or in the Common Internet File System (CIFS) share, in the backup source node.

The latest version of Arcserve Unified Data Protection Agent for Linux is preinstalled in a virtual machine within the appliance. This virtual machine becomes the Linux Backup Server. Arcserve Unified Data Protection Agent for Linux is installed at the default installation path in the Arcserve Appliance.

When you open the Console, the Linux Backup Server is already added to the Console. The native host name of the Linux Backup Server is *Linux-BackupSvr*. However, on the Console, the Linux Backup Server adopts the host name of the Appliance with port 8018 configuration. The Linux Backup Server works behind NAT through port direction. The Linux Backup Server uses port 8018 to communicate and transfer data in the Arcserve Appliance.

Note: For more information about creating backup plans and restoring Linux machines, see <u>Arcserve UDP Agent for Linux User Guide</u>.

The Linux Backup Server uses the following default login information:

- Username root
- Password Arcserve

Note: We recommend to change the default password.

Arcserve Backup

Arcserve Backup is a high-performance data protection solution that addresses the needs of businesses with heterogeneous environments. It provides flexible backup and restore performance, easy administration, broad device compatibility, and reliability. It helps you to maximize your data storage abilities that lets you customize your data protection strategies based on your storage requirements. In addition, the flexible user interface allows advanced configurations and provides a cost-effective way for users at all levels of technical expertise to deploy and maintain an extensive range of agents and options.

Arcserve Backup delivers comprehensive data protection for distributed environments and provides virus-free backup and restore operations. An extensive set of options and agents extends data protection throughout the enterprise and delivers enhanced functionality, including online hot backup and restore of application and data files, advanced device and media management, and disaster recovery.

Arcserve Appliance includes integration with Arcserve Backup for performing a backup to tape. Arcserve Backup gets installed in the following location "C:\Program Files (x86)\Arcserve" on your computer after you mount and install using the InstallASBU.iso file. The components installed in the Arcserve Appliance lets you back up the destination of Arcserve UDP to a tape. For more information about supported operating systems, see Compatibility Matrix.

You can download the full installation package of Arcserve Backup from Arcserve website to install other components. For details, refer to Arcserve Backup <u>doc</u>-<u>umentation</u>.

Arcserve Backup Server uses the following default login information:

- Username -- caroot
- Password -- Arcserve

Replication and High Availability

Replication and High Availability is a solution based on asynchronous real-time replication and automated application switchover and switchback to provide costeffective business continuity for virtual environments on Windows Servers. For more information about supported operating systems, see <u>Compatibility Matrix</u>.

Replication and High Availability lets you replicate data to a local or remote Server, helping you to recover that data if you face a Server crash or site disaster. You may switch your users to the replica Server manually or automatically if you have licensed High Availability.

Note: Replication and High Availability is not pre-installed in the Appliance. For more information about how to install and configure Replication and High Availability, see <u>Installation Guide</u>

Safety Precautions

For your safety, please read and follow all instructions before attempting to unpack, connect, install, power on, or operate an Arcserve Appliance. Failure to adhere to the safety precautions can result in personal injury, equipment damage, or malfunction.

For more information about the safety precautions, see the <u>Safety Precautions</u> <u>Appendix</u>.

What is Included in the Box

This section describes what is included in the box of following Appliance series:

- 10000 Series
- 9000 Series
- X Series

What is Included in the Box of Appliance 10000 Series

10000 series contains two boxes: 10012BU-10048BU and 10048DR-10576DR.

The following items are included in the 10012BU-10048BU Accessory box:

- Quick Start Guide, Arcserve Appliance READ ME FIRST SHEET
- Arcserve QR Leaflet (with QR code to guides)
- Arcserve QR Leaflet (with QR code to Server Hardware Installation Guide)
- 2x Power cord (c13 to nema 5-15p). A pair of power cords will be added to the box of the destination country for the order, in addition to the default US power cord.
- 1x rail kit / bracket set
- ¹ 1x HDD tray screw bag
- CABLE, FLEXBOOT,CAT6,NETWORK,3FT,BLUE CABLE, FLEXBOOT,CAT6,NETWORK,7FT,BLACK

The following items are included in the 10048DR-10576DR Accessory box:

- Quick Start Guide, Arcserve Appliance READ ME FIRST SHEET
- Arcserve QR Leaflet (with QR code to guides)
- Arcserve QR Leaflet (with QR code to Server Hardware Installation Guide)
- 2x Power cord (c13 to nema 5-15p). A pair of power cords will be added to the box of the destination country for the order, in addition to the default US power cord.
- 1x rail kit / bracket set
- 1x 3.5 HDD screws bag
- 1x 2.5 HDD screws bag
- CABLE, FLEXBOOT,CAT6,NETWORK,3FT,BLUE CABLE, FLEXBOOT,CAT6,NETWORK,7FT,BLACK

What is Included in the Box of Appliance 9000 Series

Arcserve Appliance 9000 series contains two boxes: One for 9012, 9024, 9048 and other for 9072DR-9504DR. Below list provides included items in both the boxes.

The following items are included in the 9012, 9024, 9048 Accessory box:

- BEZEL,1U Box, CUS 14G BEZEL ASSEMBLY, LCD, AR, (380-7406)
- QUICK START GUIDE, ARCSERVE, READ ME FIRST SHEET ARCSERVE APPLIANCE
- HARDWARE INSTALLATION GUIDE ARCSERVE DELL R440
- CABLE, FLEXBOOT, CAT6, NETWORK, 3FT, RED
- CABLE, FLEXBOOT,CAT6,NETWORK,3FT,BLUE
- CABLE, FLEXBOOT,CAT6,NETWORK,7FT,BLACK
- Dell Safety, Environment, Regulatory book
- US Power cords (2x)a

Note: Inspect the box that the appliance was shipped in and ensure that no items are missing from the box and that there are no visible signs of damage. If any items are missing or damaged, retain all packaging materials and contact <u>Arcserve Support</u>.

The following items are included in the 9072DR-9504DR Accessory box with a Rack Rail kit:

- BEZEL, 2U Box, CUS 14G BEZEL ASSEMBLY, LCD, AR, (380-7405)
- QUICK START GUIDE, ARCSERVE, READ ME FIRST SHEET ARCSERVE APPLIANCE
- HARDWARE INSTALLATION GUIDE ARCSERVE DELL R740
- CABLE, FLEXBOOT, CAT6, NETWORK, 3FT, RED
- CABLE, FLEXBOOT, CAT6, NETWORK, 3FT, BLUE
- CABLE, FLEXBOOT, CAT6, NETWORK, 7FT, BLACK
- CABLE ASSMBLY, MINI-SAS, EXTERNAL, SFF-8088 TO SFF-8644, 1M
- Dell Safety, Environment, Regulatory book
- US Power cords (2x)

What is Included in the Box of Appliance X Series

Arcserve Appliance X series contains the following items:

- Appliance X Series Compute Node:
 - MICROSOFT
 - WIN SVR EMB STD 2019 16-CORE

Compute Node Accessory box:

- Windows 4-Core Expansion Licenses (qty 10)
- HARDWARE SETUP GUIDE, ARCSERVE R740
- QUICK START GUIDE, ARCSERVE, READ ME FIRST SHEET UDP APPLIANCE
- Dell Safety Documentation
- Power Cords (qty 2) US or Country Specific, if ordered
- * Rack Mount Slide Rail Kit
- Cable Management Arm
- Optional components, if ordered:
 - SFPs
 - SAS cable
 - DAC cable

Note: The following will be attached to the front of the Array: Arcserve ME4084 painted bezel and bubble badge assembly.

Appliance X series Storage Node

The 5U storage system box includes the following:

- Documentation
- 5U storage appliance enclosure
- Two power cables
- Separately packaged disk drives (5U enclosure only)
- Fibre Channel or iSCSI SFP+ transceivers or cables (one per host port)
- Host cables (1 per controller module host port)
- Expansion cables (1 per expansion module)
- Optional enclosure bezel set with key (1 per 5U enclosure)
- Appropriate rackmount kit for 5U storage system enclosure

ME4084 Accessory boxes:

- HARDWARE SETUP GUIDE, ARCSERVE ME4084
- * Rack Mount Slide Rail Set
- C19 to C20, PDU Style, 2.5M Power Cord (qty 2)
- * Serial Cable
- 12Gb HD-Mini to HD-Mini SAS Cable, 2M (qty 4)
- * Storage Array Regulatory Info doc
- * Setting Up Your Storage Array doc
- * Safety and Environmental Info doc
- Bezel Removal Wrench
- Unused drive number labels

Note: The Hard Drives are in a separate box under the Array.

Note: Inspect the box that the appliance was shipped in and ensure that no items are missing from the box and that there are no visible signs of damage. If any items are missing or damaged, retain all packaging materials and contact <u>Arcserve Support</u>.

What is Not Included in the Box

The following items are not included in the box and may be needed for installation and configuration of the appliance:

- Monitor
- Keyboard
- External Storage Device (if needed)

Available Models

The Arcserve Appliance 9000 series and X series are available in a variety of different models designed to meet your specific needs:

- Model 10012BU 10048BU
- Model 10048DR 10576DR
- Models 9012 9504 DR
- Model X Series

Model 10012BU-10048BU

Arcserve Appliance Models 10012BU - 10048BU

| Arcserve Appliance 10K Series Specifications | | | | | |
|--|--|-------------------------------|------------------|--|--|
| Appliance Model | 10012BU 10024BU 10048BU | | | | |
| Effective capacity (TB)1 | 12 | 24 | 48 | | |
| Usable Capacity | 4 TB | 8 TB | 16 TB | | |
| Maximum usable capacity using expansion kit | NA | | | | |
| Form Factor | | 1U | | | |
| Base RAM (DDRS 5600) | | 64 GB (2x32 GB |) | | |
| Max RAM | | 256 GB | | | |
| SAS 12G HDD Enterprise Grade 7.2k | 3x2 TB | 3x2 TB 3x4 TB | | | |
| NVMe M.2 | NA | | | | |
| SSD | | 1x480 GB | | | |
| СРИ | Intel [®] Xeon [®] Silver 4510T 12C 2 G | | | | |
| RAID Controller | Broadcom 39 | 08 with CacheVa protection | ault write cache | | |
| HDD RAID Configuration | | RAID5 | | | |
| Drive Bays | | 3xHDD, 3xSSD | | | |
| Optional RAM Expansion Kits | \checkmark | \checkmark | \checkmark | | |
| DIMM Slots | | 8 | | | |
| NIC | Total 4 Ports. 2x 1GbE on-board. 2x 10 GbE Base-T via Broadcom BCM57416 | | | | |
| Available PCIe slots | | 1 | | | |
| Remote Hardware Management | IPMI(Advance License) | | | | |
| Power Supplies | 2x 860W Redundant Titanium Level (96%) Hot- swap replacement | | | | |

| HDD Kit (optional) | Х | Х | X | | |
|--|--|----------|---|--|--|
| RAM Expansion Kit (Optional) | Each kit of 64GB (2x32) Can be ordered in mul tiples. Max 3 Kits. | | | | |
| External 12GBps SAS HBA - Broad- com Aero HBA 9500-8e PCIe Gen4 | - Optional | | | | |
| 10Gbit LAN - Broadcom BCM57416 dual-port 10Gbps Base-T Adapter | | Optional | | | |
| 10Gbit Optic Ethernet - Intel X710 Std LP Dual port 10G SFP+ | Optional | | | | |
| 25Gbit Optic Ethernet - Broad- com BCM57414 Std LP Dual port 25G SFP28 | Optional | | | | |
| 16G Fibre Channel - QLogic 2692 Dual Port 16Gb Fibre Channel HBA | Optional | | | | |
| Weight | Gross Weight: 34.5 lbs (15.46 kg) Net Weight: 21.5 lbs (9.75 kg) | | | | |
| Packaging Dimensions | 597 x 216 x 856mm (23.5" x 8.5" x 33.7") | | | | |
| In-Rack Dimensions | | | | | |

Model 10048DR-10576DR

| Arcserve Appliance 10K Series Specifications | | | | | | | |
|---|---------|--------------|--------------|--------------|--------------|---------|-------------|
| Appliance Model | 10048DR | 10072D- R | 10144D- R | 10192D- R | 10288D- R | 10384DR | 10576D R |
| Effective capacity (TB)1 | 48 | 72 | 144 | 192 | 288 | 384 | 576 |
| Usable Capacity | 16 TB | 24 TB | 48 TB | 64 TB | 96 TB | 128 TB | 192 TB |
| Maximum usable capa- city using expansion kit | 40 TB | 40 TB | 80 TB | 80 TB | 160 TB | 160 TB | NA |
| Form Factor | | | | 2U | | | |
| Base RAM | 128 GB | | 25 | 56 GB (8x | 32 GB) | | 384 GB |

Arcserve Appliance Models 10048DR - 10576DR

| (DDR5 5600) | (4x32 GB) | | | | | | (12X32 GB) | | |
|--|--|-----------------------------|-------------------|-----------------------|--------------------|--|---------------|--|--|
| Max RAM | 512 GB | | | | | | | | |
| SAS 12G HDD Enter- prise Grade 7.2k | 6x4 TB | 8x4 TB | 8x8 TB | 10x8 TB | 8x16 TB | 10x16 TB | 14X16 TB | | |
| NVMe M.2 | 2x480 GB (RAID 1) for OS and UDP | | | | | | | | |
| SSD | | 2x 3.2 TB for Hash (RAID 1) | | | | | | | |
| CPU | | Dual Ir | ntel ® Xec | on® Silve | r 4510T 1 | .2C 2 G | | | |
| RAID Con- troller | Broad | com 391 | 6 with Ca | icheVaul ⁻ | t write ca | ache protectio | 'n | | |
| HDD RAID Con- figuration | | RAID6 | | | | | | | |
| Drive Bays | | | 14 | xHDD, 2x | SSD | | | | |
| Optional RAM Expan- sion Kits | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | \checkmark | | |
| DIMM Slots | | | | 16 | | | | | |
| NIC | Total 4 Ports. 2x 10GbE on-board. 2x 10 GbE Base-T via Broadcom BCM57416 | | | | | | | | |
| Available PCIe slots | | 3 (Low Profile) | | | | | | | |
| Remote Hardware Man- agement | IPMI(Advance License) | | | | | | | | |
| Power Sup- plies | 2x 1600W F | Redundaı | nt Titaniu | ım Level | (96%) ho | ot-swap replac | ement | | |
| HDD Kit (optional) | 8x4 TB(24 TB) RAM Upgrade recom- mended | 6x4 TB (16 TB) | 6x8 TB (32 TB) | | 6x16 TB (64 TB) | 4x16 TB(32 TB) RAM Upgrade recom- mended | х | | |
| RAM Expan- sion Kit (Optional) | (4x32) can be Each kit of 128 GB (4x32) can be (4 ordered in multiples. ordered in multiples. Max 2 Kits. M | | | | | 128 GB (4x32) Max 1 kit. | | | |
| Broadcom Aero HBA 9500-8e | Optional | | | | | | | | |

| Optional |
|---|
| Optional |
| |
| |
| |
| Ontional |
| Optional |
| |
| |
| |
| Optional |
| |
| |
| |
| |
| Optional |
| |
| |
| Gross Weight: 62 lbs (28.12 kg) |
| Net Weight: 41.5 lbs (18.82 kg) |
| |
| 658 x 274 x 998mm (25.9" x 10.8" x 39.3") |
| 437 x 89 x 705mm (17.2" x 3.5" x 27.75") |
| 457 X 65 X 705mm (±7.2 × 3.5 × 27.75) |
| |

Note: Effective capacity considers global source deduplication and equals 3x the usable capacity. Actual backup capacity may vary depending on data types, backup type, schedule, and other factors.

Models 9012 - 9504DR

Arcserve Appliance Models 9012 - 9504DR

| | Arcserve Appliance 9000 Series Specifications | | | | | | | | | | |
|------------------|---|-----|------------------|-------|-------|--------|----------------------|--------|--------|-------|--------|
| Appliance | 901 | 902 | 904 ⁻ | 9072- | 9096- | 9144- | 919 <mark>2</mark> - | 9240- | 9288- | 9360- | 9504DR |
| Model | 2 | 4 | 8 | DR | DR | DR | DR | DR | DR | DR | 5504DK |
| Usable | 4 | 8 | 16 | 24 TB | | 10 TD | | | | 120 | 168 TB |
| capacity | ΤВ | ΤВ | ΤВ | | | 52 I D | 40 I D | 04 1 D | 00 I D | 9010 | ΤВ |
| Source | 12 | 24 | 48 | 72 TB | 96 TB | 144 | 192 | 240 | 288 | 360 | 504 TB |

| Backup | ТВ | ТВ | ТВ | | | ТВ | ТВ | ТВ | ТВ | ТВ | |
|-------------------------|---|----------------|----------------|-------------|---------------------|-------------|--------------------|--------------|---------------|---------------------------|---|
| System RAM | 6 x 8 GB (48 GB) | | | | 12 x 16 GB (192 GB) | | | | | 12 x 32 GB (384 GB) | |
| Max RAM / DIMMS | 176 GB / 10 DIMMS | | | | | 576 GI | 3 / 24 C | OIMMS | | | 768 GB / 24 DIMMS |
| SSD drive | 480 |)GB S | SSD | | | 2 x | 1.9 TB | SSD (R/ | AID1) | | |
| Processor | Intel Xeon Sil- ver 4108, 8- CORE, 1.8 GHz | | | | Intel | Xeon Si | lver 41 | 14, 10- | CORE, 2 | 2.2 GHz | 2 |
| Number of Processors | | 1 | | | | | | 2 | | | |
| RAID Card | PERC H730P Low Profile, adaptor, 2 GB NV Cache | | | | PERC | C H730I | P, Mini(| Card, 2 | GB NV | Cache | |
| RAID Con- figuration | R | AID- | 5 | | | | RA | ID-6 | | | |
| Drive Bays | | 4 | | | | | | 16 | | | |
| Expansion Kit | NA | | | 11 | 10 | 8 | 6 | 4 | 6 | 4 | NA |
| RAID 2 | | NA | | | | | | 6 | - | | |
| Drives | 3 x 2 TB | 3 x 4 TB | 3 x 8 TB | 5 x 8 TB | 6 x 8 TB | 8 x 8 TB | 10 x 8 TB | 12 x 8 TB | 10 x 12 TB | 12 x 12 TB | 16 x 12 TB |
| Base PCle Cards | On-Board Broadcom 5720 Dual Port 1Gb LOM | | | | | | lGb Nei 3A Exte | | - | | Broad- com 5720 QP 1Gb SAS 12Gbps HBA External Dual Port 10G Base-T Copper |
| PCIe Cards (Factory | | 12G Exte | - | | | Dual-Po | ort 10G | Сорре | r | | Dual- Port |

| | Controller | | |
|-------------|-------------------------|---|---------|
| | Broadcom | | |
| | 5719 Quad- | | 10G |
| | Port 1G NIC | | SFP+ |
| Option) | Dual-Port | Dual-Port 10G SFP+ | Dual- |
| | 10G Copper | Dual-Port FC 16G HBA | Port FC |
| | Dual-Port | | 16G |
| | 10G SFP+ | | HBA |
| | Dual-Port FC 16G HBA | | |
| | Dual, Hot- | | |
| Derver Cure | Plug, Redund- | | |
| Power Sup- | ant Power | Dual, Hot-Plug, Redundant Power Supply (1+1), | 750 W |
| plies | Supply (1+1), | | |
| | 550 W | | |
| iDRAC | | 1 | |
| Enterprise | | 1 | |

Model X Series

Arcserve Appliance Model X Series

| Arcserve Appliance X Series Specifications | | | | | | | |
|---|---|-------------|--------------|-------------|---------|--|--|
| Appliance Model | X1000DR | X1500DR | X2000DR | X2500DR | X3000DR | | |
| Effective Capacity (TB) ¹ | 1,056 | 1,584 | 2,112 | 2,640 | 3,168 | | |
| Maximum Effective Capa- | | | | | | | |
| city with Expansion Kits (TB) ¹ | | | 3,168 | | | | |
| Note: Effective capacity take | es global sou | irce dedupl | ication into | o account a | and is | | |
| approximately 3x the usable capacity of the HDDs and does not include SSDs. The | | | | | | | |
| actual backup capacity may vary based on factors such as data types, backup type, | | | | | | | |
| schedule, and so on. | | | | | | | |
| Disk Imaging and Disaster | naging and Disaster Arcserve UDP Premium Edition included | | | | dod | | |
| Recovery Software | Arcserve ODP Premium Edition Included | | | | | | |
| Tape Integration Software | Arcserve Backup included | | | | | | |
| Continuous Availability with | | | | | | | |
| Automated Failover | Arcserve Continuous Availability optional | | | | | | |
| Compute Node | | | | | | | |
| | Dual Intel Xeon Gold 6258R 2.7G, 28C/56T, 10.4GT/s | | | | | | |
| CPU | 38.5M Cache, Turbo, HT (205W) | | | | | | |

| Default RAM | 1,0 | 24 GB (16 x | 64) DDR4- | 3200 RDIN | ЛМ | | |
|---|--|------------------------------|--------------|------------|------|--|--|
| Max RAM | | | 2,048 GB | | | | |
| DIMM Slots | 24 | | | | | | |
| NVMe SSD | 2 x | 1.6TB (RAID |)-1) and 6 > | 4TB (RAID | D-5) | | |
| Drive Bays | | 24x 2.5" Enterprise NVMe SSD | | | | | |
| SAS 12Gbps HBA External Controller | | 2 | x Included | | | | |
| Intel X550 Quad Port 10G Base-T Adapter | | | Included | | | | |
| Broadcom 57414 Dual Port 25Gb SFP28 Adapter | | | Optional | | | | |
| Intel X710 Dual Port 10G SFP+ FC Adapter | | | Optional | | | | |
| QLogic 2692 Dual Port 16Gb Fibre Channel HBA | | | Optional | | | | |
| Remote Hardware Man- agement | iDRAC Enterprise Included | | | | | | |
| Power Supplies | Dual, Hot-plug, Redundant Power Supply (1+1), 1100W | | | | | | |
| Heat Dissipation | 4100 BTU/hr | | | | | | |
| Weight | 75lbs (34kg) | | | | | | |
| Form Factor | 2U | | | | | | |
| In-rack Dimensions (excludes bezel, front panel, and power supply handles) | 26.7" x 17.1" x 3.4" (67.9 cm x 43.4 cm x 8.7cm) | | | | | | |
| Outer Dimensions (includes bezel, front panel, and power supply handles) | 29.6" x 19.0" x 3.4" (75.1 cm x 48.2 cm x 8.7cm) | | | | | | |
| Packaging Dimensions | 38′ | ′ x 26″ x 12 | " (97cm x 6 | 66cm x 30c | :m) | | |
| | Stora | ge Node | | | | | |
| 16TB SAS 12G Hot-Plug HDD | 28 | 42 | 56 | 70 | 84 | | |
| Minimum Usable Capacity | 352 | 528 | 704 | 880 | 1056 | | |
| Linear Expansion Capability with Optional Kits | | | | | | | |
| RAID Level | RAID-ADAPT | | | | | | |
| RAID Controller | Dual 8-port SAS 12Gb Controller | | | | | | |
| Hot-spare space on HDDs | Up to 64 TB | | | | | | |
| Power Supplies | Dual, Redundant (1+1), 2200W | | | | | | |

| Heat Dissipation | 7507 BTU |
|--|--|
| Weight | From 141lbs (64kg) to 298lbs (135kg) |
| Form Factor | 50 |
| Outer Dimensions (includes bezel, front panel, and power supply handles) | 38.31" x 19.01" x 8.75" (97.47cm x 48.30cm x 22.23cm) |

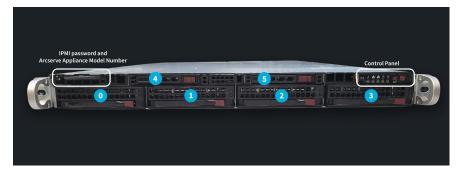
Controls and Indicators

The Arcserve Appliance contains several controls and indicators (LEDs) on the front and rear panels and on each drive carrier. These controls and indicators provide the capability to control various functions and a quick-view reference of the status of the appliance and components:

- Front Panel 10012BU-10048BU
- Front Panel 10048DR-10576DR
- Front Panel 9012-9048
- Front Panel 9072DR-9504DR
- Front Panel X Series
- Rear Panel 10012BU-10048BU
- Rear Panel 10048DR-10576DR
- Rear Panel 9012-9048
- Rear Panel 9072DR-9504DR
- Rear Panel X Series
- Top View 10012BU-10048BU

Front Panel 10012BU-10048BU

The front panel of the Arcserve Appliance contains control panel buttons, control panel LEDs, and drive carrier LEDs. The following table describes these items:



| Control / Indicator | Description | |
|----------------------------|---|--|
| Drive 0 | 2.5" hot-swap SATA drives for Hash (Non-RAID) | |
| 1, 2, and 3 Drive carriers | 3.5" hot-swap SAS drive bays. For more information, | |
| | see Drive Carriers LED. | |
| Drive 4 and 5 | 2.5" Hot swap SATA drives for Boot (RAID 1) | |
| Control panel | Contains the power button, reset button and LED | |

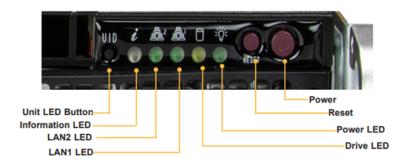
| | indicators. For more information, see Control Panel |
|----------------------------|---|
| | and <u>Information LED</u> . |
| IPMI password and Arcserve | A pull out tag contains IPMI password, and Arcserve |
| appliance model number | appliance model number. |

Drive Carriers LED

Each drive carrier has two LED indicators: activity and status indicators. For RAID configurations using a controller, the meaning of the status indicator is described in the table below:

| | Color | Plinking Dattorn | Behavior |
|--------------|-------|---|--------------|
| | COIOF | Blinking Pattern | for Device |
| | | | Idle |
| | Blue | Solid On | SAS/NVMe |
| | ыце | | drive |
| | | | installed |
| Activity LED | Blue | Blinking | I/O activity |
| | | | Idle SATA |
| | OFF | | drive |
| | | | installed |
| | | | Failure of |
| | Red | Solid On | drive with |
| | Neu | | VROC sup- |
| | | | port |
| | | Blinking at 1 Hz | Rebuild |
| | Red | | drive with |
| | neu - | | VROC sup- |
| | | | port |
| | Red | Blinking with two blinks and one stop at 1 Hz | Hot spare |
| Status LED | | | for drive |
| | | | with VROC |
| | | | support |
| | | | Power on |
| | Red | Blinking with two blinks and | for drive |
| | Reu | one stop at 1 Hz | with VROC |
| | | | support |
| | | Blinking at 4 Hz | Identify |
| | Red | | drive with |
| | | | VROC sup- |
| | | | port |

Control Panel



| Control / Indicator | Description |
|---------------------|--|
| UID LED Button | Push this button to turn on the blue UID LED indicators both at the front and at the rear. This helps in identifying the unit when requiring service, especially when it is part of a large installation. |
| Information LED | Alerts operator to several states. For more information, see Information LED. |
| LAN2 LED | Indicates network activity on LAN port 2 when flashing. |
| LAN1 LED | Indicates network activity on LAN port 1 when flashing. |
| Drive LED | Indicates activity on the storage drives when flashing. |
| Power LED | Steady on – Power on Blinking at 4 Hz – Checking BIOS/BMC integrity Blinking at 4 Hz and "i" LED is blue – BIOS firmware updat- ing Two blinks at 4 Hz, one pause 2 Hz and "i" LED blue – BMC firmware updating Blinking at 1 Hz and "i" LED red – Fault detected |
| Reset Button | Reboot the system |
| Power Button | The main power switch applies or removes primary power from the power supply to the server but maintains standby power. Hold for four seconds to force a shut-down. |

Information LED

The following table describes the Information LED status:

| Color, Status Description | |
|---------------------------|--|
|---------------------------|--|

| Red, solid | An overheat condition has occurred. | |
|--|--|--|
| Red, blinking at 1 Hz | Fan failure, check for an inoperative fan. | |
| Red, blinking at 0.25 Hz | Power failure, check for a non-operational power supply. | |
| Red, solid, with Power LED blinking green | Fault detected | |
| Blue and red, blinking at 10 Hz | Recovery mode | |
| Blue, solid | UID has been activated locally to locate the server in a rack environment. | |
| Blue, blinking at 1 Hz | UID has been activated using the BMC to locate the server in a rack environment. | |
| Blue, blinking at 2 Hz | BMC is resetting. | |
| Blue, blinking at 4 Hz | BMC is setting factory defaults. | |
| Blue, blinking at 10 Hz | BMC/BIOS firmware is updating. | |
| green | | |

Front Panel 10048DR-10576DR

The front panel of the Arcserve Appliance contains control panel buttons, control panel LEDs, and drive carrier LEDs. The following table describes these items:



Control Panel IPMI password and Arcserve Appliance model number

| Control / Indicator | Description |
|------------------------|---|
| 0 - 5 | SAS 3.5" HDDs. For more information, see Drive Carriers |
| 0-5 | LED. |
| 6 - 11 | SAS 3.5" HDDs. For more information, see Drive Carriers |
| 0-11 | LED. |
| 12-13 | SAS 3.5" HDDs. For more information, see Drive Carriers |
| 12-13 | LED. |
| 14-15 | SAS 2.5" SSDs. For more information, see Drive Carriers |
| 14-13 | LED. |
| Control Panel | Contains the power button, reset button and LED indic- |
| | ators. For more information, see <u>Control Panel</u> . |
| IPMI password and Arc- | Contains the IPMI password and Arcserve appliance |
| serve appliance model | model number. |

number

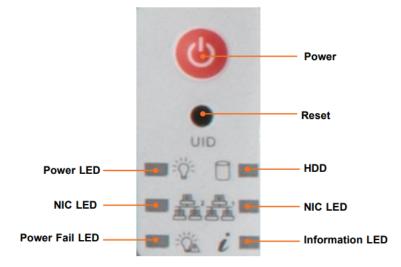
Drive Carriers LED

Each drive carrier has two LED indicators: activity and status indicators. For RAID configurations using a controller, the meaning of the status indicator is described in the table below:

| | Color | Blinking Pattern | Behavior |
|--------------|-------|---|------------------|
| | | | for Device |
| | | | ldle SAS/NVMe |
| | Blue | Solid On | drive |
| | | | installed |
| Activity LED | Dhue | Dlinking | |
| | Blue | Blinking | I/O activity |
| | | | Idle SATA |
| | Off | | drive |
| | | | installed |
| | | | Failure of |
| | Red | Solid On | drive with |
| | | | RSTe sup- |
| | | | port |
| | | | Rebuild |
| | Red | Plinking at 1 Hz | drive with |
| | neu | Blinking at 1 Hz | RSTe sup- |
| | | | port |
| | | | Hot spare |
| | Dod | Blinking with two blinks and | for drive |
| | Red | one stop at 1 Hz | with RSTe |
| | | | support |
| Status LED | | | Power on |
| | D. J | Blinking with two blinks and one stop at 1 Hz | for drive |
| | Red | | with RSTe |
| | | | support |
| | | | Identify |
| | | | drive with |
| | Red | Blinking at 4 Hz | RSTe sup- |
| | | | port |
| | | Solid On | Safe to |
| | | | remove |
| | Green | | NVMe |
| | | | drive |

| | | Do not |
|-------|------------------|----------------|
| Amber | Blinking at 1 Hz | remove NVMe |
| | | drive |

Control Panel



| Control / Indicator | Description |
|---------------------|--|
| Power button | The main power switch applies or removes primary power from |
| | the power supply to the server but maintains standby power. |
| Reset Button | Reboots the system. |
| | Indicates power is being supplied to the system power supply |
| Power LED | units. This LED is illuminated when the system is operating nor- |
| | mally. |
| HDD | Indicates activity on the storage drives when flashing. |
| NIC LEDs | Indicates network activity on LANs when flashing. |
| Power Fail LED | Indicates a power supply module has failed. |
| | Alerts operator to several states. For more information, |
| Information LED | see Information LED. |

Information LED

The following table describes the Information LED status:

| Color, Status | Description |
|--------------------------|--|
| Red, continuously | An overheat condition has occurred. |
| Red, blinking at 1 Hz | Fan failure, check for an inoperative fan. |
| Red, blinking at 0.25 Hz | Power failure, check for a non-operational power supply. |
| Blue, solid | UID has been activated locally to locate the server in a |

| | rack environment. |
|------------------|--|
| Blue, blinking | UID has been activated using the BMC to locate the |
| Diue, Dillikilig | server in a rack environment. |

Front Panel 9012-9048

The front panel of the Arcserve Appliance contains control panel buttons, control panel LEDs, and drive carrier LEDs. The following table describes these items:



| Number | Control / Indicator | lcon | Description | |
|-------------|--|------|--|--|
| Number 1 | umber Control / Indicator Icon Left control panel NA | | Contains the system health and system ID, status LED, and the iDRAC Quick Sync 2 (wireless) indicator. NOTE: The iDRAC Quick Sync 2 indicator is available only on certain configurations. • Status LED: Enables you to identify any failed hardware components. There are up to five status LEDs and an overall system health LED (Chassis health and system ID) bar. For more information, see <u>link</u> . | |
| | | | Quick Sync 2 (wireless): Indicates a Quick Sync enabled system. The Quick Sync feature is optional. This feature allows management of the system by using mobile devices. This feature aggregates hardware or firmware inventory and various system level diagnostic and error information that can be used in troubleshooting the system. For more information, see link. | |
| 2 | Drive slots | NA | Enable you to install drives that are sup- ported on your system. For more inform- ation about drives, see <u>link</u> . | |

| 3 | Optical drive (optional) | NA | One optional slim SATA DVD-ROM drive or DVD+/-RW drive. |
|---|--------------------------|------|--|
| 4 | VGA port | | Enables you to connect a display device to the system. |
| 5 | USB port (optional) | \$\$ | The USB port is USB 2.0 compliant. |
| 6 | Right control panel | NA | Contains the power button, USB port, iDRAC Direct micro port, and the iDRAC Direct status LED. |
| 7 | Information Tag | NA | The Information Tag is a slide-out label panel that contains system information such as Service Tag, NIC, MAC address, and so on. If you have opted for the secure default access to iDRAC, the Inform- ation tag also contains the iDRAC secure default password. |

Front Panel 9072DR - 9504DR

The front panel of the Arcserve Appliance contains control panel buttons, control panel LEDs, and drive carrier LEDs. The following table describes these items:



4

| Number | Control / Indicator | lcon | Description |
|--------|---------------------|------|---|
| 1 | Left control panel | NA | Contains system health and system ID, status LED or optional iDRAC Quick Sync 2 (wireless). |
| 2 | Drive slots | NA | Enable you to install drives that are supported on your system. For more information, see <u>link</u> . |
| 3 | Right control panel | NA | Contains the power button, VGA port, iDRAC Direct micro USB port and two USB 2.0 ports. |
| 4 | Information tag | NA | The Information Tag is a slide-out |

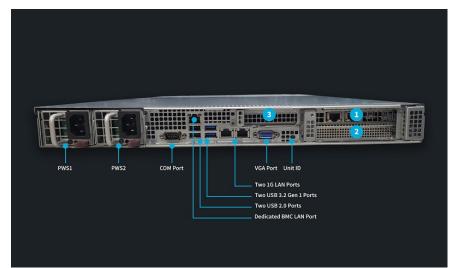
| | label panel that contains system |
|--|--------------------------------------|
| | information such as Service Tag, |
| | NIC, MAC address, and so on. If you |
| | have opted for the secure default |
| | access to iDRAC, the Information tag |
| | also contains the iDRAC secure |
| | default password. |

Front Panel X Series

For more information about the Front Panel, see <u>Appliance Installation of X Series</u> - <u>Compute Node</u> and <u>Appliance Installation of X Series</u> - <u>Storage Node</u>.

Rear Panel 10012BU-10048BU

The rear panel of the Arcserve Appliance contains Expansion card slots, power supply modules, Unit identifier LED, LAN ports, USB ports, VGA ports, BMC LAN port, and COM port. The following table describes these items:



| Control / Indicator | Description |
|---------------------|---|
| 1 | 10 GbE Base-T |
| 2 | Hardware RAID controller |
| 3 | Expansion slot available for optional cards (Low Profile) |
| PWS1 | Power supply module PWS1 is on the right side. For more information, see <u>Power Supply Indic</u> - ators. |
| PWS2 | Power supply module PWS2 is on the left side. |
| COM Port | One serial port |
| BMC LAN Port | One dedicated BMC LAN port |

| USB 2.0 Ports | Two USB 2.0 ports |
|---------------|-------------------------|
| USB 3.2 ports | Two USB 3.2 Gen 1 ports |
| VGA Port | One VGA video port |
| LAN Ports | Two 1G LAN ports |
| UID LED | Unit identifier LED |

Note: You can find the series number on the rear panel of the server near the COM port and on the IPMI interface.



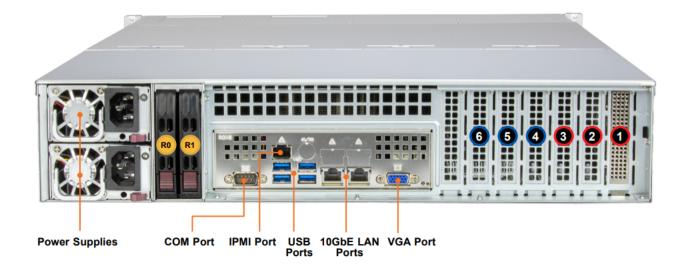
Power Supply Indicators

The following table describes the Power supply LED status:

| Power Supply Conditions | Green LED | Amber LED |
|---|---------------|------------------|
| No AC power to the power supply | OFF | OFF |
| Power supply critical events causing a shut- down/failure/ OCP/OVP/Fan Fail/OTP/UVP | OFF | ON |
| Power supply warning events where the power supply continues to operate: high temperature, over voltage, under voltage, etc | | 1 Hz Blinking |
| AC power present and only 12 VSB ON (PS OFF) | 1 Hz Blinking | OFF |
| Output is on and working properly | ON | OFF |
| AC cord unplugged and in redundant mode | OFF | ON |

Rear Panel 10048DR-10576DR

The rear panel of the Arcserve Appliance contains Expansion card slots, power supply modules, Unit identifier LED, LAN ports, USB ports, VGA ports, BMC LAN port,



and COM port. The following table describes these items:

| Control / Indicator | Description |
|---------------------|--|
| R0, R1 | Non-usable |
| 1 | Hardware RAID controller |
| 2 | Cache vault for Hardware RAID controller |
| 3 | 10 GbE Base-T |
| 4 | Expansion slot for optional cards (Low Profile) |
| 5 | Expansion slot for optional cards (Low Profile) |
| 6 | Expansion slot for optional cards (Low Profile) |
| Power Supplies | Dual redundant 1600 W power supplies. For |
| | more information, see <u>Power Supply Indicators</u> . |
| COM Port | Serial port (RS-232) |
| IPMI Port | Dedicated IPMI LAN port |
| USB ports | Four USB 3.0 ports |
| VGA Port | One video port |
| LAN Ports | Two RJ45 10 GbE LAN ports |

Note: You can find the series number on the rear panel of the server near the VGA port and on the IPMI interface.

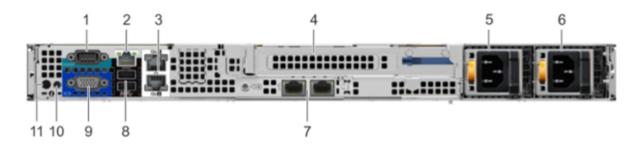
Power Supply Indicators

| Power Supply Conditions | Green LED | Amber LED |
|--|-----------|--------------|
| No AC power to the power supply | OFF | OFF |
| Power supply critical events causing a shut- down/failure/ OCP/OVP/Fan Fail/OTP/UVP | OFF | Amber LED |

| Power supply warning events where the power | | 1 Hz |
|--|------------------|-------|
| supply continues to operate: high temperature, | OFF | Blink |
| over voltage, under voltage, etc | | Amber |
| AC power present and only 12 VSB ON (PS OFF) | 1 Hz Blink Green | OFF |
| Output ON and OK | Green | OFF |
| AC cord unplugged and in redundant mode | OFF | Amber |

Rear Panel 9012-9048

The rear panel of the Arcserve Appliance contains the power supplies, cable connections, and ports for the appliance. The following table describes these items:

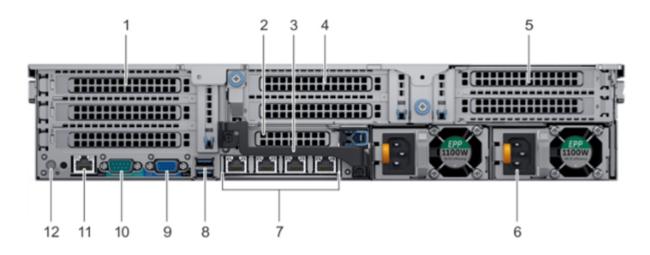


| Number | Control / Indicator | lcon | Description |
|--------|------------------------------------|-----------------------|---|
| 1 | Serial port | 10101 | Use the serial port to connect a serial device to the system. For more information, see <u>link</u> . |
| 2 | iDRAC9 dedicated net- work port | | Use the iDRAC9 dedicated network port to securely access the embedded iDRAC on a separate management network. For more information, see <u>link</u> . |
| 3 | Ethernet ports (2) | त्र <mark>य</mark> ेत | Use the Ethernet ports to connect Local Area Networks (LANs) to the system. For more information, see <u>link</u> . |
| 4 | Full height riser slot | | Use the card slots to connect full-height PCIe expansion cards on full height riser. |
| 5 | Power supply unit (PSU) | | For more information about the PSU con- figurations, see <u>link</u> . |
| 6 | Power supply unit (PSU) | | For more information about the PSU con- figurations, see <u>link</u> . |
| 7 | LOM riser ports (2) | 물 | For more information about the PSU con- figurations, see <u>link</u> . |
| 8 | USB 3.0 port (2) | \$\$\$ | Use the USB 3.0 port to connect USB devices to the system. These ports are 4-pin, USB 3.0-compliant. |

| 9 | VGA port | | Use the VGA port to connect a display to the system. |
|----|---------------------------------|---|--|
| 10 | CMA power port | | The Cable Management Arm (CMA) power port enables you to connect to the CMA. |
| 11 | System identification button | ٢ | Press the system ID button: To locate a particular system within a rack. To turn the system ID on or off. To reset iDRAC, press and hold the button for 15 seconds. Notes: To reset iDRAC using system ID, ensure that the system ID button is enabled in the iDRAC setup. If the system stops responding during POST, press and hold the system ID button is enabled in ton (for more than five seconds) to enter the BIOS progress mode. |

Rear Panel 9072DR-9504DR

The rear panel of the Arcserve Appliance contains the power supplies, cable connections, and ports for the appliance. The following table describes these items:



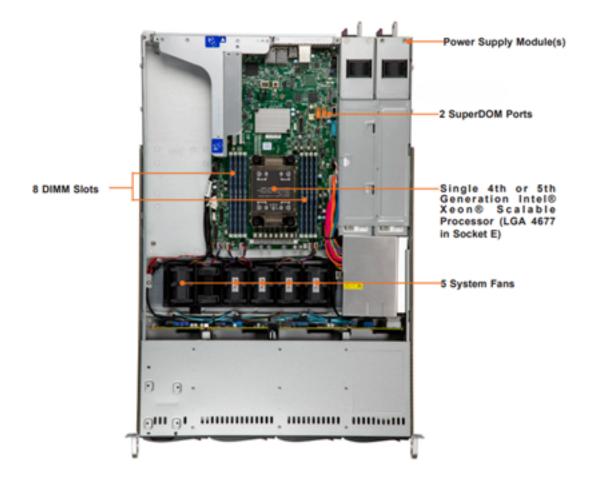
| Number | Control / Indicator | lcon | Description |
|--------|---|------|--|
| 1 | Full-height PCIe expan- sion card slot (3) | NA | The PCIe expansion card slot (riser 1) con- nects up to three full-height PCIe expansion cards to the system. For more information, see <u>link</u> . |
| 2 | Half-height PCIe expansion card slot | NA | The PCIe expansion card slot (riser 2) con- nects one half-height PCIe expansion cards to the system. For more information, see <u>link</u> . |
| 3 | Rear handle | NA | The rear handle can be removed to enable any external cabling of PCIe cards that are installed in the PCIe expansion card slot 6. |
| 4 | Full-height PCIe expan- sion card slot (2) | NA | The PCIe expansion card slot (riser 2) con- nects up to two full-height PCIe expansion cards to the system. For more information, see <u>link</u> . |
| 5 | Full-height PCIe expan- sion card slot (2) | NA | The PCIe expansion card slot (riser 3) con- nects up to two full-height PCIe expansion cards to the system. For more information, see <u>link</u> . |
| 6 | Power supply unit (2) | NA | For more information, see <u>link</u> . |
| 7 | NIC ports | ठैठ | The NIC ports that are integrated on the net- work daughter card (NDC) provide network connectivity. For more information about the supported configurations, see <u>link</u> . |

| 8 | USB port (2) | \$\$ ~. | The USB ports are 9-pin and 3.0-compliant. These ports enable you to connect USB devices to the system. |
|----|---------------------------------|--------------------|---|
| 9 | VGA port | | Enables you to connect a display device to the system. For more information, see <u>link</u> . |
| 10 | Serial port | 10101 | Enables you to connect a serial device to the system. For more information, see link. |
| 11 | iDRAC9 dedicated port | عراد | Enables you to remotely access iDRAC. For more information, see link. |
| 12 | System identification button | ٤ | The System Identification (ID) button is avail- able on the front and back of the systems. Press the button to identify a system in a rack by turning on the system ID button. You can also use the system ID button to reset iDRAC and to access BIOS using the step through mode. |

Rear Panel X Series

For more information about the Rear Panel, see <u>Appliance Installation of X Series</u> - <u>Compute Node</u> and <u>Appliance Installation of X Series</u> - <u>Storage Node</u>.

