Thank you for purchasing SymplyWORKSPACE XE

If you have any support questions that are not addressed in this document, then please check our extensive FAQs or submit a support ticket on our support site.

Your feedback is important to us, so please let us know what you think of our products via email hello@gosymply.com.

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Title:	Workspace XE Appliance Administrators' Guide
Software version:	Workspace XE 2.9.4.231
Date:	September 20th, 2023

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Contents

Introduction

Congratulations on your purchase of Workspace XE. This manual will guide you in the process of administering the system and accessing the shared storage volumes. Workspace XE ships as standard with 8 x 3.5" HDDs or U.3 NVMe configured in a RAID 5. There is an option to add a further 4 or 8 x E1.S NVMe modules. This guide is intended for administrators of Workspace XE.

With Workspace XE you can achieve a true SAN workflow, providing multiple Windows, Apple Mac and Linux computers with concurrent block-level access to both the primary HDD, U.3 NVMe or E1.S NVMe volume and the optional secondary E1.S NVMe volume, via the Workspace XE client. The Workspace XE client driver provides block-level access to the volumes over Ethernet, to provide the highest performance with the lowest latency.

Also included with Workspace XE, is the user and project management web-based application called Workspaces.

System Requirements

Computer systems that you want to connect to Workpace XE using the Client driver must meet the following minimum system requirements:

macOS System Requirements:

- Apple Mac computer with 1.33-GHz CPU
- Mac OS X El Capitan (64-bit), macOS Sierra (64-bit), macOS High Sierra (64-bit), macOS Mojave (64-bit), macOS Catalina (64-bit), macOS Big Sur (64-bit Intel and ARM); macOS Monterey (64- bit Intel and ARM); macOS Ventura (64-bit Intel and ARM)
- 25 MB of available disk space for Client software installation
- 25GbE, 10GbE, 1GbE adapter for connection to the WORKSPACE XE
- Network LAN connection (1Gb at least) for Network communication (Network Port)
- The following TCP ports - 3000, 3001, 8555, 9120, 9121, 9122, 9123, 9124, 9125, 9126, 9127 - should not be blocked by a firewall if any.

  Note: No support for Mac OS X versions below 10.10

  Important: During installation of the Client on macOS, even if you specify that smct.app and the vpd daemon must be added as firewall exceptions, you should manually allow them in the firewall database of your computer. *Note* that as long as the firewall of your computer is turned on, you may have to add them to the firewall database after each reboot of the computer.

Windows System Requirements:

- PC with 1.33-GHz processor
- 64-bit Microsoft Windows® 7/Server 2008 R2, Windows® 8/Server 2012/Server 2012 R2, Windows® 10/Server 2016/Server 2019, Windows® 11/Server 2022
- 4 GB of physical RAM (minimum)
- 25 MB of available disk space for Client software installation
- 25GbE, 10GbE, 1GbE adapter for connection to the WORKSPACE XE
- Network LAN connection (1Gb at least) for Network communication (Network Port)
- The following TCP ports - 3000, 3001, 8555, 9120, 9121, 9122, 9123, 9124, 9125, 9126, 9127 - should not be blocked by a firewall if any.
- The GlobalSign certification authority's currently used root certificate must be installed on the computer and its "Code Signing" purpose must not be disabled. For more information, refer to "Digital Certificate Requirements".

Important: Microsoft Windows® 7/Server 2008 R2 computers must run at least Service Pack 1 and have the KB3033929 security update installed

Note: No support for Microsoft Windows® 95, Windows® 98, Windows® NT, Millennium Edition, Windows® 2000, Windows® XP/Server 2003/Server 2003 R2 or Windows® Vista.

Linux System Requirements:

- PC with 1.33-GHz Intel processor.
- Red Hat Enterprise Linux 6.x / 7.x and derivatives, SUSE Linux 11 and derivatives
- SELinux should be disabled prior to installing the Client software.
- 4 GB of physical RAM at least.
- 25 MB of available disk space for Client software installation.
- 25GbE, 10GbE, 1GbE adapter for connection to the WORKSPACE XE
- Network LAN connection (1Gb at least) for Network communication (Network Port)
- The following TCP ports - 3000, 3001, 8555, 9120, 9121, 9122, 9123, 9124, 9125, 9126, 9127 - should not be blocked by a firewall if any.

   Note: See support website site for current list of derivatives

   Important: Changing any of the default kernel setting may prevent Client from operating properly.

   Tip: To check the exact version of the kernel used by your system, in command-line execute the following: `uname -a`