Top View 10012BU-10048BU Series



| Control / Indicator | Description |
|---------------------|---|
| Dowor Supplies | Dual 860 W high-efficiency redundant power |
| Power Supplies | supplies (Titanium level, 96%) |
| SuperDOM Parts | Disk-on-Module port allows for flash cards to |
| SuperDOM Ports | be mounted directly on the Motherboard |
| DIMM Slots | Eight DIMM slots |
| Drocossor | Single 4th or 5th Generation Intel [®] Xeon [®] Scal- |
| Processor | able Processor (LGA 4677 in Socket E) |
| System Fans | 4-cm counter-rotating fans used to provide cool |
| System Fans | ing for the system |

Ports Used by the Appliance

The following topics provide information about ports that are used by Arcserve UDP, Arcserve Backup, and the Appliance for Linux Support:

- Arcserve UDP
- Arcserve Backup
- Appliance for Linux Support

Arcserve UDP

This section contains the following topics:

- Components installed on Microsoft Windows
- Components installed on Linux
- Production node protected by UDP Linux remotely

Components installed on Microsoft Windows

The following ports are required for backup and other jobs when you have a LAN environment:

| Port # | Tvn. | tiated | Listening Process | Intern- al / Extern- al Port | Description |
|--------------------|------|--------------------------------|-------------------|---------------------------------------|---|
| 1433 | ТСР | Remote Java | sqlsrvr.exe | Externa- I | Specifies the default com- munication port between the Arcserve UDP console and Microsoft SQL Server databases when they reside on dif- ferent com- puters. Note : You can modify the default com- munication port when installing SQL Server. |
| 4090 | ТСР | Arc- serve UDP Agent | HATransServer.exe | Extern- al | Transfers data for Vir- tual Standby tasks in the proxy mode. |
| 500- 0- 5060 | тср | Arc- serve UDP Server | GDDServer.exe | Internal | Reserved for Arcserve UDP RPS Global Dedu- plication datastore |

| 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Service (GDD). One Arcserve UDP GDD datastore will use 3 free ports that start from 5000. It is needed when the datastore with GDD is enabled for backup or the restore task is used. 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Externa is needed when the datastore with GDD is enabled for backup or the restore task is used. 6052 TCP Arc- serve Backup GDB CA.ARCserve.communicationFoundation. Externa is serve Gobal Dash- board Primary Server syn- chronize data. |
|---|
| 6052 TCP Arc- serve Backup GDB Arc- serve Backup GDB Arc- serve Backup GDB Arc- serve Backup GDB Arc- serve Backup GDB Arc- serve Backup GDB Arc- serve Backup GDB Arc- serve Backup GDB Arc- serve CA.ARCserve.CommunicationFoundation. Backup GDB Arc- serve Backup GDB Arc- serve Serve Com- chronize data. |
| 6052 TCP Arc-serve CA.ARCserve.CommunicationFoundation. UDP GDD 6052 TCP Backup GDB CA.ARCserve.communicationFoundation. UDP GDD 6052 TCP Arc-serve serve Backup GDB CA.ARCserve.communicationFoundation. External and the Arc-serve serve and the Arc-serve grade 6052 TCP Arc-serve serve Backup GDB Com-munication Foundation. Com- runication that lets the Arcserve UDP Console and the Arc- serve serve grade Global Dash- board Primary Server syn- chronize data. |
| 6052TCPArc- serve Backup GDBCA.ARCserve.CommunicationFoundation.Arc- serve Backup GDBCom-6052TCPArc- serve Backup GDBCA.ARCserve.CommunicationFoundation.Com- munication that lets the Arcserve UDP Console and the Arc- serve gackup GDBCom- munication that lets the Arcserve GDB6052TCPArc- serve Backup GDBCA.ARCserve.CommunicationFoundation.External GDB6052TCPArc- serve Backup GDBCom- munication Foundation.Com- munication that lets the Arcserve GDB6052TCPArc- serve Backup GDBCom- munication Foundation.Com- munication Foundation.6052TCPArc- serve Backup GDBCom- munication Foundation.Com- munication Foundation.6052TCPArc- serve Backup GDBCom- munication Foundation.Com- munication Foundation.6053TCPArc- serve Backup GDBCom- munication Foundation.Com- munication Foundation.6054TCPArc- serve Backup GDBCom- Foundation.Com- Munication Foundation.6055TCPArc- serve Backup GDBCom- Foundation.Com-6055TCPCom- Foundation.Com-6055TCPCom- Foundation.Com-6055TCPCom- Foundation.Com-6055TCPCom- Foundation.Com- </td |
| 6052TCPArc- serve Backup GDBCA.ARCserve.CommunicationFoundation.Karc- serve Backup GDBCA.ARCserve.communicationFoundation.Com- munication that lets the Arcserve UDP Console and the Arcserve UDP Console and the Arcserve goad GDB6052TCPCA.ARCserve.communicationFoundation.External goad Gobal Dash- board Primary Server syn- chronize data. |
| 6052 TCP Arc- serve Backup CA.ARCserve.CommunicationFoundation. Formation biologiant Com- munication that lets the Arcserve 6052 TCP CA.ARCserve.communicationFoundation. External of the arcserve Com- munication that lets the Arcserve 6052 TCP CA.ARCserve.communicationFoundation. External of the arcserve Com- munication that lets the Arcserve 6052 TCP CA.ARCserve.communicationFoundation. External of the arcserve 6053 TCP Com- munication that lets the Arcserve Com- munication that lets the Arcserve 6054 TCP CA.ARCserve.communicationFoundation. External of the Arcserve 6054 TCP Com- munication Com- munication 6055 TCP Com- munication Com- munication |
| 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Kom- that start from 5000. It is needed when the datastore with GDD is enabled for backup or the restore task is used. 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. 6052 TCP Image: Calify the synthesis of the synthes |
| 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Factors and the Arc- serve Backup GDB Com- munication that lets the Arcserve.communicationFoundation. 6052 TCP Arc- serve Backup GDB CA.ARCserve.communicationFoundation. Factors and the Arcserve UDP Console and the Arcserve Global Dash- board Primary Server syn- chronize data. |
| 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. WindowsService.exe Karc- serve CA.ARCserve.CommunicationFoundation. WindowsService.exe Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. 6052 TCP Image: Campion of the |
| 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Karc- with GDD is enabled for backup or the restore task is used. 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Rupp Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. 6052 TCP Serve Backup GDB Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary |
| 6052 TCP Arc- serve GDB CA.ARCserve.CommunicationFoundation. Karc- good Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. 6052 TCP Marc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Fetter Arcserve Global Dash- board Primary |
| 6052 TCP Arc- serve CA.ARCserve.CommunicationFoundation. Karc- backup Com- munication that lets the Arcserve 6052 TCP Arc- serve CA.ARCserve.CommunicationFoundation. Fetterna I Com- munication that lets the Arcserve 6052 TCP Backup GDB CA.ARCserve.CommunicationFoundation. Fetterna I Com- munication that lets the Arcserve 6052 TCP Serve Backup Com- munication that lets the Arcserve Com- munication that lets the Arcserve 6054 TCP Serve Backup Global Dash- board Server Syn- chronize data. |
| 6052 TCP Arc- serve GDB CA.ARCserve.CommunicationFoundation. Image: Free Free Free Free Free Free Free Fr |
| 6052 TCP Arc- serve GDB CA.ARCserve.CommunicationFoundation. Karc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Fetterna I Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. 6052 TCP I |
| 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. Image: Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. 6052 TCP Image: Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize |
| Image: Constant of the constant |
| 6052 TCP Arc- serve Backup GDB CA.ARCserve.CommunicationFoundation. I Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. 6052 TCP I I Com- munication that lets the Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data. |
| 6052TCPArc- serve Backup GDBCA.ARCserve.CommunicationFoundation.HArcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data.6052TCPIII <td< td=""></td<> |
| 6052TCPArc- serve Backup GDBCA.ARCserve.CommunicationFoundation.Image: Calculation foundation.Image: Calculation foundation.6052Calculation foundation.Image: Calculation foundation.Image: Calculation foundation.Image: Calculation foundation.6053GDBCalculation foundation.Image: Calculation foundation.Image: Calculation foundation.Image: Calculation foundation.6054GDBCalculation foundation.Image: Calculation foundation.Image: Calculation foundation.6054GDBCalculation foundation.Image: Calculation foundation.6055GDBImage: Calculation foundation.Image: Calculation foundation.6056GDBImage: Calculation foundation.Image: Calculation foundation.6057GDBImage: Calculation foundation.Image: Calculation foundation.6058GDBImage: Calculation foundation.Image: Calculation foundation.6059GDBImage: Calculation foundation.Image: Calculation foundation.6050Image: Calculation foundation foundation.Image: Calculation foundation.6050Image: Calculation foundation foundation foundation foun |
| 6052TCPArc- serve Backup GDBCA.ARCserve.CommunicationFoundation.Arcserve UDP Console and the Arc- serve Backup Global Dash- board Primary Server syn- chronize data.1IIICom- |
| 6052 TCP Arc- serve CA.ARCserve.CommunicationFoundation. Image: Calibration of the term of term |
| Arc- serve CA.ARCserve.CommunicationFoundation. External and the Arc- serve Backup Global Dash- board Primary GDB Frimary Server syn- chronize data. Chronize Chron |
| 6052 TCP serve CA.ARCserve.CommunicationFoundation. External and the Arc-serve Backup GDB WindowsService.exe I Global Dashboard GDB Primary Server syn-chronize I I I Odata. I I I I |
| 6052 TCP Backup Serve Backup GDB Global Dash- board Primary Server syn- chronize data. Com- Com- |
| GDB GDB GDB GDB GDB GDB Frimary Server syn- chronize data. Com- |
| board Primary Server syn- chronize data. Com- |
| Server syn- chronize data. Com- |
| chronize data. Com- |
| data. |
| Com- |
| |
| munication |
| |
| that lets the |
| Arcserve |
| Arc- CA.ARCserve.Com- Externa |
| 6054 TCP serve and the Arc- |
| Backup serve Backup |
| Primary |
| Server syn- |
| chronize |
| data. |
| |
| To shut |
| down Tom- |
| |

| | | | | | Arcserve |
|------|-----|---------|-------------|------------|---------------|
| | | | | | UDP console. |
| | | | | | Specifies the |
| | | | | | default |
| | | | | | HTTP/HTTPS |
| | | | | | com- |
| | | | | | munication |
| | | | | | port |
| | | | | | between |
| | | | | | remote man- |
| | | | | | agement con |
| | | | | | soles and the |
| | | | | | Arcserve |
| | | | | | UDP Server. |
| | | | | | Specifies the |
| | | | | | default |
| | | | | | HTTP/HTTPS |
| | | Arc- | | | com- |
| 0014 | тср | serve | | Externa | munication |
| 8014 | | UDP | Tomcat9.exe | I | port |
| | | Console | | | between |
| | | | | | remote man- |
| | | | | | agement con |
| | | | | | soles and the |
| | | | | | Arcserve |
| | | | | | UDP Agent. |
| | | | | | Note: You |
| | | | | | can modify |
| | | | | | the default |
| | | | | | com- |
| | | | | | munication |
| | | | | | port when |
| | | | | | you install |
| | | | | | the Arcserve |
| | | | | | UDP com- |
| | | | | | ponents. |
| | | | | | Specifies the |
| | | | | | default |
| | | | | | HTTP/HTTPS |
| | | Arc- | | _ . | com- |
| 8014 | TCP | serve | httpd.exe | Externa- | munication |
| | | UDP | | | port |
| | | Server | | | between the |
| | | | | | Arcserve |
| | | | | | UDP Server |
| | | | | | |

| | | | | | *Specifies the default shared port and the only port you must open when you use the Arc- serve UDP Server as the replication destination. Do not open ports 5000- 5060 which are used by datastores that have global dedu- plication enabled. Note : You can modify the default com- munication port when you install the Arcserve UDP com- |
|------|-----|---------------------------------|-------------|---------------|---|
| 8015 | ТСР | Arc- serve UDP Console | Tomcat9.exe | Externa- I | ponents. Specifies the default HTTP/HTTPS com- munication port between remote man- agement con- soles and the Arcserve |

| | | | | | UDP Server. Specifies the default |
|------------|-----|--------------------------------|--------------------------------------|----------|---|
| | | | | | HTTP/HTTPS com- |
| | | | | | munication port |
| | | | | | between remote man- |
| | | | | | agement con- soles and the |
| | | | | | Arcserve UDP Agent. |
| | | | | | Note : You can modify the default com- |
| | | | | | munication port when |
| | | | | | you install the Arcserve |
| | | | | | UDP com- ponents. |
| 8016 | ТСР | Arc- serve UDP Server | Tomcat9.exe | Internal | Reserved for Arcserve UDP Server Web Ser- vices to com- municate with the Arc- serve UDP RPS Port Sharing Ser- vice on the same Server. Note : The port cannot be cus- tomized and can be ignored for the firewall setting. |
| 1800- 5 | | | CA.ARCserve.CommunicationFoundation. | | To shutdown |

| | | Tomcat that |
|--|--------------------|--------------|
| | | is used by |
| | WindowsService.exe | the Arcserve |
| | | UDP Server |
| | | or Agent. |

Components installed on Linux

The following ports are required for backup and other jobs when you have a LAN environment:

| Port # | Port Type | Initiated by | Listening Process | Internal / External Port | Description |
|-----------|-----------|--------------------------|-------------------|-----------------------------|--|
| 22 | ТСР | SSH ser- vice | | External | Arcserve UDP Linux third party dependency. Spe- cifies the default for SSH service, however, you can change this port. This port is required for both incoming and out- going com- munications. |
| 67 | UDP | Arcserve UDP Linux | bootpd | External | Used for the PXE boot Server. Only required if the user wants to use the PXE boot feature. This port is required for incoming com- munications. Note : The port number cannot be customized. |
| 69 | UDP | Arcserve UDP Linux | tffpd | External | Used for the PXE boot Server. Only required if the user wants to use the PXE boot feature. This port is required for incoming com- munications. Note : The port number cannot be customized. |

| 8014 | ТСР | Arcserve UDP Linux | Java | External | Specifies the default HTTP/HTTPS com- munication ports between the remote consoles and the Arcserve UDP agent for Linux. This port is required for both incoming and out- going com- munications. |
|-------|-----|--------------------------|------|----------|---|
| 18005 | ТСР | Arcserve UDP Linux | Java | Internal | Used by Tomcat, can be ignored for firewall set- tings. |

Node protected by UDP Linux remotely

The following port is required for backup and other jobs when you have a LAN environment:

| Port # | Port Type | Initiated by | Listening Process | Internal / External Port | Description |
|-----------|--------------|------------------|----------------------|--------------------------------|---|
| 22 | | SSH ser- vice | | External | Arcserve UDP Linux 3rd party dependency. Specifies the default for the SSH service, however, you can change this port. This port is required for both incoming and out- going communications. |

*Port sharing is supported for replication jobs. All data on different ports can be forwarded to port 8014 (default port for the Arcserve UDP Server, which can be modified during installation). When a replication job runs between two recovery point Servers across WAN, only port 8014 needs to be opened.

Similarly, for remote replications, the Remote administrator needs to open or forward port 8014 (for data replication) and port 8015 (default port for the Arcserve UDP console, which can be modified during installation) for local recovery point Servers to obtain the assigned replication plan.

Arcserve Backup

The following ports are required for backup and other jobs when you have a LAN environment:

| Port # | Port Type | Initiated by | Listening Process | Intern- al / Extern- al Port | Description |
|---------------|--------------|---|---|---------------------------------------|---|
| 135 | ТСР | | | External | Microsoft |
| 445 | тср | | MSRPC over the Named Pipes | External | Port Mapper |
| 6050 | TCP/UD- P | CASUniver- salAgent | Univagent.exe | | Arcserve Universal Agent |
| 6502 | ТСР | Arcserve Com- munication Foundation | CA.ARCserve.Com- municationFoundation. WindowsService.exe | | Arcserve Com- munication Foundation |
| 6502 | ТСР | CASTapeEngine | Tapeng.exe | | Arcserve Tape Engine |
| 6503 | ТСР | CASJobEngine | Jobengine.exe | | Arcserve Job Engine |
| 6504 | ТСР | CASDBEngine | DBEng.exe | | Arcserve Data- base Engine |
| 7854 | ТСР | CASportmapper | Catirpc.exe | | Arcserve PortMapper |
| 4152- 3 | ТСР | CASDiscovery | casdscsvc.exe | | Arcserve Dis- covery Ser- vice |
| 4152- 4 | UDP | CASDiscovery | casdscsvc.exe | | Arcserve Dis- covery Ser- vice |
| 9000- 9500 | ТСР | | For other Arcserve MS RPC services that use dynamic ports | | |

Appliance for Linux Support

The following ports are required for backup and other jobs when you have a LAN environment:

| Port # | Port Type | Initiated by | Listening Process | Internal / External Port | Description |
|--------|--------------|-----------------|-------------------|--------------------------------|---|
| 8017 | ТСР | | | | NAT port redirection, redir- ects 8017 on appliance to the Linux backup server in order to backup other Linux node to Amazon S3. |
| 8018 | ТСР | | | | NAT port redirection, redir- ects 8018 on appliance to the Linux Backup Server Agent port 8014. |
| 8019 | ТСР | | | | NAT port redirection, redir- ects 8019 on appliance to the Linux Backup Server SSH port 22. |
| 8021 | тср | | | External | NAT port redirection, redir- ects 8021 on appliance to Linux backup server to backup other Linux node using 8021 port. |
| 8036 | ТСР | | | | NAT port redirection, redir- ects 8036 on appliance to the Linux Backup Server port 8036. |
| 50000 | ТСР | | | External | NAT port redirection, redir- ects 50000 on appliance to Linux backup server in order to backup other Linux node to cloud using 50000 port. |
| 50001 | ТСР | | | External | NAT port redirection, redir- ects 50001 on appliance to Linux backup server in order to backup other Linux node to cloud using 50001 port. |

| 50002 | ТСР | | External | NAT port redirection, redir- ects 50002 on appliance to Linux backup server in order to backup other Linux node to cloud using 50002 port. |
|-------|-----|--|----------|---|
| 50003 | ТСР | | External | NAT port redirection, redir- ects 50003 on appliance to Linux backup server in order to backup other Linux node to cloud using 50003 port. |
| 50004 | ТСР | | External | NAT port redirection, redir- ects 50004 on appliance to Linux backup server in order to backup other Linux node to cloud using 50004 port. |

Chapter 3: Upgrading Arcserve UDP on the Appliance

| This section contains the following topics: | |
|--|----|
| How to Apply a License After Upgrading Arcserve Software | 56 |
| Upgrade Sequence on Arcserve Appliance | 57 |
| Upgrade Sequence for UDP Console, RPS, and Agent | 63 |

How to Apply a License After Upgrading Arcserve Software

After upgrading Arcserve UDP to 10.0 or upgrading Arcserve Backup to 19.0, the original license key on the Arcserve Appliance will not work. To obtain the new license keys for Arcserve UDP 10.0 and Arcserve Backup 19.0, contact your account representative.

For more details about adding a license key for Arcserve UDP, see <u>Arcserve Product</u> <u>Licensing Online Help</u>.

Upgrade Sequence on Arcserve Appliance

The upgrade from Arcserve Appliance v9.1 to Arcserve UDP 10.0 could involve one of the following sequences:

- Upgrade Arcserve UDP
 - Upgrade the Arcserve Appliance Used as Arcserve Console and RPS
 - Upgrade the Arcserve Appliance Used as Arcserve UDP RPS
 - Upgrade Steps When Two or More Arcserve Appliances Are Used in the Environment
- Upgrade the Arcserve UDP Linux Agent on the Arcserve Appliance
- Upgrade the Arcserve Backup on the Arcserve Appliance
- Upgrade Sequence for UDP Console, RPS, and Agent

Upgrade the Arcserve Appliance Used as Arcserve UDP Console and RPS

Upgrade this Arcserve Appliance, then follow up the <u>upgrade sequence</u> described to upgrade the environment.

Upgrade the Arcserve Appliance Used as Arcserve UDP RPS

Upgrade the complete productive environment. For details, refer to the <u>upgrade</u> <u>sequence</u>.

Upgrade Steps When Two or More Arcserve Appliance Are Used in the Environment

- Upgrade the whole product environment. For details, refer to <u>upgrade</u> <u>sequence</u>.
- If you see warning as displayed below when you add an Appliance as RPS from Arcserve UDP Console after upgrade, refer to the <u>Backing Up Arcserve Appli-</u> <u>ance from Another Appliance Reports Duplicated Nodes</u> topic in the **Troubleshooting** section.



Upgrade the Arcserve UDP Linux Agent on the Arcserve Appliance

Follow these steps:

- 1. Upgrade the Arcserve UDP Console that manages the Linux Backup Server environment.
- 2. Upgrade the Linux Backup Server on the Arcserve Appliance.

For more information, see <u>Arcserve Unified Data Protection Agent for Linux Online</u> <u>Help</u>.

Upgrade the Arcserve Backup on the Arcserve Appliance

Refer to the <u>Arcserve Backup Implementation Guide</u> to complete upgrade on the Arcserve Appliance.

Upgrade Sequence for UDP Console, RPS, and Agent

Based on the Backward Compatibility Support Policy, plan your upgrade in the following sequence to ensure the upgrade works smoothly:

- 1. Upgrade Arcserve UDP Console.
- 2. Upgrade Arcserve UDP RPS (DR site).
- 3. Upgrade Arcserve UDP RPS (Data Center).
- 4. Upgrade Arcserve UDP Agentless Proxy, some Agents in Data Center.
- 5. Upgrade Arcserve UDP RPS (Remote site).
- Upgrade Arcserve UDP Agentless Proxy and some Agents at the remote site.
 Note: Repeat Step 5 and 6 for each remote location.
- 7. Upgrade Arcserve UDP Virtual Standby Monitor.

Note: According to the replication backward support policy, always upgrade the target RPS before the source RPS.

Chapter 4: Configuring the Arcserve Appliance

| This section contains the following topics: | |
|--|------|
| How to Configure Network Settings for Arcserve Appliance | 65 |
| How to Set Up the Arcserve Appliance | 69 |
| Configure Arcserve Appliance as Gateway | . 78 |

How to Configure Network Settings for Arcserve Appliance

To manage the Arcserve Appliance, the first step is to have the appliance in your network. For that, you need to assign a hostname to the appliance and then configure network ports.

Follow these steps:

1. After you power on the appliance, the Settings screen for the Microsoft License terms opens. Read and accept the terms.

The UDP End User License Agreement dialog opens.

2. Read and accept the license agreement and click Next.

Welcome to the Arcserve Appliance Configuration Tool screen appears.

3. Enter the following details:

Hostname

Enter a host name for the appliance. Assigning a name helps identify the appliance on your network.

Password

Specifies the Administrator password.

Add this Arcserve Appliance to a domain

Select the check-box to make your appliance a member of a domain in your network. Specify the values in Domain, Username, and Password fields that are displayed when the option is selected.

| Welcome to the Ar | cserve® Appliance Configuration Tool |
|-------------------|--|
| | connect your Arcserve Appliance to the LAN so that further configuration e web-based console UI. |
| | e Appliance. This will be used to identify the Appliance on your local may add the Appliance to a Domain. |
| | e will require a reboot to take effect. You may configure the other settings tion screen before rebooting the Appliance. |
| Hostname | SM39 |
| Password | • • • • • • • • • • • • • |
| ☐ Add this Arcser | ve Appliance to a domain |

Note: To apply a new hostname, you need to restart the appliance. You can choose to reboot the appliance now or after you configure the network settings. After you reboot the appliance, you can access the appliance from any other machine using the URL - *https://<hostname>:8015*.

4. Click Save.

The following dialog opens. By default, Arcserve UDP discovers all network connections in a network. If some connections are not assigned, then manually edit and specify the connection details.

| Arcserve Appliance | | | - | × |
|-------------------------------|--|---|--------------------|---|
| arcserve | Appliance Configuration | @ At | oout the Appliance | |
| Your Arcserve Appliance m | ust be rebooted for the Hostname a | nd Domain settings to take effect. | | |
| Hostname/ Domain | SM39 (not assigned) | Edit | | |
| UDP Console URL | https://SM39:8015 | | | |
| Date and Time | 12/30/2024 5:17:11 PM | Edit | | |
| Network Connections | | | | |
| Connection Name | IP Address | Description | | |
| Ethernet Connected | 10.147.16.45 Automatic via DHCP | Supermicro 10GBASE-T Ethernet Controller | Edit | |
| Ethernet 2 S Not Connected | None Assigned Automatic via DHCP | Supermicro 10GBASE-T Ethernet Controller #2 | Edit | |
| Ethernet 3 3 Not Connected | None Assigned Automatic via DHCP | Supermicro 10GBASE-T Ethernet Controller #3 | Edit | |
| Ethernet 4 Connected | 10.147.16.36 Automatic via DHCP | Supermicro 10GBASE-T Ethernet Controller #4 | Edit | |
| Ethernet 5 S Connected | 169.254.3.1 Automatic via DHCP | Remote NDIS based Internet Sharing Device | Edit | |

5. To edit a network connection, click **Edit** from the **Network Connections** box.

The Network Connection dialog opens.

| IIC1 | | | | | |
|-------------|---|-----------|-----------|----------|--------|
| Status | Connected | | | | |
| Description | Broadcom NetXtreme Giga | bit Ether | net #5 | | |
| Connection | Use DHCP to obtain II | P addres | s automa | tically. | |
| | IP Address | 10 | . 57 | . 25 | . 39 |
| | Subnet Mask | 255 | . 255 | . 255 | . 0 |
| | Default Gateway | 10 | . 57 | . 25 | . 1 |
| | Obtain DNS server ad | dress au | tomatical | ly. | |
| | Preferred DNS Server | 10 | . 57 | . 1 | . 11 |
| | Alternate DNS Server | 10 | . 64 | . 1 | . 11 |
| | | | | | |
| | | | Save | • | Cancel |

6. Modify the IP address, subnet mask, and default gateway values as required and click **Save**.

Note: Optionally, you can also modify the hostname, domain, date, and time.

Important! Check if any script such as *acrun.bat* is running in command prompt. Before proceeding with the reboot, make sure to wait for this script to be completed.

7. To apply the changes, click **Reboot Appliance** to restart the appliance.

The appliance restarts with a new hostname. After restarting, the Login screen opens.

8. Enter the user name and password and click Enter.

The Arcserve Appliance Configuration screen appears.

9. When the appliance configuration screen reopens, click Launch Wizard.

| Λ Arcserve Appliance | |
|---|--|
| arcserve® | Appliance Configuration |
| Click Launch Wizard to con Launch Wizard | ntinue configuring your appliance with the |
| Hostname/ Domain | SM39 (not assigned) |
| UDP Console URL | https://SM39:8015 |
| Date and Time | 12/30/2024 4:32:09 PM |
| Network Connections | |
| Connection Name | IP Address De |
| Ethernet Connected | 10.147.16.45SuAutomatic via DHCPSu |
| Ethernet 2 3 Not Connected | None AssignedSuAutomatic via DHCP#2 |
| Ethernet 3 3 Not Connected | None AssignedSuAutomatic via DHCP#3 |
| Ethernet 4 Connected | 10.147.16.36 Su Automatic via DHCP #4 |
| Ethernet 5 Connected | 169.254.3.1 Automatic via DHCP |

Copyright (C) 2014-2024 Arcserve, LLC. All rights reserved.

How to Set Up the Arcserve Appliance

After the appliance restarts with the new hostname, the Unified Data Protection wizard opens. The wizard lets you create a basic plan to schedule backups. The plan lets you define the nodes that you want to protect and schedule when to run backups. The backup destination is the appliance Server.

Note: If Appliance is configured in Domain, complete the Appliance wizard configuration using the Administrator login as a domain user cannot configure the appliance wizard.

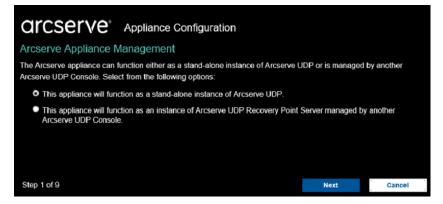
All the steps on the Arcserve Appliance Configuration wizard are optional, you can skip by clicking **Cancel** and directly open the UDP console and create plans.

Follow these steps:

1. Log into the Arcserve UDP console.

The Unified Data Protection wizard first opens and the Arcserve Appliance Management dialog appears. You can manage the UDP console either as a standalone instance or you can remotely manage from another UDP console. The remote console management function is useful when you are managing multiple UDP consoles.

2. On the Arcserve Appliance Management dialog, select whether you want to manage the appliance locally (default) or from another UDP console. If the appliance is managed from another UDP console, then specify the UDP console URL, username, and password.



3. Click Next.

The datastores dialog opens.

A datastore is a physical storage area on the appliance and is used as the destination for your backups. By default, Arcserve UDP creates a datastore called <hostname>_data_store. This datastore is deduplication and encryption enabled.

Notes:

• The default deduplication block size is 16 KB. However, you can configure the deduplication block size based on your requirement.

To configure the deduplication block size, follow these steps:

a. Navigate to the following location:

C:\Program Files\Arcserve\Unified Data Protection\Management\Configuration

- b. Open the **ApplianceDefaultSetting.properties** file, and then edit *deduplicationBlockSize*.
- You must configure the deduplication block size before you provide the encryption password for the datastore and click the **Next** button.

For more information about deduplication and encryption, see <u>Data Dedu</u>-<u>plication</u> in Arcserve UDP Solutions Guide.

Note: As the datastore is encrypted, you must specify an encryption password.

4. On the datastores dialog, type the encryption password for the datastore, retype the encryption password to confirm, and then click **Next**.

| OICSEIVE® Appliance Configuration Data Stores Your data store configuration is shown below. More data stores can be added from the Arcserve UDP Console. | | | | | | |
|--|--|----------|----------------|------|--------|--|
| SM39_data_store | | | | | | |
| · | Compression | Standard | | | | |
| .0. | Deduplication | Enabled | | | | |
| | Encryption | Enabled | | | | |
| Total Capacity 145.52 TB | Password | | | | | |
| | Confirm Password | | | | | |
| | Note: Data store will be cre Procedure to configure custo | | KB block size. | | | |
| | | | | | | |
| Step 2 of 9 | | | Previous | Next | Cancel | |

The Email and Alert dialog opens.

You can define the email Server that is used to send alerts and the recipients who would get the alerts. You can select options to get alerts based upon successful jobs, failed jobs, or both.

5. On the Email and Alert dialog, specify the following email and alert details:

Service

Specifies the email services such as Google Mail, Yahoo Mail, Live Mail, or Other.

Email Server

Specifies the email Server address. For example, for Google Server email, specify smtp.gmail.com.

Port

Species the email Server port number.

Requires Authentication

Specifies whether the email Server requires authentication. If yes, specify the account name and password for authentication.

Subject

Specifies the subject of the email that is sent to the recipients.

From

Specifies the email ID of the sender. The recipients will receive the mail from this sender.

Recipients

Specifies the recipients who will receive the alerts. You can use semicolons ";" to separate multiple recipients.

Options

Specifies the encryption method to use for the communication channel.

Connect using a proxy Server

Specifies the proxy Server user name and port number if you are connecting to the mail Server through a proxy Server. Also, specify a username and password if the proxy Server requires authentication.

Send a Test Email

Sends a test mail to the recipients. You can verify the details by sending a test mail.

CICSEIVE[®] Appliance Configuration

Email and Alert

Configure email notification settings and the types of alert notifications that you want to receive.

| Enable email notification | IS. | | | | |
|---------------------------|--|----------|------|--------|---|
| Service | Other | ¥ | | | ~ |
| Email Server | | | | | |
| Port | 25 | | | | |
| Email service requires | s authentication. | | | | |
| Subject | Arcserve Unified Data Protection Alert | | | | |
| From | | | | | |
| Recipients | Separate email addresses with ; | | | | |
| Options | Use SSL | | | | |
| | Send STARTTLS | | | | |
| | ✓ Use HTML format | | | | |
| Connect using a prox | y server | | | | |
| | | | | | |
| Send a Test Email | | | | | |
| Send Alerts For | Successful Jobs | | | | v |
| ep 3 of 9 | | Previous | Next | Cancel | , |

6. Click Next.

The Replication to Remote RPS dialog opens.

7. On the Replication to Remote RPS dialog, specify the following details if you want the appliance to replicate to a remotely-managed recovery point Server (RPS). For more information on a remotely-managed RPS, see *Arcserve UDP Solutions Guide*.

Arcserve UDP Console URL

Specifies the URL of the remote Arcserve UDP console.

Username and Password

Specifies the username and password to connect to the remote console.

Connect using a proxy Server

Specifies the proxy Server details if the remote console is behind a proxy Server.

Note: If you do not want the appliance to replicate to a remotely-managed RPS, select the **This appliance will not replicate to a remotely-managed RPS** option.

| arcserve | Appliance Configuration | | | |
|---------------------------------|---------------------------------------|-----------------|----------------------|-------------|
| Replication to Remote | RPS | | | |
| Configure the settings below it | f you want to replicate to a remotely | y-managed Recov | very Point Server de | estination. |
| • This appliance will replica | ate to a remotely-managed RPS. | | | |
| Arcserve UDP Console URL | | | | |
| Username | | | | |
| Password | | | | |
| Connect using a proxy | / server. | | | |
| | | | | |
| This appliance will not re | plicate to a remotely-managed RPS | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Step 4 of 9 | | Previous | Next | Cancel |

8. Click Next.

The Create a Plan dialog opens. You can create a basic plan where you specify the nodes that you want to protect and the backup schedule.

Note: If you do not want to create basic plans using the wizard, perform the following steps:

a. Click Skip Plan Creation.

The Next Steps dialog opens.

- b. Click Finish to open the UDP console and create plans.
- 9. On the Create a Plan dialog, specify the following details to create a plan:

Plan Name

Specifies the name of the plan. If you do not specify a Plan Name, the default name "Protection Plan <n>" is assigned.

Session Password

Specifies a session password. The session password is important and required when you restore data.

How do you want to add nodes to the plan?

Specifies the method to add nodes to the plan. Select one of the following methods:

Hostname/IP Address

Refers to the method to manually add the nodes using host name or IP address of the node. You can add as many nodes as you want.

Discovering Nodes from Active Directory

Refers to the method to add nodes that are in an active directory. You can first discover the nodes using the active directory details and then add the nodes.

Importing from a vCenter/ESX Server

Refers to the method to import virtual machine nodes from ESX or vCenter Servers. This option lists all the virtual machines that are discovered on the provided host name or IP address.

Importing from a Hyper-V Server

Refers to the method to import the virtual machine nodes from Microsoft Hyper-V Servers.

After you select a method, specify the details on each dialog.

| arcserve | Appliance Configuration | | | |
|----------------------------------|---|------------|--------------------|-----------------------|
| Create a Plan | | | ••• | About Creating a Plan |
| | a protection plan for your data. In th one protection plan can be created. | | you will add nodes | and configure a |
| Skip Plan Creation | | | | |
| Plan Name | Protection Plan 1 | | | |
| Session Password | | | | |
| Confirm Password | | | | |
| Retain the Session Participation | ssword. You will need it to restore to | he data. | | |
| How do you want to add n | odes to the plan? | | | |
| | Hostname/IP Address (for Windows mach | ines only) | Ŧ | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Step 5 of 9 | | Previous | Next | Cancel |

10. After the nodes are added to your plan, click Next.

The Backup Schedule dialog opens.

- 11. On the Backup Schedule dialog, enter the following schedule:
 - Arcserve UDP agent install or upgrade schedule: The latest version of the Arcserve UDP agent is installed on source nodes that do not have the agent installed. Any previous agent installations is upgraded to the latest version.
 - Incremental backup schedule: A full backup is performed for the first time, and then incremental backups are performed.

Note: If the time of backup is scheduled before the time of install/upgrade, then the backup is automatically scheduled for the next day. For example, if you schedule the agent installation for Friday at 9:00 PM and backup schedule for 8:00 PM, then the backup is performed on Saturday at 8:00 PM.

• Cancel Plan Creation: To cancel the plan that you just created, click Cancel Plan Creation.

| OICSEIVE [®] Applia Backup Schedule | ance Configura | ation | | |
|---|-----------------------|------------------------------|--------------------|----------------------|
| Enter criteria for the plan backup sche | dule. | | | |
| Install/upgrade and reboot on | Friday | → ati 9 → : 00 | v PM v | |
| Run Incremental Backup daily at | 10 👻 : 00 | - PM - | | |
| Schedule Summary (Based | l upon your selection | is) | | |
| On Friday at 9:00 PM, the lates does not have the latest versio Agent installation will not occur | n already installed. | Ū | | ource node that |
| On Friday at 10:00 PM, the firs On every day after the installat | | | Incremental Backup | o will be performed. |
| | | | | |
| Cancel Plan Creation | | | | |
| | | | | |
| | | | | |
| | | | | |
| Step 7 of 9 | | Previous | Next | Cancel |

12. Click Next.

The Plan Confirmation dialog opens.

13. On the Plan Confirmation dialog, review the details of your plan. If necessary, you can edit the nodes or the schedule by clicking Edit Nodes or Edit Schedule, or you can add or delete a plan.

Edit Nodes

Modifies the source nodes you want to protect.

Edit Schedule

Modifies the backup schedule.

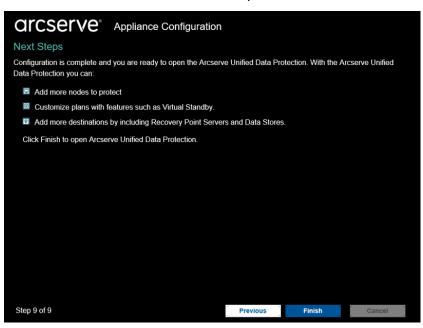
| Protection Plan 1 | Plan Name | Protection Plan 1 | |
|-------------------|---|-----------------------------|--|
| | Nodes Protected | 1 | |
| Add a Plan | Destination | app7600 | |
| | Install/Upgrade | Friday, 9:00 PM | |
| | Backup Schedule | Daily Incremental, 10:00 PM | |
| | Edit Nodes Edit S | chedule Delete Plan | |
| | An example of the second se second second se | 4 | |

14. After verifying the plans, click Next.

The Next Steps dialog opens.

You have successfully completed the configuration and you are now ready to work in the Arcserve UDP Console. You can add more nodes to protect, customize plans with features such as virtual standby, and add more destinations by including Recovery Point Servers and datastores.

15. Click **Finish** to exit the wizard and open the Arcserve UDP Console.



Note: To log into the UDP console using domain credentials, see <u>Assigning Admin</u> Privileges and Roles to a Domain User.

Configure Arcserve Appliance as Gateway

You can configure Arcserve Appliance as Gateway.

Follow these steps:

- 1. Uninstall Arcserve UDP Console from the Arcserve Appliance.
- 2. From the Arcserve UDP Console, click the resources tab.
- 3. From the left pane of the Arcserve UDP Console, navigate to **Infrastructures**, and click **Sites**.
- 4. Click Add a Site.
- 5. Follow the instructions provided in the **Add a Site** wizard to install Arcserve UDP Remote Management Gateway on the Arcserve Appliance.