   Note: Both uni and multiprocessor versions of the kernels are supported

Workspace XE Hardware Guide

Workspace XE Front
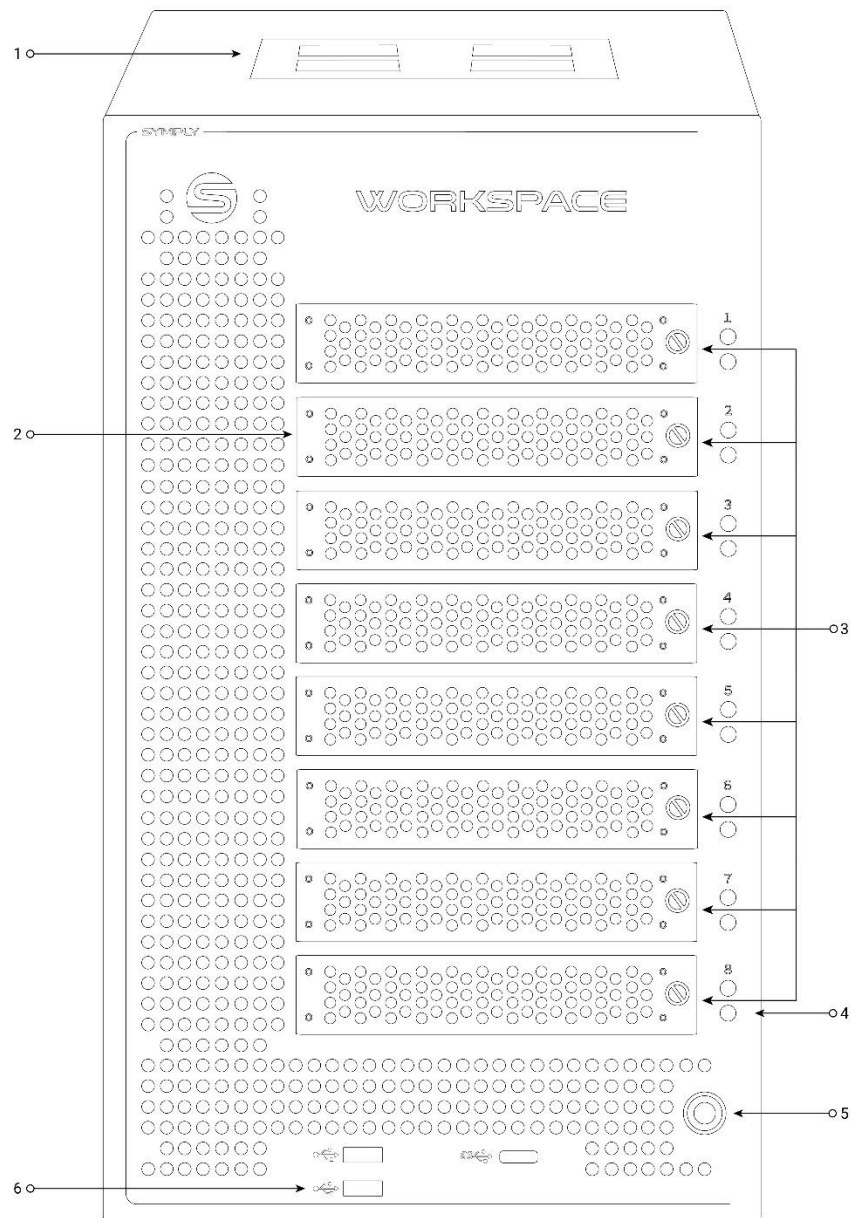
Number	Description
1	Carry Handle
2	Drive Caddie with thumbscrew and locking pin
3	3.5" HDD Drives or U.3 NVMe
4	Lights Out Button
5	Power Button
6	USB Ports (future functionality)

Workspace XE Appliance Administrators' Guide
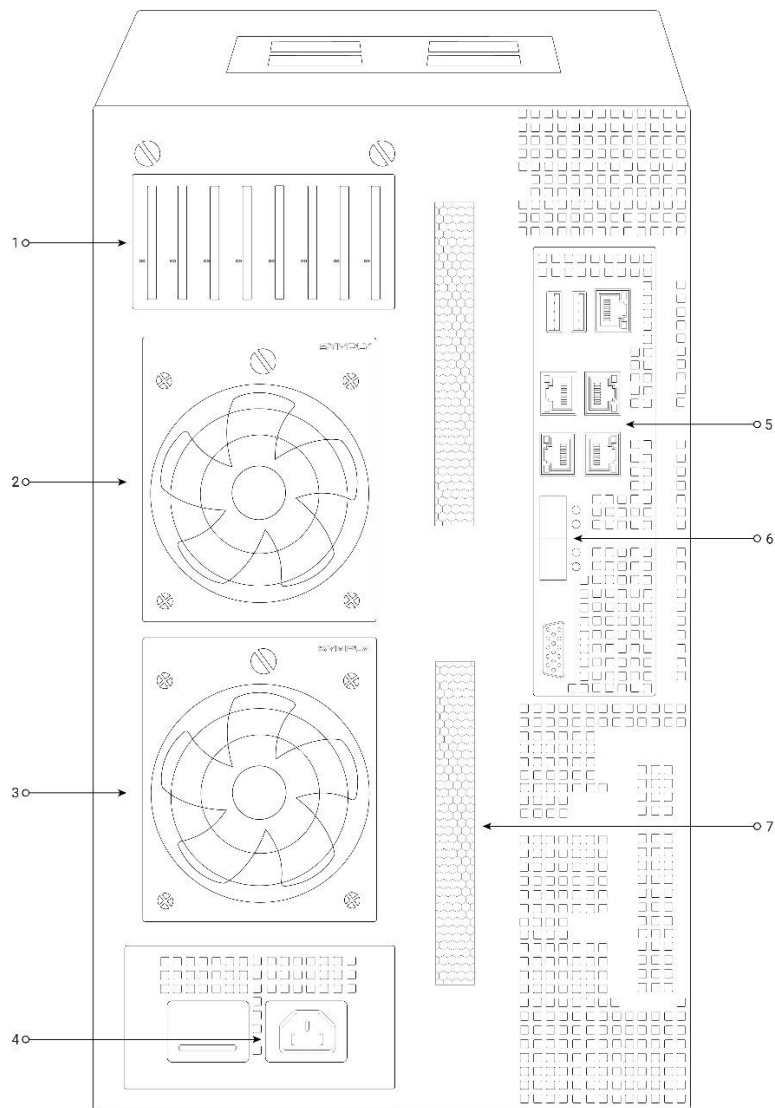
Workspace XE Rear

Number	Description
1	NVMe bays for optional 4 or 8 drive modules
2	FAN#1
3	FAN#2
4	Power Supply
5	GbE Ethernet Ports
6	25Gb Ethernet Ports
7	Optional Ethernet Port Upgrade Slot

Workspace XE Appliance Administrators' Guide

WORKSPACE XE Ethernet Port Details
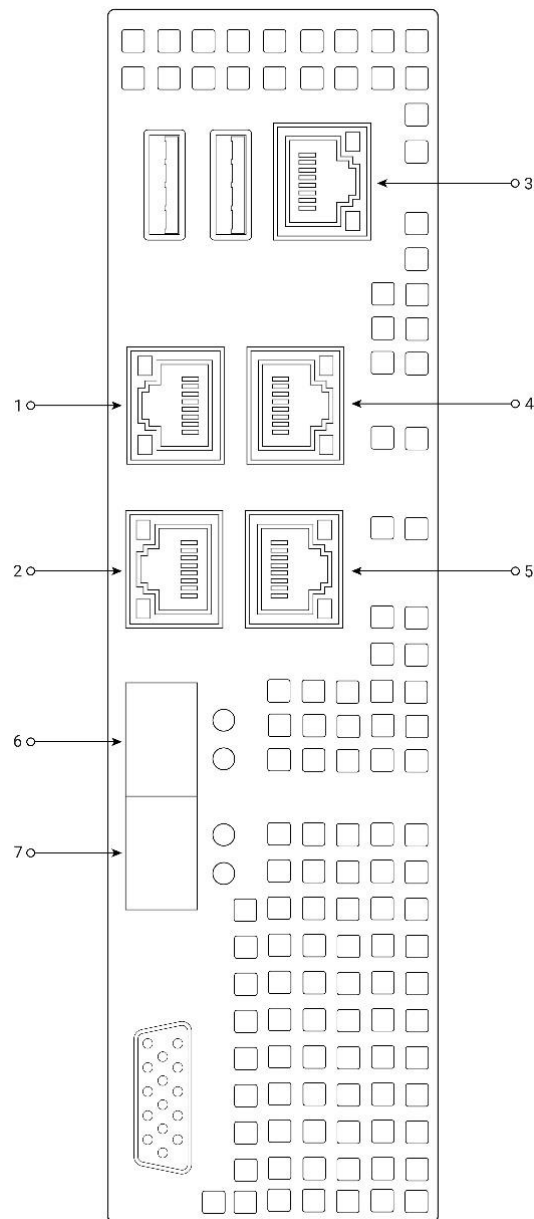
Number	Description	Port Type
1	Admin Port	GbE RJ45
2	Network Port	GbE RJ45
3	Service Port	GbE RJ45
4	Net-1G-01	GbE RJ45
5	Net-1G-02	GbE RJ45
6	Net-25G-01	25GbE SFP28 (no optics included)
7	Net-25G-02	25GbE SFP28 (no optics included)

Workspace XE Specifications

Standard Ethernet Interface	No. Of HDD / U.3 Bays	No. Of E1.S NVMe Bays	RAID Level Support	Dimensions	Weight with HDDs	Power
Admin = 1GbE RJ45 Network = 1GbE RJ45 Net-1G-01 = 1GbE RJ45 Net-1G-02 = 1GbE RJ45 Net-25G-01 = 25G SFP28 Net-25G-02 = 25G SFP28	8	4 or 8	0, 5, 6	210mm x 355mm x 360mm	17.5KG	110 to 240v Auto Switching 300 Watt

Operating Environmental	Non-Operating Environmental
5°C - 30°C (41°F - 86°F) 10% - 85% humidity (non-condensing)	-20°C - 70°C (-4°F - 158°F) 10% - 85% humidity (non-condensing)

Installation

Unpacking WORKSPACE XE

Caution should be used whenever lifting the Symply WORKSPACE XE in and out of the shipping carton, make sure that the working area around you is free from obstructions. It is important that the WORKSPACE XE is positioned with enough space around the unit for airflow and in a clean environment away from sources of dust as much as possible.

The WORKSPACE XE ships with the HDD modules packed separately to reduce the chance of damage to the hardware. The HDD modules can be installed in the WORKSPACE XE in any order. As default all HDD, U.3 NVMe and/or E1.S NVMe volume(s) are configured as RAID 5.

Please inspect the unit for shipping damage. If there is damage, do not install the unit, please report the damage immediately by contacting your place of purchase.

Important: Please retain Workspace XE shipping carton and packaging for Warranty Purposes.

WORKSPACE XE – What's in the box?