Note: After installing Arcserve UDP Remote Management Gateway on the Arcserve Appliance, clicking **Launch Wizard** on the Arcserve Appliance wizard does not launch the Arcserve UDP Console. To access the Arcserve UDP Console, provide the URL of Arcserve UDP Console directly.

Chapter 5: Working with Arcserve Appliance

Using Arcserve Appliance, you can create backup plans for Windows, Linux, and virtual machines. You can also write data to a tape device and create a virtual standby machine.

This section contains the following topics:

| Activate Arcserve Product on the Appliance | |
|---|-----|
| Create a Plan Using Arcserve Appliance Wizard | |
| Add Nodes to a Plan | |
| Create a Backup Plan for Linux Nodes | |
| Create a Backup Plan to a Tape Device | |
| Create an On-Appliance Virtual Standby Plan | 93 |
| Create Plan to Backup the Linux Backup Server | |
| Setting-up to Perform Linux Instant VM Job to Local Appliance Hyper-V | 97 |
| Migrate Arcserve UDP Console Using ConsoleMigration.exe | |
| Perform Migration between Arcserve Appliances | 100 |
| Modify the Input Source of Pre-installed Linux Backup Server | |

Activate Arcserve Product on the Appliance

For activating Arcserve product on the Appliance, see <u>Arcserve Product Licensing</u> <u>Online Help</u>.

Create a Plan Using Arcserve Appliance Wizard

A plan is a collection of steps that defines which nodes to back up and when to back up. The Arcserve Appliance lets you create basic plans. Creating a plan using the Arcserve wizard is a three-step process:

1. Add the nodes you want to protect.

You can select Windows nodes or virtual machines from vCenter/ESX or Hyper-V Servers.

- 2. Define the backup schedule.
- 3. Review and confirm the plan.



In addition to a basic plan, Arcserve UDP lets you create complex plans and control many parameters from the UDP Console. To create complex plans from the UDP Console, see the <u>Arcserve UDP Solutions Guide</u>.

Add Nodes to a Plan

You can create a plan to protect various nodes. To protect nodes, you need to add nodes to a plan. You can add nodes from the Arcserve Appliance wizard. The wizard lets you add nodes using the following methods:

Manually entering the node IP Address or hostname

(Add Nodes by Hostname/IP Address)

Discovering nodes from an active directory

(Add Nodes by Active Directory)

Importing virtual machine nodes from VMware ESX/vCenter Servers (Add vCenter/ESX Nodes)

Importing virtual machine nodes from Microsoft Hyper-V Servers (Add Hyper-V Nodes)

Add Nodes by Hostname/IP Address

You can manually enter the IP address or the hostname of the address to add a node to a plan. Use this method when you have a few nodes to add, however, you can add multiple nodes one at a time. Arcserve Unified Data Protection Agent for Windows is installed on these nodes.

Follow these steps:

1. On the Add Nodes by Hostname/IP address dialog, enter the following details:

| arcserve | Appliance Configuration | | | |
|-----------------------------|--|--------------|------------------------------|----------------------|
| Add Nodes by Hostn | ame/IP address | | • | About Adding Nodes |
| Enter the hostname/IP addre | ess information for the selected Windows r | nodes, to ad | d to the plan. | |
| Hostname/IP Address | 1 | Nod | es Protected by F | lan |
| Username | | | Node Name | |
| Password | | Use | the fields on the left to ad | I nodes to the plan. |
| Description | | | | |
| | | | | |
| | | | | |
| | | | 1 | Remove |
| Cancel Plan Creation | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Step 6 of 9 | P | Previous | Next | Cancel |

Hostname/IP Address

Specifies the hostname or IP address of the source node.

User name

Specifies the user name of the node having administrator privileges.

Password

Specifies the user password.

Description

Specifies any description to identify the node.

Cancel Plan Creation

Cancels the plan that you just created.

2. Click Add to List.

The node is added to the right pane. To add more nodes, repeat the steps. All the added nodes are listed on the right pane.

- 3. (Optional) To remove the added nodes from the list on the right pane, select the nodes and click **Remove**.
- 4. Click Next.

The nodes are added to the plan.

Add Nodes by Active Directory

To add nodes that are in an active directory, provide the active directory details to discover the nodes and then add nodes to the plan.

Follow these steps:

1. On the Add Nodes by Active Directory dialog, enter the following details:

Username

Specifies the domain and user name in the domain\username format.

Password

Specifies the user password.

Computer Name Filter

Specifies the filter to discover node names.

Cancel Plan Creation

Cancels the plan that you just created.

| arcserve | Appliance Configuration | | | |
|---------------------------------|------------------------------------|----------|---|-------------------|
| Add Nodes by Active | Directory | | 0 | About Adding Node |
| Enter the Active Directory info | ormation to add nodes to the plan. | | | |
| Username | domain\username | Nod | es Protected by Pl | an |
| Password | | | Node Name | |
| Computer Name Filter | • Browse | | the fields on the left to valid entials and add the nodes to | |
| | | | | Remove |
| Cancel Plan Creation | | | | |
| | | | | |
| Step 6 of 9 | | Previous | Next | Cancel |

2. Click Browse.

The discovered nodes are displayed.

| arcserve Apr | Appliance Configuration Add Nodes by Active Directory Adding Nodes Adding Nodes | | | |
|----------------------------|--|-----------|---|--------------------|
| Add Nodes by Active Dire | Active Directory or the Active Directory information to add nodes to the particular text Active Directory Results Type node filter text Name Domain Username appliaa0400 ARCSERVE COM ARCSERVE.CC Image: Compliance 2511.ARCSERVE.COM appliance12ARCSERVE.COM ARCSERVE.CC Image: Compliance 2511.ARCSERVE.COM Image: Imag | | | About Adding Nodes |
| | | alan | | |
| | In to add houes to the | pian. | | |
| Active Directory Results | Type node filter text | × | Nodes Protected by | Plan |
| Name Name | Domain Username | Verify | Node Name | |
| applia8400.ARCSERVE.COM | ARCSERVE.CC | ~ | Use the fields on the left to va credentials and add the nodes | |
| appliance1.ARCSERVE.COM | ARCSERVE.CC | | credentials and add the nodes | to the plan. |
| appliance2511.ARCSERVE.COM | ARCSERVE.CC | \sim | | |
| < | | > | | |
| 🚺 🖣 Page 3 of 61 🕨 🔰 | 2 | | | |
| Username adminis | trator | | | |
| Password | ····· ~ | Apply | | |
| Return | Ad | d to List | | Remove |
| Cancel Plan Creation | | | | |
| | | | | |
| | | | | |
| | | | | |
| Step 6 of 9 | | Prev | rious Next | Cancel |
| | | | | |

To add nodes, select the nodes and verify.

3. To verify, select the nodes, enter the user name and password, and then click **Apply**.

The credentials are verified. Verified nodes are marked with green check marks. If a node fails verification, re-enter the credentials and click **Apply** again.

Note: You must verify each node before you can add it to the list.

4. Click Add to List.

The selected node is added to the right pane.

- 5. (Optional) To remove the nodes from the right pane, select the nodes and click **Remove**.
- 6. Click Next.

The nodes are added to the plan.

Add vCenter/ESX Nodes

You can add virtual machine nodes to a VMware vCenter/ESX Server. To add these nodes, you need to discover and import nodes from the vCenter/ESX Server.

Follow these steps:

 On the Add Nodes by vCenter/ESX dialog, specify the following vCenter/ESX Server details:

Hostname/IP Address

Specifies the hostname or the IP address of the vCenter/ESX Server.

Port

Specifies the port number to be used.

Protocol

Specifies the protocol to be used.

Username

Specifies a user name of the Server.

Password

Specifies the user password.

Cancel Plan Creation

Cancels the plan that you just created.

| arcserve | Appliance Configuration | | | |
|------------------------------|----------------------------------|----------|---------------------------------|-------------------|
| Add Nodes by vCente | er/ESX | | ()/ | About Adding Node |
| Enter the vCenter/ESX inform | nation to add nodes to the plan. | | | |
| Hostname/IP Address | 1 | Node | es Protected by Pla | in |
| Port | 443 | | Node Name | |
| Protocol | HTTPS v | Use t | the fields on the left to add n | odes to the plan. |
| Username | root | _ | | |
| Password | | _ | | |
| | | _ | | |
| | | _ | | |
| | | | | |
| | | | | Remove |
| Cancel Plan Creation | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Step 6 of 9 | н | Previous | Next | Cancel |

2. Click Connect.

The discovered hostnames are displayed.

3. Expand a hostname to see the nodes.

| Add Nodes by vCenter/ESX information | SX | n | | | About Adding Node |
|--------------------------------------|-----------------------|--------|-------|---------------|-------------------|
| vCenter/ESX Results | Type node filter text | × | Nodes | Protected by | r Plan |
| Name | Object Type | | No. | de Name | |
| ▲ <u>■</u> <u>□</u> 10.57.25 | Host System | - 15 | | d(agent node) | |
| | Resource Pool | \sim | | | |
| LinuxAgent | Resource Pool | | | | |
| ⊳ 🔲 🧽 restore | Resource Pool | | | | |
| Virtual Lab 1 | Resource Pool | | | | |
| a 🔲 🧽 windows | Resource Pool | | | | |
| 🔲 🧽 LicenseTesting | Resource Pool | | | | |
| V 🔂 agent node | Virtual Machine | \sim | | | |
| Return | Add to | List | | | Remove |
| Cancel Plan Creation | | | | | |
| | | | | | |
| Step 6 of 9 | | Previ | ous | Next | Cancel |

4. Select the nodes that you want to add, and then click **Add to List**.

The selected nodes are added to the right pane.

- 5. (Optional) To remove the nodes from the right pane, select the nodes and click **Remove**.
- 6. Click Next.

The nodes are added to the plan.

Add Hyper-V Nodes

Use this method to import the virtual machine nodes from a Microsoft Hyper-V Server.

Follow these steps:

1. On the Add Hyper-V Nodes dialog, specify the following details.

| Add Hyper-v Nodes Enter Hyper-v information to | Appliance Configuration add nodes to the plan. | | ¢ | About Adding Node |
|---|---|----------|-----------------------------------|--------------------|
| Hostname/IP Address | | | lodes Protected by F | lan |
| Username | | | Node Name | |
| Password | | | Use the fields on the left to add | nodes to the plan. |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | Remove |
| Cancel Plan Creation | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| Step 6 of 9 | | Previous | Next | Cancel |

Hostname/IP Address

Specifies the Hyper-V Server name or the IP address. To import virtual machines that are in Hyper-V clusters, specify either the cluster node name or Hyper-V host name.

Username

Specifies Hyper-V user name having the administrator rights.

Note: For Hyper-V clusters, use a domain account with administrative privilege of the cluster. For standalone Hyper-V hosts, we recommend using a domain account.

Password

Specifies the password of user name.

Cancel Plan Creation

Cancels the plan that you just created.

2. Click Connect.

The discovered hostnames are displayed. Expand a hostname to see the nodes.

| Add Hyper-v Nodes Enter Hyper-v information to add n | | | | About Adding Nodes |
|--|---|---------|--------------------------|--------------------|
| Hyper-v Results | Type node filter text | × | Nodes Protected | by Plan |
| Name | Object Type Hyper-v Host | ^ | Node Name app-hyv-02 | |
| Backup-agent | Virtual Machine Virtual Machine Virtual Machine | | | |
| UDPIVM_10.57.11.44725 | Virtual Machine Virtual Machine | | | |
| Image: state | Virtual Machine Virtual Machine | ~ | | |
| Return | Add to Li | ist | | Remove |
| Cancel Plan Creation | | | | |
| Step 6 of 9 | | Previou | IS Next | Cancel |

- 3. (Optional) You can type the node name in the filter field to locate the node in the tree.
- 4. Select the nodes, and then click **Add to List**.

The selected nodes are added to the right pane.

- 5. (Optional) To remove the nodes from the right pane, select the nodes and click **Remove**.
- 6. Click Next.

The nodes are added to the plan.

Create a Backup Plan for Linux Nodes

You can back up Linux nodes from the Arcserve Appliance Console. The Linux Backup Server is already added to the Console.

Follow these steps:

- 1. Open the Arcserve Appliance Console.
- 2. Click resources, Plans, All Plans.
- 3. Create a Linux Backup plan.
- 4. Specify the Source, Destination, Schedule, and Advanced configurations.

Note: For more information about each of the configurations, see <u>How to</u> <u>Create a Linux Backup Plan</u> in the Solutions Guide.

5. Run the backup plan.

Create a Backup Plan to a Tape Device

Arcserve Appliance has the capability to write data to a tape device. Typically, the source data is the recovery point that you have saved in a datastore using the UDP backup plan, and the destination is a tape device. You need to use Arcserve Backup Manager to manage your backup jobs to a tape.

The following process overview gives you an idea on how to write to a tape device using the Arcserve Appliance:

1. Attach the tape device to the Arcserve Appliance

Arcserve Appliance comes with a port at the rear panel to attach your tape device. Once you attach the tape device, Arcserve Appliance automatically identifies the tape device.

2. Configure the tape device using the Backup Manager

Open the Backup Manager and add the tape device to Backup Manager. Backup Manager is the interface that lets you manage Arcserve Backup. After you add the tape device to Backup Manager, configure the device.

Note: For more information on configuring and managing the device, see <u>Managing Devices and Media</u> in Arcserve Backup Administration Guide.

3. Successfully complete at least one backup job using the UDP Console

You need at least one successful backup that you can write to a tape device. To back up data, create a plan using the UDP Console and back up to a datastore.

Note: For more information about creating a backup plan for different nodes, see <u>Creating Plans to Protect Data</u> in the Solutions Guide.

4. Initiate a backup to tape job from Backup Manager

Open the Backup Manager and create a plan to back up data to the tape device. The source data is the destination of UDP backup plan and the destination is the tape device.

Note: For more information on creating a backup plan to tape, see <u>Backing</u> <u>Up and Recovering D2D/UDP Data</u> in *Arcserve Backup Administration Guide*.

Create an On-Appliance Virtual Standby Plan

Arcserve Appliance has the capability to serve as a virtual standby machine.

Follow these steps:

- 1. Verify and ensure that you have a successful backup plan.
- 2. Open the Arcserve Appliance Console.
- 3. Navigate to the plans and modify the backup plan.
- 4. Add a Virtual Standby task.
- 5. Update the Source, Destination, Virtual Machine configurations.

Note: For more information about the configurations, see <u>How to Create a Virtual Standby Plan</u> topic in the Arcserve UDP Solutions Guide.

6. Save and run the plan.

Create Plan to Backup the Linux Backup Server

In the Arcserve Appliance, you can configure the Linux Backup Server to backup.

Follow these steps:

- 1. From Arcserve UDP Console, click the resources tab.
- 2. Click All Nodes in the right pane.
- 3. From the center pane, click Add Nodes.

The Add Nodes to Arcserve UDP Console dialog opens.

- 4. From the **Add Nodes by** drop-down list, select *Add Linux Node*.
- 5. Provide the node credentials and click Add to List.

| Add Nodes to | o Arcserve UDP Console | | | | | | |
|--------------|------------------------|-----------------|---------|--|---------|------------|-----|
| Add nodes by | Add Linux Node | - | | | | | |
| | | | | Node Name | VM Name | Hypervisor | |
| | | | | You have not added any node to the list. | | | |
| | Node Name/IP Address | Linux-BackupSvr | | | | | |
| | SSH Key Authentication | | | | | | |
| | User Name | root | | | | | |
| | Password | | | | | | |
| | Non-root Credential | | | | | | |
| | Non-root Username | | | | | | |
| | | | | | | | |
| | Add Description | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | Add | to List | | | Remove | |
| | | | | | _ | | |
| Help | | | | | | Save | ;el |

6. Click Save.

The added Linux node is displayed in the All Nodes list.

| resources | | | | | | | |
|--|-----------|----------|-----------------|----------|---------------------|--------------|---|
| * | Nodes: A | All Node | s | | | | ≫ |
| Nodes | Actions - | A | dd Nodes | Filter ¥ | (No filter applied) | ~ | Configuration Wizard |
| All Nodes | | | | | | | |
| Nodes without a Plan | | Status | Node Name | VM N | ame | Plan | Select a node to view the related details. |
| Plan Groups | | θ | linux-backupsvr | | | | |
| Linux Backup Server Groups | | | | | | | |
| Linux Nodes | | | | | | | |
| Plans | | | | | | | |
| All Plans | | | | | | | |
| Destinations | | | | | | | |
| Recovery Point Servers | | | | | | | |
| Arcserve Backup Servers | | | | | | | |
| Shared Folders | 4 | | | | | | |
| Cloud Accounts | | | | | | | |
| Remote Consoles | | | | | | | |
| Arcserve Cloud | | | | | | | |
| Infrastructure | | | | | | | |
| Storage Arrays Instant Virtual Machines | | | | | | | |
| Sites | | | | | | | |
| SLA Profiles | | | | | | | |
| SLA Promies | | | | | | | |
| | | | | | | | |
| | 4 | | _ | | | | |
| | I I Pa | ige 1 | of 1 🕨 🕅 🥭 | | | Displaying 1 | |

7. Navigate to All Plans and create an Agent-based Linux plan.

The **Source** tab appears.

| resources | | |
|-------------------------------------|---|------------------|
| Add a Plan | Agent-Based Linux Backup Plan | Save Cancel Help |
| Task1: Backup: Agent-Based Linux | Task Type Backup: Agent-Based Linux 👻 | Delete Task |
| Add a Task | Source Destination Schedule Advanced | |
| | Linux Backup Server appliance v Add | |
| | Add Remove | |
| | 💽 Node Name VM Name Plan | 584 |
| | Filter volumes for backup Exclude Files/folders to be excluded | |

8. From the **Add** drop-down list, select *Select Nodes to Protect in Arcserve UDP*.

| resources | | | | | |
|-------------------------------------|---------------------------|---------------------------------|-----------------|------|-------------|
| Add a Plan | Agent-Based Linux Bac | kup Ptan | Pause this plan | Save | Cancel Help |
| Task1: Backup: Agent-Based Linux | Task Type Backu |): Agent-Based Linux | ¥ | | Oelete Task |
| O Add a Task | Source De | stination Schedule | Advanced | | |
| | Linux Backup Server | appliance | ▼ Add | | |
| | | move Protect in Arcserve UDP | lan | Site | |
| | | | | | |
| | | | | | |
| | Filter volumes for back | ip Exclude v | | | |
| | Files/folders to be exclu | ded | | | |

The Select Nodes to Protect dialog opens.

9. Protect the added Linux node and click **OK**.

| elect | Nodes to Protect | t | | | | | | | | | B |
|-------|------------------|--------------|---------|--------------------|------------|-----|-----------------|---------|------|------------|-----|
| Ava | ilable Node | 5 | | | : | Sel | ected Nodes | | | | |
| Group | s All Nodes (Def | ault Groups) | - | | | | | | | | |
| 1 | Node Name | VM Name | Plan | Site | | | Node Name | VM Name | Plan | Site | |
| | linux-backupsvr | | | Local Site | | | linux-backupsvr | | | Local Site | |
| | | | | | » > < « | | | | | | |
| 14 | I Page 1 | of 1 🕨 🎽 | 🛛 🦥 Dis | playing 1 - 1 of 1 | | | | | | | |
| Hel | p | | | | | | | | | OK Can | nce |

The **Destination** tab appears.

10. The default destination displayed is the datastore created using Appliance wizard. Select Local disk or shared folder to backup the node if required.

| resources | | | | | | |
|-------------------------------------|------------------------------------|-----------------------|----------------|-----------------|------|-------------|
| Add a Plan | Agent-Based L | inux Backup Plan | | Pause this plan | Save | Cancel Help |
| Task1: Backup: Agent-Based Linux | Task Type | Backup; Agent-Base | ed Linux | T | | Delete Task |
| Add a Task | Source Destination Type | | | Advanced | r | |
| | | Recovery Point Server | | Ŧ | | |
| | Data Store | | appliance_data | _stor ~ | | |
| | Password Protec Session Passwor | | V 0 | | | |
| | Confirm Session | Password | | | | |

11. After providing the settings related to plan, click **Save**.

| re | sources | | | | | | | | |
|-------------------------------|---------|--------|-------------------------------|-----------------|-----|---|---|----------------------------|---|
| | 4 | Plans: | All Plans | | | | | | 10- |
| Nodes All Nodes | | Action | Configuration Wizard | | | | | | |
| Nodes without a Plan | | | Plan Name | Nodes Protected | | | | Status | Select a plan to view the related details. |
| vCenter/ESX Groups | | | | Total | o 😑 | 0 | | optans. | |
| Hyper-V Groups Linux Nodes | | | Agent-Based Linux Backup Plan | 1 | 0 | 1 | 0 | Deployment: Successful (1) | |
| Linux Backup Server (| Groups | | | | | | | | |
| Plan Groups | | | | | | | | | |
| a Plans | | | | | | | | | |
| All Plans | | | | | | | | | |
| Destinations | | | | | | | | | |
| Recovery Point Server | rs | | | | | | | | |
| Arcserve Backup Serv | ers | | | | | | | | |
| Shared Folders | | | | | | | | | |
| Cloud Accounts | | 4 | | | | | | | |
| Remote Consoles | | | | | | | | | |
| Arcserve Cloud | | | | | | | | | |

You can perform backup for the added Linux Backup Server successfully.

Setting-up to Perform Linux Instant VM Job to Local Appliance Hyper-V

Using Arcserve Appliance, you can set the network to perform Linux instant VM job on local Appliance Hyper-V.

Follow these steps:

- 1. Open Hyper-V manger.
- 2. Create a new external virtual network switch.
- 3. Turn off the Linux Backup Server and add an external switch to the Linux Backup Server.
- 4. Turn on the Linux Backup Server and add profile to network settings under the new ethernet connection to get an IP address.

Note: The Linux Backup Server is rebooted during the process if the IP address is not assigned.

5. To perform Linux instant VM job to local Hyper-V, select the newly added virtual network switch created.

Now, you can perform Linux instant VM job to local Appliance Hyper-V successfully.

Migrate Arcserve UDP Console Using ConsoleMigration.exe

On the Arcserve Appliance, you can migrate the Arcserve UDP Console to another Appliance using *ConsoleMigration.exe*. From Arcserve UDP v6.5 Update 2 onwards, you can migrate the Arcserve UDP Console between any two Arcserve UDP consoles, even when not belonging to Appliance.

Use *ConsoleMigration.exe* for BackupDB and RecoverDB. The following screenshot displays the usage of *ConsoleMigration.exe*:



To complete the migration process, follow these steps:

1. On old Arcserve UDP Console, perform backup for the Arcserve UDP database.

```
C:\Program Files\Arcserve\Unified Data Protection\Management\BIN\Appliance>ConsoleMigration.exe -backupdb
Start Backup...
Backed up D8 and version files completed.
D8 and version files were created at: "C:\Program Files\Arcserve\Unified Data Protection\Management\BIN\Appliance\D8_Migration".
```

The DB_Migration folder is created successfully.

2. On the new Arcserve UDP Console, copy the *DB_Migration* folder to the following path:

<UDP_Home> \Management\BIN\Appliance\

3. If the new Arcserve UDP Console is Arcserve Appliance then change hostname and reboot the system and finish the Appliance configuration using Appliance wizard.

Note: If the Arcserve UDP Console is not an Arcserve Appliance, skip this step.

4. On the new Arcserve UDP Console, perform the steps mentioned in the screen below to recover the Arcserve UDP Console database. When the database recovery process is completed, the nodes are updated for new Arcserve UDP Console. If any nodes are failed to get updated, the disconnected nodes are recorded in the *DisconnectedNodesInfo-<mm-dd-*

yyyy>.txt file under the path *C:\Program Files\Arcserve\Unified Data Protection\Management\BIN\Appliance\logs.* You can manually update the disconnected nodes from the new Arcserve UDP Console.



Note: In Arcserve UDP Console, if any site other than Local Site exists, follow the steps mentioned in *NewRegistrationText.txt* file to register the site again.

You have completed migration of Arcserve Appliance Console to the new Arcserve UDP Console successfully.

You can use this tool to perform console migration for Arcserve UDP Console connected with remote SQL database. After the migration is complete, the migrated Arcserve UDP Console is configured to connect with the same remote SQL database.

Note: From Arcserve UDP v6.5 Update 4 onwards, *-force* option is introduced in *ConsoleMigration.exe* command to force the recovery backup database file migration to the target console under the following conditions:

- When you want to perform console migration between two consoles where the source console uses SQL Server Enterprise edition and the target console uses SQL Server Express edition. In this case, the minimum required Database size of the source UDP console is 4000 MB.
- When you want to perform console migration from a console that uses an advanced version of SQL Server database to a console that uses an older version of SQL Server database. For example, migrating from a console using SQL Server 2016 to a console using SQL Server 2014.

Perform Migration between Arcserve Appliances

This topic provides the solution for user to perform migration from existing Arcserve Appliance to another fresh Arcserve Appliance.

For example, let us migrate the Arcserve Appliance one to Arcserve Appliance two. The prerequisites are listed as follows:

- Ensure that you can connect to both Appliance one and Appliance two.
- Capacity of the Appliance two should have enough memory to hold all the data on the Appliance one.
- In the Arcserve Appliance one, ensure that no job runs.

For more information on Console migration, refer the <u>How to Migrate Arc</u>serve UDP Console Using ConsoleMigration.exe topic.

To migrate from any Appliance to a fresh Appliance, follow the solution given below.

Solution

Solution

Migrate Arcserve Appliance solution

Important! If the existing Appliance works as both Arcserve UDP Console and Arcserve UDP RPS, we can use this solution.

Prerequisites:

- On Arcserve Appliance one, ensure that no job runs.
- You have migrated the Arcserve UDP Console from Arcserve Appliance one to two.

Note: For more information about how to migrate the Arcserve UDP Console from Appliance one to two, refer <u>How to Migrate Arcserve UDP Console</u> Using ConsoleMigration.exe.

Follow these steps:

1. Stop all the Arcserve UDP services on Arcserve Appliance one using the following command in the command line:

C:\Program Files\Arcserve\Unified Data Protection\Management\BIN> cmdutil.exe /stopall

```
- 0
C:5.
                 Administrator: C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.
C:\Program Files\Arcserve\Unified Data Protection\Management\BIN>cmdut
il.exe /stopall
Start to kill process explorer.exe
Killing process explorer.exe
Process killed.
 Start to kill process D2DUDgc.exe
Stopping service 'Arcserve UDP Agent Service'...
Service Stopped.
 topping service 'Arcserve UDP RPS Data Store Service'...
ervice Stopped.
Stopping service 'Arcserve UDP RPS Port Sharing Service'...
Service Stopped.
Stopping service 'Arcserve UDP Identity Service'...
Service Stopped.
Stopping service 'Arcserve UDP Management Service'...
Service Stopped.
Stopping service 'Arcserve UDP Management Port Sharing Service'...
Service Stopped.
 Stopping service 'Arcserve UDP Agent Explorer Extension Service'...
Service Stopped.
Stopping service 'Arcserve UDP Update Service'...
Service Stopped.
Stopping Arcserve UDP agent monitor...
Arcserve UDP agent monitor stopped.
Start to kill Arcserve UDP processes
Killing process sync_utl_d.exe
Process killed.
Killing process AFD2DMonitor.exe
Process killed.
Killing process GDDServer.exe
Process killed.
Killing process GDDServer.exe
Process killed.
Killing process GDDServer.exe
Process killed.
Killing process AStartup.exe
Process killed.
Killing process explorer.exe
Process killed.
Stopping mounting driver...
Mounting driver stopped.
Start Windows Explorer.
```

- Copy all the data on disk X and Y from Arcserve Appliance one to two manually.
- 3. On Appliance two, start all Arcserve UDP services and then import the datastores copied from Appliance one.

| resources | | | |
|---|--|------|-------------|
| Import a Data Store | | | |
| Recovery Point Server Data Store Folder Encryption Password | applance X:\Arcserve\data_store\common • Next | | Browse |
| | | Save | Cancel Help |

Note: The Arcserve UDP log files are not migrated to the new fresh Appliance.

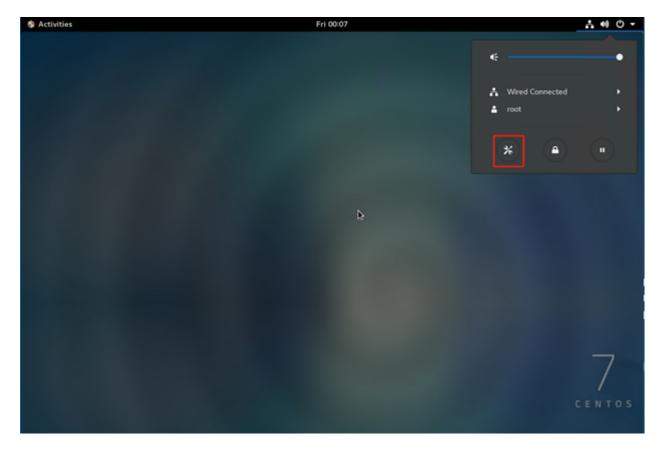
You have migrated the existing Arcserve Appliance to another fresh Arcserve Appliance successfully.

Modify the Input Source of Pre-installed Linux Backup Server

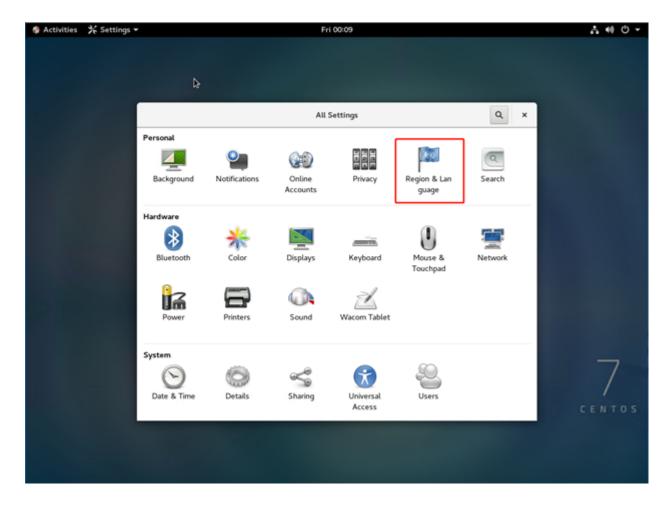
You can change the Keyboard of pre-installed Linux Backup Server.

Follow these steps:

- 1. Log into Arcserve Appliance as administrator.
- 2. Click Settings.



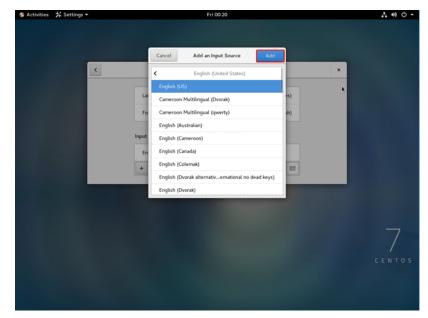
3. Click Region & Language.



4. Click + to select a new input source.

| Activities | ¥ Settings → | | Fri 00:14 | .t •0 ♥ |
|------------|--------------|---------------|-------------------------|---------|
| | | | | |
| | | | | |
| | | | | |
| | < | | Region & Language | × |
| | | Language | English (United States) | |
| | | | | |
| | | Formats | United States (English) | |
| | | Input Sources | | 4 |
| | | English (US) | | he |
| | | + - | ^ v | |
| | | | | |
| | | | | |
| | | | | |
| | | | | _ |
| | | | | |
| | | | | CENTOS |
| | | | | |
| | | | | |
| | | | | |

5. Select the language and keyboard layout.



6. Click Add.

Input source is successfully added.

Chapter 6: Monitoring the Appliance Server Remotely

You can monitor Arcserve Appliance remotely.

This section contains the following topics:

Working with Integrated Dell Remote Access Controller (iDRAC)

This section contains the following topics:

Monitor and Manage Integrated Dell Remote Access Controller (iDRAC)

Arcserve Appliance 9012-9504DR series models are installed with Integrated Dell Remote Access Controller 9 (iDRAC9). iDRAC9 lets the server administrators improve the overall availability of Arcserve Appliance. iDRAC provides the alerts to administrators about server issues, allows to perform remote server management, and reduces the need for physical access to the server.

You must log into iDRAC to monitor system status, manage system information and launch virtual console.

Follow these steps:

Log into iDRAC:

1. Launch a browser and navigate to *https://<iDRAC-IP-address>*.

iDRAC login page displays.

2. Enter the following information:

User Name: root

Password: ARCADMIN

3. Click Login.

Monitor System Status and Manage System Information:

You can monitor iDRAC system status and manage the following system information:

- System health
- System properties
- Hardware and firmware inventory
- Sensor health
- Storage devices
- Network devices
- View and terminate user sessions

Launch Virtual Console:

- 1. Log into https://<iDRAC-IP-address>
- 2. Navigate to Dashboard and click Launch Virtual Console.

The Virtual Console page displays.

The Virtual Console Viewer displays the remote system desktop. You can take the control of remote system and run the operations using keyboard and mouse.

Find the IP address of Integrated Dell Remote Access Controller for 9000 Series (iDRAC)

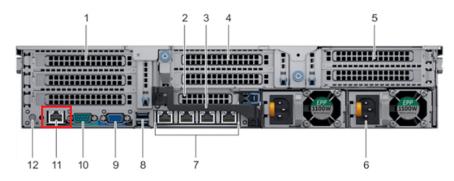
Arcserve Appliance 9012-9504DR series models are configured to use DHCP for iDRAC by default. To access iDRAC, ensure that you connect the ethernet cable to the iDRAC9 dedicated network port. For information about real panel and iDRAC9 dedicated network port of Arcserve Appliance 9012-9504DR series models, see <u>Real</u> panel of 9012-9048, Real Panel 9072DR-9504DR.



iDRAC9 dedicated network port on rear panel of Arcserve Appliance 9012-9048 series models

View Rear Panel of 9072DR-9504DR for iDRAC9

View Rear Panel of 9012-9048 for iDRAC9



iDRAC9 dedicated network port on rear panel of Arcserve Appliance 9072DR-9504DR series models

You can find the IP address of iDRAC from appliance.

Follow these steps:

1. Make a note of iDRAC IP while starting Arcserve Appliance.

| iDRAC, Update FW, In F11 = Boot Manager F12 = PXE Boot | stall OS) | DRAC IP: 10.57.2 | -5. | |
|--|-----------|------------------|-----|--|
| | | | | |
| | | | | |
| | | | | |

2. Launch a browser and navigate to *https://<iDRAC-IP-address>*.

| $\leftrightarrow \ \ , \ \ \ \ , \ \ \ $ | A Not secure https://10.57.25/restgui/start.html?login | | ☆ 0 |
|---|--|---------------------|--------------|
| | | | |
| | Integrated Remote | Access Controller 9 | |
| | - idrac-5q6mHq2 | | |
| | | | |
| | | | |
| | | | |
| | Username: | Password: | |
| | root | | |
| | Domain: | | |
| | This iDRAC • | | |
| | | | |
| | Security Notice: By accessing this computer, you confirm the | | |
| | | | |
| | Lo | g In | |
| | | | ate Windows. |
| | <u>Online Help</u> | | |

iDRAC login page is displayed.

Find the IP address of Integrated Dell Remote Access Controller for X Series (iDRAC)

Arcserve Appliance X series model is configured to use DHCP for iDRAC by default. To access iDRAC, ensure that you connect the ethernet cable to the iDRAC9 dedicated network port. For information about real panel and iDRAC9 dedicated network port of Arcserve Appliance X Series model, see <u>Real panel of X Series</u>.

View Rear Panel of X Series

You can find the IP address of iDRAC from appliance.

Follow these steps:

1. Make a note of iDRAC IP while starting Arcserve Appliance.

| F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS) F11 = Boot Manager F12 = PXE Boot | BIOS Version: 1.4.9 IDRAC IP: 10.57.25 | |
|---|---|------------------|
| | | |
| | | |
| Initializing Firmware In | terfaces | Activate Windows |

2. Launch a browser and navigate to *https://<iDRAC-IP-address>*.

| ← → C ▲ Not see | cure https://10.57.25/restgui/start.html? | ogin | ☆ 0 |
|-----------------|---|-------------------------------|---|
| | | | |
| | Integrated I | Remote Access Controller 9 | |
| | | IDRAC-5Q6MHQ2 Enterprise | |
| _ | | | |
| | Type th | | |
| | Username: | Password: | |
| | root | | |
| | Domain: | | |
| | This iDRAC | | |
| | | | |
| 🤍 Se | curity Notice: By accessing this compu | | curity policy. |
| | | | |
| | | Log In | |
| | | | e Windows on Center to activate Windows. |
| | | Online Help Support About | |

iDRAC login page is displayed.

Configure DHCP or Static IP address of iDRAC

You can set DHCP network mode for iDRAC.

Follow these steps:

1. Press F2 while starting Arcserve Appliance and enter System Setup.

| Initializing Firmware Int | erfaces | Activate Windows |
|--|---|------------------|
| | | |
| | | |
| | | |
| | | |
| Entering System Setup F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS) F11 = Boot Manager F12 = PXE Boot | BIOS Version: 1.4.9 iDRAC IP: 10.57.25 | |

2. From the System Setup Main Menu screen, click iDRAC Settings.

| System Setup | Help About Exit |
|---|--|
| System Setup | |
| System Setup Main Menu | |
| System BIOS | |
| DRAC Settings | |
| | |
| | |
| | |
| | |
| | |
| | |
| iDRAC Settings allows you to configure iDRAC. | |
| Service Tag: 5Qi | Activate Windows Go to Action Center to a Finish Windo |

3. From the options of iDRAC Settings, click **Network**.

The Network Settings fields are displayed.

| System Setup | | Help About Exit |
|---|--------------------------------------|--|
| iDRAC Settings | | |
| iDRAC Settings | | |
| iDRAC Settings Version | | - |
| System Summary System Event Log | | |
| Alerts | | - |
| Front Panel Security Media and USB Port Settings | | |
| Lifecycle Controller Power Configuration | | |
| Use this page to configure the network properties, or properties, IPMI settings, and VLAN settings. | common iDRAC settings, IPv4 and IPv6 | |
| Service Tag:5Q6 | T | Activate Windows Go to Action Center to a Finish Windo |

4. Select **Enabled** for **Enable NIC setting**, and select **Dedicated** for **NIC Selection** to use the dedicated network interface.

| ETWORK SETTINGS | |
|----------------------|----------------------------------|
| Enable NIC | O Disabled |
| NIC Selection | Dedicated |
| Failover Network | None |
| MAC Address | |
| Auto Negotiation | ○ Off |
| Auto Dedicated NIC | Disabled O Enabled |
| Network Speed | O 10 Mbps O 100 Mbps O 1000 Mbps |
| Active NIC Interface | Dedicated |
| Duplex Mode | O Half Duplex ● Full Duplex |
| OMMON SETTINGS | |
| Register DRAC on DNS | O Enabled |

5. To set DHCP mode, from IPV4 Settings select the **Enabled** option for **Enable IPv4** and **Enable DHCP**.

| System Setup | | | | Help About Exit |
|---|---------------------------|--|-------------|---------------------|
| iDRAC Settings | | | | |
| iDRAC Settings • Network | | | | |
| Auto Config Domain Name Static DNS Domain Name | Disabled | O Enabled | | |
| IPV4 SETTINGS | | | | |
| Enable IPv4 | O Disabled O Disabled | Enabled Enabled | | |
| IP Address | 10.57.25 | | | |
| Gateway | 10.57.25 | | | |
| Subnet Mask | 255.255.250. | ~ | | |
| Use DHCP to obtain DNS server addresses | (| Enabled | | |
| Preferred DNS Server | 0.0.0 | | | |
| Alternate DNS Server | 0.0.0 | | | |
| IPV6 SETTINGS | | | | |
| Select Enabled to enable NIC. When NIC is enable this group. When a NIC is disabled, all communicat | | |)) | Windows |
| Service Tag : 5QL | | | Go to Actio | |

Note: If you want to set Static IP for iDRAC dedicated network, set Enable IPv4 as Enabled and Enable DHCP as Disabled. Set IP Address, Gateway, and Subnet Mask according to the network configuration.

| System Setup | | Help About Exit |
|--|----------------|---------------------------|
| iDRAC Settings | | |
| iDRAC Settings • Network | | |
| Auto Config Domain Name | O Enabled | - |
| Static DNS Domain Name | | |
| IPV4 SETTINGS | | |
| Enable IPv4 | O Disabled | |
| Enable DHCP | O Enabled | |
| IP Address | 10.57.25 | |
| Gateway | 10.57.25 | |
| Subnet Mask | 255.255.255 | |
| Use DHCP to obtain DNS server addresses | O Enabled | |
| Preferred DNS Server | 0.0.0.0 | |
| Alternate DNS Server | 0.0.0.0 | |
| IPV6 SETTINGS | | |
| | | |
| | | |
| Select Enabled to enable NIC. When NIC is ena this group. When a NIC is disabled, all communi | | |
| | | |
| | Activate W | |
| Carrière Tara 50 | Go to Action C | enter to ac Back W |

6. Click **Back**, click **Finish**, and then click **Yes** on the **Warning** dialog.

The network information is saved.

| System Setup | | Help About Exit |
|--|--|---|
| iDRAC Settings | | |
| iDRAC Settings | | |
| iDRAC Settings Version iDRAC Firmware Version | | |
| System Summary | Warning | |
| System Event Log | Saving Changes | |
| Network | Settings have changed. Do you want to save the changes? | |
| Front Panel Security | | |
| Media and USB Port Settings | Yes No | |
| Lifecycle Controller | | |
| Power Configuration | | |
| | | |
| | | |
| | | Activate Windows Go to Action Center to a Finish W |

7. From the **Success** dialog, Click **OK**.

| System Setup | | Help About Exit |
|---|--|------------------------|
| iDRAC Settings | | |
| iDRAC Settings | | |
| iDRAC Settings Version | 3.00.00.32 3.21.21.21 (Build 30) | , |
| System Summary System Event Log Network | Success Saving Changes | |
| Alerts Front Panel Security | The settings were saved successfully. | - |
| Media and USB Port Settings Lifecycle Controller | ок | |
| Power Configuration | | |
| | | |
| Service Tag: 5Q | | Go to Activate Windows |

You have completed configuration of iDRAC DHCP.

8. Click Finish and then click Yes to exit the Setup and boot the system.

| System Setup | | Help About Exit |
|-------------------------------|---|---|
| System Setup | | |
| System Setup Main Menu | | |
| System BIOS IDRAC Settings | | |
| Device Settings | Confirm Exit Are you sure you want to exit? | |
| | | |
| Service Tag : 5Q | | Go to Action Center to a Finish Windows |

The DHCP network mode for iDRAC is configured.