Item	Description
WORKSPACE XE	8 Bay Workspace XE with 8 x HDD or U.3 NVMe, optional 4 or 8 x E1.S NVMe modules
Ethernet Cable	1 x 5m Cat6e Ethernet Cable Red (for Admin Port) 1 x 5m Cat6e Ethernet Cable Green (for Network Port) 2 x 5m Cat6e Ethernet Cable Black (for Data Ports)
USB Restore Key	USB Thumb drive for system restore (only use if directed to do so by Symply support team)
Welcome Card	Information Card Please Read Carefully
Power Cable	2m (6.5 ft) IEC power cord for local region
Shipping Carton	Please retain shipping carton and packaging for warranty purposes

Before Powering On

Before powering on the system, ensure that none of the ventilation holes or the FAN module are blocked or obstructed. Make sure that there are no obstructions around the system that might restrict air flow. Ensure that the environment is within the specified operating conditions specified in this document.

Note: The power on process takes on average of 3 minutes.

Before Powering Off

Check the WORKSPACE XE shared volume(s) is not mounted on any client connected computer before powering the system off. If the volume is connected, then make sure to disconnect the volume from the client computer first before powering off the system.

Important: Never turn off, remove power, from the system. Always shutdown the system from the WORKSPACE XE web interface.

Important: Do not disconnect the ethernet cables from the WORKSPACE XE while the shared volumes connected to the host computers. Always disconnect the volume first via the client application, before disconnecting ethernet cables or powering down the system.

About WORKSPACE XE Shared Volume(s):

By default, data on the shared storage is accessible to anyone seeing the shared volumes. WORKSPACE XE volumes are automatically defragmented, and there are tools included to monitor storage usage, and connected clients.

WORKSPACE XE can be added into an Active Directory domain, you can utilize access permissions for data on the shared volumes. When WORKSPACE XE is set up to operate in domain environment, the permissions that are already set on the file system are respected. You can manage the permissions from any Windows computer, which can mount the shared volume(s).

For more details, refer to the documentation of the Windows Domain Server that controls permissions on your network.

Important:

- Whether or not the volumes are accessed in domain environment, the SYSTEM account must always have full control.

- WORKSPACE XE does not support Windows Recycle Bin on its volumes and any soft-deleted file is permanently deleted.

- macOS Trash is supported on the shared volumes, allowing macOS clients to soft-delete files and later restore them or permanently delete them by emptying the Trash.

- When WORKSPACE XE operates in Active Directory domain environment, each domain user moves their soft-deleted files to their own Trash folder. In workgroup environment, as the Trash folder is created per user ID and two or more different users on different macOS clients may move their soft-deleted files to the same Trash folder and empty the Trash containing the files of other users with the same ID.

About Workspaces User and Project Management

Workspaces is a user and project management solution installed on the Workspace XE appliance.

Workspaces turns the volumes managed by the Workspace XE into a shared Workspace (a virtual folder). MacOS and Windows computers on the same network, which run the Workspaces Client driver can manage access through the Workspaces's web interface in order to create new Workspaces and mount their own or other users' Workspaces. Each Workspace is mounted as a separate local drive on the client computer (macOS and Windows).

A user can mount any number of Workspaces:

- Exclusively
- Single User Write
- Multi-user Write
- Multi-user Write, with Avid Bin-Locking Support

As long as a client computer sees the Workspace XE appliance, users can create and work with Workspaces stored on the appliance. Users do not have to authenticate themselves to access the respective file system, but access it with the credentials specified on the Workspace XE appliance.

So, if Workspaces is deployed without security restrictions, access to a given Workspace depends solely on whether it is currently available or in use by another user. For the purposes of your workflow, you can utilize workspace permissions. When Workspaces is deployed in workgroup environment, you can use locally created Workspaces users and groups. When Workspaces is deployed in Active Directory domain environment, the permissions are specified for domain users and groups of users.

Workspaces further enhances your workflow with quotas, automatic parsing of content and generation of proxy media (via FFPG), browsing of Workspaces without mounting them, and creating Workspaces based on templates.

For more information check out the Workspaces Software Manual.

Initial Setup of WORKSPACE XE

Before you begin work with WORKSPACE XE, you need to perform its initial setup. The initial setup includes the following procedures:

1. Configure the IP address of each network port of the appliance (see "Configure the IP Addresses of the Appliance")

2. Change the name of the appliance (see "Change the Name of The Appliance")

3. Specify the time and date settings of the appliance (see "Specify The Time and Date Settings of the Appliance")

4. Set the environment in which WORKSPACE XE operates - workgroup or Active Directory domain (see "Select The Network Environment of WORKSPACE XE")

   Note: As default the Workspace XE ships configured for a workgroup environment.

Once you go through the initial setup, WORKSPACE XE can operate normally without having to change any of its settings. Later on, you can change any of the settings that you have specified during the initial setup from any computer that has access to WORKSPACE XE's web interface. You can perform the initial setup of the appliance in the web interface of WORKSPACE XE.

About WORKSPACE XE Ethernet Ports

As default, the WORKSPACE XE has an **Admin Port**, a **Network Port**, **2 x 1GbE** and **2 x 25Gb SFP28** ports which are the data ports. The IP address for the Admin Port is fixed and cannot be changed. The Network Port IP address and the 1Gb RJ45 and 25Gb SFP28 IP address can be reconfigured from the web interface. See "Changing IP Address"

Here is the default pre-set IP address:

Port	IP Address	Subnet
Admin	1.2.3.4	255.255.255.0
Network	192.168.128.100	255.255.255.0
Net-1G-01	172.16.31.1	255.255.255.0
Net-1G-02	172.16.32.1	255.255.255.0
Net-25G-01	172.16.91.1	255.255.255.0
Net-25G-02	172.16.92.1	255.255.255.0
Net-25G-03	172.16.93.1	255.255.255.0
Net-25G-04	172.16.94.1	255.255.255.0
Net-25G-05	172.16.95.1	255.255.255.0
Net-25G-05	172.16.96.1	255.255.255.0

   Note: Net-25G-03 through Net-25G-05 are via 4-port 25Gb NIC upgrade.

Admin Port – 1GbE port designed to be used for the initial set up of the WORKSPACE XE. The IP address of the Admin Port is fixed and cannot be changed to ensure continuity of access.

Network Port — 1GbE port designed to connect the WORKSPACE XE to your corporate network and provide it with access to shared resources and the Internet.

1GbE and 25GbE Data Ports — designed to provide for both data and metadata traffic of WORKSPACE XE clients connected to the appliance via either 1Gb or 25Gb (backwards compatible to 10G)

You must set an IP address for each network port through which the appliance is connected to WORKSPACE XE (directly or via an Ethernet switch) - the Network Port and all other available network ports, or port teams. The IP address you assign to each network port must be on the same subnet as the WORKSPACE XE client(s) that will communicate with the appliance through this port. If computers in your facility are already interconnected in a LAN, you can simply assign an IP address to the Network Port in the same subnet.

When a LAN client can reach the appliance both through the Network Port and another faster port (25Gb for example), to ensure that the WORKSPACE XE Client always mounts the shared volumes over the faster connection, it is advisable to set the IP addresses of the faster ports of both the appliance and the WORKSPACE XE Client to be on a separate subnet of the LAN used by the Network Port. For more information refer to the "Assigning IP Addresses to Network Ports"

> **Important:** When assigning IP addresses to the network ports of WORKSPACE XE, make sure that you avoid the following IP addresses as they are either link-local addresses or are in use by WORKSPACE XE services:
>
> - Link-local addresses in the range 169.254.0.0 - 169.254.255.255
> - IPMI addresses in the range 1.1.1.0 - 1.1.1.255

Assigning IP address to the Network Port, 1Gb and 25Gb Data Ports:

1. In the left pane of WORKSPACE XE web interface, click **System** and then **IP Configuration**. The IP Configuration page loads. It lists the tiles of the Network Port and all individual and/or teamed network ports.
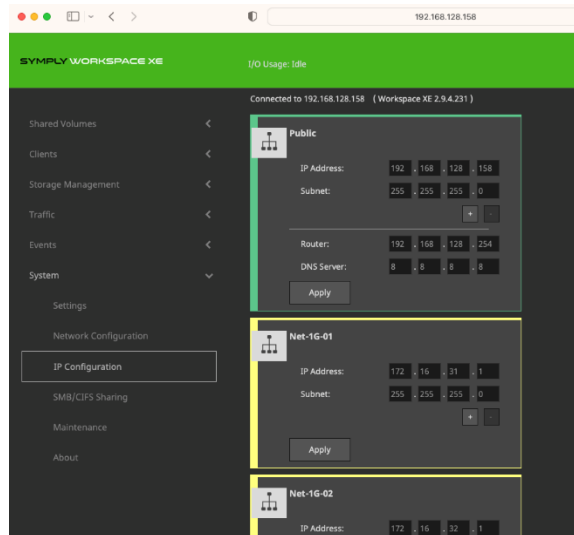
2. In the tile of the respective port or team, enter the IP address and subnet mask.

    Note: As the Network Port is also used for connection to the Internet, you can also specify router and DNS server details.

3. Optionally assign additional IP address.
    a. Click the **+** button and add an additional IP address and subnet mask for the same network port.

    Tip: You can add as many IP addresses to the same port as you like, by clicking the "+" button. To remove one of the IP addresses, simply click "-" next to it.

4. Click **Apply**

WORKSPACE XE allows you to assign two or more IP addresses to the 2 x 1G, 2 x 25G and ports on the optional network card upgrade, thus making it accessible from networks on different subnets.

Teaming Ethernet Ports

WORKSPACE XE supports teaming of the 2 x 25G ports, and 4 x 25G ports on the optional network card upgrade. If you choose to team the ports of a network card, all its ports will be accessible through just one IP address. To benefit from ports teaming, you must use an Ethernet switch, which supports Link Aggregation Control Protocol (IEEE 802.1ax, LACP) and is set up for teaming.

To Team/Unteam Network Ports:

1. In the left pane of WORKSPACE XE's web interface, click **System** and then **Network Configuration**. The page lists all detected network cards, except the Network Port, Admin Port, Net-1G-01 and Net-1G-02.