Working with Baseboard Management Controller (BMC)

This section contains the following topics:

Monitor and Manage Baseboard Management Controller (BMC)

Arcserve Appliance 10012BU-10576DR series models are installed with Baseboard Management Controller (BMC). BMC lets the server administrators improve the overall availability of Arcserve Appliance.

BMC provides alerts to administrators about server issues, allows to perform remote server management, and reduces the need for physical access to the server. It also provides remote access to multiple users from different locations for system maintenance and management.

To monitor the system status, manage system information and launch remote console, you must log into the Intelligent Platform Management Interface (IPMI).

Follow these steps:

1. Open a web browser and enter the BMC IP address in the following format: https://BMC-IP-address.

The login screen appears.

- 2. Type the login credentials as follows:
 - Username: ADMIN

Note: The username must be in caps.

Password: Type the BMC password

Note: You can find the BMC unique password in the pull-out tag on the front panel of the server. The BMC password is listed in the bottom row just below the BMC/IPMI MAC Address.



- 3. Click Login.
- 4. Navigate to **Remote Console** and then click **Launch Console**.

| | SUPERMICRO | | Hi ! Welcome back ! 👤 | |
|---|----------------|--|-----------------------|---|
| ₽ | Dashboard | | | |
| | System | Launch Console | Launch SOL | |
| ٠ | Configuration | Current Interface | | 5 |
| 2 | Remote Control | Mouse Mode Set Mode to Absolute (Windows, Ubuntu, RH6.x later) | Launch SOL | _ |
| સ | Maintenance | Set Mode to Relative (other Linux distributions) | | _ |
| | | O Single Mouse Mode | | _ |
| | | | IKVM Reset | ₽ |
| | | Launch Console | Reset | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | Copyright @ 2025 Supermicro Computer, Inc. | | |

The Remote Console Viewer displays the remote system desktop. You can take the control of remote system and run the operations using keyboard and mouse.

You can also monitor the BMC system status and manage the following system information:

- System health
- System properties
- Hardware and firmware inventory
- Sensor health

- Storage devices
- Network devices
- View and terminate user sessions

How to Find the IP address of BMC

Arcserve Appliance 10012BU-10576DR series models are configured to use DHCP for BMC by default. To access BMC, ensure that you connect the ethernet cable to the BMC dedicated network port. For information about real panel and BMC dedicated network port of Arcserve Appliance 10012BU-10576DR series models, see Rear Panel 10012BU-10048BU and Rear Panel 10048DR-10576DR.

You can find the IP address of BMC in the following ways:

Find the IP address using BIOS

This section provides instructions on how to find the IP address using BIOS.

Follow these steps:

- 1. Power-On the Appliance server.
- 2. During the system boot up, click the **Del** key to invoke BIOS menu.
- 3. Navigate to Server Management tab and then select BMC Network Configuration.

The BMC Network Configuration screen appears.

You can view the IP address on the *IPV4 Station IP address* parameter. You can also change the DHCP issued IP address to the desired static IP address. For more information, see Configure BMC IP address using BIOS.

Find the IP address in POST screen

This section provides instructions on how to find the IP address in POST screen.

Follow these steps:

- 1. Power-On the Appliance server.
- 2. Initiate the system boot up.

The POST screen appears.

You can find the IP address on the lower-right corner of the POST screen.

Configure the DHCP or Static IP Address of BMC

This section provides information about how to configure UEFI BIOS and the IP address of BMC.

Configuring UEFI BIOS

This section provides information about how to configure UEFI BIOS.

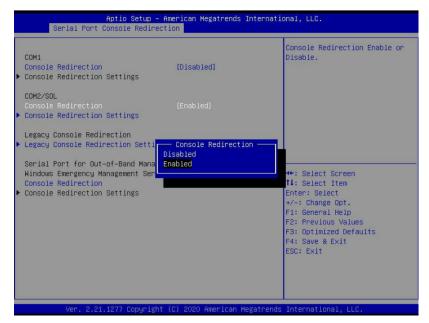
Note: Before configuring BMC, you must configure BIOS on the monitor directly connected to the Arcserve appliance server. You can perform this process within the BIOS of the BMC only.

Follow these steps:

- 1. Power-On the Arcserve Appliance Server.
- 2. During the system bootup, click the **Del** key to enter the BIOS.

Note: To navigate through the BIOS, use the arrow keys. To select, press the **Enter** key, and to return to the previous screen, press the **Esc** key.

- 3. Select the Advanced tab from the BIOS setup menu.
- 4. Select Serial Port Console Redirection and press the Enter key.
- 5. Navigate to **Console Redirection** under COM2/SOL, press the **Enter** key and select **Enabled**.



6. Press the F4 key to save and exit.

The BIOS is configured successfully.

Configuring the IP Address of BMC

This section contains the following topics:

Configure the DHCP IP Address using the DHCP Server

This section provides instructions on how to configure the DHCP IP Address using the DHCP server

Follow these steps:

- 1. On the Appliance server, find the pull-out ID tag with MAC address barcode.
- 2. Use the MAC address value to set a known registered DHCP IP address with the DHCP server.

You can view the IP Address from POST screen or BIOS. For more information, see <u>How to Find IP Address of BMC</u>.

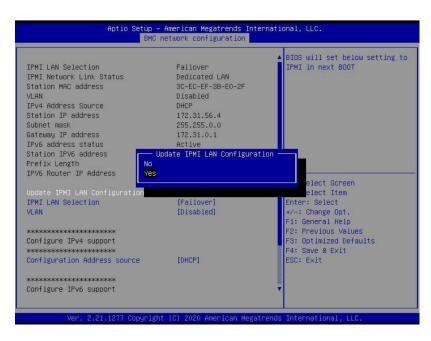
Configure the Static IP Address using BIOS

This section provides instructions on how to configure the Static IP Address using BIOS.

Follow these steps:

- 1. Power-On the Arcserve Appliance Server.
- 2. During the system bootup, click the **Del** key to enter the BIOS.
- Navigate to the Server Management tab > BMC Network Configuration, and then press the Enter key.

The BMC Network Configuration screen appears.



- Select Update IPMI LAN Configuration, press the Enter key, and then select Yes.
- 5. Select **Configuration Address source**, press the **Enter** key, and then select **Static**.

| | | ▲ Select to configure LAN |
|--|--|--|
| IPMI LAN Selection | Failover | channel parameters statically |
| IPMI Network Link Status | Dedicated LAN | or dynamically(by BIOS or |
| Station MAC address | 3C-EC-EF-3B-E0-2F | BMC). Unspecified option will |
| VLAN | Disabled | not modify any BMC network |
| IPv4 Address Source | DHCP | parameters during BIOS phase |
| Station IP address | 172.31.56.4 | |
| Subnet mask | 255.255.0.0 | |
| Gateway IP address | 172.31.0.1 | |
| IPv6 address status | Active | and the second se |
| Station IPV6 address | — Co <mark>nfiguration Address sour</mark> | rce |
| | atic | |
| IPV6 Router IP Address DH | CP | and the second sec |
| | | Select Screen |
| Update IPMI LAN Configuration | ter in a | Select Item |
| IPMI LAN Selection | [Failover] | Enter: Select |
| VLAN | [Disabled] | +/-: Change Opt. |
| | | F1: General Help F2: Previous Values |
| | | |
| Configure IPv4 support ***** | | F3: Optimized Defaults F4: Save & Exit |
| жжжжжжжжжжжжжжжжжж Configuration Address source | (DHCP) | ESC: Exit |
| configuration Houress source | | LOD. EAT |
| **** | | |
| | | |

After the Configuration Address source is set to Static, you can update the values 0.0.0.0 in the fields of the Static IP Address, Subnet Mask, and Gateway IP Address.

6. Enter the desired values for the Static IP Address, Subnet Mask, and Gateway IP Address, and then press the **Enter** key.

| IPv6 address status | Active | ▲ Select to configure LAN |
|---|------------|-------------------------------|
| Station IPV6 address | | channel parameters statically |
| Prefix Length | 16 | or dynamically(by BIOS or |
| IPV6 Router IP Address | 1000::1 | BMC). Unspecified option will |
| | | not modify any BMC network |
| Update IPMI LAN Configuration | [Yes] | parameters during BIOS phase |
| IPMI LAN Selection | [Failover] | |
| VLAN | [Disabled] | |
| www.www.www.www.www.www. | | |
| Configure IPv4 support | | |
| xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | | |
| | | |
| Station IP address | 0.0.0 | ++: Select Screen |
| Subnet mask | 0.0.0 | ↑↓: Select Item |
| Gateway IP address | 0.0.0 | Enter: Select |
| | | +/-: Change Opt. |
| жкенение | | F1: General Help |
| Configure IPv6 support | | F2: Previous Values |
| ***** | | F3: Optimized Defaults |
| IPV6 Support | [Enabled] | F4: Save & Exit |
| Configuration Address source | [Static] | ESC: Exit |
| Station IPV6 address | 4000::2 | |
| Prefix Length | 0 | |
| IPV6 Router IP Address | 3000::1 | |

7. Press the F4 key to save and exit.

The BMC Static IP Address is configured successfully.

Connecting to BMC using BIOS

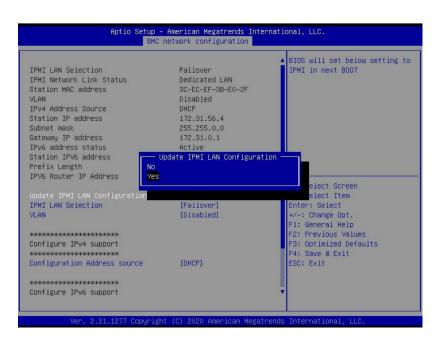
To connect to BMC and invoke BIOS menu on your device, connect one end of an Ethernet cable to the laptop or device's Ethernet port. Then plug the other end of the cable into the server's IPMI or SHARED port. Now the BMC and the device is connected to the same network connection.

Follow these steps:

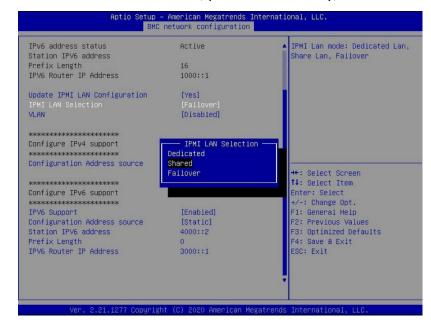
- 1. Power-On the Arcserve Appliance Server.
- 2. During the system bootup, click the **Del** key to enter the BIOS.
- Navigate to the Server Management tab > BMC Network Configuration, and then press the Enter key.

The BMC Network Configuration screen appears.

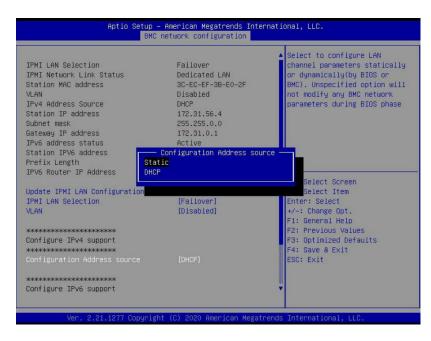
4. Select **Update IPMI LAN Configuration**, press the **Enter** key, and then select **Yes**.



5. Select IPMI LAN Selection, press the Enter key, and then select Shared.



 Select Configuration Address source, press the Enter key, and then select Static.



After the Configuration Address source is set to Static, you can update the values 0.0.0.0 in the fields of the Static IP Address, Subnet Mask, and Gateway IP Address.

7. Enter the desired values for the Static IP Address, Subnet Mask, and Gateway IP Address and then press the **Enter** key.

| IPv6 address status Station IPV6 address | Active | Select to configure LAN channel parameters statically |
|---|------------|---|
| Prefix Length | 16 | or dynamically(by BIOS or |
| IPV6 Router IP Address | 1000::1 | BMC). Unspecified option will not modify any BMC network |
| Update IPMI LAN Configuration | [Yes] | parameters during BIOS phase |
| IPMI LAN Selection | [Failover] | |
| VLAN | [Disabled] | |
| xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | | |
| Configure IPv4 support жжжжжжжжжжжжжжжж | | |
| | | |
| Station IP address | 0.0.0 | ++: Select Screen |
| Subnet mask | 0.0.0.0 | 1↓: Select Item |
| Gateway IP address | 0.0.0 | Enter: Select +/-: Change Opt. |
| xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | | F1: General Help |
| Configure IPv6 support жжжжжжжжжжжжжжжжж | | F2: Previous Values F3: Optimized Defaults |
| IPV6 Support | [Enabled] | F4: Save & Exit |
| Configuration Address source | [Static] | ESC: Exit |
| Station IPV6 address | 4000::2 | |
| Prefix Length | 0 | |
| IPV6 Router IP Address | 3000::1 | |

8. Press the F4 key to save and exit.

The device is connected to BMC successfully.

Chapter 7: Restoring or Repairing the Arcserve Appliance

This section contains the following topics:

Debug Factory Reset

The topic describes how to debug factory reset when you receive the following Error message:



To resolve the issue, perform the following steps:

1. From the Error message, click the drop-down option of **Troubleshoot**.

The following options are displayed:

Command Prompt

The CMD (command prompt) dialog box lets you perform some basic operation. For example, verify if a file exists in the folder, copy files, delete files, and get the disk layout information.

View Logs

View logs option lets you view the logs in Notepad. You can check the logs and save the logs for further help by clicking *File, Save As*.

Restart Factory Reset

This option lets you restart Factory Reset when the issue is esolved.

Help

The Help Dictionary dialog box provides information about the cause, basic analysis, and solutions for the error. Follow the steps to resolve the issue. Some tips about common operations are also displayed. For example, how to get the disk layout, how to get the content of factory reset property file, how to save the logs.

2. From the options displayed, click Help.

The screen displays multiple Error Code with details.

| 0 | | Factory Reset Help |
|--|---|---|
| Category: | | |
| ➡ Help ➡ Error ■ Error ■ Error code 1002 ■ Error code 1003 ■ Error code 1004 ■ Error code 1005 ■ Error code 1004 ■ Error code 1010 ■ Error code 1011 ■ Error code 1012 ■ Error code 1013 ■ Error code 1019 ■ Error code 1019 ■ Error code 1012 ■ Error code 1012 ■ Error code 1013 ■ Error code 1031 ■ Error code 1031 | Debug: existing, Steps: "post_fa | Program cannot find "post_factoryreset.ps1". Check if "post_factoryreset.ps1" exist at the path "x:\windows\system32\appliance". If check the content, otherwise please collect the logs and contact Arcserve Support. 1. Open Command Prompt (cmd) from "Troubleshoot">"Command Prompt". 2. Type "cd x:\windows\system32\appliance\" and press Enter. 3. Type "cd x:\windows\system32\appliance\" and press Enter. All the files and folders in the folder are displayed. Check if the file ctoryreset.ps1" is exist. 4. Also refer to ["Tip">"How to save the logs?"] for information on how to collect and logs for further analysis. |

3. Navigate to **Tip** of the Error code displayed in Error message and follow the instructions as displayed in the right panel below.

| 2 | | | Factory Res | et Help | | | | | | 2 |
|------|--|---|---|--|-----------------------------------|--------------------------------|--------------------|--|------------------------------------|-------|
| ateg | jory: | | | | | | | | | |
| | Error code 1019 Error code 1020 Error code 1020 Error code 1023 Error code 1031 Error code 1032 Error code 1032 | | Open Comm Type "diskpa Version of dis Type DISKPA The disk list a | rt" and pre kpart is dis RT>"list di | ss Enter. played. sk" and p | oress Ente | er. | | nand Prompt". Illy our system d | lisk. |
| | Error code 1034 Error code 1035 Error code 1035 Error code 1037 Error code 1037 Error code 1038 Error code 1039 Error code 1051 | Ŀ | Disk ### Disk 0 Disk 1 Here, the Disk 1 | Status Online Online is the data | 447G 3725G | Free OB OB e Disk 0 i | Dyn s the SSD | Gpt disk. | | |
| E | Firor code 1052 Firor code 1053 Error code 1053 Firor code 1054 Fip How to get the diskla How to get the conte How to save the logs: | | Type "select It will respond 5. Type DISKPA The disk layor Partition ### | l with "Disk RT> "list pa ut list will s | <disk n<br="">rtition" a</disk> | umber g ind press | ot above Enter. | ress Enter. > is now the se Offset | elected disk." | |
| < | How to get IP address | ~ | Partition ### Partition 1 Partition 2 | Type Recover System | у | 300MB 99MB | | 1024KB 301MB | | |

Selecting the right error and following the instructions displayed in tip helps to resolve Factory Reset.

Installing the Arcserve Appliance

This section contains the following topics:

How to Install Arcserve Backup 19.0

Arcserve Backup 19.0 is not pre-installed on the appliance. To install Arcserve Backup 19.0, mount the InstallASBU.iso file located on your desktop.

Follow these steps:

1. On your desktop, locate and mount the **InstallASBU.iso** file, navigate to the application Setup, and then run the setup as an administrator.

From the right column on the Product Installation Browser, click Install Arcserve Backup for Windows.

The Prerequisite Components dialog opens.

2. Click Install to install the Prerequisite Components.

Be aware of the Prerequisite Components dialog that opens only if Setup does not detect Arcserve Backup Prerequisite Components installed on the target computer.

Note: If you are installing Arcserve Backup on the active node in a cluster-aware environment, the cluster resources are transferred from the active node to the passive node while the active node restarts. After the active node restarts, you should transfer the cluster resources back to the original active node.

- 3. On the License Agreement dialog, accept the terms of the Licensing Agreement and click Next.
- 4. Follow the prompts and complete all required information on the subsequent dialogs.

The following list describes dialog-specific information about installing Arcserve Backup.

Select Install/Upgrade Type dialog

When you select the remote installation option, you can install Arcserve Backup on multiple systems.

With remote installations, the target remote systems can consist of different Arcserve server types, different Arcserve Backup agents and options, or both.

Note: The setup program for cluster machines does not support remote installation of the Arcserve Backup base product or the Arcserve Backup agents. This remote install limitation for the Arcserve Backup agents (for example, the Agent for Microsoft SQL Server and the Agent for Microsoft Exchange Server) only applies if you use a virtual host. Remote

installation of Arcserve Backup agents using the physical hosts of clusters is supported.

Installation Type dialog

Lets you specify the type of Arcserve Backup components that you want to install, by selecting either the Express or Custom installation type.

Note: When you upgrade from a previous release, the installation wizard detects your current Arcserve configuration and selects the Installation/Upgrade type that is appropriate for your new installation. For more information, see <u>Types of Arcserve Backup Server Installations</u> and <u>Arcserve Backup Server Options</u>.

| Arcserve Backup Setup Installation Type | arcserve BACKUP |
|---|---|
| License Agreement Methods Configuration Installation Type Components Accounts Database Settings Agert Setting Messages Setup Summary Installation Progress Installation Report | Target Host: [ASWINI-TEST] Specify an installation type © Express © Custom © Accserve Manager (Console) @ Accserve Stand-alone Server @ Accserve Primary Server @ Accserve Primary Server @ Accserve Member Server @ Other This option installs an Accserve Stand-alone server, Using an Accserve Stand-alone server you can run, manage, and monitor jobs running locally. |
| Product Information View Release Notes | < Back Next > Cancel |

Components dialog

Lets you specify the Arcserve Backup components that you want to install on the target system.

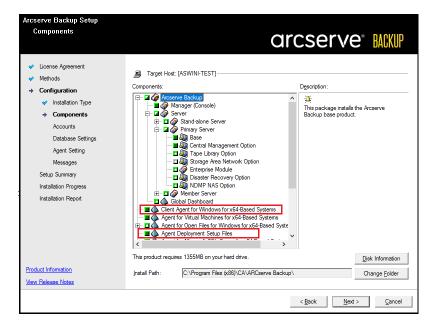
Be aware of the following considerations:

- To install a primary server, you must install the Arcserve Backup Central Management Option on the primary server.
- To install member servers, the installation wizard must be able to detect the Arcserve Backup domain name and primary server name in your network. Therefore, you should complete at least one primary server installation before you perform member server installations.
- When you click the Arcserve Backup object or the Server object on the Select Products dialog, the installation wizard specifies the default Stand-alone

Server installation components, regardless of the installation type that you specified on the Select Install/Upgrade Type dialog. To ensure that you are installing the correct components, expand the Server object, expand the object for the type of Arcserve Backup server that you want to install, and check the check boxes corresponding to the components that you want to install.

- Agent Deployment is a wizard-like application that lets you install or upgrade Arcserve Backup agents on multiple remote systems, after you install Arcserve Backup. To support this capability, Setup must copy Setup source files to the Arcserve Backup server. To copy the contents of the installation media to the Arcserve Backup server, you must select Agent Deployment on the Components dialog. When you select Agent Deployment, the length of time required to install or upgrade Arcserve Backup increases significantly.
- If you are performing a remote installation or a silent installation, do not install the Arcserve Backup Client Agent for Windows into the same directory as the Arcserve Backup base product.
- Global Dashboard can be installed on primary servers, stand-alone servers, and member servers. However, you cannot configure member servers to function as Central Primary Servers and Branch Primary Servers. For more information about Central Primary Servers and Branch Primary Servers, see the Dashboard User Guide.
- On computers running Windows Server Core, you can install only the following Arcserve Backup products:
 - Member Server and supported options
 - Agent for Open Files
 - Agent for Virtual Machines
 - Client Agent for Windows
 - Disaster Recovery Option

The following diagram illustrates the default installation path for the Client Agent for Windows and Agent Deployment is specified:



Accounts dialog

Lets you set up your Arcserve Backup accounts and provides you an option to enable **Install Arcserve Backup Web Service**.

If Setup detects a cluster-aware application running in your environment, and you want to install Arcserve Backup in the cluster-aware environment, check the Cluster Environment Installation option and specify the path to the shared disk where you want to install Arcserve Backup.

Note: Arcserve Backup server names and Arcserve Backup domain names cannot exceed 15 bytes. A name totaling 15 bytes equates to approximately 7 to 15 characters.

| Accounts Specify the Arcserve Backu | up Domain you want to setup. | arcserve [®] BACKUP |
|---|---|---|
| License Agreement Methods Configuration Installation Type Components Accounts Database Settings Agent Setting Messages Setup Summary Installation Progress Installation Report | Target Host: (ASWINI-TEST) Specify a Windows administrative account Microsoft Windows Domain: Microsoft Windows User Name: Password: Specify a Arcserve Backup domain account – | ITEST Administrator Image: Comparison of the second sec |
| oduct Information w Release Notes | Web Service Settings | 8020 |

The Arcserve Backup web service works as a bridge between UDP Copy to Tape task and Arcserve Backup. By default the **Install Arcserve Backup Web Service** is enabled when you install Arcserve Backup. The default port number for the **Web Service Settings** is 8020. You can modify or the change the port number.

Clear the **Install Arcserve Backup Web Service** check box to disable the Arcserve Backup web service.

You can enable/modify the **Install Arcserve Backup Web Service** post installation of Arcserve Backup.

Note: Specify the same port number when you install Arcserve Backup web service on all servers of the Arcserve Backup domain. Arcserve UDP uses the same port number to connect to both the servers, the Arcserve Backup Primary server and the Member server in the Arcserve Backup domain.

Follow these steps:

- 1. Navigate to the Arcserve Backup base installation path from the command line.
- 2. In the command prompt type the following command:

Bconfig –c

<Arcserve Backup> Accounts dialog opens.

3. Configure or update the web service.

Database Settings dialog

Lets you configure the Arcserve Backup database.

After you specify a database application (Arcserve Backup Default Database or Microsoft SQL Server) complete the required fields on this dialog and click Next.

Note: If you protect data that contains Unicode-based characters from East Asian languages (for example, JIS2004) you must enable SQL collation to ensure that Arcserve Backup can search and sort the data. To do this, click East Asian collation and then select a language from the drop-down list.

| Arcserve Backup Setup Database Settings The database stores critical in Arcserve Backup and its opera | | arcserve [®] BACKUP |
|--|---|--|
| License Agreement Methods Configuration Instalation Type Components Accounts Database Settings | Target Host:[·TEST] Choose a database type: Specify the installation path for | |
| Agent Setting Messages Setup Summary Installation Progress Installation Report | O Default installation path: Select a custom path Data file path for Arcserve def Default installation path: Select a custom path SQL Language Collation Setting O Default collation East Asian collation | Fault database C:\Program Files (x86)\Microsoft SQL Server (MSSQL 12.ARCSERVE_DB\MSSQL \DATA |
| Product Information View Release Notes | Installation Path for Catalog Files: | C:\Program Files (x86)\CA\ARCserve Backup\CATALOG.DB\ Cancel |

Messages dialog

As you review the messages in the Messages dialog, you should attempt to resolve the problems at this time.

The following graphic illustrates the Important Warning Messages dialog:

| Arcserve Backup Setup Messages | arcserve [®] BACKUP |
|---|---|
| License Agreement Methods Configuration Installation Type Components Accounts Database Settings Agent Setting Messages Setup Summary Installation Progress Installation Report | Target Host: TEST] Please read the following warning messages before starting installation: Setup will install the following components: Microsoft SQL Server 2014 Express Edition For default Arcserve DB, Arcserve Backup support TLS 1.2 by default, for upgrade case, please make sure the SQL server version used satisfies minimum requirements to support TLS 1.2. For SQL Server later than 2008 as Arcserve DB, please follow Microsoft KB to make sure TLS 1.2 is supported. Or it will fall back to legacy settings. https://support.microsoft.com/en-in/help/3135244/lts-1-2-support-for-microsoft-sql-server You have selected VM Agent component. For TLS 1.2 settings of vSphere 6.7 support, view http://www.arcservedocs.com/arcservebackup/r18/redirect.php? item=sfdc&path=ikkloconfigure_lta12_for_vsphere67.html Existing "Microsoft SQL Server Native Client" product on the target machine may cause "Microsoft SQL Server Native Client" by using Add/Remove Programs. |
| Product Information View Release Notes | Park |
| | < Back Next > Cancel |

Setup Summary dialog

To modify the components that you want to install, click Back as often as necessary to return to the dialog containing the installation options that you want to change.

Installation Report dialog

If any components you select require configuration, Setup displays the necessary configuration dialogs at the end of the installation. You can configure the component immediately or configure it later using Device Configuration or Enterprise Module Configuration. For example, if you are using a single-drive autoloader that requires configuration, Setup lets you start Device Configuration by double-clicking the message for it on the Install Summary dialog. The diagram that follows illustrates the Installation Report dialog. The Agent for Microsoft SQL Server requires configuration.

| Arcserve Backup Setup | |
|---|--|
| Arcserve Patch Manager C Please specify the Server t | |
| ✓ License Agreement | |
| ✓ Methods | Client for Patch Manager |
| Configuration | Arcserve Backup component is required to be installed on the local machine. |
| 🛷 Installation Type | Arcserve Server |
| Components | C Staging Server name |
| Accounts | |
| ✓ Database Settings | Staging Server for Patch Manager |
| Agent Setting | IIS default HTTP site is required to be up and running on the local |
| Messages | machine. The HTTP location http://localhost/capm will be created automatically if it doesn't exist. |
| Setup Summary | |
| Installation Progress | Click on "Browse" button below if you would like to change the default downloaded |
| Installation Report | patches path. |
| | C:\Program Files (x86)\CA\SharedComponents\Patch Browse |
| | |
| | |
| | Note: Arcserve Backup Patch Manager is installed with default configurations. To modify the |
| | configurations, you can use Preferences from Patch Manager Settings after installation. |
| Product Information | |
| View Release Notes | |
| | < Back Next > Skip |

Note: You may be required to restart the server after you install Arcserve Backup. This depends on whether all of the files, services, and registry settings have been updated on the operating system level.

Installation Summary dialog

If any components you select require configuration, Setup displays the necessary configuration dialogs at the end of the installation. You can configure the component immediately or configure it later using Device Configuration or Enterprise Module Configuration. For example, if you are using a single-drive autoloader that requires configuration, Setup lets you start Device Configuration by double-clicking the message for it on the Install Summary dialog.

5. Click Finish on the Installation Summary dialog to complete the installation.

How to Install 10012BU-10048BU Series Appliance

The appliance is intended for installation in restricted areas only. Only qualified personnel should perform Initial setup and maintenance.

For the complete installation process, see <u>Appliance Installation of 10012BU-</u>10048BU.

How to Install 10048DR-10576DR Series Appliance

The appliance is intended for installation in restricted areas only. Only qualified personnel should perform Initial setup and maintenance.

For the complete installation process, see <u>Appliance Installation of 10048DR-10576DR</u>.

How to Install 9012-9048 Series Appliance

The appliance is intended for installation in restricted areas only. Only qualified personnel should perform Initial setup and maintenance.

For the complete installation process, see <u>Appliance Installation of 9012-9048</u>.

How to Install 9072-9504DR Series Appliance

The appliance is intended for installation in restricted areas only. Only qualified personnel should perform Initial setup and maintenance.

For the complete installation process, see <u>Appliance Installation of 9072-9504DR</u>.

How to Install X Series Appliance

The appliance is intended for installation in restricted areas only. Only qualified personnel should perform Initial setup and maintenance.

For the complete installation process, see <u>Appliance Installation of X Series - Com-</u> <u>pute Node</u> and <u>Appliance Installation of X Series - Storage Node</u>.

Apply Arcserve UDP Factory Reset in 10012BU-10576DR Series Appliance

This section provides information about how to perform factory reset in 10000 series appliance.

Using the UDP Factory Reset option, you can return your Arcserve Appliance 10000 series to clean and non-configured status.

Note: You can also select the **Preserve the backup data** checkbox while running UDP factory reset.

Use one of the following two ways to perform factory reset for 10000 series appliance:

Factory Reset from BIOS

This section provides information about how to perform UDP factory reset from BIOS.

Follow these steps:

- 1. Power-On the Arcserve Appliance.
- 2. Press F11 key on keyboard to invoke Boot Menu.
- 3. Select the UDP Factory Reset boot option.

| Please select boot device: |
|---|
| Windows Boot Manager UDP Factory Reset |
| BRCM MBA Slot 1600 v228.0.128.0 BRCM MBA Slot 1601 v228.0.128.0 BRCM MBA Slot 3F00 v226.0.135.0 (Bus 3E Dev 00)PCI RAID Adapter Enter Setup |
| ↑ and ↓ to move selection ENTER to select boot device ESC to boot using defaults |

The Factory Reset wizard appears.

4. Click Reset.

Notes:

The Preserve existing backup data checkbox is selected by default. All the backup data is preserved during the reset. Only C:\ volume in the original operating system is rebuilt. If you uncheck the Preserve existing backup data checkbox, all the backup data is deleted during the reset. The data on the respective volumes of C:\, X:\, and Y:\ in the original operating system is rebuilt.

| Factory Reset | |
|--|------------------------------|
| Performing a Factory Reset on your Arcserve Appliance will return all settings to their factory defaults. All resources, job history, report and log entries will be deleted. The Arcserve UDP software will revert from its current version to the version originally installed on the Appliance. | ts |
| Reverting to Arcserve UDP Version 10.0.6455. | |
| Preserve existing backup data. | |
| | |
| | × |
| | |
| | |
| | |
| | |
| | |
| Reset Cancel | Activate W Go to Settings |

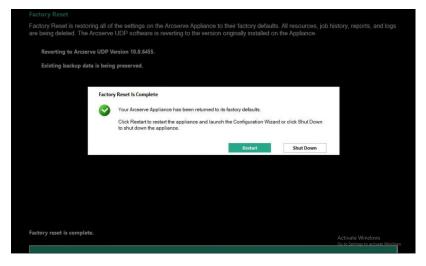
A confirmation dialog appears.

5. To perform factory reset, click **Reset**.

Confirm Factory Reset

| ⚠ | Are you sure you want to perform a factory reset on your Arcserve Appliance? Selecting Rese will result in returning all settings to their factory defaults. | | |
|---|---|-------|--------|
| | All of your backup data will be preserved during the reset. | | |
| | | Reset | Cancel |

- 6. After the factory reset is completed, you can perform one of the following actions:
 - To reboot the appliance, click **Restart**.
 - To close the appliance, click **Shut Down**.



The factory reset from BIOS for 10000 series appliance is successfully completed.

Factory Reset from Arcserve UDP Console

This section provides information about how to perform factory reset from Arcserve UDP console.

Follow these steps:

- 1. Log into the Arcserve UDP Console.
- 2. Navigate to settings > Factory Reset.

| arcserve | INIFIED DATA PROTECTION | Messages (0) administrator Help |
|--|--|---|
| dashboard resources jo | bs reports log settings | |
| (E) Database Configuration | Factory Reset | |
| Arcserve Backup Data Synchronization Sche SRM Configuration | Performing a Factory Reset on your Arcserve Appliance reverts all settings to the factory default status. All resission will revert from the current version to the version originally installed on the Appliance. | ources; job history, reports, and log entries are deleted. The Arcserve UDP |
| Node Discovery Configuration | Current Arcserve UDP Version: 10.0 | |
| Email and Alert Configuration | Original Arcserve UDP Version: 10.0 | |
| Update Configuration | Preserve existing backup data. | |
| Administrator Account | | |
| Remote Deployment Settings | Perform Factory Reset | |
| Share Plan | A | |
| User Management | | |
| Factory Reset | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| opyright @ 2014-2024, Arcserve, LLC and its aft | lilates and subsidiaries. All rights reserved. | UTC+05:30 (India Standard Tim |

3. On the Factory Reset screen, click Perform Factory Reset.

Notes:

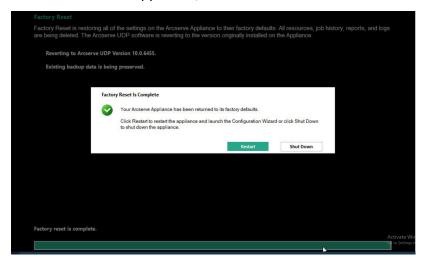
- The Preserve existing backup data check box is selected by default. All the backup data is preserved during the reset. Only C:\ volume in the original operating system is rebuilt.
- If you clear the Preserve existing backup data checkbox, all the backup data is deleted during the reset. All the data on the respective volumes of C:\, X:\, and Y:\ in the original operating system is rebuilt.

A confirmation dialog appears.

4. To perform factory reset, click Reset.

| arcserve | IIFIED DATA PROTECTION | • Messages (0) | administrator - Help - |
|---|--|--|---|
| dashboard resources j | s reports log settings | | |
| a Balabase Configuration Ancearre Barkup Data Synchronization Sch DRM Configuration None Discovery Configuration Estimation Alert Configuration Adversariation Account Remote Decolorymon Schtga Dater Fam Loer Management Factory Relat | Restory Reset Process and a restory these data your data sense day depicts or sense that a sense data restory was data by Contract Conference Conference Andream A data was a sense data with the sense data was a sense data with the backad-up data will be preserved during the main a sense of the backad-up data will be preserved during the backad-up data will be preserved during the backad-up data will be preserved during the backad-up data wi | Appliance. ur Arcserve Appliance? Selecting | s, and log entries are delined. The Anserve UDP |
| Copyright © 2014-2024, Arcserve, LLC and its a | ates and subsidiaries. All rights reserved. | | UTC+05:30 (India Standard Time |

- 5. After the factory reset is completed, you can perform one of the following actions:
 - To reboot the appliance, click **Restart** .
 - To close the appliance, click Shut Down .



The factory reset from Arcserve UDP Console for 10000 appliance is successfully completed.

Apply Arcserve UDP Factory Reset Using Boot Option in 9012-9504DR Series Appliance

You can apply UDP factory reset from the Boot Menu of the Arcserve Appliance 9012-9504DR series. Using UDP factory reset, you can return your Arcserve Appliance 9012-9504DR series to clean and non-configured status.

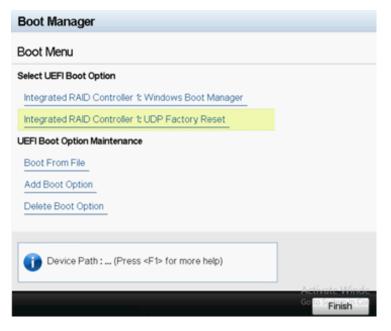
Note: You can also select the Preserve the backup data option while running UDP factory reset.

Follow these steps:

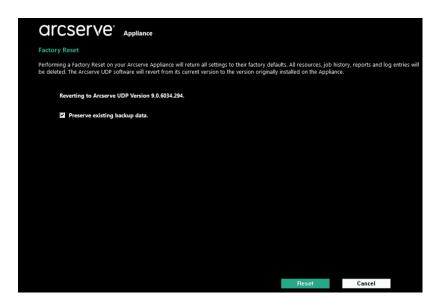
1. Press F11 on the keyboard to invoke Boot Menu.

| Initializing Firmware In | terfaces | Activate Windo Go to System in Con |
|---|--|---------------------------------------|
| | | |
| F12 = PXE Boot | ' | |
| F2 = System Setup F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS) Entering Boot Manager | BIOS Version: 1.4.9 iDRAC IP: 10.57.25.18 | |

2. Select the boot option Integrated RAID Controller 1: UDP Factory Reset.



A page about factory reset is displayed.



Notes:

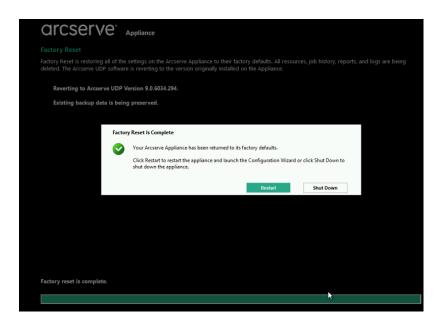
- The Preserve existing backup data option is selected by default. Only
 C:\ volume in the original operating system is rebuilt. Data at X:\
 volume and Y:\ volume remain unchanged.
- If you clear the selection of the Preserve existing backup data option, all the data on the respective volumes of C:\, X:\, and Y:\ in the original operating system is rebuilt.
- 3. Click Reset.

A confirmation dialog appears.

| Confirm Factory Reset | | | |
|-----------------------|--|--|--|
| ⚠ | Are you sure you want to perform a factory reset on your Arcserve Appliance? Selecting Reset reverts all settings to the factory default status. | | |
| | All the backed-up data will be preserved during the reset. | | |
| | Reset Cancel | | |

You can click **Cancel** to reboot the Arcserve Appliance unit.

- 4. After factory reset finishes, you can perform either of the following actions:
 - Click **Restart** to reboot the appliance.
 - * Click **Shut Down** to close the appliance.



Apply Arcserve UDP Factory Reset Using Boot Option in X Series Appliance

You can apply UDP factory reset from the Boot Menu of the Arcserve Appliance X series. Using UDP factory reset, you can return your Arcserve Appliance X series to clean and non-configured status.

Note: You can also select the Preserve the backup data option while running UDP factory reset.

Follow these steps:

1. Press F11 on the keyboard to invoke Boot Menu.

| F2 = System Setup F10 = Lifecycle Controller (Config iDRAC, Update FW, Install OS) Entering Boot Manager F12 = PXE Boot | BIOS Version: 1.4.9 IDRAC IP: 10.57.25.18 | |
|---|--|--|
| Initializing Firmware | Interfaces | Activate Windo Go to System in Cont |

2. Select the boot option Embedded RAID Controller 1: UDP Factory Reset.

| Boot Manager | Help About Exit |
|--|---------------------|
| Boot Manager | |
| Boot Menu | |
| Virtual Floppy Drive | ŀ |
| Virtual Optical Drive | |
| Embedded RAID Controller 1: windows Boot Manager | |
| windows Boot Manager | |
| Windows Boot Manager | |
| Embedded RAID Controller 1: Windows Boot Manager | |
| Embedded RAID Controller 1: UDP Factory Reset | |
| UEFI Boot Option Maintenance | |
| Boot From File | |
| Add Boot Option | |

A page about factory reset is displayed.

| Factor | ry Reset | | | | | | |
|--------------------|---|---|---|---|---|--|----------------------|
| Perforn be dele | ning a Factory Reset on eted. The Arcserve UDP | your Arcserve Appli software will revert f | ance will return all irom its current ve | l settings to their fai rsion to the version | ctory defaults. All resources originally installed on the <i>i</i> | s, job history, reports an Appliance. | d log entries will |
| | Reverting to Arcserv | e UDP Version 8.0.5 | 628. | | | | |
| | Preserve existing | backup data. | | | | | |
| | | | | | ▶ | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | Activate V | Vindows |
| | | | | | Reset | | s to activate Window |

Notes:

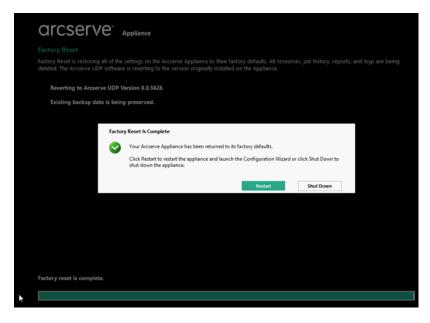
- The Preserve existing backup data option is selected by default. Only
 C:\ volume in the original operating system is rebuilt. Data at X:\
 volume and Y:\ volume remain unchanged.
- If you clear the selection of the Preserve existing backup data option, all the data on the respective volumes of C:\, X:\, and Y:\ in the original operating system is rebuilt.
- 3. Click Reset.

A confirmation dialog appears.

| Confi | rm Factory Reset |
|-------|--|
| 1 | Are you sure you want to perform a factory reset on your Arcserve Appliance? Selecting Reset will result in returning all settings to their factory defaults. |
| | All of your backup data will be preserved during the reset. |
| | |
| | Reset Cancel |

You can click **Cancel** to reboot the Arcserve Appliance unit.

- 4. After factory reset finishes, you can perform either of the following actions:
 - * Click **Restart** to reboot the appliance.
 - * Click **Shut Down** to close the appliance.



Clear Configuration and Apply Appliance Factory Reset

Using Factory Reset, you can return your Arcserve Appliance back to clean and nonconfigured status. You can apply factory reset from the Arcserve UDP Console.

Follow these steps:

1. Click Factory Reset on the settings tab from the Arcserve UDP Console.

| arcserve | NIFFED DATA PROTECTION deministrator · Help · |
|--|--|
| dashboard resources jo | bs reports log settings |
| 40 | |
| Database Configuration | Factory Reset |
| Arcserve Backup Data Synchronization Schr SRM Configuration | Performing a Factory Reset on your Arcsenve Appliance reverts all settings to the factory default status. All resources, job history, reports, and log entries are deleted. The Arcserve UDP software will revert from the current version to the version originally installed on the Appliance. |
| Node Discovery Configuration | Current Arcserve UDP Version: 10.0 |
| Email and Alert Configuration | Original Arcserve UDP Version: 10.0 |
| Update Configuration | Preserve existing backup data. |
| Administrator Account | |
| Remote Deployment Settings | Perform Factory Reset |
| Share Plan | |
| User Management | |
| Factory Reset | |
| | La. |
| | |
| | |
| | |
| | |
| | |
| pyright @ 2014-2024, Arcserve, LLC and its aff | liiates and subsidiaries. All rights reserved. UTC+05:30 (India Standard Time |

All the backed up data is preserved by default.