2. In the tile of a network card, do one of the following:
    a. Select "Use as a team", and then click **Apply**.

        The teamed ports are listed on the IP Configuration page, where you can assign an IP address to them.
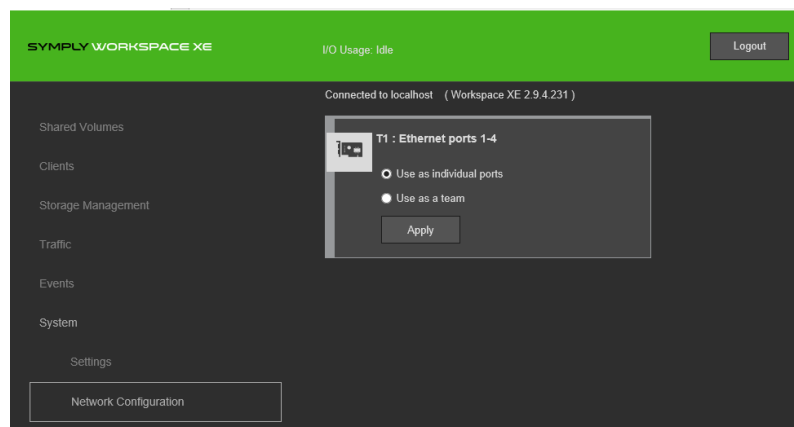
    b. Select "Use as individual ports", and then click **Apply**.

        The ports are listed on the IP Configuration page individually with their previous IP addresses (the ones you have manually specified, or, if none has been specified, the default ones).

Change the Name of the WORKSPACE XE

By default, each WORKSPACE XE appliance is shipped to you with a pre-configured name - the appliance's serial number, printed at the back of the chassis and visible in the About page of the web UI.

Note: If you rename a WORKSPACE XE appliance after client computers have already added it to their servers list, you may have to manually edit the appliance's name on client computers.

To rename the appliance:

1. In the left pane of the WORKSPACE XE's web interface, click **System** and then **Settings**.

2. In Appliance Name, enter a new name of the appliance and click **Apply**.

3. Confirm that you want to change the name of the appliance when prompted.

4. In the left pane, select **System** and then **Maintenance**.

5. In **System Reset** drop down box, select "Full system reboot" and then click **Full system Reboot**.

Important: To rename the appliance you will have to reboot it. Make sure that the shared volume is disconnected from all clients before rebooting the appliance.

Specify The Time and Date Settings of the WORKSPACE XE

To ensure the normal work of the WORKSPACE XE you should set the time and date of the appliance as soon as you turn it on. It is advisable to use the same date and time settings on all computers on your WORKSPACE XE network.

To specify the time and date settings of the appliance:

1. In the left pane of the web interface, click **System** and then **Settings**.

2. In Date and Time, select the desired date, time zone and specify the exact time.

3. Click **Set Date and Time**.

Workspace XE Appliance Administrators' Guide

Select The Network Environment of WORKSPACE XE

By default, WORKSPACE XE is configured to operate in workgroup environment - the appliance is preconfigured as a member of the Workgroup and any user that can connect to it, has access to all resources on the shared volumes.

If your appliance is on the same network as an Active Directory domain controller, you can add the appliance to the domain and benefit from access permissions to files and folders for domain users. To do this you should simply specify the domain name and authenticate as a user that has permissions to join computers to the selected Active Directory domain.

Note: Even when WORKSPACE XE is configured to operate in domain environment, you can allow domain users to access all data on the shared volumes without restrictions. For the purpose you need to disable file security, following the steps in "Enable/Disable File Security in the WORKSPACE XE Network"

You can switch the network environment in which WORKSPACE XE is deployed from workgroup to domain and vice versa at any time.

Important: Setting the network environment of WORKSPACE XE requires that you reboot the appliance.

To set domain environment of WORKSPACE XE:

1. In the left pane of the web interface, click **System** and then **Settings**.
2. In Domain Info, click **Domain**.
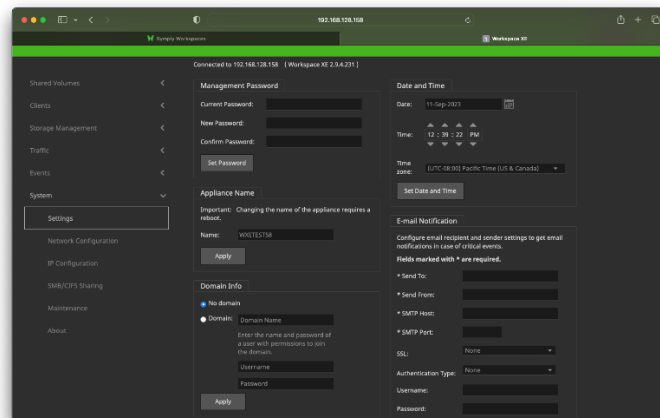
3. In the respective fields, enter the domain name and the username and password of a user that can join computers to the specified Active Directory domain.
4. Click Apply.
5. In the left pane, select **System** and then **Maintenance**.
6. In System Reset drop down box, select **Full System Reboot** and then click **Full system Reboot**.
7. When the appliance is online again, accesses to files/folders on the shared volumes are authenticated against the specified Active Directory domain.

To set workgroup environment of WORKSPACE XE:

1. In the left pane of the web interface, click **System** and then **Settings**.
2. In Domain Info, click **No domain**.
   Note: The domain controller may require that you authenticate yourself as a user authorized to remove computers from the domain.
3. Click Apply.
4. In the left pane, select **System** and then **Maintenance**.
5. In System Reset drop down box, select Full System Reboot and then click **Full system Reboot**. When the appliance is online again, all users that can mount the shared volumes have unrestricted access to all files/folders on it.

Enable/Disable File Security in the WORKSPACE XE Network

Note: When you add a Workspace XE appliance to an Active Directory domain, file security is automatically enabled. Vice versa, when you specify that the appliance operates in workgroup environment, file security is automatically disabled. For information how to add/remove a WORKSPACE XE appliance to an Active Directory domain, refer to "Select The Network Environment of WORKSPACE XE"

By default, data on the shared storage is accessible to anyone seeing the shared volumes. If your WORKSPACE XE appliance is in an Active Directory domain, you can utilize access permissions for data on the shared volumes.

Important: When the WORKSPACE XE is no longer part of an Active Directory domain, you must disable the support for file security on the volumes it shares to WORKSPACE XE Clients.

To enable/disable file security on the shared volumes:

1. In the left pane of the web interface, click **System** and then **Settings**.
2. In the File Security field, do one of the following:
   a. To use Active Directory domain user authentication for access to data, select the "Enable file security" check box and click Apply.
   b. To disable authentication of users for access to data, clear the "Enable file security" check box and click Apply.

Accessing The WORKSPACE XE Management Interface

WORKSPACE XE is administered through a web interface, which is accessible to every device with a web browser that is on the same network as the WORKSPACE XE

To access the web interface from a network computer:

1. In a web browser, type the IP address of the WORKSPACE XE Admin or Network Port.

2. Press Enter. The web interface of WORKSPACE XE will load.
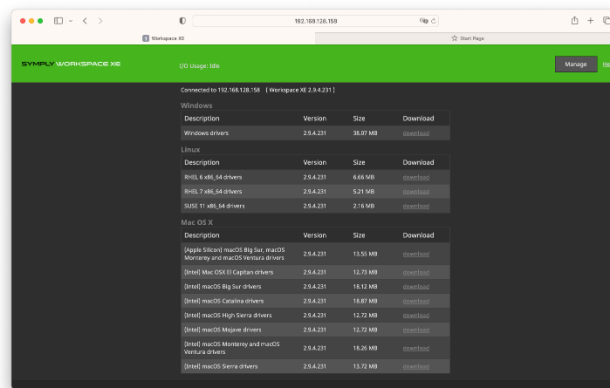
3. Click **Manage** and type the password for the web interface. By default, the web interface uses the following predefined password: "admin"

   Note: By default, TCP port 80 is used for access to the web interface of WORKSPACE XE

It is advisable to set new password for the web interface to prevent unauthorized access to the WORKSPACE XE.

To change the web interface password:

1. In the left pane of the web interface, click **System** and then **Settings**.

2. In the Management Password field, enter the current password and the new password in the respective fields, and then click **Set Password**.

WORKSPACE XE License

The WORKSPACE XE functionality is managed by license keys, but the system is shipped with the required licensing applied. Additional license keys are only required to unlock additional functionality.

In the left menu, click **System** and then **About**. The About page displays license information:
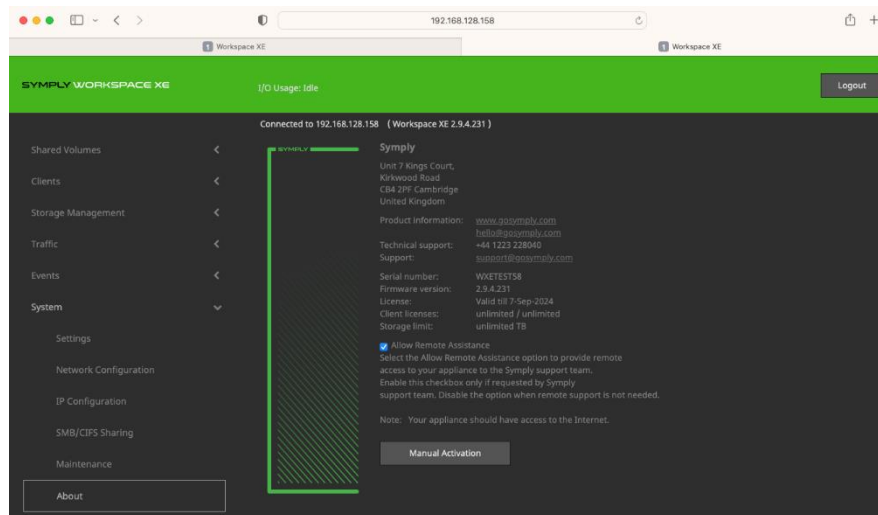
- Not present — no license file is found.
- Valid till... — displays the date until which the license is valid.
- Expired — the license has expired.
- Activated — a valid permanent license file is installed.

Managing the WORKSPACE XE Volume(s)

View Shared Volumes Details

You can view details about the volume(s) shared by the WORKSPACE XE in the Shared Volumes page of the web interface.