Note: Arcserve UDP provides the **Preserve existing backup data** option to help you preserve the existing datastore.

- If you select the Preserve existing backup data option, only C:\ volume is rebuilt. Data at X:\ volume and Y:\ volume remain unchanged.
- If you do not select the Preserve existing backup data option, all the data on the respective volumes of C:\, X:\ and Y:\ is rebuilt.
- 2. Click Perform Factory Reset.

A confirmation dialog appears.

| arcserve [,] (| NIFIED DATA PROTECTION | | Messages (0) | administrator * | Help + |
|---|---|--|--------------|--------------------------------|--------------------------|
| dashboard resources jo | os reports log settings | | | | |
| Database Configuration Account Backtop Biogenerations Solution Stat Configuration Holds Discovery Configuration Lipited Samer Shar Lipited Configuration Lipited Configuration Lipited Configuration Lipited Configuration Lipited Lip | Preserve Reset reverts all settings to | m originally installed on the Appliance, | | ts, and log entries are delete | d. The Arcserve UDP |
| Copyright © 2014-2024, Arcserve, LLC and its aft | lates and subschartes. All rights reserved. | | | | 30 (India Standard Time) |

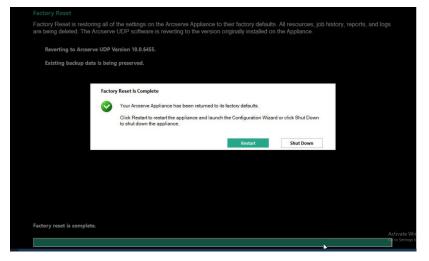
3. From the confirmation dialog, click **Reset** to launch the factory reset.

The Appliance machine is rebooted, and the factory reset runs as follows:



Completion of factory reset displays a confirmation dialog.

- 4. On the confirmation dialog, perform one of the following options:
 - * Click **Restart** to reboot the appliance.
 - * Click **Shut Down** to close the appliance.



Remove and Replace a Hard Drive

With the Arcserve Appliance, if one hard drive fails, the rest of the drives will kick in immediately to ensure no data is lost and the appliance continues to work normally. Therefore, to guard against any problems associated with multiple hard drive failures, it is important to replace a hard drive as soon as possible to minimize potential loss of data.

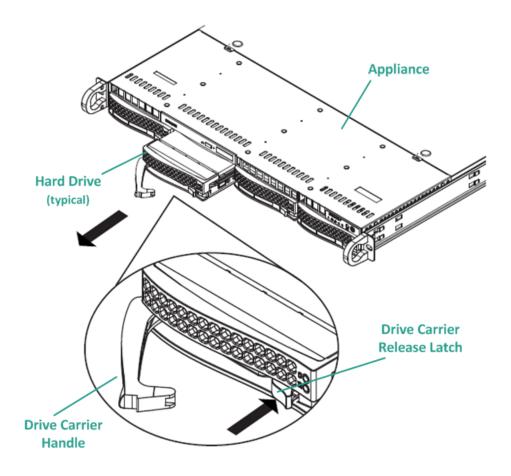
The Arcserve Appliance contains four hard drive carriers which are labeled 0, 1, 2 and 3 from left to right. If you replace more than one hard drive at a time, you should label the replacement hard drives so that you know which drive is placed into each drive carrier. You should also label the hard drives that you remove from the appliance so that you know which drive carrier they occupied.

Important! Take proper safety precautions when handling the hard drives because they are static-sensitive devices and can be easily damaged.

- Wear a wrist strap to prevent any static discharge.
- Touch a grounded object before removing the replacement hard disk from the antistatic shipping bag.
- Always handle a hard drive by the edges only and do not touch any of the visible components on the bottom.

Follow these steps:

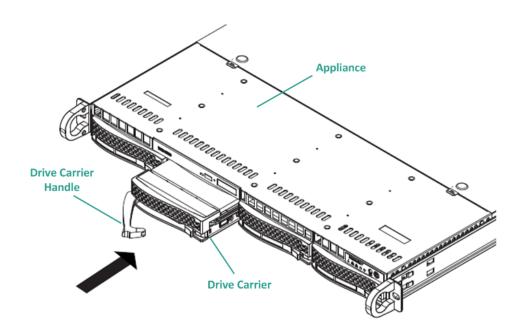
- 1. To gain access to the drive holders, you first need to remove the faceplate:
 - a. Unlock the faceplate lock.
 - b. Press the release knob to retract the faceplate pins.
 - c. Carefully remove the faceplate (using two hands).
- 2. Press the release latch on the drive carrier. This extends the drive carrier handle.



 Using the handle, pull the drive carrier out from the front of the appliance. The hard drives are mounted in drive carriers to simplify their removal and replacement from the appliance. These carriers also help promote proper airflow for the drive bays.

Important! Except for short periods of time (swapping of the hard drives), do not operate the appliance without the drive carriers fully installed.

- 4. Remove the old hard drive from the drive carrier and install the new hard drive being careful to properly orient the replacement hard drive with the label on top and the visible components on the bottom.
- 5. Slide the drive tray into the appliance until it is fully installed and secure by closing the drive carrier handle.



6. Obtain return instructions from Arcserve Support to return a defective drive.

Perform Bare Metal Recovery (BMR) without Preserving Data in 9012-9504DR Series Appliance

On Arcserve Appliance, you can perform the Bare Metal Recovery using the Arcserve UDP Boot Kit.

Follow these steps:

1. Run the *Create Arcserve UDP Boot Kit* application in the Appliance and generate the bootable BMR ISO image or USB stick for x64 platform.

Note: You need to include the local drivers for the ISO image. To include the local drivers, select the Include Local Drivers option in the Create Boot Kit for Bare Metal Recovery window. For more information on how to create boot kit, refer <u>link</u>.

| | can integrate additional d ess is launched. | rivers into the BMR ISO im | age, so that | they can be loaded when the BMR |
|---|--|---|--------------|--|
| M | lanufacturer | Version | Platform | Path |
| | ntel | 12/08/2016, 12.14.7.0 | x64 | C:\WINDOWS\INF\oem43.inf |
| | ntel | 07/30/2013, 9.4.2.10 | x64 | C:\WINDOWS\INF\oem9.inf |
| | IS_HDC, INTEL_HDC | 06/21/2006, 10.0.14 | x64 | C:\WINDOWS\INF\mshdc.inf |
| | SI | 03/06/2015, 6.707.0 | x64 | C:\WINDOWS\INF\oem8.inf |
| | NTEL | 08/19/2016, 10.1.2.80 | x64 x64 | C:\WINDOWS\INF\oem45.inf |
| | MD.Section, ACER.S | 06/21/2006, 10.0.14 07/30/2013, 9.4.2.10 | x64 x64 | C:\WINDOWS\INF\usbport.inf C:\WINDOWS\INF\oem47.inf |
| | ENDEV SYS, ACC | 06/21/2006.10.0.14 | x64 x64 | C:\WINDOWS\INF\berline.inf |
| | ieneric | 10/08/2017.10.0.14 | x64 | C:\WINDOWS\INF\usbxhci.inf |
| | | | | |
| | | | | |
| | | | | |
| | | | | > |

2. Boot the Arcserve Appliance using BMR ISO image or USB Stick.

The Arcserve bare metal recovery setup appears.

3. Select the required language and click Next.

| GICSETVE BARE METAL RECOVERY |
|-------------------------------------|
| Krybard Layout: |
| US V Alext |
| |
| |
| |
| |
| <u>k</u> |

4. Select the **Restore from a Arcserve Unified Data Protection backup** option and click **Next**.

| arcserve: Bare Metal Recovery |
|---|
| Bare Hetal Recovery(BHR) - Select the type of backup for BHR |
| |
| Select type of restore source: |
| Restore from a Arcserve Unified Data Protection backup |
| Use this option to perform a restore from either a backup destination folder or a data store. |
| ○ Recover from a virtual machine |
| Use this option to perform a virtual-to-physical (V2P) restore from a virtual machine created by Virtual Standby or Instant VM |
| ◯ Source is on a VMware machine |
| ◯ Source is on a Hyper-v machine |
| |
| |
| |
| |
| |
| |
| |
| Lutilities Bock Ment Abort |
| Version 9.0.6034; Boot Firmware: UEFI |

The Select a Recovery Point wizard window appears.

5. Click Browse and select Browse from Recovery Point Server.

| Bare Metal Recovery(BMR) - Select a Recovery Point | The following backed up machines are detected: | |
|--|---|--------------------------------|
| The top pane displays all backed up machines and | Backed u | p Information |
| their backup destinations. If you click on a machine, you can then see the associated recovery points on the bottom pane. Select a recovery point to continue. | Host Na | |
| | Operati | ing System: |
| Note: By default, only the backed up machines that are detected from local volumes are listed nere. After a new removable disk is attached or detached, you can click 'Refresh' the mitrixine list. | DNS Su | ffuc |
| You can also click "Browse" to add any based up machines from the remote shared folder or the data store. | Source: | |
| If you fail to browse the remote shared folder, it may be because the NIC driver is not installed or the IP address is incorrect. If necessary, you can | | Befresh Browse 🔻 |
| perform the following: Click here to launch the load driver utility | | Browse from network/local path |
| Cick here to launch the network configuration utility | The following recovery points are detected for the specified machine. Selec | t a recovery point a |
| 6 Network Adapter(s) Detected | | |
| - IP Address: 10.10.255.255 - Status: Connected | | |
| Intel(R) I350 Gigabit Network Connection #2 - IP Address: 0.0.0 - Status: Disconnected | | |
| ▲ Utilities | | Bock Next Abort |

The Select Node window appears.

- 6. Enter the Recovery Point Server Host Name, User Name, Password, Port, and Protocol.
- 7. Click **Connect**.
- 8. Once the connection is established, click **OK**.

| Host Name: | appliance7501 V | | Port: | 8014 | |
|------------|-----------------|---------|-----------|-----------------|--------------|
| Jser Name: | administrator | | Protocol: | | HTTPS |
| Password: | ••••• | | | Con | nect |
| | | Node ID | 095 | i1fd5c-3dd2-496 | 8-be64-5eaef |
| | | | | | |

The Bare Metal Recovery(BMR)- Select a Recovery Point dialog appears.

9. Select the recovery point to restore and click Next.

| - Select a Recovery Point | The following backed up machines are detect | ed: | |
|--|---|---|---|
| he too pane displays all backed up machines and | | Backed up Information | |
| heir backup destinations. If you click on a machine, you can then see the associated ecovery points on the bottom pane. Select a | appliance7205 | Host Name: | appliance7205 |
| acovery point to continue. lote: By default, only the backed up machines | | Operating System: | Windows Server 2016 X64 |
| at are detected from local volumes are listed are. After a new removable disk is attached or etached, you can click 'Refresh' the machine list. Ju can also click 'Browse' to add any backed up | | DNS Suffix: | arcserve.com |
| achines from the remote shared folder or the ata store. | | Source: | Recovery Point Server |
| The IP address is incorrect. If necessary, you can erform the following: lick here to launch the load driver utility lick here to launch the network configuration | | | <u>Refresh</u> Bro <u>w</u> se |
| Sity | 5/28/2018 10:00:15 PM 2:41:41 AM | or the specified machine. Select a recovery point a | ind continue: |
| | ⊕ ♀ ⇒ ♀ 5/27/2018 ⇒ ♀ 5/26/2018 | Backup Type: - Incremental Backup Backup Destination (Date | inted from current suctem h |
| | | Incremental Backup Backup Destination (Dete Recovery Point Server: appl | store: appliance7501_data_store |
| | 5/26/2018 5/25/2018 5/25/2018 10:00:11 PM | Incremental Backup Backup Destination (Dete Recovery Point Server: appi Recovery Point Server data | liance7501 store: appliance7501_data_store |
| s Retwork Adapter(s) Detected A net(R) 1350 Grahet Network Correcton - IP Address 10.10.255,255 - Stats: Corrector | 5/26/2018 5/25/2018 5/25/2018 10:00:11 PM | Incremental Backup Destination (Detect Recovery Point Server: app Recovery Point Server: data Node ID: 095 INSC: 362-49 Backup Description: Boot Firmware: - UEFI | liance7501 store: appliance7501_data_store |

10. (Optional) Enter the session password if prompted, and click **OK**.

| er Session Password | |
|---|--------|
| • | ок |
| Current password length: 1 characters Maximum password length: 23 characters | Cancel |

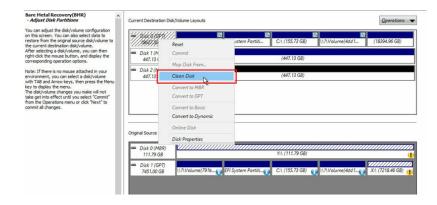
The Bare Metal Recovery(BMR)- Choose a Recovery Mode dialog appears.

11. Select Advanced Mode and click Next.

| Which recovery mode do you want to use? | | | |
|--|--|--|--|
| ○ Express Mode | | | |
| The express mode will recover the system autor machine default settings. | natically with minimal user interaction by using the | | |
| Advanced Mode | | | |
| The advanced mode will assist you in customizing able to: Select where to restore data on basic volumes o Insert device driver before reboot. | g the restore process. Using this mode you will be r dynamic disks. | | |

The Bare Metal Recovery(BMR)- Adjust Disk Partitions dialog appears.

12. Right click on the largest GUID Partition Table(GPT) disk available and click **Clean Disk**.



13. After cleaning the disk, right click on the same disk and click **Commit**.

| Bare Metal Recovery(BMR) ^ | Current Destination | Current Destination Disk/Volume Layouts | | |
|--|---|---|-----------------|--|
| You can adjust the disk/volume configuration on this screen. You can also select data to restore from the original source disk/volume to the current destination disk/volume. | | Reset | (18627.37 GB) | |
| After selecting a disk/volume, you can then night-cick the mouse button, and disky the corresponding operation spotons. Note: If there is no mouse attached in your environment, you can select a disk/volume with TAB and Arouse you, there he Menu key to disky the menu. The disk/volume hardneys you make sill not the disk/volume hardneys you make sill not from the Operations menu or click 'Next' to commit all changes. | Disk 1 (ME 447.13 G | Commit | (447.13 GB) | |
| | Disk 2 (MB 447.13 GE | Map Disk From | (447.13 GB) | |
| | | Convert to MBR Convert to GPT | | |
| | | Convert to Basic Convert to Dynamic | | |
| | Original Source De | Online Disk | | |
| | Disk 0 (MBK) 111.79 GB | Disk Properties | Y:\ (111.79 GB) | |
| | Disk 1 (GPT) 7451.00 GB | \\?\Volume(791b(1) EFI System | n Partiti | |
| | | | | |

The Submit Disk Changes window appears.

14. Click Submit.

| Operation | Details |
|---------------|---|
| Delete Volume | Volume Path[\\?\Volume{791b0915-1396-4e8d-8dfb-1fa02793003f}\ |
| Delete Volume | Volume Path[\\?\Volume{821d05a8-3ecd-436f-a497-cc04fb3e4708}\ |
| Delete Volume | Volume Path[C:\] |
| Delete Volume | Volume Path[F:\] |
| Delete Volume | Volume Path[D:\] |
| 🕖 Clean Disk | Clean Disk [0] |
| | |
| | |
| | |
| | |
| | |
| | |
| | le la |

15. After the cleaning of disk is completed, click **OK**.

| peration | Details |
|-------------------|---|
| Delete Volume | Volume Path[\\?\Volume{791b0915-1396-4e8d-8dfb-1fa02793003f}\] |
| Delete Volume | Volume Path[\\?\Volume {821d05a8-3ecd-436f-a497-cc04fb3e4708}\] |
| Delete Volume | Volume Path[C:\] |
| Delete Volume | Volume Path[F:\] |
| Delete Volume | Volume Path[D:\] |
| Clean Disk | Clean Disk [0] |
| Constant Constant | |
| and the same | Cical Disk [0] |
| Cicor Olar | |
| | |
| CISCUT DIRAY | |
| | |
| | |
| | |
| | |

16. From the **Bare Metal Recovery(BMR)- Adjust Disk Partitions** dialog, click **Back**.

| Bare Metal Recovery(BMR) ^ - Adjust Disk Partitions | Current Destination Disk/Volume Layouts | Qperations 👻 |
|--|--|--|
| You can adjust the disk/volume configuration on this screen. You can also select data to restore from the original source disk/volume to the current destination disk/volume. | | (18627.37 G8) |
| After selecting a disk/volume, you can then right-click the mouse button, and display the corresponding operation options. | Disk 1 (MBR) 447.13 GB | (447.13 GB) |
| Note: If there is no mouse attached in your environment, you can select a disk/volume with TAB and Arron keys, then press the Menu key to display the menu. The disk/volume changes you make will not take get into effect untly you select "Commit" from the Operations menu or disk "Next" to commit all changes. | Disk 2 (MBR) 447.13 GB | (447, 13 G8) |
| | Original Source Disk/Volume Layouts Disk 0 (MBR) 111.79 GB | V: (11179 68) |
| | Disk 1 (GPD | 19/ 19/ System Ponia Cl (155.73 GB) 🕢 11/1 Volume(46d = 👔 Xl (721846 GB) 👔 |
| v | Unallocated Primary | |
| ▲ <u>U</u> tilities | | Bock Mext Abort |

The Bare Metal Recovery(BMR)- Choose a Recovery Mode dialog appears.

17. Select Express Mode and click Next.

| Which recovery mode do you want to use? |
|---|
| Express Mode The express mode will recover the system automatically with minimal user interaction by using the machine default settings. |
| Advanced Mode The advanced mode will assist you in outtomizing the restore process. Using this mode you will be able rou- be advanced to restore data on back volumes or dynamic data. Insert device driver before reboot. |
| Note: After didding Next; the BNB Water will create new partitions on the destination methods to statist the set of particular or will and create new partitions on the destination of the set of particular and create statistication. This may desting a statistication of the set of the |

The **BMR** dialog appears.

18. Click Yes.

| BMR | | | 8 |
|-----|--|---------------------|-------------|
| ? | The next step may result in complete you want to continue? | loss of data on the | machine. Do |
| | | Yes | No |

The Summary of Restore Settings dialog appears.

19. Click Cancel.

| Source Disk Dest | ination Disk |
|---|---------------------------------------|
| immary of Volume Restore Settings: Source Volume | Destination Volume |
| U\?\Volume{791b0915-1396-4e8d-8dfb-1fa02793003f}\ (300 | |
| EFI System Partition (99 MB) | \/?e3db4483-19ad-4550-8e0e-06 |
| C:\(155.73 GB) | \\?257b3c2a-9cf1-44a0-a8b3-225 |
| \\?\Volume{4dd1123f-0464-4cd6-9df0-1ab9b95c8901}\ (76.3 | 29 GB) \\?98fb5326-630f-4842-82fa-48b |
| c | > |

The Bare Metal Recovery(BMR)- Adjust Disk Partitions dialog appears.

20. Compare and verify if the capacity of the first four partitions available in the **Current Destination Disk/Volume Layouts** tab matches with the largest GPT disk available in the **Original Source Disk/Volume Layouts** tab and click **Next**.

Note: To view the size of partition, hover the mouse to the disk to display the disk properties.

| Bare Metal Recovery(BMR) ^ - Adjust Disk Partitions | Current Destination Disk/Volume Layouts |
|---|--|
| You can adjust the disk/volume configuration on the screen. You can also select data to the type or more than the selection of the selection of the order or more than the selection of the selection of the Affer selecting additiv/volume, you can then right-disk the mouse button, and display the corresponding operation pations. Note: If there is no mouse attached in your environment, you can select a disk/volume with Tid and arrow kerys, then press the Meru with Tid and arrow kerys. Then press the Meru take get that effect until you select "Connet" to from the Operadom service of disk. Next" to commit al changes. | Disk 0 (0P7) Image: Control of the system Partition Image: Circle of the system Partition Image: Circl |
| | Disk 1 (MBR) Destination Volume: \\7\Volume(03331745-9734-4066-bd25-693087d5826b)\ 447.13 G8 File System Type: RBW |
| | Disk 2 (MBR) Dok 2 (MBR) Dok a final volume will be restored from original volume "\\?\Volume(791b.0915-1396-4e8d- Bafto-1fa02793000)(): |
| | Original Source Disk/Notume Layouts |
| | - Disk 0 (MBR) 111.79 GB YA (111.79 GB) |
| | Oist 1 (GP) 7451.00 GB 117/Volume(791b) EFI System Partiti) C1 (155.73 GB) () 1/7/Volume(4dd) X1 (721846 GB) () |
| | |
| | |
| | Unallocated Primary |
| | |
| | Back <u>N</u> ext Abort |

The **Summary of Restore Settings** dialog appears.

21. Click **OK**.

| Source Disk De | stination Disk |
|--|---------------------------------------|
| ummary of Volume Restore Settings: Source Volume | Destination Volume |
| Source volume () \/Volume{791b0915-1396-4e8d-8dfb-1fa02793003f} (30 | |
| EFI System Partition (99 MB) | \/2b9994f56-8c58-4bbf-bd7a-85a |
| C:\ (155.73 GB) | \\?496da605-7066-442c-8ea2-c3 |
| \\?\Volume{4dd1123f-0464-4cd6-9df0-1ab9b95c8901}\ (76 | .29 GB) \\?59eaea46-103c-45e3-b0ed-55 |
| < |) |

The Bare Metal Recovery(BMR)- Start Recovery Process dialog appears.

22. Clear selection of the **Do not start Agent service automatically after reboot** option and wait for restore to complete.

| - Start Restore Process | Summary of Restore Settings | | | | | |
|--|---|--|---------------------------------------|----------|---------------------------------------|--|
| his page displays a summary of the disk/volume | Restore Item | | Status | Progress | Throughput | |
| estore settings that you have made. | Restore source volume "\/?\Volume | {791b0915-1396-4e8d-8dfb-1fa02793003f}\' | Completed | 100.0% | 367,44 MB/Minute | |
| ote: After the BMR process is complete and erver has been rebooted, you may not want to erform backup jobs from this server. If you are st testing the BMR functionality, we recommend at you select the 'Do not start Agent service | Restore source volume 'C: \' to cur | n Partition" to current destination disk 0 rent destination disk 0 (4dd 1123f-0464-4cd6-9df0-1ab9b95c8901)\" | Completed Restoring Not Started | 0.8% | 967.90 MB/Minute 2705.50 MB/Minute | |
| to statically after reboot" option. hen you select this option, you can manually art the Agent service (and the Recovery Point river service, if installed) after reboot if you int to perform backup jobs. | | | | | | |
| Enable Windows F8 boot option helps user lerform further recovery or troubleshooting after MR, For example, press F8 and boot into Active inectory Service Restore mode to perform Active Directory authoritative restore. | | | | | | |
| | Automatically reboot your system a | fter recovery. | | | | |
| | Do not start Agent service automat | ically after reboot. | | | | |
| | Boot the system to Advanced Boot Options (F8) Menu on the next boot for Windows 8 / Windows Server 2012 and later OS. | | | | | |
| | Elapsed Time: | 00:00:24 | | | | |
| | | | | | | |
| | | | | | | |
| | Estimated Time Remaining: | 01:30:50 | | | | |
| | | 01 : 30 : 50 asic source volume 'C:\' to current destination disk | :0 | | | |
| | | | :0 | | | |
| | | | :0 | | | |
| | | | :0 | | | |
| | | | :0 | | | |
| | | | :0 | | | |

The Bare Metal Recovery(BMR)- Insert Device Driver dialog appears.

23. Select the required driver for raid controller and click Next.

| Eare Metal Recovery(BMR) | Provide drivers for following devices: | |
|--|---|--|
| An incompatibility problem has been detected and MR is sundle for the subtle driver for some device(b). The goes along system of the host being system first may creating system of the bost being system fruit may created on the BMS ED spec- device(b) or add a new driver by clicking "Add Driver" button. | equal contact 2005 equal Standards 2008 Felcon equal Standards 2008 Felcon equal Standards 2008 Regelated Standards | Property Description Vendor LSI Logic / Symbol Logic Manufacturer AvagoTech Class SSSAdopter Driver Dersoftan AvagoTech Handware ID PCII/VEN_L0008DEV_L003DI&BUBSY |
| | Available Driver(s): Driver megasso2.inf megasso2.inf() megasso2.inf() | Property Description Version 0.03/2015, 6.705.05.00 Manufacture 151, DEL Gins SCSLAppter Service megasas INF Path C.1(WINDOWS/System32)/driverStore/FileRepository/inegasas.inf_p |
| | Insert Driver | < >> |
| ▲ Utilities | | Back Next Abort |

The Reboot pop up appears and the Arcserve Appliance is rebooted automatically.

| Click Refloot to automatically reboot your syst BMR log files you can use the Activity log utilit <u>Click here</u> to launch the Activity Log utility. | |
|---|--|
| Your system will reboot i | in 11 second(s). |
| <u>R</u> eboot | <u>C</u> ancel |
| Boot volume was restored to cu your system from this disk. | urrent destination disk 0. Please boot |

The BMR process is completed successfully.

Perform Bare Metal Recovery (BMR) and Preserving Data in 9012-9504DR Series Appliance

On Arcserve Appliance, you can perform the Bare Metal Recovery using the Arcserve UDP Boot Kit.

Follow these steps:

1. Run the *Create Arcserve UDP Boot Kit* application in the Appliance and generate the bootable BMR ISO image or USB stick for x64 platform.

Note: You need to include the local drivers for the ISO image. To include the local drivers, select the Include Local Drivers option in the Create Boot Kit for Bare Metal Recovery window. For more information on how to create boot kit, refer link.

| You can integrate additional process is launched. | drivers into the BMH ISU im | iage, so that | they can be loaded when the BMR | | |
|--|-----------------------------|---------------|---------------------------------|--|--|
| Manufacturer | Version | Platform | Path | | |
| Intel | 12/08/2016, 12.14.7.0 | x64 | C:\WINDOWS\INF\oem43.inf | | |
| Intel | 07/30/2013, 9.4.2.10 | x64 | C:\WINDOWS\INF\oem9.inf | | |
| MS_HDC, INTEL_HDC | 06/21/2006, 10.0.14 | x64 | C:\WINDOWS\INF\mshdc.inf | | |
| LSI | 03/06/2015, 6.707.0 | x64 | C:\WINDOWS\INF\oem8.inf | | |
| INTEL | 08/19/2016, 10.1.2.80 | x64 | C:\WINDOWS\INF\oem45.inf | | |
| AMD.Section, ACER.S | 06/21/2006, 10.0.14 | x64 | C:\WINDOWS\INF\usbport.inf | | |
| INTEL | 07/30/2013, 9.4.2.10 | x64 | C:\WINDOWS\INF\oem47.inf | | |
| GENDEV_SYS, ACC | 06/21/2006, 10.0.14 | x64 | C:\WINDOWS\INF\machine.inf | | |
| Generic | 10/08/2017, 10.0.14 | x64 | C:\WINDOWS\INF\usbxhci.inf | | |
| | | | | | |
| | | | | | |

2. Boot the Arcserve Appliance using BMR ISO image or USB Stick.

The Arcserve bare metal recovery setup appears.

3. Select the required language and click Next.



4. Select the **Restore from a Arcserve Unified Data Protection backup** option and click **Next**.

| Bare Hetal Recovery(BHR) - Solect the type of hackup for BHR Select type of restore source: Restore from a Arcserve Unified Data Protection backup Use bis opton to perform a restore from either a badkup destination fidder or a data store. Recover from a virtual machine Use bis opton to perform a virtual machine | ALCSETVE' BARE METAL RECOVERY | | | |
|---|--|-----------------|------|-------|
| Restore from a Arcserve Unified Data Protection backup Use this option to perform a restore from either a backup destination folder or a data store. Recover from a virtual machine Use this option to perform a virtual-ophysical (V2P) restore from a virtual-machine created by Virtual Standby or | Bare Hetal Recovery(BHR) - Select the type of backup for BHR | | | |
| Restore from a Arcserve Unified Data Protection backup Use this option to perform a restore from either a backup destination folder or a data store. Recover from a virtual machine Use this option to perform a virtual-ophysical (V2P) restore from a virtual-machine created by Virtual Standby or | | | | |
| Use this option to perform a restore from either a backup destination folder or a data store. O Recover from a virtual machine Use this option to perform a virtual-to-physical (V2P) restore from a virtual-machine created by Virtual Standby or | Select type of restore source: | | | |
| Recover from a virtual machine Use this poton to perform a virtual-ophysical (V2P) restore from a virtual-machine created by Virtual Standby or | Restore from a Arcserve Unified Data Protection backup | | | |
| Use this option to perform a virtual-to-physical (V2P) restore from a virtual machine created by Virtual Standby or | Use this option to perform a restore from either a backup destination folder or a data store. | | | |
| Use this option to perform a virtual-to-physical (V/2P) restore from a virtual machine created by Virtual Standby or Instant VM | | | | |
| | Use this option to perform a virtual-to-physical (V2P) restore from a virtual machine created by Vir Instant VM | tual Standby or | | |
| Source is on a WMware machine | Source is on a WMware machine | | | |
| Source is on a Hyper-v machine | Source is on a Hyper-v machine | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | 4 | |
| Lex Abort Version 9.0.6034; Boot Firmware: UEF1 | | Back | Next | Abort |

The Select a Recovery Point wizard window appears.

5. Click Browse and select Browse from Recovery Point Server.

| Bare Metal Recovery(BMR) - Select a Recovery Point | The following backed up machines are detected: |
|--|---|
| The top pane displays all backed up machines and | Backed up Information |
| heir backup destinations. If you click on a machine, you can then see the associated ecovery points on the bottom pane. Select a ecovery point to continue. | Host Name: |
| Note: By default, only the backed up machines that are detected from local volumes are listed | Operating System: |
| here. After a new removable disk is attached or detached, you can click "Refresh" the mitchine list. You can also click "Browse" to add any basked up | DNS Suffix: |
| machines from the remote shared folder or the data store. | Source: |
| If you fail to browse the remote shared folder, it may be because the NIC driver is not installed or the IP address is incorrect. If necessary, you can | <u>B</u> efresh Bro <u>w</u> se 🔻 |
| perform the following: <u>Click here</u> to launch the load driver utility <u>Click here</u> to launch the network configuration | Browse from network/local path |
| | The following recovery points are detected for the specified machine. Select a recovery point a |
| 6 Network Adapter(s) Detected | |
| | |
| Intel(R) I350 Gigabit Network Connection - IP Address: 10.10.255.255 - Status: Connected | |
| Intel(R) 1350 Gigabit Network Connection - IP Address: 10.10.255.255 | |

The **Select Node** window appears.

- 6. Enter the Recovery Point Server Host Name, User Name, Password, Port, and Protocol.
- 7. Click Connect.
- 8. Once the connection is established, click **OK**.

Perform Bare Metal Recovery (BMR) and Preserving Data in 9012-9504DR Series Appliance

| HUST Name: | appliance7501 | ~ | Port: | 8014 | |
|------------|---------------------|---------|-----------|-----------------|-------------|
| Jser Name: | Name: administrator | | Protocol: | | |
| Password: | ••••• | | | Conn | lect |
| | | Node ID | 095 | 1fd5c-3dd2-4968 | -be64-5eaef |
| | | | | | |

The Bare Metal Recovery(BMR)- Select a Recovery Point dialog appears.

9. Select the recovery point to restore and click Next.

| Baded up Information Host Name: Operating System: Dels Suffix: Source: | applance 7205 Windows Server 2015 X64 arcserve.com Recovery Point Server Sefresh Brogse |
|---|--|
| Host Name: Operating System: DNS Suffix: Source: | Windows Server 2016 X64 arcserve.com Recovery Point Server |
| DNS Suffix: Source: | arcserve.com Recovery Point Server |
| Source: | Recovery Point Server |
| | |
| | <u>B</u> efresh Bro <u>w</u> se |
| Machine. Select a recovery point an | nd continue: |
| Incremental Backup Backup Destination (Detect Recovery Point Server: applic | store: appliance7501_data_store |
| Backup Description: | |
| Boot Firmware: - UEFI | |
| Backed up Volumes (Used < | Size/Total Size/Minimum Size Required): |
| | AR Status: Backup Type: Sincemental Backup Backup Destination (Dete Recovery Point Server: appl Recovery Point Server: data Reckup Description: Boot Firmmare: - UFIT Backed up Volumes (Uned |

10. (Optional) Enter the session password if prompted, and click **OK**.

| • | ок |
|---------------------------------------|--------|
| Current password length: 1 characters | Cancel |

The Bare Metal Recovery(BMR)- Choose a Recovery Mode dialog appears.

11. Select Advanced Mode and click Next.



12. On the Bare Metal Recovery(BMR)- Adjust Disk Partitions dialog, click Next.

| You can adjust the disk/volume configuration on this screen. You can also select data to restore from the original source disk/volume to the current destination disk/volume. | Disk 0 (GPT) 18616.32 GB | Image: Constraint of the state of |
|--|--|--|
| After selecting a disk/volume, you can then right- dick the mouse button, and display the corresponding operation options. | Disk 1 (MBR) 223.57 GB | (223.57 GB) |
| Note: If there is no mouse attached in your environment; you can select a disk/valume with TAB and Arrow keys, then press the Menu key to dipply the meru. The disk/valume changes you make will not take get not effect unit you select "Commit" from the Operations menu or click "Next" to commit all changes. | | |
| | Original Source Disk/Vo | Aume Layouts |
| | Disk 0 (MBR) 223.57 GB | V:((223.57 GB) (1 |
| | Disk 1 (GPT) 18616.32 GB | 117.Valume/7915EFI System PartitiC1 (155.73 G8) 🔐 117.Valume/4dd L 🖓 X1 (1888.77 G8) 👔 |
| | Primary | |
| ▲ Utilities | | Back Next Abort |

13. On the Summary of Disk Restore Settings screen, click OK.

| ource Disk | Destination Disk | |
|-----------------------------------|---|---------|
| mmary of Volume Restore Settings: | Desta Pro Vel an | o- Pil |
| ource Volume | Destination Volume | On Disk |
| C:\(155.73 GB) | C:\(155.73 GB) | Disk 0 |
| | \\?791b0915-1396-4e8d-8dfb-1fa | Disk 0 |
| \\?4dd1123f-0464-4cd6-9df0-1 | 1. Second statements and statements and statements and statements and statements and statements and statements. | Disk 0 |
| JEFI System Partition (99 MB) | \\?821d05a8-3ecd-436f-a497-cc0 | Disk 0 |

14. On the **Bare Metal Recovery(BMR)- Start Recovery Process** dialog, clear selection of the **Do not start Agent service automatically after reboot** option and wait for restore to complete and machine reboot.

| Bare Metal Recovery(BMR) - Start Restore Process | Summary of Restore Settings | | | |
|--|--|--------------------|------------------|-------------------|
| This page displays a summary of the disk/volume | Restore Item | Status | Progress | Throughput |
| restore settings that you have made. | Restore source volume 'C:\' to current destination disk 0 | Restoring | 1.8% | 3115.69 MB/Minute |
| Note: There the BMR process is complete and server has been roboted, you any not want to perform backap jobs from this server. If you are to perform backap jobs from this server. If you are perform backap jobs from this server. If you are automatically after reboot option. When you select this option, you can manually then you select this option, you can manually then you select this option, you can manually server serves, if retailed after reboot if you want to perform backap polic. Earbie Windows FB boot option helps used BMR, For example, press FB and boot thio Active Directory server, bettore mode to perform Active Directory server, bettore mode to perform Active Directory and the server and the server and the server. | Retore source volume ("UP(volume(?#1b091=1:396-4e6d-a6fb-1i602790003)", Retore source volume ("UP(volume(44)11247-644-656-636fb-1a698569803))", Restore source volume 'EFI System Partition' to current destination disk 0 | | | |
| | Automatically reboot your system after recovery. | | | |
| | Boot the system to Advanced Boot Options (F8) Menu on the next boot for Window | s 8 / Windows Serv | er 2012 and late | OS. |
| | Elapsed Time: 00 : 00 : 33 | | | |
| | Estimated Time Remaining: 00 : 52 : 55 | | | |
| | [1.8%] [1632MB/90738MB] Restoring basic source volume 'C:\' to current destination of | disk 0 | | |
| | 1 | | | |
| ▲ <u>U</u> tilities | | Back | M | ext <u>A</u> bort |

The BMR process is completed successfully.

Chapter 9: Performing Appliance Capacity Expansion

This section contains the following topics:

| Working with Expansion Kit in Arcserve Appliance 10048DR-10576DR Models | 174 |
|--|-----|
| Working with Arcserve Appliance Expansion Kit - X Series Models | 178 |
| Working with SSD Flash Expansion Kit in Arcserve X Series Appliance | 180 |
| Working with Expansion Kit in Arcserve Appliance 9072-9504 DR Models | |
| Working with SSD Flash Expansion Kit in Arcserve Appliance 9072-9504 DR Models | 192 |

Working with Expansion Kit in Arcserve Appliance 10048DR-10576DR Models

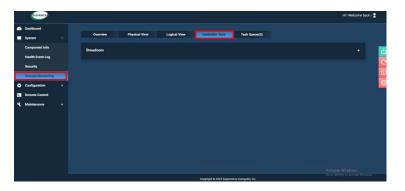
Arcserve Expansion Kit lets you expand the data capacity in Arcserve Appliance 10048DR-10576DR models.

Follow these steps:

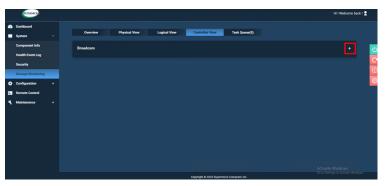
- 1. To insert HDDs in the empty disk slots, perform the following steps:
 - a. From the Arcserve UDP Console, verify and ensure that no jobs are running on the Appliance Server. If any jobs are running, pause the corresponding plans.
 - b. Insert HDD in the empty disk slot.



- 2. To create and configure Raid-6 from IPMI web interface, perform the following steps:
 - a. Log into the IPMI console.
 - b. Navigate to System > Storage Monitoring > Controller view.



c. On the Controller View tab, click the **plus sign (+)** to expand the **Broad-com**.



d. On the Broadcom screen, click Create RIAD.

| SUMBARCO | | H ! Welcome back ! 👱 |
|--------------------|---|----------------------|
| Dashboard | | |
| System – | Overview Physical View Logical View Controller View Task Queue(0) | |
| Component Info | Broadcom | |
| Health Event Log | | |
| Security | SAS 3916 Device 0 Create RAID Create RAID | |
| Storage Monitoring | | |
| Configuration + | Controller Name SAS 3916 | |
| Remote Control | Controller Name SAS 3916 Controller Statua Optimal | |
| Maintenance + | Location PCIF card: Ontoard Stot: 1 | |
| | FW Version 5.240.02.3768 | |
| | BIOS Version 7.24.01.0 | |
| | Link Speed 1208/x, SAS3 | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

- e. On the Create page, select all the HDD slots, and then specify the following:
 - **RAID**: From the RAID level drop-down, select RAID6
 - **PD per Span**: 1
 - **Enter % size be used**: Enter the value as **100**
 - New Logical Drive Count: Enter the value as 1
 - Stripe size per DDF: Select the 256K option
 - **Virtual Drive name**: Enter the desired name for the virtual drive
 - LD Read Policy: Select No Read Ahead option

- LD Read Policy: Select Write Back option
- **LD IO Policy**: By default, **Direct IO** option is selected.
- Access Policy: Select Read White option.
- **Disk Cache Policy**: Select **Unchanged** option
- Init State: Select Quick Init option

f. Click Submit.

| 0 | Create | O Add | Select Group | T | | | | | | | |
|---|---------------|----------------|--------------|-----------------------------------|------------------------|-------------------|------------|-------------|--|--|--|
| F | RAID6 | | | | | | | | | | |
| Р | D per Span: | | | | | | | | | | |
| 1 | | | | | | | | | | | |
| _ | | Slot# | Product Name | | Capacity | Interface Type | Media Type | Sector Size | | | |
| | | | KPM7XVUG3T | 20 | 2980 GB | SAS | | 512 | | | |
| | | | KPM7XVUG3T | 20 | 2980 GB | SAS | | 512 | | | |
| | | | ST16000NM004 | | 14901 GB | SAS | | 512 | | | |
| | | | ST16000NM004 | | 14901 GB | SAS | | 512 | | | |
| - | | | ST16000NM004 | | 14901 GB | SAS | | 512 | | | |
| | | | ST16000NM004 | | 14901 GB | SAS | | 512 | | | |
| | | | ST16000NM004 | | 14901 GB | SAS | | 512 | | | |
| - | | | ST16000NM004 | | 14901 GB | SAS | | 512 | | | |
| - | | | ST16000NM004 | | 14901 GB | SAS | | 512 | | | |
| - | | | | | | | | | | | |
| | Enter % siz | e be used | | | | | | | | | |
| | New Logica | al Drive Count | | | | | | | | | |
| | Stripe size | per DDF | | 0 64K 0 | | | | | | | |
| | Virtual Drive | e name | | UDPData | | | | | | | |
| | LD Read Po | olicy | | No Read Ahead O Always Read Ahead | | | | | | | |
| | LD Write Po | olicy | | Write Throut | gh 🧿 Write Back 🔿 | Always Write Back | | | | | |
| | LD IO Polic | | | Direct IO | Cached IO | | | | | | |
| | Access Poli | icy | | Read Write | ○ Read Only ○ B | locked | | | | | |
| | Disk Cache | Policy | | Our Contract Unchanged | O Enable O Disat | ble | | | | | |
| | Init State | | | O No Init 🤇 | Quick Init O Full Init | | | | | | |
| | | | | | | | | | | | |
| | | | | (| Cancel | Submit | | | | | |

g. In the search box on the taskbar, type **Computer Management**, and then press the Enter key.

The Computer Management window opens.

- h. Navigate to Storage > Disk Management.
- i. Double-click the new virtual disk that you have added.The Initialize Disk window appears.
- j. Select the GPT (GUID Partition Table) option and then click OK.

| Management (Local | Volume | Layout Type File System Status Cap | Actions |
|--|---|--|--------------|
| System Tools Task Scheduler | - | Simple Basic Healthy (Recovery Partition) 300 | |
| Shared Folders Moreal Local Users and Groups | | Simple Easic Healthy (ER System Partition) 90 M Simple Easic Healthy (ER System Partition) 32.2 Simple Easic NTFS Healthy (Encer Part File) 32.2 Simple Easic NTFS Healthy (Encer Part File) 32.2 Simple Easic NTFS Healthy (Encer Part File) 142 Simple Easic NTFS Healthy (Encer Part File) 142 Unitative Disk X You must initiales a disk before Logical Daix Manager can access t. X Vici Dish 0 | More Actions |
| | < Diak 0 Unknown 14903.00 GB Not Initialized | Use the following partition style for the selected data: OMR (Mater Box Floors) @ OF Colsio Partition right is not recognized by all previous versions of Windows. OK Cancel | |
| | Totak 4 Basic 14902.88 GB Online | IDD IDJ 155.77 GB NTPS Healthy 75.20 GB Healthy (Becover Healthy (Pirmary Partition) | |
| | Disk 5 Basic 1787.87 GB Online | UDPResh (Y) 1752.72 (8 NT5 Healthy (Primar Partition) | |

- k. On the **Disk Management** window, select the virtual disk and apply the following properties:
 - Assign a Drive Letter
 - Specify NTFS as File System
 - Format the disk
- 3. To expand the datastore, perform the following steps:
 - a. Navigate to the drive that you have added, and then create a folder.
 - b. From the Arcserve Appliance desktop, launch the **Arcserve Appliance** wizard.

Arcserve Appliance Configuration page opens.

c. Click Launch UDP Console.

Arcserve UDP Console login page appears.

- d. Log into the UDP Console as Administrator.
- e. Navigate to resources > Destinations > Recovery Point Servers.
- f. Right-click the datastore, and then select **Stop**.

| Finding Allowst Nations National N | arcserve | UNIFIED DATA PROTECTION | | | | | 0 | Messages (1) * administrat | vor * Help * |
|--|---|--------------------------------|------------------------|-------------|-----------------------------------|-------------|------------------------|--|--|
| | dashboard resources | jobs reports log settings | 3 | | | | | | |
| Allos manufactores de la conserva de | | E Destinations: Recovery Point | t Server | | | | | ≥SM39 > SM39_data_ | tore |
| And Donas Long About per official Long About | | Actions - Add a Recovery | Point Server | | | | | Configuration Wizard | |
| i Lunc soga form drags Arter | | Name | Status Plan Count | Stored Data | Deduplication | Compression | Overall Data Reduction | 5 🔿 Status | |
| A Trans to an account of the second of the s | Elinux Backup Server Groups | · 🚍 84839 | | | | | | Rutning | |
| Data Yorking D | | EB SM32_data_stor | Model - | 0 Byte | 0% | 0% | 0% | Backup Destination 145.5 | 18 free of \$45.5 TB |
| Necosy Interference Inter- Transmission Inter- transmission <thinter- transmission Inter- transmission <thinter- transmission Inter- transmission</thinter- </thinter- | | | | | | | | Data Destination 1655 | T0 free of \$45.5 T0 |
| Ander Rouge Boosts Boosts Rouge Boosts Boosts Courses Weitz Ander Boosts Courses Boosts Courses Boosts Boos | | | 5200 | | | | | Index Destination 1655 | TB free of \$45.5 TB |
| I Indianative I Indianative Competential Competentia Compet | Shared Folders | | Browse Recovery Points | | | | | | N free of 2.9 TN ? GB free of 511.7 GB |
| Stopp Ange Step 2000 Constrained Step 2000 C | Remote Consoles | | | | | | | ▼ Settings | |
| Index File Path | Storage Arrays Instant Virtual Machines Sites | | | | | | | Encryption Algorithm Backup Destination Deduglication Block Size Concurrent Active Jobs Destuplication Data File Path | Standard AES-256 X Worsenveloata_store co mmoon 16.k0 4 X Varsenveloata_store in Ata X Varsenveloata_store in dex |

g. From the command line, navigate to C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN and run the following command:

as_gddmgr.exe –DataPath Add <datastore name> -NewDataPath <new data folder>

The following example screen shows the details such as Volume capacity, Used space, Free space for Primary data path, Expanded data path and the total values. The total value is the sum of primary data path and the expanded data path.

To view the data path details, you can also run the following command:

as_gddmgr.exe -DataPath Display <datastore name>

| C:\Program Files\Arcs path Add appliatest75 Successfully load dat Succesfully added ne The data store has 1 | _data_store -NewData a store configuration w expanded data pat | aPath Y:\data on information. h for the data store | |
|---|--|--|------------|
| | Volume capacity | Used space | Free space |
| Primary data path : | X:\Arcserve\data_s 18384 GB | tore\data\ 1 GB | 18383 GB |
| Expanded data path1: | Y:\data 224 GB | 1 GB | 223 GB |
| Total | 18608 GB | 2 GB | 18606 GB |
| Success to add data p | ath Y:\data. | | |
| C:\Program Files\Arcs | erve\Unified Data P | otection\Engine\BIN | > |

The new expanded data path is added to the datastore Successfully.

- In UDP Console, navigate to resources > Destinations > Recovery Point Servers.
- i. Right-click the datastore, and then select Start.
- j. Resume the plans that you have paused before from the UDP Console.

The data capacity of the Arcserve Appliance is successfully expanded.

Working with Arcserve Appliance Expansion Kit - X Series Models

Arcserve Expansion Kit lets you expand the data capacity in Arcserve Appliance X Series models.

Follow these steps:

- 1. For X series Expansion Kit Capacity of any model (except X3000DR), you can perform a linear expansion with optional Expansion Kits as many times as required till you reach the largest model X3000DR.
- 2. Perform the following steps to insert HDDs in the empty disk slots:

- a. From the Arcserve UDP Console verify and ensure that no jobs are running on the Appliance Server. If any jobs are running, pause the corresponding plans.
- b. Insert the HDDs in the empty disk slots of Storage Unit ME4084
 Value Array. Each kit in the X series Expansion kit consists of 14 x 16TB disks.

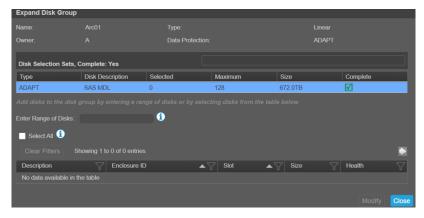


3. Log into the ME unit - Value Array Storage Manager, go to Pools, and then select the disk group that you want to expand.

| VA084 Value Array | Storage Manager | | System: Uninitialized Version: GT280R006- | | 2021-02 10.18.2 | | |
|--|------------------------|---------------|---|---------------------------------|--------------------|-------------|-------|
| Action | | | PO | OLS | | | |
| Home | Q, Clear Filters | Export to CSV | Show All V Showing | 1 to 1 of 1 entries(1 selected) | | | |
| And a second sec | Name 🔺 🏹 Health | ∑ Siz | e Class | Avail | Volumes | Disk Groups | |
| System | Arc01 🥝 OK | | Storage Setup Add Disk Group | r 08 | 1 | 1 | |
| | Related Disk Groups | | Modify Disk Group Remove Disk Groups | | | | |
| Hosts | Q. Clear Filters | | Expand Disk Group Manage Spares | 1 to 1 of 1 entries(1 selected) | | | |
| 1000 | Name 🍸 Health 🍸 Pool 🔺 | u u | 010000 1010100 | ption 🝸 Size | Free Current Job | | Disks |
| | Arc01 🤗 OK Arc01 | | Change Pool Settings Disk Group Utilities Dequarantine Disk Group | 537.0TB | 0B VRSC (19%) | FTOL | 42 |
| Pools | Related Disks | | | | | | |
| _ | Clear Filters | Export to CSV | Show All V Showing | 1 to 42 of 42 entries | | | |
| | Location 🔺 🍸 Health | Description | Size | Usage | Disk Group | Status | Y |
| Volumes | 0.0 🥝 OK | SAS MDL | 16.0TB | LINEAR POOL | Arc01 | Up | |
| ন্দ্রি | 0.1 🥝 OK | SAS MDL | 16.0TB | LINEAR POOL | Arc01 | Up | |
| | 0.2 🥝 OK | SAS MDL | 16.0TB | LINEAR POOL | Arc01 | Up | |
| Mapping | 0.3 🗖 OK | SAS MDL | 16.0TB | LINEAR POOL | Arc01 | Up | |

4. Right-click the selected disk group, and the select **Expand Disk Group**.

The Expand Disk Group panel opens and displays the disk group information and disk tables.



- 5. To add additional disks to the disk group, enter a range of disks in the Enter Range of Disks field or select the disks from the table.
- 6. Click **Modify**.
- 7. On the confirmation panel, click **Yes** to start the group expansion, and then click **OK** to close the panel.

Note: After the Expand job is completed, a rebalance job is triggered on the disk group.

8. After the Expand and Rebalance jobs are completed, open **Disk Man**agement from the compute unit, and then select **Action > Rescan Disks**.

| 📅 Dis | k Management | | | | | | | | - | ٥ | × |
|-----------------------------------|------------------|---|-------|-------------|------------|-----------|----------|--------|---|---|---|
| File | Action View Help | | | | | | | | | | |
| (n m | Refresh | | | | | | | | | | |
| Volur (Di (Di (Di (Di | Rescan Disks | | Туре | File System | Status | Capacity | Free Spa | % Free | | | |
| 🚍 (C | Create VHD | | Basic | NTFS | Healthy (B | 155.73 GB | 80.56 GB | 52 % | | | |
| — (Di | Attach VHD | | Basic | | Healthy (R | | 499 MB | 100 % | | | |
| 💳 (Di | | | Basic | | Healthy (E | | 100 MB | 100 % | | | |
| = (Di | All Tasks | > | Basic | | Healthy (R | 76.29 GB | 76.29 GB | 100 % | | | |
| | Help | | | | | | | | | | |
| 'O Di | isk 0 | | | | | | | | | | ^ |

After Rescan, the disk from the Storage Unit appears with the expanded storage.

| 📅 Disk Manageme | | | | | | | | | - | ٥ | × |
|---|-----------------------------|----------------|------------------------------|------------------------------|---------|----------------|----|---|---|---|---|
| File Action Vi | | | | | | | | | | | |
| (+ +) 🔃 🛛 | 💷 🗩 🗙 | 2 | | | | | | | | | |
| Volume | Layout | Туре | File System Status | | | % Free | | | | | |
| = (C:) | Simple | Basic | | hy (B 155.73 GB | | 52 % | | | | | |
| (Disk 1 partition (Disk 1 partition) | | Basic Basic | | hy (R 499 MB hy (E 100 MB | | 100 % 100 % | L3 | | | | |
| = (Disk 1 partition | | Basic | | ty (R 76.29 GB | | 100 % | | | | | |
| | | | | | | | | | | | |
| | - | | | | | | | | | | ^ |
| ODisk 0 Unknown | | | | | | | | | | | |
| 223.57 GB | 223.57 GB | | | | | | | | | | |
| Not Initialized | Unallocated | | | | | | | | | | |
| | | | | | | | | | | | |
| - Disk 1 | | | | | | | | | | | |
| Basic 1489.85 GB | 499 MB | 100 MB | (C:) 155.73 GB NTFS | 76.29 GB | 1257.23 | CD | | | | | |
| Online | Healthy (Rec | Healthy | Healthy (Boot, Page File, Ci | | | | | | | | |
| | 1 · · · | · · | | | | | | | | | |
| "O Disk 2 | | | | | | | | | | | |
| Unknown | | | | | | | | - | | | |
| 18627.45 GB Not Initialized | 18627.45 GB | | | | | | | | | | |
| Not initialized | Unallocated | | | | | | | | | | |
| | ļ | | | | | | | | | | |
| - Disk 3 Removable (E:) | | | | | | | | | | | |
| Removable (E:) | | | | | | | | | | | |
| No Media | | | | | | | | | | | |
| | | | | | | | | | | | |
| ODisk 4 | | | | | | | | | | | |
| Unknown | | | | | | | | | | | |
| 500168.00 GB Offline | 500168.00 GB Unallocated | | | | | | | | | | |
| - | | | | | | | | | | | ~ |
| Unallocated | Primary partitio | n | | | | | | | | | |

Working with SSD Flash Expansion Kit in Arcserve X Series Appliance

Arcserve SSD Flash Expansion Kit lets you expand the data capacity by creating a secondary datastore and performing DR-related operations (IVM /VSB/Continuous Availability) in the Arcserve Appliance X-Series.

Follow these steps:

- 1. Perform the following steps to insert SSDs in the empty disk slots:
 - a. From the Arcserve UDP Console, verify and make sure that no jobs are running on the Appliance Server. If in case any jobs are running, pause the corresponding plans.
 - b. Insert SSDs in the empty disk slot.



- 2. Perform the following steps to configure Raid-5 from the BIOS Boot Manager option:
 - a. To launch the Virtual Console dashboard, log in to iDRAC, and then click **Start the Virtual Console**.
 - b. In the Virtual Console page, click **Boot**, and then select the **BIOS Boot Manager** option.

On the confirmation window, click **Yes** to restart the BIOS Boot Manager.

c. Click Power, and then select Reset system (warm boot).

The appliance boots and relaunches the Boot Manager setup page.

- In the Boot Manager Main Menu, click Launch System Setup, and then navigate to Device Settings > Dell EMC PERC S140 Controller > Virtual Disk Management > Create Virtual Disk.
- e. From the Select RAID Level drop-down list, select RAID 5.

Note: The RAID 5 Virtual Disk is used for expansion kit and includes newly attached disks of 3.63 TB for each physical disk.

| System Setup | Help About Exit |
|---|--|
| DELL EMC PERC S140 Configuration Utili | ty |
| Configuration Options · Virtual Disk Manager | ment • Create Virtual Disk |
| Create Virtual Disk | - |
| Select RAID Level: | Volume |
| Select Physical Disks From: | Volume |
| Select Physical Disks | RAID 0 |
| Configure Virtual Disk Parameters: | RAID 5 RAID 10 |
| Virtual Disk Size: | 0 |
| Virtual Disk Size Unit: | ⊙ MB (MegaBytes) ● GB (GigaBytes) ○ TB (TeraBytes) |
| Read Cache Policy: | No Read Ahead |
| Write Cache Policy: | Write Through |
| Physical Disk Write Cache: | Default O Enable O Disable |
| | - |
| | • |
| Selects the desired RAID level. The configuration | n utility supports RAID levels 0, 1,5 and 10 |
| (Press <f1> for more help)</f1> | and the y supports to the levels of , o and to. |
| | |
| | Back |
| Service Tag: G19CR53 | |

f. Select the Select Physical Disks option.

| Configuration Options • Virtual Disk Ma | | |
|---|---|---|
| Create Virtual Disk Select RAID Level: | | • |
| Select Physical Disks Configure Virtual Disk Parameters: Virtual Disk Size: | 0 O MB (MegaBytes) GE (GigaBytes) O TE (TeraBytes) | |
| Read Cache Policy: | No Read Ahead Write Through | • |
| Physical Disk Write Cache: | Default | |

The Select Physical Disk Operation window opens.

g. For the Select Interface Type option, click **NVMe**.

A list of physical disks is displayed.

h. From the list of physical disks, select the disks as needed, and then click **Apply Changes**.

| System Setup | | Help About Exit |
|---|--|---------------------|
| DELL EMC PERC S140 Configuration Utility | / | |
| Configuration Options • Virtual Disk Managem | ent • Create Virtual Disk | |
| Create Virtual DiskSelect RAID Level: | RAID 5 | <u>-</u> |
| Select Physical Disks From: IP Physical Disk 0:18, NVMe, 3.63 TB, Ready IP Physical Disk 0:28, NVMe, 3.63 TB, Ready IP Physical Disk 0:29, NVMe, 3.63 TB, Ready IP Physical Disk 0:29, NVMe, 3.63 TB, Ready IP Physical Disk 0:210, NVMe, 3.63 TB, Ready IP Physical Disk 0:211, NVMe, 3.63 TB, Ready IP Physical Disk 0:211, NVMe, 3.63 TB, Ready IN Physical Disk 0:211, NVMe, 3.63 TB, Rea | Bunconfigured Capacity | |
| Apply Changes | | |
| Service Tag: G19CR53 | | Back |

Notes: Select a minimum of three disks and a maximum of 16 disks.

- i. After the changes are applied, click the **Create Virtual Disk** option again to complete the process of creating the virtual disk.
- 3. Navigate to Configuration Options > Physical Disk Management > Select Physical Disk Operations.
 - a. For Select Interface Type, click **NVMe**.
 - b. From the Select Physical Disk drop-down list, select the option as needed, and then click **Convert to RAID Capable Disk**.

Note: You can apply the Convert to RAID Capable Disk option to all the physical disks one by one.

| System Setup | | Help About Exit |
|--|--|---------------------|
| DELL EMC PERC S140 Configuration Utility | | |
| Configuration Options • Physical Disk Manager | ment • Select Physical Disk Operations | |
| Select Interface Type: | ··· ○ SATA | |
| Select Physical Disk: | Physical Disk 0:1:8, NVMe, 3.63 TB, Online | • |
| Convert to Non-RAID Disk | | |
| Convert to RAID Capable Disk | | |
| Manage Physical Disk Properties | | |
| Assign Global Hot Spare | | |
| Unassign Hot Spare | N | |
| Cryptographic Erase | 2 | |
| | | |
| | | |
| Converts RAID capable physical disks to Non-RAID | D physical disks. | |
| Service Tag: G19CR53 | | Back |

c. When the following warning message is displayed, do the following:

RAC0516: Converting physical disk drives to RAID-compatible will overwrite any OS-created RAID arrays.

- 1. Verify that there are no OS-configured RAID arrays, and then click OK.
- 2. Click OK.
- Navigate to Configuration Options > Virtual Disk Management, and then do the following:

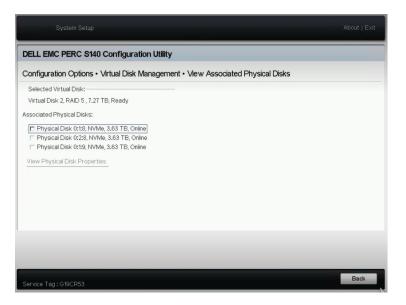
| System Setup | Help About Exit |
|--|---------------------|
| DELL EMC PERC S140 Configuration Utility | |
| Configuration Options • Virtual Disk Management | |
| Create Vitual Disk Manage Virtual Disk Properties Select Virtual Disk Operations View Virtual Disk Properties | |
| Creates a virtual disk by selecting the RAID level, physical disks, and virtual disk parameters. | |
| Service Tag: G19CR53 | Back |

a. To manage your virtual disks, click Manage Virtual Disk Properties.

From the Select Virtual Disks drop-down list, select any RAID 5 disk, and then click **View Associated Physical Disks**.

| Configuration Ontions • Virtual Disk M | fanagement • Manage Virtual Disk Properties | |
|--|---|--|
| Select Virtual Disk: | | |
| 'irtual Disk Properties: | | |
| Virtual Disk ID: | | |
| RAID Level: | RAID 5 | |
| Virtual Disk Status: | Ready | |
| Virtual Disk Capacity: | 7.27 TB | |
| Sector Size: | 512 bytes | |
| View Associated Physical Disks | | |
| Manage Dedicated Hot Spares | | |
| | | |
| | | |
| | | |
| | | |

The associated disks are displayed.



b. To select the virtual disk operations, click **Select Virtual Disk Oper**ations.



- c. To view the virtual disk properties in the Boot Manager, click **View Virtual Disk Properties**.
- To view the disk information in iDRAC, log into iDRAC, and then click Storage > Overview.

| iDRAC9 Enterprise | | | | Search | Q 74 ± 0 |
|--------------------|--|----------------------------|---------------------|-------------------------|------------------------|
| | Storage V Configuration V | Maintenance V 9, iDRAC Set | tings 🗸 | | Enable Group Manager 🖈 |
| Dashboard | nerving asko On - More Actions - | | | | C" Refresh |
| Health Information | | System Information | | 🖄 Task Summary | View All Jobs |
| SYSTEM HAS | | Power State | ON | E Pending Jobs : 0 | |
| STSTEM MAST | JAITICAL ISSUES | Model | | No Pending Jobs | |
| System Health | Storage Health | Host Name | APPX-QA | | |
| Critical Details | Healthy Details | Operating System | Windows Server 2019 | () In Progress Jobs : 0 | 1 |
| Miscellaneous | | Operating System Version | 10.0 | No In-Progress Jobs | 6 |
| Power Supplies | | Service Tag | G19CR53 | | |
| | | BIOS Version | 2.12.2 | | |
| | | iDRAC Firmware Version | 5.00.10.20 | C Completed Jobs : 6 | |

In the Overview section, click **Physical Disks** to view the list of physical disks that you have created.

| - 1 | | | | | | | | | | Sear | |
|---------------|----------|-------------------|---|----------------------|-------------------------|------------------------------|----------------------|-------------------|-----------|---------|-------------|
| ŵ (| Dashb | ooard 🗉 | System ∽ 🛛 🛢 Storage ∽ 👘 | Configuration \vee | 🖂 Maintenance 🗠 | IDRAC Setting | js∨ | | | | |
| Sto | ora | age | | | | | | | | | |
| Ow | ervier | w Tasks | | | | | | | | | |
| 888 | | Summary | Controllers | Physi | cal Disks | Virtual Disks | | inclosures | | | |
| | - | | Law | <u> </u> | | - | | | | | |
| ۶Ĩ F | Dhuro | ical Disks | | | | , | | | | | |
| | riiya | ical Disks | | | | | | | | | |
| | riiya | ICal DISKS | | | ▼ Filter Driv | ves | | | | | |
| Bli | | Unblink | Create Virtual Disk | | T Filter Driv | ves | | | | | |
| | | | | State | Filter Driv Slot Number | ves Size | Bus Protocol | Media Type | Hot Spare | Actions | |
| Bli | ink | Unblink Status | Create Virtual Disk | State Non-RAID | | | Bus Protocol SATA | Media Type SSD | Hot Spare | Actions | v |
| Bli | ink | Unblink Status | Create Virtual Disk Name | | Slot Number | Size | | | | | > |
| 86 + | ink O | Unblink Status | Create Virtual Disk Name SSD 0 | Non-RAID | Slot Number | Size 223.57 GB | SATA | SSD | No | Action | |
| 01i + + | | Unblink Status | Create Virtual Disk Name SSD 0 PCIe SSD in Slot 8 in Bay 1 | Non-RAID Online | Slot Number 0 8 | Size 223.57 GB 3726 GB | SATA NVMe | SSD | No No | Action | ~ |

- 6. To initialize and format the newly added Virtual Disk, do the following:
 - a. Navigate to Computer Management and Disk Management.
 - b. Double click the new virtual disk that you added.

The Initialize Disk window appears.

- c. Select the GPT (GUID Partition Table) option and click OK.
- d. From the Disk Management window, select the virtual disk and apply the following properties:
 - * Assign a Drive Letter
 - * Specify NTFS as File System
 - * Format the disk

| Computer Management | | | | | | | | - | × |
|--|--|-------------------------|----------------|------------------------------|--|---|----------|-----------------|------|
| File Action View Help | | | | | | | | | |
| 🔶 🔶 🙇 📷 📓 📷 🗩 | 2 | | | | | | | | |
| E Computer Management (Local | Volume | Layout | Туре | File System | Status | | Т | Actions | |
| ✓ [™] System Tools | = (C:) | | Basic | NTFS | | Crash Dump, Primary Partition | 0 | Disk Management | |
| > Task Scheduler Second Scheduler | — (Disk 0 partition) — 2_6_7-28-AM (D:) | | | FAT32 | Healthy (EFI System Part Healthy (Active, Primary | | | More Actions | |
| > in Shared Folders | = New Volume (E:) | | | NTES | Healthy (Primary Partitic | | | | |
| > 😹 Local Users and Groups | - Recovery | Simple | | | Healthy (OEM Partition) | | | | |
| > 🔊 Performance | - UDPData1 (X:) | | Basic | | Healthy (Primary Partitic | in) | | | |
| 🛃 Device Manager | UDPFactoryReset UDPHash (Y:) | | | NTFS NTFS | Healthy (OEM Partition) Healthy (Primary Partitic | | | | |
| ✓ Estorage | | Simple | Basic | NIPS | Healthy (Primary Particic | in) | | | |
| > 🚯 Windows Server Backup | | | | | | | | | |
| Disk Management | < | | | | | | | | |
| > in services and Applications | | | | | | | _ | | |
| | -Disk 0 | | | | | | ^ | | |
| | Basic | Recove | | (C:) | UDPFactoryRes | UDPData1 (X:) | | | |
| | 22354.48 GB Online | 499 MB Healthy | 100 N Healt | 155.73 GB NT Healthy (Boo | | 22121.87 GB NTFS Healthy (Primary Partition) | | | |
| | Chine | rieanny | riean | meaniny (boo | c, Paj Preattny (UEM Pa | realthy (Phimary Partition) | | | |
| | | | | | - P | P | | | |
| | = Disk 1 | | | | | | | | |
| | Basic 1787.87 GB | | | | | | | | |
| | Online | 1787.87 G Healthy (I | | Partition) | | | | | |
| | | | | | | | | | |
| _ | | | | | | | - | | |
| | Basic | New Vol | ime (E |) | | | | | |
| | 10729.11 GB | 10729.11 | | | | | | | |
| | Online | Healthy (| Primary | Partition) | | | - | | |
| | | | | | | | | | |
| | - Disk 3 | | | | | | | | |
| | Removable | 2 6 7.28 | | ы | | | | | |
| | | 117.87 GB | | | | 11 | 1 | | |
| () | Unallocated | Primary pa | rtition | | | | | | |

The virtual disk is created.

Working with Expansion Kit in Arcserve Appliance 9072-9504 DR Models

Arcserve Expansion Kit lets you expand the data capacity in Arcserve Appliance 9072-9504DR models.

Follow these steps:

- 1. Perform the following steps to insert HDDs in the empty disk slots:
 - a. From the Arcserve UDP Console verify and ensure that no jobs are running on the Appliance Server. If any jobs are running, Pause the corresponding plans.
 - b. Insert HDD in the empty disk slot.



- 2. Perform the following steps to configure Raid-6 from iDRAC:
 - a. Log into iDRAC and navigate to Configuration, Storage Configuration and Physical Disk Configuration.
 - b. Under **Physical Disk Configuration** section, select **Convert to RAID** option from **Actions** drop-down for each new disk.

A dialog appears to display the following warning message:

RAC0516: Converting physical disk drives to RAID-compatible will overwrite any OS-created RAID arrays.

Make sure that there are no OS-configured RAID arrays, and then click OK.

c. Click OK.

The Convert to Raid status appears under Pending Actions.

| Dashboar | d 🗏 System 🗸 🛢 Storage 🗸 | Configurat | tion 🗸 🖂 Mainter | nance∨ ⁰₀ il | DRAC Settings \checkmark | | B Open Group Manager 👻 |
|--------------|------------------------------|------------|------------------|--------------|----------------------------|----------|------------------------|
| Controller (| Configuration | | | | | | |
| Physical Di | sk Configuration 🕑 6 Pending | | | | | | 🖗 Edit SSD Wear Thres |
| Status | Name | State | Hotspare Status | Capacity | Media Type | Action | Pending Actions |
| | Physical Disk 0:1:10 | Non-RAID | Unassigned | 10949.00 GB | HDD | Action • | Convert to RAID |
| | Physical Disk 0:1:11 | Non-RAID | Unassigned | 10949.00 GB | HDD | Action • | Convert to RAID |
| | Physical Disk 0:1:14 | Non-RAID | Unassigned | 10949.00 GB | HDD | Action • | Convert to RAID |
| | Physical Disk 0:1:15 | Non-RAID | Unassigned | 10949.00 GB | HDD | Action • | Convert to RAID |
| | Physical Disk 0:1:16 | Non-RAID | Unassigned | 10949.00 GB | HDD | Action • | Convert to RAID |
| | Physical Disk 0:1:17 | Non-RAID | Unassigned | 10949.00 GB | HDD | Action • | Convert to RAID |
| Virtual Disk | Configuration | | | | | | |
| Enclosure (| Configuration | | | | | | |

d. Click one of the following options to complete the pending actions:

Apply Now

Starts the convert to Raid action immediately.

At Next Reboot

Starts the convert to Raid action at the time of next reboot.

At Scheduled Time

Starts the convert to Raid action at the scheduled time.

Discard All Pending

Discards the convert to Raid action for all the disks.

e. Navigate to Maintenance, Job Queue.

The list of jobs running to convert the disks to Raid appears. When convert to RAID job is completed the status changes to **Completed (100%)**.

- 3. Perform the following steps to create virtual disk:
 - a. Navigate to Configuration, Storage Configuration and Virtual Disk Configuration.
 - b. Under Virtual Disk Configuration section, click Create Virtual Disk.
 - c. Select **RAID-6** as **Layout**.
 - d. Under **Select Physical Disks** section, select the disks that are converted to RAID.
 - e. Click Add to Pending Operations.

| Create Virtual Disk | | |
|---------------------|----------------------------------|---|
| | | ^ |
| Name | Enter or use auto-name | l |
| Layout | RAID-6 🔻 | I |
| Media Type | HDD * | I |
| Stripe Element Size | 64 KB * | I |
| Capacity* | 14.55 TB 🔻 | 1 |
| Read Policy | Read Ahead | |
| Write Policy | Write Back | |
| Disk Cache Policy | Default 🔻 | |
| T10 PI Capability | Disabled * | |
| Span Count | 1 • | ÷ |
| | Cancel Add to Pending Operations | |

- f. Navigate to Configuration and Storage Configuration.
- g. Click one of the following options to complete the pending operations:

Apply Now

Starts the create virtual disk operation immediately.

At Next Reboot

Starts the create virtual disk operation at the time of next reboot.

At Scheduled Time

Starts the create virtual disk operation at the scheduled time.

Discard All Pending

Discards the create virtual disk operation for all the disks.

h. Navigate to Maintenance, Job Queue.

The list of jobs running to create virtual disk appears. When create virtual disk job is completed the status changes to **Completed (100%)**.

i. Navigate to Computer Management and Disk Management.

j. Double click the new virtual disk that you added.

The Initialize Disk window appears.

k. Select the GPT (GUID Partition Table) option and click OK.

- I. From the **Disk Management** window, select the virtual disk and apply the following properties:
 - Assign a Drive Letter
 - Specify NTFS as File System
 - Format the disk

| Computer Management | | | | | - 🗆 X | | | |
|---|--------------------------------------|---|----------------------------------|---------------|-----------------|--|--|--|
| File Action View Help | | | | | | | | |
| 🗢 🔶 🙇 📷 🕍 📷 🗩 🖾 | | | | | | | | |
| Management (Local Volume | Layout Type File: | System Status | | Capa | Actions | | | |
| ✓ [™] | Simple Basic | Healthy (Recovery Partiti | | 300 N | Disk Management | | | |
| > 🕐 Task Scheduler 🛛 💻 | Simple Basic | Healthy (EFI System Parti | | 99 M | More Actions | | | |
| > 🛃 Event Viewer 🔤 | Simple Basic | Healthy (Recovery Partiti | | 76.29 | More Actions | | | |
| Shared Folders Groups Groups Groups Groups | Simple Basic NTF Simple Basic NTF | | Crash Dump, Primary Partition) | 155.7 1467 | | | | |
| Section 2 S | | | | 1787. | | | | |
| Device Manager | Initialize Disk | | × | | | | | |
| v 😫 Storage | | | | | | | | |
| > 🚯 Windows Server Backup | | isk before Logical Disk Manager can a | iccess it. | | | | | |
| 开 Disk Management | Select disks: | | | | | | | |
| > a Services and Applications | Disk 0 | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| < | | ition style for the selected disks: | | > | | | | |
| | O MBR (Master Boot Record) | | | | | | | |
| *O Disk 0 | GPT (GUID Patit | | | | | | | |
| Unknown 14903.00 GB | Note: The GPT partiti | | | | | | | |
| Not Initialized | Windows. | | | | | | | |
| | | | | | | | | |
| | - | OK | Cancel | | | | | |
| = Disk 4 | | | | - 11 | | | | |
| Basic 14902.88 GB | 300 ME 99 M | (C:) 155.73 GB NTFS 76.29 GB | UDPData (X:) 14670.46 GB NTFS | | | | | |
| Online | | 155.73 GB NTFS 76.29 GB Healthy (Boot, Pac Healthy (Reco | | 0 | | | | |
| | ///// | | | | | | | |
| | | P | P | | | | | |
| = Disk 5 | | | | | | | | |
| Basic 1787.87 GB | UDPHash (Y:) 1787.87 GB NTFS | | | | | | | |
| Online | Healthy (Primary P | artition) | | ~ | | | | |
| < > Unallocated | Primary partition | | | | | | | |
| | | | | | | | | |

- 4. Perform the following steps to expand the datastore:
 - a. Navigate to the Drive that you added and create a folder.
 - b. From the Arcserve Appliance desktop, launch the **Arcserve Appliance** wizard.

Arcserve Appliance Configuration page opens.

c. Click Launch UDP Console.

Arcserve UDP Console login page appears.

- d. Log into UDP Console as Administrator.
- e. Navigate to resources, Destinations, and Recovery Point Servers.
- f. Right click the datastore and click **Stop**.

| dashboard resources | job: | | reports lo | | | high availab | anty | | annilatoct | 75 > appliat. | |
|---|------|---------------------------------------|----------------|---------------------|----------------------|--------------|-------------|---|------------------------------------|----------------------|--|
| Nodes | | Actions - Add a Recovery Point Server | | | | | | | | Configuration Wizard | |
| All Nodes Nodes without a Plan | - | | Name | | Status | Plan Count | Stored Data | D | Status | on means | |
| Plan Groups Linux Backup Server Groups | | | appliatest75 | | | | | | Running | | |
| Plans All Plans | | | appliatest75_d | ata store Modify | | 1 | 0 Byte | 0 | Backup Destination | 18 TB free of | |
| Destinations Recovery Point Servers Arcserve Backup Servers | | | | Delete | | _ | | | Data Destination Index | 18.2 TB free | |
| Shared Folders Cloud Accounts | 4 | | | Browse R RPS Jum | ecovery Po pstart | ints | | 1 | Destination Hash Destination | 223.5 G8 free | |
| Remote Consoles Infrastructure | | | | | | | | | Memory Allocation | \$3.8 GB free | |
| Storage Arrays Instant Virtual Machines | | | | | | | | | ✓ Settings | | |
| Sites | | | | | | | | | Compressi Type | on Standard | |

g. From the command line, navigate to C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN and run the following command:

as_gddmgr.exe –DataPath Add <datastore name> -NewDataPath <new data folder>

The following example screen shows the details such as Volume capacity, Used space, Free space for Primary data path, Expanded data path and the total values. The total value is the sum of primary data path and expanded data path.

To view the data path details, you can also run the following command:

as_gddmgr.exe -DataPath Display <datastore name>

| uccessfully added ne he data store has 1 | | h for the data store | |
|---|--------------------------------|----------------------|------------|
| | Volume capacity | Used space | Free space |
| rimary data path : | X:\Arcserve\data_s 18384 GB | tore\data\ 1 GB | 18383 GB |
| xpanded data path1: | Y:\data 224 GB | 1 GB | 223 GB |
| otal | 18608 GB | 2 GB | 18606 GB |

Successfully added new expanded data path to the datastore.

- h. In UDP Console, navigate to **resources**, **Destinations**, and **Recovery Point Servers**.
- i. Right click the datastore and click Start.
- j. Resume the plans that you paused before from UDP Console.

Data capacity of the Arcserve Appliance is successfully expanded.

Working with SSD Flash Expansion Kit in Arcserve Appliance 9072-9504 DR Models

Arcserve SSD Flash Expansion Kit lets you expand the data capacity by creating secondary datastore and performing DR related operations (IVM /VSB/Continuous Availability) in the Arcserve Appliance 9072-9504DR models.

Follow these steps:

- 1. Perform the following steps to insert SSDs in the empty disk slots:
 - a. From the Arcserve UDP Console, verify and make sure that there are no jobs are running on the Appliance Server. If in case any jobs are running, pause the corresponding plans.
 - b. Insert SSDs in the empty disk slot.



- 2. Perform the following steps to configure Raid-5 from iDRAC:
 - a. Log into iDRAC, and then navigate to **Configuration > Storage Configuration > Physical Disk Configuration**.
 - b. Under the Physical Disk Configuration section, from the **Actions** dropdown list of each new SSD DISK, select the **Convert to RAID** option.

A dialog appears to display the following warning message:

RAC0516: Converting physical disk drives to RAID-compatible will overwrite any OS-created RAID arrays.

Make sure that there are no OS-configured RAID arrays, and then click OK.

c. Click OK.

As the media type is SSD, the Convert to Raid status appears under the Pending Actions column.

| ion utation ⊘ 6 Pending | | | | | | |
|----------------------------|--|---|---|---|---|---|
| ration (2) 6 Pending | | | | | | |
| | | | | | | 🕈 Edit SSD Wear Thresho |
| M. | State | Hotspare Status | Capacity | Media Type | Action | Pending Actions |
| sical Disk 0.1.10 | Non-RAID | Unassigned | 10949.00 GB | HOD | Action * | Convert to RAID |
| sical Disk 0:1:11 | Non-RAID | Unassigned | 10949.00.08 | HDD | Action • | Convert to RAID |
| sical Disk 0.1.14 | Non-RAID | Unassigned | 10949.00 GB | HOD | Action • | Convert to RAID |
| sical Disk 0:1:16 | Non-RAID | Unassigned | 10949-00-08 | HDD | Action . | Convert to RAID |
| sical Disk 0.1.16 | Non-RAID | Unassigned | 10949.00 GB | HOD | Action • | Convert to RAID |
| sical Disk 0:1:17 | Non-RAID | Unassigned | 10949.00.08 | HEO | Action * | Convert to RAID |
| | sical Disk 01.10 peal Disk 01.11 sical Disk 01.14 peal Disk 01.16 sical Disk 01.16 | Loss Day, 0.110 Non-RAD Iscal Day, 0.111 Non-RAD Iscal Day, 0.114 Non-RAD Iscal Day, 0.115 Non-RAD Iscal Day, 0.116 Non-RAD | Col Dix 0110 Non-RAD Unassigned Scal Dix 0111 Non-RAD Unassigned Scal Dix 0114 Non-RAD Unassigned Scal Dix 0114 Non-RAD Unassigned Scal Dix 0116 Non-RAD Unassigned | Cell Disk 0 110 Non-Rub Unassigned 10943 00 08 Scal Disk 0 111 Non-Rub Unassigned 10943 00 08 Hold Noti 0 114 Non-Rub Unassigned 10943 00 08 Hold Noti 0 114 Non-Rub Unassigned 10940 00 08 Hold Noti 0 114 Non-Rub Unassigned 10940 00 08 Hold Noti 0 114 Non-Rub Unassigned 10940 00 08 | Isol Disk 0 110 Non-RAID Unassigned 1064/200 68 HED Isol Disk 0 111 Non-RAID Unassigned 1064/200 68 HED Isol Disk 0 114 Non-RAID Unassigned 1064/200 68 HED Isol Disk 0 114 Non-RAID Unassigned 1064/200 68 HED Isol Disk 0 114 Non-RAID Unassigned 1064/200 68 HED Isol Disk 0 116 Non-RAID Unassigned 1064/200 68 HED | Icid Disk 0.110 Non-RuD Umassgred 10948.00.08 H0D Action • Icid Disk 0.110 Non-RuD Umassgred 10948.00.08 H0D Action • Icid Disk 0.114 Non-RuD Umassgred 10948.00.08 H0D Action • Icid Disk 0.114 Non-RuD Umassgred 10948.00.08 H0D Action • Icid Disk 0.118 Non-RuD Umassgred 10948.00.08 H0D Action • Icid Disk 0.114 Non-RuD Umassgred 10948.00.08 H0D Action • |

d. Click one of the following options to complete the pending actions:

Apply Now

Starts the convert to Raid action immediately.

At Next Reboot

Starts the convert to Raid action at the time of next reboot.

At Scheduled Time

Starts the convert to Raid action at the scheduled time.

Discard All Pending

Discards the convert to Raid action for all the disks.

e. Navigate to Maintenance, Job Queue.

The list of jobs running to convert the disks to Raid appears. When converting to RAID job is completed, the status displays as 100%.

| REA | | ntegr | ated Rem | ote Access Controller 9 E | Enterprise | 2 | | | | | Search | ۹ 🛥 🛓 | 0 |
|-----|------|---------|------------------|-----------------------------|------------|---------------|---------------------------|-----------------|----------------------|------------|-----------|---------------------------------|---|
| | | Dashb | oard B Urbink | I System∨ 🛛 Storag | e∨ I | Configuration | Maint | enance∨ 0, i | DRAC Settings \vee | | | Enable Group Manager | * |
| | | | Status | Name | State | Slot Number | Size | Security Status | Bus Protocol | Media Type | Hot Spare | Remaining Rated Write Endurance | |
| | + | | | Physical Disk 0:1:0 | Online | 0 | 7451.5 GB | Not Capable | SAS | HOD | No | Not Applicable | |
| | + | | | Solid State Disk 0.1:1 | Online | 8 | 3576.38 GB | Not Capable | SAS | SSD | No | 100% | |
| | + | | | Solid State Disk 0.1.2 | Online | 2 | 3576 38 GB | Not Capable | SAS | SSD | No | 100% | |
| | + | | | Solid State Disk 0:1:3 | Online | 3 | 3576.38 GB | Not Capable | SAS | SSD | No | 100% | Ĵ |
| | + | | | Solid State Disk 0:1:4 | Online | 8 | 3576.38 GB | Not Capable | SAS | SSD | No | 100% | |
| | + | | | Solid State Disk 0:1:12 | Online | 12 | 1787.88 GB | Not Capable | SATA | SSD | No | 100% | |
| | ÷ | | | Solid State Disk 0.1:13 | Online | 13 | 1787.88 GB | Not Capable | SATA | SSD | No | 100% | |
| | + | | | Physical Disk 0:1:14 | Online | 14 | 7451.5 GB | Not Capable | SAS | HOD | No | Not Applicable | |
| | + | | | Physical Disk 0:1:15 | Online | 15 | 7451.5 GB | Not Capable | SAS | HDD | No | Not Applicable | |
| | + | | | Physical Disk 0:1:16 | Online | 16 | 7451.5 GB | Not Capable | SAS | HOD | No | Not Applicable | |
| | 0 rc | xw(s) : | elected | | | | | | | | | 1 | 2 |

- 3. Perform the following steps to create virtual disk:
 - a. Navigate to **Configuration > Storage Configuration > Virtual Disk Configuration**.
 - b. Under Virtual Disk Configuration section, click Create Virtual Disk.

- c. In the Create Virtual Disk window, do the following and retain defaults for the remaining:
 - **Layout** From the drop-down list, select RAID-5.

Media Type - From the drop-down list, select SSD.

- d. Under Select Physical Disks section, scroll down and select all the SSD disks that are converted to RAID.
- e. Click Add to Pending Operations.

| Create Virtual Disk | | 0 |
|---------------------|---------------------------------|---|
| | | ^ |
| Name | UDPFlash | |
| Layout | RAID-5 V | |
| Media Type | SSD - | |
| Stripe Element Size | 64 KB 🗸 | |
| Capacity* | 10.48 TB 🗸 | |
| Read Policy | Read Ahead | |
| Write Policy | Write Back 🗸 | |
| Disk Cache Policy | Default 🗸 | |
| T10 PI Capability | Disabled \vee | |
| Span Count | 1 ~ | Ų |
| | Cancel Add to Pending Operation | |

- f. Navigate to **Configuration > Storage Configuration**.
- g. To create the virtual disk operation immediately, click Apply Now.

| Dashboard | II System∨ II SI | orage 🗸 🛛 🖬 Configuration | ∨ | ngs 🗸 | | Brable broug Manager 📝 |
|--|---|---|---|--|--|--------------------------------|
| onfigur | ation | | | | | |
| Power Managers | ent Virtual Console | Virtual Media Licenses | System Settings Asset Tracking \$10 | rage ConfigurationBIDS Settings — Server Configuration Profile | | C Refresi |
| se this page to c shedule the job. | configure your storage sett Pending Operations will pe | ings. Storage settings are confi rsist until the job is created or t | rmed per controller and only one job per controller hey are discarded. | can be scheduled or running at a time. You can batch changes into or | e job by adding them to the Pending Operations. You must Apply w | when you are ready to start or |
| oraxoller PERC | H730P Mini (Embedded) | | | | | |
| | | | | | | |
| Controller Confe | guration | | | | | |
| Physical Disk Co | orfiguration | | | | | |
| | | | | | | |
| | dauration. | | | | | |
| Virtual Disk Con | | | | | | |
| | | PAID Level | Dedicated Hotspares | Virtual Disk Actions | Pending Actions | |
| Virtual Disk Con Create Virtual (| Disk | RAID Level RAID-6 | Dedicated Hotspares | Vehal Disk Actions Action | Pending Actions | |
| Virtual Disk Con Crease Virtual (Status | Name | | | | Pending Actions | |
| Virtual Disk Con Crease Virtual D Status | Name UOPData | RAD-6 | None | Action | Pending Actions | |

h. Navigate to Maintenance > Job Queue.

The list of jobs running to create virtual disk appears. When virtual disk job is created, the status changes to **100%**.

- i. Navigate to Computer Management and Disk Management.
- j. Double click the new virtual disk that you added.

The Initialize Disk window appears.

- k. Select the GPT (GUID Partition Table) option and click OK.
- I. From the Disk Management window, select the virtual disk and apply the following properties:

- * Assign a Drive Letter
- * Specify NTFS as File System
- * Format the disk

| Computer Management | | | | | | | - (| < |
|---|---|-----------------------------------|--------------|---|---------------------------------------|----------|------------|---|
| File Action View Help | | | | | | | | |
| 🗢 🔿 🙇 📷 📓 📰 🗩 | 2 | | | | | | | |
| A Computer Management (Local | Volume | Layout Type | File System | Status | | Actions | | _ |
| System Tools | = (C:) | Simple Basic | NTFS | | Crash Dump, Primary Partition) | Disk Mar | nagement | |
| > Task Scheduler Second Scheduler Scheduler Second Scheduler Scheduler Scheduler Scheduler Scheduler Scheduler Scheduler Schedu | (Disk 0 partition 2) 2_6_7-28-AM (D:) New Volume (E:) | | | Healthy (EFI System Part Healthy (Active, Primary Healthy (Primary Partitio | Partition) | Mor | re Actions | ۲ |
| > A Local Users and Groups | = Recovery | Simple Basic | | Healthy (OEM Partition) | | | | |
| > (N) Performance | - UDPData1 (X:) | Simple Basic | | Healthy (Primary Partitio | n) | | | |
| 🛃 Device Manager | UDPFactoryReset | | | Healthy (OEM Partition) | | 1 | | |
| v 🤮 Storage | - UDPHash (Y:) | Simple Basic | NTFS | Healthy (Primary Partitio | in) | | | |
| > 🍓 Windows Server Backup | | | | | | | | |
| T Disk Management | | | | | | | | |
| > Services and Applications | < | | | | > | | | |
| | | | | | · · · · · · · · · · · · · · · · · · · | 1 | | |
| | - Disk 0 Basic | Recove | (C:) | UDPFactoryRes | UDPData1 (X) | | | |
| | | 499 MB 100 N | 155.73 GB N | | 22121.87 GB NTFS | | | |
| | | Healthy Healt | Healthy (Boo | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | -Disk 1 Basic | UDPHash (Y:) | | | | | | |
| | | 1787.87 GB NTFS | | | | | | |
| | | Healthy (Primary | Partition) | | | | | |
| | | | | | | | | |
| | - t | | | | | | | |
| | Basic | New Volume (E: | | | | | i . | |
| | | 10729.11 GB NTFS | | | | | | |
| | Online | Healthy (Primary | Partition) | | | | | |
| | | | | | | | | |
| | | | | | - | | | |
| | - Disk 3 Removable | 2 6 7.29.AM (D | | | - | | | |
| · · · · | | 2 6 7.28.AM (0 117.87 GB FAT32 | 8 | | - | - | | |
| | Unallocated P | | | | | 1 | | |

The virtual disk is created.

Chapter 10: Working with Network Configuration

| This section contains the following topics: | |
|--|-----|
| Understanding the Network Configuration Details | |
| How to Disable DHCP Server | 201 |
| How to Configure IP Address for the Preinstalled Linux Backup Server | 202 |
| How to Enable Round Robin on the DNS Server to Balance Load | |
| How to Check Network Status on Appliance | |

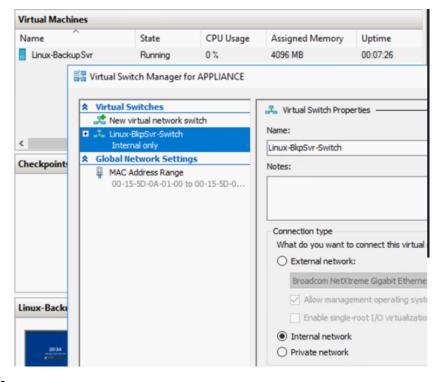
Understanding the Network Configuration Details

The network configuration on Appliance enables the built-in Linux Backup Server (virtual name in Hyper-V Manager: Linux-BackupSvr) to work behind NAT and provides the following advantages:

- User does not need to change the host name of the built-in Linux.
- User saves an IP on the network for the Linux Backup Server.
- The Linux Backup Server can connect to any machine on the public network.
- Any machine on the public network can connect to the Linux Backup Server through the special port of Appliance Server only.

Network Configuration Details:

• On the Hyper-V Manager, an internal only virtual switch – *Linux-BkpSvr-Switch* is available that is used only by Linux-BackupSvr.



In the *Control Panel**Network and Internet**Network Connections*, you can see "Hyper-V Virtual Ethernet Adapter" named as "LinuxBkpSvr". You have configured the IPv4 for this switch as "192.168.10.1" by default as below.

| LinuxBkpSvr Properties | × | Internet Protocol Version 4 (TCP) | /IPv4) Properties × |
|--|--------|-----------------------------------|---|
| Networking Sharing | | General | |
| Connect using: | | | automatically if your network supports eed to ask your network administrator |
| | igure | Obtain an IP address auton | natically |
| This connection uses the following items: | | Use the following IP addres | 5: |
| File and Printer Sharing for Microsoft Networks | ^ | IP address: | 192.168.10.1 |
| GoS Packet Scheduler | | Subnet mask: | 255.255.255.0 |
| Internet Protocol Version 4 (TCP//Pv4) Microsoft Network Adapter Multiplexor Protocol | | Default gateway: | |
| Microsoft LLDP Protocol Driver Internet Protocol Version 6 (TCP/IPv6) | ~ | Obtain DNS server address | automatically |
| < | > | Use the following DNS server | er addresses: |
| Instal Uninstall Prop. | erties | Preferred DNS server: | |
| Description Transmission Control Protocol/Internet Protocol. The d | | Alternate DNS server: | |
| wide area network protocol/internet Protocol. The of wide area network protocol that provides communicativ across diverse interconnected networks. | | Validate settings upon exit | Advanced |

You have configured DHCP Server on the appliance machine by default. The DHCP Server works only on the Hyper-V virtual adapter.

| 👮 DHCP | | | | _ | | \times |
|---|---|------------------------------------|-------------------------------|---|------|----------|
| File Action View | / Help | | | | | |
| 🗢 🄿 🖄 📰 🕽 | K 🔟 🖻 📓 🔢 💭 💷 | | | | | |
| DHCP | Name | | Actions | | | |
| appliance IPv4 | Server Bindings Properties | | | | ? | × |
| > 🐌 IPv6 | IPv4 IPv6 | | | | | |
| | Select the connections that the DHCP serently, verify that a static IP address is conconnections and server bindings: | ver supports f nfigured for thi | or servicing c s computer. | | Appl | |

By default, only one 192.168.10.2 in the Address Pool to ensure the built-in Linux Backup Server can get the IP 192.168.10.2.

| DHCP File Action View Help | | | |
|---|--------------------------|----------------|--------------------------------|
| 🗢 🔿 📷 🗟 💼 🔒 | | | |
| 9 DHCP | Start IP Address | End IP Address | Description |
| appliance IPv4 Server Options Scope (192.168.10.0] nat Address Pool Address Leases Reservations Scope Options Policies Policies Filters IPv6 | \$ ₩ 192.168.10.2 | 192.168.10.2 | Address range for distribution |

| | Status | Device Name | Connectivity | Network Category |
|---|--|---------------------------------------|-------------------|------------------|
| NIC1 | Disabled | Broadcom NetXtreme Gigabit Et | | |
| NIC2 | Disabled | Broadcom NetXtreme Gigabit Et | | |
| VIC3 | Disabled | Broadcom NetXtreme Gigabit Et | | |
| NIC4 | ARCSERVE.COM | Broadcom NetXtreme Gigabit Et | Internet access | Public network |
| 🖗 LinuxBkpSvr | Unidentified network | Hyper-V Virtual Ethernet Adapter | No network access | Public network |
| | | ting ip nat dump | | |
| ninstall nstall | | | | |
| | | 0 udptimeoutmins=1 l | oglevel=ERROR | |
| | cptimeoutmins=144 ration For Interf | | oglevel=ERROR | |
| NAT Configu | | ace NIC4 | oglevel=ERROR | |
| WAT Configu dd interfac | ration For Interf | ace NIC4 e=FULL | oglevel=ERROR | |
| NAT Configu dd interfac NAT Configu | ration For Interf e name="NIC4" mod | ace NIC4 e=FULL ace LinuxBkpSvr | oglevel=ERROR | |

• We have configured NAT on the Appliance machine.

• We have configured port redirection on the appliance for the Linux Backup Server.

| c:\Windows\System32>netsh interface portproxy show all | | | | |
|--|-------|----------------|-------|--|
| Listen on ipv4: | | Connect to ipv | 4: | |
| Address | Port | Address | Port | |
| * | 8018 | 192.168.10.2 | 8014 | |
| * | 8019 | 192.168.10.2 | 22 | |
| * | 8035 | 192.168.10.2 | 8035 | |
| * | 8017 | 192.168.10.2 | 8017 | |
| * | 8021 | 192.168.10.2 | 8021 | |
| * | 50000 | 192.168.10.2 | 50000 | |
| * | 50001 | 192.168.10.2 | 50001 | |
| * | 50002 | 192.168.10.2 | 50002 | |
| * | 50003 | 192.168.10.2 | 50003 | |
| * | 50004 | 192.168.10.2 | 50004 | |

Linux Backup Server gets the IP address 192.168.10.2 from the DHCP Server. After getting the IP, the backend script (C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\resetdhcp.ps1) communicates with Linux to change the system locale of the Linux to make it consistent with the system locale of the Appliance Windows OS.

```
[root@Linux-BackupSvr network-scripts]# cat ifcfg-eth0
 TYPE=Ethernet
B00TPR0T0=dhcp
DEFROUTE=yes
PEERDNS=yes
PEERROUTES=yes
IPV4 FAILURE FATAL=no
IPV6INIT=yes
IPV6 AUTOCONF=yes
IPV6 DEFROUTE=yes
IPV6_PEERDNS=yes
IPV6_PEERROUTES=yes
 IPV6_FAILURE_FATAL=no
 IPV6 ADDR GEN MODE=stable-privacy
NAME=eth0
 UUID=9ae68090-5e77-4396-b6c4-a5d6d83ab62f
DEVICE=eth0
 ONB00T=yes
 ZONE=
[root@Linux-BackupSvr network-scripts]# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>
                                                                                                              mtu 1500
                 tags=163cup: BKOADCAST, KUNNING, MULTICAST> mtu 1500
inet 192.168.10.2 netmask 255.255.0 broadcast 192.168.10.255
inet6 fe80::c08c:d0dc:bf67:8afa prefixlen 64 scopeid 0x20<link>
ether 00:15:5d:0a:01:00 txqueuelen 1000 (Ethernet)
RX packets 20955 bytes 28503433 (27.1 MiB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 19202 bytes 1534457 (1.4 MiB)
XX errors 0 dropped 0 overruns 0 contine 0 collisions 0
                  TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
lo: flags=73<UP,L00PBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1 (Local Loopback)
    RX packets 14 bytes 1600 (1.5 KiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 14 bytes 1600 (1.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0
    TX packets 14 bytes 1600 (1.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0
    TX packets 14 bytes 1600 (1.5 KiB)
    TX errors 0 dropped 0 overruns 0 carrier 0
                  TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

How to Disable DHCP Server

DHCP Server is enabled by default on the Appliance. The DHCP Server works only on Hyper-V Virtual Ethernet Adapter – *LinuxBkpSvr* on the Appliance to make sure that the preinstalled Linux Backup Server can get the IP and communicate with the Appliance and does not impact the production network environment.

To disable DHCP Server, follow these steps:

- 1. Open file C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\Configuration\Appliance.properties
- 2. Modify the file to *DHCP_ENABLE=false*. The *Appliance.properties* appears as below:

DHCP_ENABLE=false AdapterName=LinuxBkpSvr Appliance_IPAddress=192.168.10.1 Linux_IPAddress=192.168.10.2

- 3. Save the file.
- 4. Delete the file C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\dhcpdone.flag.
- 5. Run C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\resetdhcp.ps1 to disable the DHCP Server service as below from dos command line:

C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance>powershell .\resetdhcp.ps1

How to Configure IP Address for the Preinstalled Linux Backup Server

Note: This method is applicable to Arcserve Appliance for 9000 series and above.

For the preinstalled Linux Backup Server, by default, the backup server uses IP 192.168.10.2 to communicate with the Appliance Server. To understand how the preinstalled Linux Backup Server communicates with Appliance Server, refer to the network configuration introduction for the preinstalled Linux Backup Server.

To specify the IP address for the preinstalled Linux Backup Server, follow these steps:

- 1. Open the C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\Configuration\Appliance.properties file.
- Change the IP address of *Appliance_IPAddress* and *Linux_IPAddress*. For example, set *Appliance_IPAddress* as 192.168.100.1 and *Linux_IPAddress* as 192.168.100.2.

Notes:

- The IP address of Appliance_IPAddress sets to the network interface LinuxBkpSvr (Hyper-V Virtual Ethernet Adapter) used to communicate with this preinstalled Linux Backup Server.
- The IP address of *Linux_IPAddress* is set to the preinstalled Linux Backup Server.
- Ensure that Appliance_IPAddress and Linux_IPAddress use the IP address of the same sub network.

After modifications, the content in the file looks as follows:

DHCP_ENABLE=true

AdapterName=LinuxBkpSvr

Appliance_IPAddress=192.168.100.1

Linux_IPAddress=192.168.100.2

- 3. Save the file.
- 4. Delete the C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\dhcpdone.flag file.
- 5. Run C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\User_Utilities\UpdateIcsHostAdapter.ps1 to

reset the IP address for the network interface LinuxBkpSvr and the preinstalled Linux Backup Server.

Notes:

- The preinstalled Linux Backup Server gets shut down and restarts during the process if you change Linux_IPAddress.
- To share Internet from the production NIC adapter to the LinuxBkpSvr adapter, run the *UpdateIcsHostAdapter.ps1* file. In case you want a specific NIC adapter to share its internet with the LinuxBkpSvr adapter, use the following registry tweak.

Create the following registry key to provide the name of network adapter through which an Internet must be shared

Path: "HKLM:\SOFTWARE\Arcserve\Unified Data Protection\Appliance"

Value Type: "String"

Value Name: "IcsHostAdapter"

Value Data: "<Adapter Name>"

6. After the above registry is changed, run the following command:

C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\User_Utilities >powershell .\ UpdateIcsHostAdapter.ps1

How to Enable Round Robin on the DNS Server to Balance Load

The Microsoft DNS Server supports round robin, which is a technique used for balancing the load between servers. This feature enables DNS to send both IP addresses when a query is received for *myserver.mydomain.com*. The client (or Resolver) always uses the first one. The next time when DNS receives a query for this name, the order of the IP address list is changed using round robin method (the address that was first in the previous list is last in the new list). Round Robin of name records is not supported because only one canonical name is allowed for any one alias.

In the Appliance, you can add record(s) for all the IPv4 address to the Domain Name Service(DNS) Server to get load balance among the network interfaces.

For more information on load balancing between servers, refer to RFC 1794.

How to Add a Record for Additional IP Addresses to Domain Name Service Server

When a server has two or more network interface cards (NICs), or more than one IP address for an NIC, you can add a record for the additional IP address(es) to the DNS server by creating an "A" record for each IP address.

Example:

Consider that a server's DNS host name is <myserver> and DNS domain name is <mydomain.com>. This server has following two IP addresses assigned:

- IPAddress1
- IPAddress2

To add these IP addresses to the DNS Server, create two "A" records in the <mydomain.com> zone as below:

- Myserver A <IPAddress1>
- Myserver A <IPAddress2>

For the Resolver to get the same IP address every time, create two more "A" records assigning a unique name to each address as below:

- Altname1 A <IPAddress1>
- Altname2 A <IPAddress2>

Using this method, a Resolver always obtains IPAddress1 when sending a query for Altname1 and always obtains IPAddress2 when sending a query for Altname2.

How to Check Network Status on Appliance

The ApplianceNetworkStatusCheck.ps1 tool is used to gather information about the current overall network status of the Arcserve Appliance Server and generate a report in an XML format. The report includes information about the network adapter, network switch, Hyper-V virtual switch, DHCP (Dynamic Host Configuration Protocol), DNS (Domain Name System), RRAS (Route and Remote Access Service) and other key configurations on the server.

The ApplianceNetworkStatusCheck.ps1 tool is available in Arcserve Appliance Server UDP V7.0 Update1.

To generate the network status report of the Appliance Server using this tool, follow these steps:

- 1. Log into the Arcserve Appliance Server as an administrator.
- 2. Open the command prompt and enter the folder location:

C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance\User Utilities

3. Run ApplianceNetworkStatusCheck.ps1 to generate report:

#Powershell .\ApplianceNetworkStatusCheck.ps1



The browser opens and displays the overall network status report of the Appliance server.

Chapter 11: Understanding Safety Precautions

This section contains the following topics:

| General Safety Precautions | |
|---|--|
| Electrical Safety Precautions | |
| FCC Compliance | |
| Electrostatic Discharge (ESD) Precautions | |

General Safety Precautions

You must adhere to the following general safety precautions to protect yourself and to protect the appliance from damage or malfunction:

• For EMI Class A Equipment (Business equipment), this equipment is registered for Electromagnetic Conformity Registration as business equipment (A) and not home equipment. Sellers or users are required to take caution in this regard.

A급기기(업무용방송통신기자재)

이기기는업무용(A급)으로전자파적합기기로서판매자또는사용자는 이점을주의하시기바라며,가정외의지역에서사용하는것을목적으로 합니다

Note: This safety precaution only applies to South Korea. For more details, contact Arcserve Support at <u>https://www.arcserve.com/support</u> or call 0079885215375 (South Korea).

- Inspect the box in which the appliance was shipped and ensure that there are no visible signs of damage. If there is evidence of damage, please retain all packaging materials and contact Arcserve Support immediately at: <u>https://www.arcserve.com/support</u>.
- Decide on a suitable location for the rack unit that will hold the appliance. It should be situated in a clean, dust-free area that is well ventilated and free of clutter. Avoid areas where heat, electrical noise, and electromagnetic fields are generated.
- You will also need it placed near at least one grounded power outlet. Depending on the model, the appliance includes either one power supply or a redundant power supply and will then require two grounded outlets.
- The appliance is only for use in a restricted location.
 - Access can only be gained by service persons or by users who have been instructed about the reasons for the restrictions applied to the location and about any precautions that shall be taken; and
 - Access is through the use of a tool or lock and key, or other means of security, and is controlled by the authority responsible for the location.
- Place the appliance top cover and any components that are removed from the appliance on a table so that you do not accidentally step on the components.

- While working on the appliance, do not wear loose clothing such as neckties and unbuttoned shirt sleeves, which can come into contact with electrical circuits or be pulled into a cooling fan.
- Remove any jewelry or metal objects from your body, which are excellent metal conductors that can create short circuits and harm you if they come into contact with printed circuit boards (PCBs) or areas where power is present.
- After accessing the inside of the appliance, close the appliance and secure it to the rack unit with the retention screws after ensuring that all connections have been made.

Electrical Safety Precautions

You must adhere to the following electrical safety precautions to protect yourself and to protect the appliance from damage or malfunction:

- Be aware of the locations of the power on/off switch on the appliance as well as the room's emergency power-off switch, disconnection switch, or electrical outlet. If an electrical accident occurs, you can then quickly remove power from the appliance.
- Do not work alone when working with high-voltage components.
- Power should always be disconnected from the appliance when removing or installing main system components, such as the Serverboard, memory modules and the DVD-ROM and floppy drives (not necessary for hot swappable drives).
 When disconnecting power, you should first power down the appliance with the operating system and then unplug the power cords from all the power supply modules in the appliance.
- When working around exposed electrical circuits, another person who is familiar with the power-off controls should be nearby to switch off the power, if necessary.
- Use only one hand when working with powered-on electrical equipment. This is to avoid making a complete circuit, which will cause electrical shock. Use extreme caution when using metal tools, which can easily damage any electrical components or circuit boards they come into contact with.
- Do not use mats designed to decrease electrostatic discharge as protection from electrical shock. Instead, use rubber mats that have been specifically designed as electrical insulators.
- The power supply power cord must include a grounding plug and must be plugged into grounded electrical outlets.
- Serverboard Battery: CAUTION There is a danger of explosion if the onboard battery is installed upside down, which will reverse its polarities This battery must be replaced only with the same or an equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.
- DVD-ROM laser: **CAUTION** this Server may have come equipped with a DVD-ROM drive. To prevent direct exposure to the laser beam and hazardous radiation exposure, do not open the enclosure or use the unit in any unconventional way.

FCC Compliance

This appliance complies with part 15 of the FCC Rules. Operation is subject to the following conditions:

- This appliance may not cause harmful interference, and
- This appliance must accept any interference received, including interference that may cause undesired operation

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user is required to correct the interference at his own expense.

Electrostatic Discharge (ESD) Precautions

Electrostatic Discharge (ESD) is generated by two objects with different electrical charges coming into contact with each other. An electrical discharge is created to neutralize this difference, which can damage electronic components and printed circuit boards. Devices that are sensitive to ESD, such as Serverboards, motherboards, PCIe cards, drives, processors, and memory cards require special handling. Use the following precautions to help neutralize the difference of electrical charges coming into contact with each other, before contact is made, to protect your equipment from ESD:

- Use a rubber mat that has been specifically designed as an electrical insulator.
 Do not use a mat designed to decrease electrostatic discharge as protection from electrical shock.
- Use a grounded wrist strap designed to prevent static discharge.
- Use antistatic or electrostatic discharge (ESD) preventive clothing or gloves.
- Keep all components and printed circuit boards (PCBs) in their antistatic bags until ready for use.
- Touch a grounded metal object before removing the board from the antistatic bag.
- Do not let components or PCBs come into contact with your clothing, which may retain a charge even if you are wearing a wrist strap.
- Handle a board by its edges only. Do not touch its components, peripheral chips, memory modules, or contacts.
- When handling chips or modules, avoid touching their pins.
- Put the Serverboard and peripherals back into their antistatic bags when not in use.
- For grounding purposes, verify your appliance provides excellent conductivity between the power supply, the case, the mounting fasteners, and the Serverboard.

Upgrading Firmware for Arcserve Appliance 10000 Series

This section describes how to perform the following:

Download the Firmware Upgraded Package

This section provides information about how to download the current firmware version.

Follow these steps:

Note: You can download the latest firmware update package from the Supermico website or contact Supermicro support.

- 1. Go to the <u>Supermicro</u> website.
- On the BMC List, search for the motherboard model of Server 1U (X13SEW-F) or 2U (X13DEI-T) to download the firmware update.

BMC List

| | | | | | | Motherboard BIOS List |
|----------------|--|--|--------------|-------------|-------------|-----------------------|
| Show 25 v entr | ries | | | | | Search: |
| Model | \$ Rev \$ | Download ZIP 1 | ≑ Rel Not | ease ies | Description | • |
| X13SEDW-F | X13SEDW- F_2.5_AS01.0 3.31_SAA1.1. 0-p1 | <u>X13SEDW-F 2.5 AS01.03.31 SAA1.1.0-</u> pl.zip | | | Bundle | |
| X14SBT-GAP | X14SBT- GAP_1.0_AS0 1.00.21.20_S AA1.1.0-p5 | <u>X14SBT-GAP 1.0 AS01.00.21.20 SAA1.1.0</u> p <u>5.zip</u> | <u>}-</u> | | Bundle | |

3. Click **Download Zip 1** corresponding to the selected motherboard model.

The End User License Agreement page appears.

4. Click Accept to initiate the download.

The firmware update file gets downloaded and saved locally on your system.

Note: The firmware update file type varies according to the device such as BMS, BIOS, and so on.

The firmware update file is downloaded successfully.

Upgrade Firmware

This section contains the following topics:

How to Upgrade BMC firmware

This section provides information about upgrading the BMC firmware.

1. Open a web browser and enter the static IP of Intelligent Platform Management Interface (IPMI).

The login screen appears.

- 2. Type the login credentials as follows:
 - Username: ADMIN.

Note: The username must be in caps.

- Password: Type the BMC password.
- 3. Click Login.

| SUPERM | CR |
|------------------------|----------------------|
| Username | |
| Password | • |
| Login | |
| Copyright © 2024 Super | nicro Computer, Inc. |

The IPMI Web Server interface appears.

Note: You can find the BMC Unique password in the service tag on the server chassis. The BMC password is listed in the bottom row just below the Intelligent Platform Management Interface (IPMI) MAC Address.



- 4. Navigate to Maintenance -> Firmware Management.
- 5. On the Update screen, do the following:
 - a. Under Step 1: Select Type, select BMC as file format.
 - b. (Optional) Select the following preserve configuration options as required and then click **Next**:.
 - Preserve Configuration:
 - Preserve SDR:
 - Preserve SSL certificate:
 - Backup existing BMC image:

To backup the existing BMC image, select the **Backup Existing BMC Image** check box. In case of failed integrity at any time, you can use the Backup image for auto-recovery. You can also manually recover BMC from the Inventory page.



c. Under *Step 2: Select File*, click **Select File**, browse the locally saved firmware update file, and then click **Upload**.

Note: If you click **Upload** without including a BMC image, the following message gets displayed: *Please select an image file. Click here to return.*

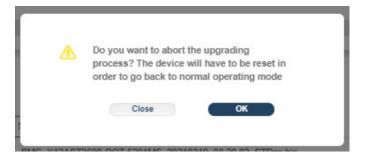


d. Under *Step 3: File Version*, review the existing and new firmware versions, and then click **Update**.

| Conferent a | System Instituty | | |
|--|--|------------------------------|-------------|
| Configuration : | Map 1 : Saturd Type | | |
| Andrews - | Choose Pile Ported and | | |
| Frequencies Management | B B B B C C C C C C C C | | |
| BBC Read | Owner Rescionant | | |
| Literus Astrofon | E Presne Configuration | | |
| Texas Lind | E Preserve IER | | |
| • | 1 Prove BD, Celline Thomas BD, Celline Broug Bioting Bill Strange Brog 2: Samed Pite Samed | na Jana Maraka Jana Ana Masa | |
| partie Bank Ingelen bin Fill geben en untgenden besper Nammenhe | | | |
| | tilep 3 : Pile Version | | |
| | and the second s | Existing Version | New Version |
| | BHC . | 0.2.0 | 11.21.12 |
| | | (sease) | upode |

Notes:

- For most firmware updates, you must shut down the motherboard as per the system prompt. After shutting down the motherboard, you can proceed with the update.
- If you cancel the firmware BMC updating process, an alert appears asking if you want to abort the upgrade. If you click **OK**, the BMC resets and displays the message: *BMC is restarting*. After confirmation, do not remove the power source until BMC is back online to prevent data loss.



After completing the firmware update, you might experience a long time in refreshing the web browser. Tthe rebooting message may display for a minute or two when logging in.

The firmware upgrade for BMC is upgraded successfully.

How to Upgrade BIOS firmware

To upgrade BIOS firmware, follow these steps:

1. Open a web browser and enter the static IP of Intelligent Platform Management Interface (IPMI).

The login screen appears.

- 2. Type the login credentials as follows:
- Username: ADMIN.

Note: The username must be in caps.

- Password: Type the BMC password.
- 5. Click Login.

| SUPERN | AICR |
|----------------------|------------------------|
| Username | |
| Password | • |
| Logir | 1 |
| Copyright © 2024 Sup | ermicro Computer, Inc. |

The IPMI Web Server interface appears.

Note:You can find the BMC Unique password in the service tag on the server chassis. The BMC password is listed in the bottom row just below the Intelligent Platform Management Interface (IPMI) MAC Address.



- 6. Navigate to **Maintenance** -> **Firmware Management**.
- 7. On the Update screen, do the following:
 - a. Under the Step 1: Select Type, select BIOS as file format.
 - b. (Optional) Select the following preserve configuration options as required, and then click **Next**.
 - Preserve SMBIOS
 - Preserve OA
 - Preserve SMBIOS
 - Preserve BIOS Setup Configuration
 - Preserve BIOS Setup Password
 - Preserve BIOS Setup Secure Boot Keys
 - Preserve BIOS Setup Options Configuration
 - Backup Existing BIOS Image: To backup the existing BIOS image, select the Backup Existing BIOS Image check box. In case of failed integrity at any time, you can use the Backup image for auto-recovery. You can also manually recover BIOS from the Inventory Page.
 - c. Select one of the following:
 - Next-boot Update: The BIOS firmware update is scheduled after the system reboots.

Note: If you want to cancel the scheduled Next-boot Update, use the delete option on the Task List page.

- **Immediate Update:**The BIOS firmware update starts immediately.
- d. Under the *Step 2: Select File*, click **Select File**, browse the locally saved firmware update file and then click **Upload**.

Note: If you click **Upload** without including a BIOS image, the following message gets displayed: *Please select an image file. Click here to return*.

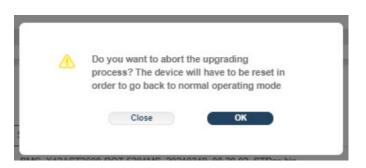


e. Under the *Step 3: File Version*, review the existing firmware version and new firmware version and then click **Update**.

| Update Investigny | | | | |
|--|---------------------------------------|-------------|-------------|--|
| Shap 1 : Select Type | | | | |
| | | | | |
| 0 0 0 Minute | O O O O O O O O O O O O O O O O O O O | | | |
| | | | | |
| Neet-boot Update C Investigate Update | | | | |
| Choose Requirement | | | | |
| El Pasava SMECS | | | | |
| Beckup Existing BIOS Image | | | | |
| Proceive CA. Proceive BIOS Selve Configuration | | | | |
| Preserve BIOS Setup Password | | | | |
| Preserve BIOS Secure Dect Keys | | | | |
| Preserve BIOS Bost Options Configuration | | | | |
| | | | | |
| | | | | |
| Step 2 : Select File | | | | |
| | | | | |
| | | | | |
| | | | | |
| Ship 3 : File Version | | | | |
| | Existing Version | | New Version | |
| | | | | |
| | | | | |
| | | Nort Wadate | | |

Notes:

- For most firmware updates, you must shut down the motherboard as per the system prompt. After shutting down the motherboard, you can proceed with the update.
- If you cancel the firmware BIOS updating process, an alert appears asking if you want to abort the upgrade. If you click **OK**, the BIOS resets and displays the message: *BIOS is restarting*. After confirmation, do not remove the power source until BIOS is back online to prevent data loss.



After completing the firmware update, you might experience a long time in refreshing the web browser. The rebooting message may display for a minute or two when logging in.

The firmware upgrade for BIOS is successfully upgraded.

Verify the Updated Firmware

This section provides information about how to verify firmware update progress.

Follow these steps:

- 1. Log into the IPMI website.
- 2. Navigate to Maintenance > Task List.

The Task List screen appears with the maintenance operation running on the system.



3. Review the log and verify the status and progress of the firmware update.

The Task List screen provides the following details of the firmware update job:

- Health Status: Provides the health status of current tasks.
- **Task Name:** Displays the name of the task.
- **State:** Displays the current state values (Running, Completed, or Failed).
- **Progress:** Provides the progress of current running task(s).

Note: Administrators can cancel the pending BMC and BIOS firmware update. To cancel, click the **Abort pending Task** option under Task List.

Viewing Firmware Version for Arcserve Appliance 10000 Series

This section provides information about how to view the current firmware version for Arcserve Appliance 10000 Series.

Follow these steps:

1. Open a web browser and enter the static IP of Intelligent Platform Management Interface (IPMI).

The login screen appears.

- 2. Type the login credentials as follows:
 - Username: ADMIN.

Note: The username must be in caps.

- **Password:** Type the BMC password.
- 3. Click Login.

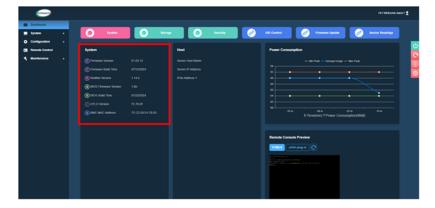
| SUPERM | ICR |
|------------------------|----------------------|
| Username | |
| Password | ۲ |
| Login | |
| Copyright © 2024 Super | micro Computer, Inc. |

The IPMI Web Server interface appears.

Note:You can find the BMC/IPMI unique password in the pull-out tag on the front panel of the server. The BMC password is listed in the bottom row just below the BMC/IPMI MAC Address.



The Dashboard screen displays the firmware version under System.



Important! Please do NOT download or upgrade the Firmware UNLESS your system has a firmware-related issue. Flashing the wrong firmware can cause irreparable damage to the system. In no event shall Arcserve be liable for direct, indirect, special, incidental, or consequential damages arising from a firmware update.

Chapter 11: Upgrading Firmware for Arcserve Appliance 9000 Series

This section contains the following topics:

| Upgrade BIOS Firmware for Arcserve Appliance 9000 Series | |
|---|--|
| Upgrade iDRAC Firmware for Arcserve Appliance 9000 Series | |

Upgrade BIOS Firmware for Arcserve Appliance 9000 Series

This section describes how to do the following:

Viewing Firmware Version for Arcserve Appliance 10000 Series

This section provides information about how to view the current firmware version for Arcserve Appliance 10000 Series.

Follow these steps:

1. Open a web browser and enter the static IP of Intelligent Platform Management Interface (IPMI).

The login screen appears.

- 2. Type the login credentials as follows:
 - Username: ADMIN.

Note: The username must be in caps.

- **Password:** Type the BMC password.
- 3. Click Login.

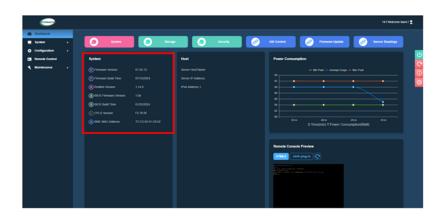
| SUPERN | AICR |
|----------------------|------------------------|
| Username | |
| Password | ۲ |
| Login | |
| Copyright © 2024 Sup | ermicro Computer, Inc. |

The IPMI Web Server interface appears.

Note:You can find the BMC/IPMI unique password in the pull-out tag on the front panel of the server. The BMC password is listed in the bottom row just below the BMC/IPMI MAC Address.



The Dashboard screen displays the firmware version under System.

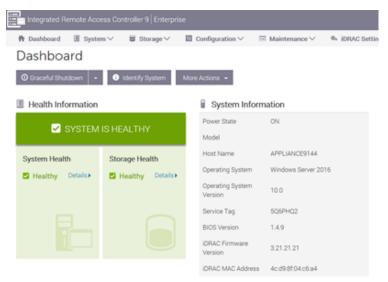


Important! Please do NOT download or upgrade the Firmware UNLESS your system has a firmware-related issue. Flashing the wrong firmware can cause irreparable damage to the system. In no event shall Arcserve be liable for direct, indirect, special, incidental, or consequential damages arising from a firmware update.

Method 1: View BIOS firmware version from iDRAC Web Interface

Follow these steps:

- 1. Navigate to the iDRAC web interface.
- 2. To log in, enter the following:
 - Username: root
 - Password: ARCADMIN



The iDRAC Dashboard page displays the System information, which contains the BIOS firmware version.

Method 2: View BIOS firmware version from BIOS Arcserve Appliance 9000 series

Follow these steps:

- 1. When the system starts, press **F11** to enter Setup.
- To view the BIOS Version, navigate to System Setup > iDRAC Settings or System BIOS.

| System Setup | Help About Exit |
|---------------------------------|------------------------|
| iDRAC Settings | |
| iDRAC Settings • System Summary | |
| SERVER INFORMATION | |
| System Model | |
| BIOS Version | - 1.6.11 |
| IDRAC Firmware Version | - 3.21.23.22 (Build 7) |
| iDRAC License | Enterprise |
| IPMI Version | - 2.00 |
| CURRENT IDRAC NETWORK SETTINGS | |
| iDRAC MAC Address | - D0:94:66:7A:D7:B2 |
| NIC Selection Mode | - Dedicated |
| Current IPv4 Settings | |
| IPv4 Enabled | - Yes |
| DHCP Enabled | - Yes |
| | |

The page displays the firmware version.

| System Setup | | Help About Exit |
|---------------------------------|-----------------------|---------------------|
| iDRAC Settings | | |
| iDRAC Settings • System Summary | | |
| SERVER INFORMATION | | |
| System Model | | |
| BIOS Version | 1.4.9 | |
| iDRAC Firmware Version | 3.21.21.21 (Build 30) | |
| iDRAC License | Enterprise | |
| IPMI Version | 2.00 | |
| CURRENT IDRAC NETWORK SETTINGS | | |
| iDRAC MAC Address | 54:48:10:FB:C5:20 | |
| NIC Selection Mode | Dedicated | |
| Current IPv4 Settings | | |
| IPv4 Enabled | Yes | |
| DHCP Enabled | No | |
| | | |

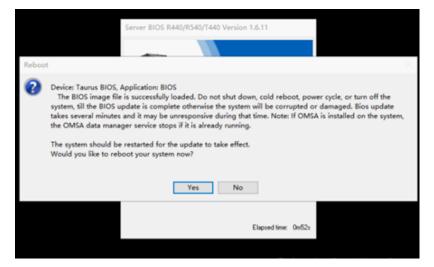
Download the Updated Package for BIOS

You can download the latest BIOS firmware package of specific Arcserve Appliance 9000 Series model from the <u>Dell</u> website or contact Arcserve support.

Upgrade BIOS

Follow these steps:

- 1. Copy the upgrade package to local disk of Arcserve Appliance 9000 Series.
- 2. Start the upgrade package, and then follow the prompts to complete the upgrade.
- 3. To complete the update, restart the system.



Note: Make sure all applications are closed before starting the upgrade process.



Verify the Updated BIOS

This section provides information about how to verify firmware update progress.

- 1. Log into the IPMI website.
- 2. Navigate to Maintenance > Task List.

The Task List screen appears with the maintenance operation running on the system.

| | | | | 1617 Maksame be |
|----------------------|----------------------------|-----------|----------|-----------------------------------|
| DetRoad | | | | |
| System a | E Film | | | |
| Codquestes a | A Reality & Constant & Lab | | | |
| Renate Canted | | - | | |
| Manager - | Territor | | | |
| Firmer Messgenet | | | | |
| Indebuiling | | | | (Celor logened here to search Q.) |
| ENC Read | Rolls Select | Tank Name | Progress | Tank Wessage |
| Weintergers Eventing | • | | | |
| Lizzon Management | | | | |
| Text Line | | | | |
| | | | | |
| | | | | |

3. Review the log and verify the status and progress of the firmware update.

The Task List screen provides the following details of the firmware update job:

- Health Status: Provides the health status of current tasks.
- **Task Name:** Displays the name of the task.
- **State:** Displays the current state values (Running, Completed, or Failed).
- **Progress:** Provides the progress of current running task(s).

Note: Administrators can cancel the pending BMC and BIOS firmware update. To cancel, click the **Abort pending Task** option under Task List.

Verify Updated BIOS using System Logs

- Log into iDRAC, and then navigate to Maintenance >SupportAssist > Start a Collection.
- Review the log and verify that there are no errors during the updated process.

| 5CTNHQ2 Hardwo | are → Logs → Lifecyc | le Log | |
|----------------|----------------------|---------|---|
| | 2019-08-29 15:40:34 | USR0032 | The session for root from 10.57.12.37 using GUI is logged off. |
| | 2019-08-29 15:10:35 | SRV088 | The SupportAssist Save to Local operation is successfully completed. |
| | 2019-08-29 15:10:34 | SRV002 | The SupportAssist Save to Local operation is started. |
| | 2019-08-29 15:10:20 | SRV108 | The SupportAssist job JID_670625874264 is completed. |
| | 2019-08-29 15:10:20 | SRV088 | The SupportAssist Collection operation is successfully completed. |
| | 2019-08-29 15:10:20 | SRV096 | The SupportAssist Collection TSR20190829021014_SCTNHQ2.zip is successfully created. |
| | 2019-08-29 15:10:13 | SRV007 | The SupportAssist System information collection operation is successfully completed. |
| | 2019-08-29 15:10:13 | LOG009 | The current Lifecycle Log is successfully created for the view or export operation. |
| | 2019-08-29 15:10:07 | LOG008 | The complete Lifecycle Log was successfully created for an export operation. |
| | 2019-08-29 15:09:47 | SRV006 | The SupportAssist System information collection operation is started. |
| | 2019-08-29 15:09:47 | SRV001 | The SupportAssist Collection operation is started by IDRAC_GUI. |
| | 2019-08-29 15:09:47 | SRV106 | The Debug Logs are excluded from the SupportAssist collection because the Collection data is being filtered for personally identifiable information. |
| | 2019-08-29 15:09:47 | SRV107 | The Storage Logs are excluded from the SupportAssist collection because the Collection data is being filtered for personally identifiable information. |
| | 2019 00 29 15:09:17 | SRV007 | The Support/Assist Collection Job HD_67062507426415 successfully preated. |
| | 2019-08-29 15:09:25 | RAC1195 | User root via IP 10.57.12.37 requested state / configuration change to SupportAssist using GUI. |
| | 2019-08-29 15:08:53 | SEL9901 | OEM software event. |
| | 2019-08-29 15:08:53 | OSE1002 | C: boot completed. |
| L | 2019-08-29 15:08:46 | PR36 | Version change detected for BIOS firmware. Previous version: 1.6.11, Current version: 2.2.11 |

Verify Updated BIOS from iDRAC Web Interface or BIOS

Log into the iDRAC web interface or enter system BIOS to see the updated BIOS firmware version.

Upgrade iDRAC Firmware for Arcserve Appliance 9000 Series

This section describes how to do the following:

Viewing iDRAC Firmware Version

Use one of the following methods to view the iDRAC firmware version:

- Method 1: View iDRAC Firmware Version from iDRAC Web Interface
- Method 2: View iDRAC Firmware Version from BIOS Arcserve Appliance 9000 Series

View iDRAC Firmware Version from iDRAC Web Interface

To view the iDRAC firmware version from the iDRAC web interface, log into the iDRAC web interface.

Note: We strongly recommend you change the default password immediately. To change the default password, see <u>How to Change the iDRAC Password</u>.

| P Dashboard 🖩 Syste | m∨ ≣ Storage∨ | Configuration V | Maintenance V | 0. iDRAC Setting |
|-------------------------|-----------------|-----------------------------|---------------------|------------------|
| Dashboard | | | | |
| 🛛 Graceful Shutdown 🛛 🗣 | Identify System | More Actions 📼 | | |
| Health Information | | System Inform | nation | |
| SYSTEM | | Power State | ON | |
| STSTEM | IS REALTHY | Model | | |
| System Health | Storage Health | Host Name | APPLIANCE9144 | |
| Healthy Details | Healthy Details | Operating System | Windows Server 2010 | 6 |
| , | , | Operating System Version | 10.0 | |
| | | Service Tag | 5Q6PHQ2 | |
| | | BIOS Version | 1.4.9 | |
| | | iDRAC Firmware Version | 3.21.21.21 | |
| | | IDRAC MAC Address | 4cid9;8f:04;c6;a4 | |

The iDRAC dashboard displays the system information, which contains iDRAC firmware version.

Method 2: View iDRAC Firmware Version from BIOS Arcserve Appliance 9000 series

- 1. When the system starts, press **F11** to enter Setup.
- To view the iDRAC Version, navigate to System Setup > iDRAC Settings or System BIOS.

| System Setup | | Help About E |
|---------------------------------|----------------------|------------------|
| IDRAC Settings | | |
| iDRAC Settings • System Summary | | |
| SERVER INFORMATION | | |
| System Model | | |
| BIOS Version | 1.6.11 | |
| iDRAC Firmware Version | 3.21.23.22 (Build 7) | |
| iDRAC License | Enterprise | |
| IPMI Version | 2.00 | |
| CURRENT IDRAC NETWORK SETTINGS | | |
| IDRAC MAC Address | D0:94:66:7A:D7:B2 | |
| NIC Selection Mode | Dedicated | |
| Current IPv4 Settings | | |
| IPv4 Enabled | Yes | |
| DHCP Enabled | Yes | |

The page displays the firmware version.

| System Setup | | Help About Ex | | | | |
|---------------------------------|-------------------|-------------------|--|--|--|--|
| iDRAC Settings | IDRAC Settings | | | | | |
| iDRAC Settings • System Summary | | | | | | |
| SERVER INFORMATION | | | | | | |
| System Model | | | | | | |
| BIOS Version | 1.4.9 | | | | | |
| iDRAC Firmware Version | | | | | | |
| iDRAC License | Enterprise | | | | | |
| IPMI Version | 2.00 | | | | | |
| CURRENT IDRAC NETWORK SETTINGS | | | | | | |
| IDRAC MAC Address | 54:48:10;FB:C5:20 | | | | | |
| NIC Selection Mode | Dedicated | | | | | |
| Current IPv4 Settings | | | | | | |
| IPv4 Enabled | Yes | | | | | |
| DHCP Enabled | No | | | | | |

How to Change the iDRAC Password

This section provides information about how to change the iDRAC password.

Follow these steps:

- 1. Log into iDRAC with the current password.
- 2. Go to iDRAC Settings, and then select Users.

| 🕆 Dashboard 🛛 🗏 System 🗸 | 🛢 Storage 🗸 🛛 🕅 Configurati | on V 🔤 Maintenance V | \bullet_{\bullet} iDRAC Settings \backsim |
|--------------------------|-----------------------------|----------------------|---|
| Dashboard | | | Overview |
| Dusingedia | | | Connectivity |
| O Graceful Shutdown → 🚺 | Services | | |
| | | - | Users |
| Health Information | Syste | em Information | Settings |
| | U Oyste | initioniduoli | |

3. On the iDRAC Settings page, click the **Local Users** drop-down, and then click the **Edit** button.

| Dashboard 🗏 System | ∽ 🛢 Storag | e∨ III Configuration | V 🖂 Maintenance V | ♥。 iDRAC Settings ∨ | an o | pen Group Manager 👻 |
|-----------------------|----------------|----------------------|--------------------|-----------------------|-----------------|---------------------|
| DRAC Settings | 5 | | | | | |
| Overview Connectivity | Services U | sers Settings | | | | C' Refre |
| Local Users | | | | | | |
| ≡ Details + Add | 🖊 Edit 🛛 🗢 Dis | able 🔳 Delete | | | | |
| ID ^ User Name | State | User Role | IPMI LAN Privilege | IPMI Serial Privilege | Serial Over LAN | SNMP v3 |
| 2 root | | | | | | |

The Edit User dialog appears.

4. Under the User Configuration tab, type the new password, retype the new password to confirm, and then click **Save**.

Note: We recommend that you keep the User Role as Administrator.

| Edit User | | | | 0 |
|--------------------|-----------------------|------------------------------|--|------|
| User Configuration | SSH Key Configuration | s Smart Card Configuration | | |
| User Account Set | tings | | | ^ |
| ID | | 2 | | II. |
| User Name* | | admin | | |
| Password* | | | | 11 |
| Confirm Password | J ★ | ••••• | | 11 |
| User Privileges | | | | |
| User Role | | Administrator 🗸 | | |
| 🗹 Login to iDRAC | | ✓ Configure iDRAC | Configure Users | |
| 🗹 Clear Logs | | Control and Configure System | Access Virtual Console | |
| Access Virtual | Media | ✓ Test Alerts | Execute Debug Commands | D Ac |

The iDRAC password is changed successfully.

Download the Updated Package for iDRAC

You can download the latest iDRAC firmware package of specific Arcserve Appliance 9000 Series model from the <u>Dell</u> website or contact Arcserve support.

Upgrade iDRAC

Follow these steps:

- 1. Copy the upgrade package to local disk of Arcserve Appliance 9000 Series.
- 2. Start the upgrade package, and then follow the prompts to complete the upgrade.

Note: Make sure all applications are closed before starting the upgrade process.

| iDRAC with Lifecycle Controller 3.34.34.34, A00 |
|---|
| |
| Success × |
| Device: iDRAC, Application: iDRAC Update Successful. The update completed successfully. OK |
| Running validation |
| |
| Elapsed time: 6m13 |

3. During the upgrade process, iDRAC and virtual console gets disconnected for a few minutes. Log into iDRAC and restart the virtual console. The upgrade completes now.

| integrated Remote A | integrated Remote Access Controller 9 Enterprise | | | | | | |
|------------------------|---|----------------|----------|------------------------|---|--|--|
| 🕈 Dashboard 🗏 Syst | 🕈 Dashboard 🔠 System 🗸 🗟 Storage V 🔛 Configuration V 🖂 Maintenance V 🗣 IDRAC Settings V | | | | | | |
| Dashboard | Dashboard | | | | | | |
| O Graceful Shutdown | Graceful Shutdown + • Identify System More Actions | | | | | | |
| III Health Information | Health Information | | | | | | |
| | Power State ON | | | | | | |
| | STATEM | IS REALTHY | | Model | | | |
| System Health | | Storage Health | | Host Name | WIN-SUQL6R8CBIC | | |
| E Healthy | Details+ | Healthy | Details+ | Operating System | Microsoft Windows 2016 Server, Standard x64 Edition | | |
| | | | | | Version 10.0 (Build 17763) (x64) | | |
| | | | | | 506A1H02 | | |
| | | | | BICS Version | 2.2.11 | | |
| | | | | IDRAC Firmware Version | 3.34.34.34 | | |
| | | | | IDRAC MAC Address | 54.48.10.fb.c5.20 | | |

Verify Updated iDRAC

Use one of the following methods:

- Verify the updated iDRAC using System Logs
- Verify the updated iDRAC from iDRAC Web Interface or BIOS

Verify Updated iDRAC using System Logs

Follow these steps:

 Log into iDRAC, and then navigate to Maintenance >SupportAssist > Start a Collection. E

2. Review the log and verify that there are no errors during the updated process.

| i F. Hardw | are > Logs > Lifecys | | |
|------------|----------------------|---------|--|
| | 2010/02/10/04 | 0340002 | Lastered a loss non trout trout trout trout to a setting out |
| | 2019-08-29 09:31:51 | VME0007 | Virtual Conscie session created. |
| | 2019-08-29 09:31:51 | VMEDDDS | Virtual Conscie session started. |
| | 2019-08-29 09:31:51 | USR0030 | Successfully logged in using root, from \$0.57.12.37 and Wintual Console. |
| | 2019-08-29 09:31:45 | USROCIO | Successfully logged in using root, from \$0.57.12.37 and GUI. |
| | 2019-06-29 09:28:22 | RAC0721 | Remote share mounted successfully //10.57.25.8/tool/clonec/lla/clonec/lla/clonec/lla/lonec/lla |
| | 2019-06-29 09:20:56 | DI\$002 | Auto Discovery feature disabled. |
| _ | 2019-08-29 09:28:15 | IPA0500 | The IDRAC IP Address changed from 0.0.0.0 to 10.572520. |
| - I | 2019-08-29 09:28:54 | PR36 | Version change detected for Lifecycle Controller firmware. Previous version:32123.22, Current version:3.34.34.34 |
| - I | 2019-08-29 09:28:52 | RAC0182 | The IDRAC firmware was rebooted with the following reasons user initiated. |
| - I | 2019-08-29 09:27:22 | P5U0800 | Power Supply 2: Status = Dx5, IOUT = 0x0, VOUT = Dx0, TEMP= Dx0, FAN = Dx0, INPUT = Dx0, |
| - I | 2019-08-29 09:27:22 | PSU0800 | Power Supply 1: Status = Dx5, IOUT = Dx0, VOUT = Dx0, TEMP= Dx0, FAN = Dx0, INPUT = Dx0. |
| - I | 2019-08-29 09:25:58 | SUP1906 | Firmware update successful. |
| | 2019-08-29 09:24:23 | SUP1905 | Firmware update programming flash. |
| | 2019-08-29 09:24:22 | SUP1903 | Firmware update verify image headers. |
| | 2019-08-29 09:24:55 | 5UP1904 | Firmware update checksumming image. |
| | 2019-08-29 09:24:55 | 5JP1911 | Firmware update initialization complete. |
| | 2019-08-29 09:24:55 | SUP1901 | Firmware update initial drg. |
| | 2019-08-29 09:02:59 | LOG203 | Lifecycle Log archived up to Log Sequence number 5491. |
| | 2019-08-29 09:02:56 | SEL9901 | OEM software event. |
| | 2019-08-29 09:02:55 | OSE1002 | C boot completed. |
| | 2019-08-29 08-42-22 | SY51003 | System CPU Resetting. |
| | 2019-08-29 08-42-17 | 5Y51000 | System is turning on. |
| | 2019-08-29 08-42-07 | SV51001 | System is turning off. |
| | 2019-08-29 08-42-07 | SY51003 | System CPU Resetting. |
| | 2019-08-29 08:40:28 | LOG009 | The current Lifecycle Log is successfully created for the view or export operation. |
| | | | |

Verify Updated iDRAC from iDRAC Web Interface or BIOS

Log into the iDRAC web interface or enter system BIOS to see the updated BIOS firmware version.

Upgrade Firmware for Arcserve Appliance X Series

This section describes how to do the following:

Upgrade BIOS Firmware for Arcserve Appliance X Series

This section describes how to do the following:

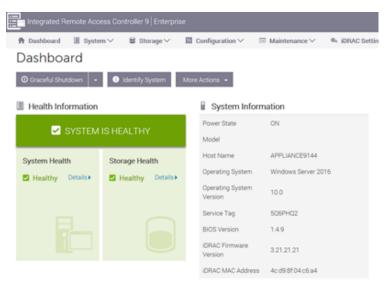
Viewing BIOS Firmware Version

Use one of the following methods to view the BIOS firmware version:

- Method 1: View BIOS firmware version from iDRAC Web Interface
- Method 2: View BIOS firmware version from BIOS Arcserve Appliance X Series

Method 1: View BIOS firmware version from iDRAC Web Interface

- 1. Navigate to the iDRAC web interface.
- 2. To log in, enter the following:
 - Username: root
 - Password: ARCADMIN



The iDRAC Dashboard page displays the System information, which contains the BIOS firmware version.

Method 2: View BIOS firmware version from BIOS Arcserve Appliance X series

Follow these steps:

- 1. When the system starts, press **F11** to enter Setup.
- To view the BIOS Version, navigate to System Setup > iDRAC Settings or System BIOS.

| System Setup | | Help About Exit | | | | |
|---------------------------------|----------------------|---------------------|--|--|--|--|
| iDRAC Settings | IDRAC Settings | | | | | |
| iDRAC Settings • System Summary | | | | | | |
| SERVER INFORMATION | | | | | | |
| System Model | | | | | | |
| BIOS Version | 1.6.11 | | | | | |
| IDRAC Firmware Version | 3.21.23.22 (Build 7) | | | | | |
| iDRAC License | Enterprise | | | | | |
| IPMI Version | 2.00 | | | | | |
| CURRENT IDRAC NETWORK SETTINGS | | | | | | |
| IDRAC MAC Address | D0:94:66:7A:D7:B2 | | | | | |
| NIC Selection Mode | Dedicated | | | | | |
| Current IPv4 Settings | | | | | | |
| IPv4 Enabled | Yes | | | | | |
| DHCP Enabled | Yes | | | | | |
| | | | | | | |

The page displays the firmware version.

| System Setup | | Help About E |
|---------------------------------|-----------------------|------------------|
| iDRAC Settings | | |
| iDRAC Settings • System Summary | | |
| SERVER INFORMATION | | |
| System Model | | |
| BIOS Version | 1.4.9 | |
| iDRAC Firmware Version | 3.21.21.21 (Build 30) | |
| iDRAC License | Enterprise | |
| IPMI Version | 2.00 | |
| CURRENT IDRAC NETWORK SETTINGS | | |
| IDRAC MAC Address | 54:48:10:FB:C5:20 | |
| NIC Selection Mode | Dedicated | |
| Current IPv4 Settings | | |
| IPv4 Enabled | Yes | |
| DHCP Enabled | No | |

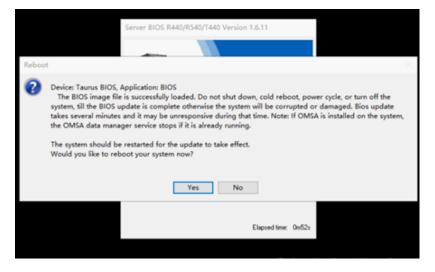
Download the Updated Package for BIOS

You can download the latest BIOS firmware package of specific Arcserve Appliance X Series model from the <u>Dell</u> website or contact Arcserve support.

Upgrade BIOS

Follow these steps:

- 1. Copy the upgrade package to local disk of Arcserve Appliance X Series.
- 2. Start the upgrade package, and then follow the prompts to complete the upgrade.
- 3. To complete the update, restart the system.



Note: Make sure all applications are closed before starting the upgrade process.



Verify Updated BIOS

Use one of the following methods:

- Verify the updated BIOS using System Logs
- Verify the updated BIOS from iDRAC Web Interface or BIOS

Upgrade iDRAC Firmware for Arcserve Appliance X Series

This section describes how to do the following:

Viewing iDRAC Firmware Version

Use one of the following methods to view the iDRAC firmware version:

- Method 1: View iDRAC firmware version from iDRAC Web Interface
- Method 2: View iDRAC firmware version from BIOS Arcserve Appliance X Series

Method 1: View iDRAC firmware version from iDRAC Web Interface

- 1. Navigate to the iDRAC web interface.
- 2. To log in, enter the following:
 - Username: root
 - Password: ARCADMIN

| h Dashboard 🖩 Syste | m∨ ≣ Storage∨ | Configuration V | 🖂 Maintenance 🗸 | • iDRAC Setting |
|----------------------|-----------------|-----------------------------|-----------------------|-----------------|
| Dashboard | | | | |
| O Graceful Shutdown | Identify System | More Actions 📼 | | |
| I Health Information | | | | |
| | | Power State | ON | |
| SYSTEM IS HEALTHY | | Model | | |
| System Health | Storage Health | Host Name | APPLIANCE9144 | |
| Healthy Details | Healthy Details | Operating System | Windows Server 201 | 6 |
| | , | Operating System Version | 10.0 | |
| | | Service Tag | 5Q6PHQ2 | |
| | | BIOS Version | 1.4.9 | |
| | | iDRAC Firmware Version | 3.21.21.21 | |
| | | IDRAC MAC Addr | ess 4c:d9:8f:04:c6:a4 | |

The iDRAC dashboard displays the system information, which contains iDRAC firmware version.

| ▶ Dashboard Storage | tings 🗸 |
|--|-------------|
| Image: Construction Image: Construction Image: Construction Power State ON Image: Construction Image: Construction On Image: Construction Image: Constructin On | |
| Health Information System Information Power State ON Model System Health Storage Health Details Details Details Details Operating System Version 10 0 (Ruld 14283) | |
| System Health Storage Health Power State ON Model Model Model Model System Health Storage Health Host Name appliance9012 Healthy Details> Thealthy Details> Operating System Operating System Operating System Nerview 10.0 (Rule) 142833 | |
| System Health Storage Health Model System Health Storage Health Host Name appliance9012 Healthy Details> Thealthy Details> Cperating System Microsoft Windows 2016 Storage System Operating System Operating System Nervice 10.0 (Build 14283) | |
| System Health Storage Health Host Name appliance9012 Image: Healthy Details > Image: Healthy Details > Cperating System Microsoft Windows 2016 Start & dard x64 Edition | |
| System Health Storage Health Microsoft Windows 2016 5 Healthy Details> Cperating System Microsoft Windows 2016 5 Operating System Operating System Version 10.0 (Rold 14303) | |
| Healthy Details Petails Cperating System Microsoft Windows 2016 St dard x64 Edition Operating System Viewid 1.6.06 (Ruid) 1.6.06 | |
| | erver, Stan |
| | (x64) |
| Service Tag BCT/NH02 | |
| BIOS Version 1.6.11 | |
| IDRAC Firmware 3 21 23 22 Version | |
| IDRAC MAC Address d0.94/66/7a/d7/b2 | |

Method 2: View iDRAC firmware version from BIOS Arcserve Appliance X series

- 1. When the system starts, press **F11** to enter Setup.
- To view the iDRAC Version, navigate to System Setup > iDRAC Settings or System BIOS.

| System Setup | | Help About Exi |
|---------------------------------|----------------------|--------------------|
| iDRAC Settings | | |
| IDRAC Settings • System Summary | | |
| SERVER INFORMATION | | |
| System Model | | |
| BIOS Version | 1.6.11 | |
| IDRAC Firmware Version | 3.21.23.22 (Build 7) | |
| IDRAC License | Enterprise | |
| IPMI Version | 2.00 | |
| CURRENT IDRAC NETWORK SETTINGS | | |
| IDRAC MAC Address | D0:94:66:7A:D7:B2 | |
| NIC Selection Mode | Dedicated | |
| Current IPv4 Settings | | |
| IPv4 Enabled | Yes | |
| DHCP Enabled | Yes | |

The page displays the firmware version.

| System Setup | | Help About Exit |
|---------------------------------|-----------------------|---------------------|
| iDRAC Settings | | |
| iDRAC Settings • System Summary | | |
| SERVER INFORMATION | | |
| System Model | | |
| BIOS Version | 1.4.9 | |
| iDRAC Firmware Version | 3.21.21.21 (Build 30) | |
| iDRAC License | Enterprise | |
| IPMI Version | 2.00 | |
| CURRENT IDRAC NETWORK SETTINGS | | |
| iDRAC MAC Address | 54:48:10:FB:C5:20 | |
| NIC Selection Mode | Dedicated | |
| Current IPv4 Settings | | |
| IPv4 Enabled | Yes | |
| DHCP Enabled | No | |
| | | |

Download the Updated Package for iDRAC

You can download the latest iDRAC firmware package of specific Arcserve Appliance X Series model from the <u>Dell</u> website or contact Arcserve support.

Upgrade iDRAC

Follow these steps:

- 1. Copy the upgrade package to local disk of Arcserve Appliance X Series.
- 2. Start the upgrade package, and then follow the prompts to complete the upgrade.

Note: Make sure all applications are closed before starting the upgrade process.

| iDRAC with Lifecycle Controller 3.34.34.34, A00 |
|---|
| |
| Success × |
| Device: iDRAC, Application: iDRAC Update Successful. The update completed successfully. |
| Running validation |
| |
| Elapsed time: 6m13s |

3. During the upgrade process, iDRAC and virtual console gets disconnected for a few minutes. Log into iDRAC and restart the virtual console. The upgrade completes now.

| Integrated Remote Access Controller 9 Enterprise | | | | | |
|---|----------|----------------|----------|--------------------------|---|
| 🕅 Dashboard 🔠 System 🗸 🖼 Storage 🗸 💷 Configuration 🗸 🖂 Maintenance V 🔍 IDRAC Settings V | | | | | |
| Dashboard | | | | | |
| © Craceful Shutdown | | | | | |
| Health Informat | ion | | | i System Information | |
| Power State ON | | | | | |
| | STOTEM | IS HEALTHY | | Model | |
| System Health | | Storage Health | | Host Name | WIN-SUQL6R8CBIC |
| S Healthy | Details+ | E Healthy | Details+ | Operating System | Microsoft Windows 2016 Server, Standard x64 Edition |
| | | , | | Operating System Version | Version 10.0 (Build 17763) (x64) |
| | | | | Service Tag | 506AH02 |
| | | | | BIOS Version | 2.2.11 |
| | | | | IDRAC Firmware Version | 3.34.34.34 |
| | | | | IDRAC MAC Address | 54.48.10.fb:c5.20 |

Verify Updated iDRAC

Use one of the following methods:

- Verify the updated iDRAC using System Logs
- Verify the updated iDRAC from iDRAC Web Interface or BIOS

Chapter 12: Troubleshooting

| This section contains the following topics: | |
|---|-----|
| Linux Backup Server Fails to Connect from the Console | 242 |
| Backing Up Arcserve Appliance from Another Appliance Reports Duplicated Nodes | 243 |
| Linux Backup Server Cannot Communicate with Any Node in the Network | 244 |
| Linux Backup Server Cannot Get the Network DNS Suffix | 246 |
| Default Time Zone on the Appliance | 247 |
| Licenses Error even when the licenses are available | 248 |

Linux Backup Server Fails to Connect from the Console

Symptom

When I try to connect my Linux Backup Server from the Arcserve UDP Console, connection is unsuccessful and I see a red mark.

Solution

When a Linux Backup Server fails to connect from the console, you can troubleshoot the connection to determine the problem.

To troubleshoot the connectivity issue

- 1. Launch the Hyper-V Manager, connect the Linux Backup Server virtual machine and login.
- 2. Run the following command:

service network restart

3. Verify that the IP address assigned to the Linux Backup Server is 192.168.10.2. To verify, run the following command:

ifconfig

- 4. If the IP address is 192.168.10.2, navigate to the Arcserve UDP Console and update the Linux Backup Server node that you are trying to connect.
- 5. If the IP address is not 192.168.10.2, follow the instructions in the Troubleshoot from DHCP Microsoft Management Console (MMC) section.

Troubleshoot from DHCP Microsoft Management Console (MMC)

Important! Ensure that the DHCP Server service is running appropriately on the appliance.

- 1. Launch DHCP MMC from the Server Manager, Tools, DHCP.
- 2. Expand the Linux Server node, IPV4, Scope and ensure that the scope with the name 192.168.10.0 exists under it.
- 3. Expand the Address Leases and delete the presence of any other lease record.
- 4. Log into the Linux Backup Server and run the following command:

service network restart

5. Navigate to the Arcserve UDP Console and update the Linux Backup Server node that you are trying to connect.

The Linux Backup Server now connects from the Console.

Backing Up Arcserve Appliance from Another Appliance Reports Duplicated Nodes

Symptom

When I back up Appliance B from Appliance A, I see the following warning message in the activity log:

"The following nodes are duplicated: Appliance_B, Appliance_A. As a result, they have the same agent identifier and may cause unexpected results. This duplicate node problem can be caused if the node was added using a different node name (such as the DNS name or IP address), or if some machines were set up by cloning from one to another."

Case 1: Appliance B is added as an RPS to the Appliance A UDP Console.

For example: From Appliance B, you can configure the appliance using the UDP wizard and select "This appliance will function as an instance of Arcserve UDP Recovery Point Server managed by another Arcserve UDP console."

Solution

- 1. Stop the datastore in the Appliance B node from the RPS pane of the UDP console.
- Log into Appliance B and delete the registry key of the Node ID that is located under [HKEY_LOCAL_MACHINE\SOFTWARE\CA\ARCserve Unified Data Protection\Engine].
- 3. Restart the Arcserve UDP Agent Web Service from the Appliance B node.
- 4. Restart the Arcserve UDP RPS datastore Service from the Appliance B node.
- 5. From the UDP console, go to the Nodes, All Nodes pane and update the Appliance B node.
- 6. Go to the Recovery Point Server pane and update the Appliance B node.
- 7. Import the existing datastore to the Appliance B RPS by setting it with the original backup destination.

Case 2: Appliance B is added only as an agent node to the Appliance A UDP Console.

For example, a plan protects Appliance B through an agent-based backup task on the Appliance A UDP console.

1. Log into Appliance B and delete the registry key of the Node ID that is located under [HKEY_LOCAL_MACHINE\SOFTWARE\Arcserve Unified Data

Protection\Engine].

- 2. Restart the Arcserve UDP Agent service from Appliance B.
- 3. From the UDP console, go to the Nodes, All Nodes pane and update the node from Appliance B.

Linux Backup Server Cannot Communicate with Any Node in the Network

Symptom

Linux Backup Server cannot communicate with any node in the network.

Solution

If the Appliance windows server cannot communicate with any node in the network, the Linux Backup Server cannot also communicate with any node.

Follow these steps:

- 1. Verify if the node is accessible from Appliance windows server.
- 2. Navigate to the following location to verify if network adapter LinuxBkpSvr exist as shown below:

Control Panel>Network and Internet>Network Connections

3. If LinuxBkpSvr is unavailable, navigate to the following location and verify if flag file adapterNameChanged.flag exists:

```
C:\Program Files\Arcserve\Unified Data Pro-
tection\Engine\BIN\Appliance
```

If existing, remove the adapterNameChanged.flag file.

 Verify if all available network interfaces and LinuxBkpSvr are added to NAT as shown below.

If all network interfaces and LinuxBkpSvr are already listed, verify if different physical network interfaces are connected with different sub network. This action resolves the communication problem of Linux Backup Server.

If all the network interfaces and *LinuxBkpSvr* are listed, continue with next step.

5. Delete the file *dhcpdone.flag* from the following location:

```
C:\Program Files\Arcserve\Unified Data Pro-
tection\Engine\BIN\Appliance
```

6. Using Command Line, enter folder *C*:*Program Files**Arcserve**Unified Data Protection**Engine**BIN**Appliance* and run resetdhcp.ps1 as shown below. C:\Program Files\Arcserve\Unified Data Protection\Engine\BIN\Appliance>powershell .\resetdhcp.ps1

When the script runs successfully, the communication issue for the Linux Backup Server is resolved.

Linux Backup Server Cannot Get the Network DNS Suffix

When you set the static IP address to the appliance Server, the Linux Backup Server cannot get the network DNS suffix properly after restarting the network service. This issue leads to communication problems between the Linux backup Server and the UDP console. You then cannot use this Linux backup Server to protect the Linux node due to the communication problems.

Symptom

The status of the Linux Backup Server remains in a disconnected state on the UDP console. The **Update Node** cannot update the Linux Backup Server successfully and the yellow warning icon will not change to green. This occurs when the static IP address is set to the appliance Server that will then cause the Linux Backup Server to not get the network DNS suffix properly.

Solution

To resolve this issue, you can update the file/etc/resolv.conf directly in the Linux machine to add the correct DNS suffix.

Default Time Zone on the Appliance

Symptom

The default time zone is (*UTC+05:30*) Chennai, Kolkata, Mumbai, New Delhi no matter what region you select when you first power on the appliance.

Solution

Navigate to **Arcserve Backup Appliance Wizard**, click **Edit** and set **Date and Time** to change the time zone.

Licenses Error even when the licenses are available

For more information on license related errors in the Appliance even when the licenses are available, refer the link.

Chapter 13: Applying Best Practices

The section contains the following topics:Best Practices for Network Configuration250Best Practices for Windows Defender with PowerShell cmdlets253Configure Preinstalled Linux Backup Server to External Network253Best Practice for Creating Deduplication Datastore across Volumes254

Best Practices for Network Configuration

- If multiple network interfaces are connected in the production environment, ensure that each network adapter is connected to different sub network.
- If Linux node is not available in the production environment to protect, we recommend to stop the VM Linux-BackupSvr, and DHCP Server service on the Appliance.

For more information, refer How to Disable DHCP Server.

When both the Appliance and the Agent node are online on the same sub network, a connection problem occurs between the Appliance and an Agent node if there are multiple network interfaces connected to the same sub network in the Appliance.

Symptom

If both the Appliance and Agent nodes are online on the same sub network, the following symptoms may occur:

 On the Arcserve UDP Console, when you deploy the plan to Agent node, the following error message is displayed:

| Error | × |
|--|---|
| Unable to apply 'backup settings' to node '10.57.52.13'. (Failed to connect to Arcserve UDP Recovery Point Server appliatest76. Verify that server name, port number, and protocol (http/https) inputs are all correct and the web service is started on the specified host. For other reasons, see Troubleshooting in the User Guide.) | |
| ОК | |

Backup job of the Agent node fails as below:

| | 0 | 12/25/ Local Site | 10.57.52.13 | 10.57.52.13 | 26 | Backup | Point Server appliatest76. Verify that server name, port number, and protocol (http:https) inputs are all correct and the web service is started on the specified host. For other reasons, see Troubleshooting in the User Guide. |
|--|---|-------------------|-------------|-------------|----|--------|--|
|--|---|-------------------|-------------|-------------|----|--------|--|

Eailed to run backup job. Eailed to connect to Arcennia LIDD Decoupry

 Ping the Agent node from the Appliance and verify whether the Agent node is connected or not as follows:

| C:\Windows\system32>ping 10.57.52.13 | |
|---|------------|
| Pinging 10.57.52.13 with 32 bytes of da | ta: |
| Reply from 10.57.52.13: bytes=32 time<1 | ms TTL=127 |
| Reply from 10.57.52.13: bytes=32 time=1 | ms TTL=127 |
| Reply from 10.57.52.13: bytes=32 time<1 | ms TTL=127 |
| Reply from 10.57.52.13: bytes=32 time<1 | ms TTL=127 |

 Ping Appliance host name from the Agent node and the Appliance is NOT connected as follows:

| C:\Users\Administrator>ping appliatest76 |
|---|
| Pinging appliatest76 [10.57.52.47] with 32 bytes of data: Request timed out. Request timed out. Request timed out. Request timed out. Request timed out. |
| Ping statistics for 10.57.52.47: Packets: Sent = 4, Received = 0, Lost = 4 (100% loss), |

Solution

To resolve the connection problem between the Appliance and Agent node, perform one of the following steps:

 If Linux node is not available in the production environment, stop the DHCP Server service service on the Appliance and verify whether the problem is resolved or not.

For more information, refer How to Disable DHCP Server.

• On the Appliance and Agent node, follow these steps:

Steps to be followed on Appliance:

- 1. Run *ipconfig /all* from DOS Command Prompt to get the available IPv4 address on the Appliance:
- 2. Run *Route Print* from DOS Command Prompt to get the IPv4 Route Table, record the order list for all the available IPv4 address on the Appliance as below:

| Active Routes: | | | | |
|---------------------|---------------|------------|-------------|--------|
| Network Destination | Netmask | Gateway | Interface | Metric |
| 0.0.0 | 0.0.0 | 10.57.52.1 | 10.57.52.46 | 10 |
| 0.0.0 | 0.0.0 | 10.57.52.1 | 10.57.52.35 | 10 |
| 0.0.0 | 0.0.0 | 10.57.52.1 | 10.57.52.45 | 10 |
| 0.0.0 | 0.0.0.0 | 10.57.52.1 | 10.57.52.47 | 10 |
| 10.57.52.0 | 255.255.255.0 | On-link | 10.57.52.46 | 266 |
| 10.57.52.0 | 255.255.255.0 | On-link | 10.57.52.35 | 266 |
| 10.57.52.0 | 255.255.255.0 | On-link | 10.57.52.45 | 266 |

Steps to be followed on Agent node:

 From the DOS Command Prompt, try to ping each available IPv4 address of Appliance one by one according to the order above to get the first IPv4 of the Appliance connected on the Agent node as follows:

| C:\Users\Administrator>ping 10.57.52.46 |
|--|
| Pinging 10.57.52.46 with 32 bytes of data: Reply from 10.57.52.46: bytes=32 time<1ms TTL=128 Reply from 10.57.52.46: bytes=32 time<1ms TTL=128 |
| Reply from 10.57.52.46: bytes=32 time<1ms TTL=128 Reply from 10.57.52.46: bytes=32 time<1ms TTL=128 |

2. Modify the file C:\Windows\System32\drivers\etc\hosts to add a record for the pair the_IPv4_got_above Appliance_hostname and save the file.

Best Practices for Windows Defender with PowerShell cmdlets

You can get the Defender cmdlets by using the following commands:

- PS C:\> (Get-MpPreference).ExclusionPath Gets exclusion path of Defender.
- PS C:\> (Get-MpPreference).ExclusionProcess
 Gets exclusion processes of Defender.
- PS C:\> Add-MpPreference -ExclusionPath "full_path_of_the_folder_or_file"
 Excludes a folder or file to the exclusion list.
- PS C:\> Add-MpPreference –ExclusionProcess "full_path_of_executable_programs"

Excludes files opened by the processes.

PS C:\> Remove-MpPreference –ExclusionPath "full_path_of_the_folder"
 Removes a folder from the exclusion list.

Configure Preinstalled Linux Backup Server to External Network

Follow these steps:

- 1. Disable DHCP server. For more information, see <u>How to Disable DHCP</u> <u>Server</u>.
- 2. To set Linux Backup Server network to external network, follow these steps:
 - a. Open the Hyper-V manager.
 - b. Create a new external virtual network switch.
 - c. Change the Linux Backup Server VM network adapter setting to use the newly created external virtual network switch.
 - d. Check network setting of Linux Backup Server, ensure it has got IP address and DNS through the external virtual network switch.
 - e. Remove the original Linux Backup server from UDP Console.
 - f. Add the Linux Backup Server to UDP Console again with the following information:

- Hostname: Linux-BackupSvr
- Port: 8014

Best Practice for Creating Deduplication Datastore across Volumes

The as_gddmgr.exe, a command line tool, lets you add more data paths across volumes to expand the storage capacity of the existing dedupe datastore.

To create deduplication datastore across volumes, follow these steps:

- 1. Log into the Arcserve UDP console user interface, and then create a deduplication datastore without expanded data path. For more information, see Add a Datastore.
- 2. Stop the datastore. For more information, see Stop a Datastore.
- 3. Open the command prompt, and then enter the following command to display the current path configuration of datastore:

as_gddmgr.exe -DataPath Display <datastore name>

The following sample datastore has one primary data path on X:\volume:



4. To expand the storage capacity of deduplication datastore, enter the following command:

as_gddmgr.exe -DataPath Add <datastore name> -NewDataPath <new data folder>

Note: Make sure the primary path and all expanded paths are not on the same volume.

The following sample datastore has an expanded data path on W:\volume:

| ccessfully added ne | ta store configuration nu expanded data path f expanded data path(s) | or the data store. | |
|---------------------|--|--------------------|----------|
| | | | |
| | X:\Arcserve\data_stor 59605 G8 | e\data\ 2 GB | |
| panded data path1: | W:\Arcserve\data_stor 14678 G0 | e\datal 90 GB | |
| tel | 74283 68 | 92 68 | 74191 68 |

- 5. Repeat step 4 as needed.
- 6. Return to the Arcserve UDP console user interface and start the datastore.

For more information, see <u>Start a Datastore</u>.

| dashboard resources | | UNIF obs | | NATA PROTECTION | | ate server un | | O Messag | es (1) 🔹 | administrat | or • Help • |
|--|---|-------------|-------|---|--------|-----------------|-------------|---------------|--------------|--|---|
| A Nodes | * | De | estin | ations: Recovery Point S | erver | d ¥dilidi./iiii | 3 | | | | ncetest_data_store |
| All Nodes Nodes without a Plan > Linux Backup Server Groups | î | | ction | s - Add a Recovery Po | Status | Plan Count | Stored Data | Deduplication | Con State | | |
| Al Plans Al Plans Destinations | | | | appliancetest_data_store Modity | 0 | 0 | 0 Byte | 0% | v Sett | | Standard |
| Recovery Point Servers Accerve Backup Servers Shared Folders Cloud Accounts Bernote Consoles | | t | | Delete Start Browse Recovery RPS Jumpstart | Points | | | | Enc Bac | rpression Type ryption Algorithm kup Destination current Active Nodes | Standard AES-256 X'\Arcserveidata_store\o mmon 20 |
| Accenve Cloud Infrastructure Storage Arrays | ~ | | | 10 0 valgaar. | | | | | | iduplication | X. Wrcserveidata_storeid |

Note: We recommend that you import the backed-up datastore on the UDP Appliance with similar disk partitions.

Chapter 14: Acknowledgements

Portions of this product include software developed by third-party software providers. The following section provides information regarding this third-party software.

This section contains the following topic:

<u>PuTTY</u>

PuTTY

This product includes the "PuTTY" component which entails the following details:

| Component Name | PuTTY |
|--------------------------|---|
| Component Vendor | Developed originally by Simon Tatham |
| Component Version | 0.64 |
| Legal Remark | http://www.chiark.greenend.org.uk/~sgtatham/putty/licence.html |
| Project Name | Appliance Rhodium |
| Component Type | Open Source |
| Source Code URL | http://the.earth.li/~sgtatham/putty/0.64/ |
| Platform(s) Required | Windows 2012 R2, Windows 2016, Windows 2019 |
| Component URL | http://the.earth.li/~sgtatham/putty/0.64/x86/ |
| Component Version URL | http://the.earth.li/~sgtatham/putty/0.64/x86/ |
| Description | On the appliance machine, we use putty.exe to communicate with the Linux Backup Server to change the system locale and UDP Linux locale. |
| Features | Appliance |
| | http://www.chiark.greenend.org.uk/~sgtatham/putty/licence.html |
| | PuTTY is copyright 1997-2019 Simon Tatham. |
| License Text | Portions copyright Robert de Bath, Joris van Rantwijk, Delian Delchev, Andreas Schultz, Jeroen Massar, Wez Furlong, Nicolas Barry, Justin Bradford, Ben Harris, Malcolm Smith, Ahmad Khalifa, Markus Kuhn, Colin Watson, Chris- topher Staite, Lorenz Diener, Christian Brabandt, Jeff Smith, Pavel Kryukov, Maxim Kuznetsov, Svyatoslav Kuzmich, Nico Williams, Viktor Dukhovni, and CORE SDI S.A. |
| | Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: |
| | The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. |
| | THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, |

| | EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE. |
|---------------------------|--|
| | http://www.chiark.greenend.org.uk/~sgtatham/putty/licence.html |
| | PuTTY is copyright 1997-2019 Simon Tatham. |
| | Portions copyright Robert de Bath, Joris van Rantwijk, Delian Delchev, Andreas Schultz, Jeroen Massar, Wez Furlong, Nicolas Barry, Justin Bradford, Ben Harris, Malcolm Smith, Ahmad Khalifa, Markus Kuhn, Colin Watson, Chris- topher Staite, Lorenz Diener, Christian Brabandt, Jeff Smith, Pavel Kryukov, Maxim Kuznetsov, Svyatoslav Kuzmich, Nico Williams, Viktor Dukhovni, and CORE SDI S.A. |
| Copyright Text | Permission is hereby granted, free of charge, to any person obtaining a copy of this software and associated documentation files (the "Software"), to deal in the Software without restriction, including without limitation the rights to use, copy, modify, merge, publish, distribute, sublicense, and/or sell copies of the Software, and to permit persons to whom the Software is furnished to do so, subject to the following conditions: |
| | The above copyright notice and this permission notice shall be included in all copies or substantial portions of the Software. |
| | THE SOFTWARE IS PROVIDED "AS IS", WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT. IN NO EVENT SHALL THE COPYRIGHT HOLDERS BE LIABLE FOR ANY CLAIM, DAMAGES OR OTHER LIABILITY, WHETHER IN AN ACTION OF CONTRACT, TORT OR OTHERWISE, ARISING FROM, OUT OF OR IN CONNECTION WITH THE SOFTWARE OR THE USE OR OTHER DEALINGS IN THE SOFTWARE. |
| Intended | On the appliance machine, we use putty.exe to communicate with the Linux |
| Usage | Backup Server to change the system locale and UDP Linux locale. |
| Modifications Required | No |