You can view the following details:

- Volume name
- Pie chart of the volume capacity with free and used space statistics.
- File system details - number of files and folders on the volume, and fragmentation statistics. Number of connected clients
- Default mount location of the volume on all Windows WORKSPACE XE clients (if selected)
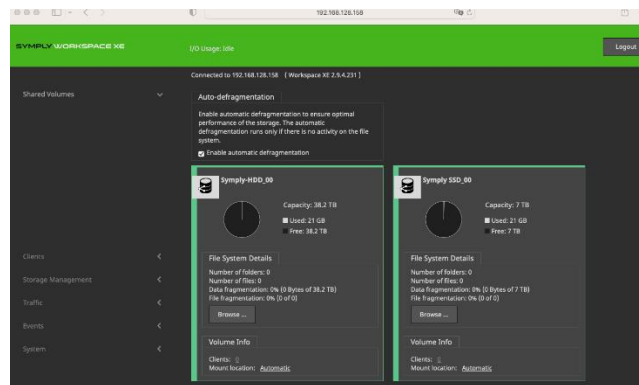
View All Volumes Details:

In the Volumes page (Storage Management | Volumes) the HDD volume and optional NVMe volume are presented with a separate tile. The volume tile in the Volumes page gives you information about the file system, size, partition and disk type, the capacity of the volume, the free and used space on it as well as the mode of the volume:
- Shared
- Offline
- private
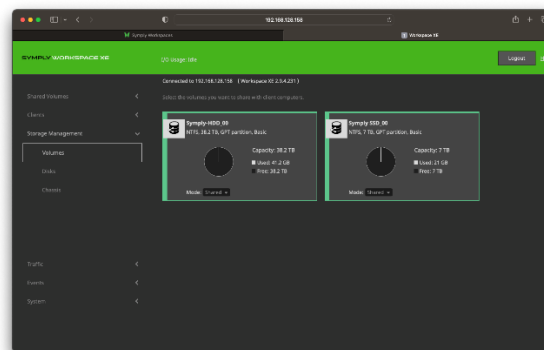
Details Viewing Disks:

You can view details about the disks accessible the WORKSPACE XE in the Disks page (Storage Management | Disks). In the Disks page each accessible disk is represented with a separate tile, that gives you information about the disk capacity, status, type and partition(s).

View Storage Chassis Details:

In the Chassis page (Storage management | Chassis) each available chassis is represented with a separate tile, that gives you information about the RAID level and status, the number of drives comprising the RAID, the total capacity of the RAID and the temperature reported by the RAID controller:
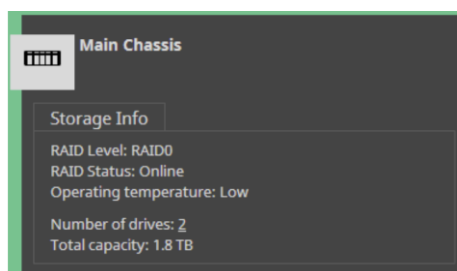
> **Note**: If the RAID initialization has been halted or interrupted for some reason, a button Resume appears in the chassis' tile, allowing you to resume the RAID initialization process.

Sharing or Un-sharing Volumes

Volumes in the WORKSPACE XE network can have one of the following states:

Shared — the volume can be mounted only on WORKSPACE XE clients.

Private — the volume is accessible only to the WORKSPACE XE appliance.

Offline — the volume is not managed by WORKSPACE XE

You can choose which of the volumes managed by WORKSPACE XE to share to Workspace XE Clients (by making them shared).

Whenever you perform a maintenance operation like checking and repairing the file system of a volume, instead of disconnecting WORKSPACE XE clients from all shared volumes by entering Maintenance mode, you can un-share the volume on which you will perform the respective maintenance operation and after that share it again.

To share a volume to WORKSPACE XE Clients:

1. In the left pane of WORKSPACE XE's web interface, click **Storage Management** and then **Volumes**.
2. In the Volumes page, find the tile of the private/offline volume, which you want to share and in the drop-down box select **Shared**.
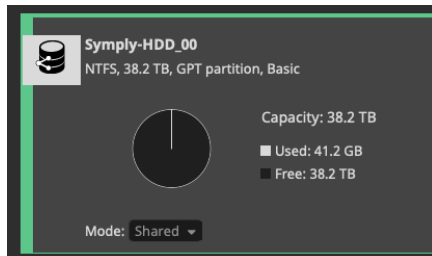
3. Confirm that you want to share the volume to WORKSPACE XE Clients. The volume is shared to all WORKSPACE XE Clients that have access to it.

   Note: You cannot share a volume if the product is not activated

To make a volume Private for the WORKSPACE XE:

1. In the left pane of WORKSPACE XE's web interface, click **Storage Management** and then **Volumes**.
2. In the Volumes page, find the tile of the volume, which you want to unshare and in the dropdown box select **Private**.
3. Confirm that you want to make the volume **Private** for the appliance. The volume is made Private for the WORKSPACE XE and all computers that had access to it can no longer mount it.

Set Volume Mount Location (Windows Only)

By default, each WORKSPACE XE volume uses Automatic mount location on all client computers:

- Windows - the first available drive letter.
- Mac OS X - /Volumes.
- Linux - /mnt directory with an automatically created symbolic link /Volumes, which points to the /mnt directory.

In the web interface, you can specify a preferred drive letter as mount location of a volume on all Windows machines. This way, you can make a volume to be mounted in one and the same location on all Windows machines that see it.

Note: If you specify a drive letter as default mount location, but this drive letter is already in use on a Windows Client computer, it uses Automatic as mount location setting. You can also overwrite this setting for a particular Windows Client, by specifying different drive letter as default mount point on this computer.

To set default mount location on Windows Clients:

1. In the left pane of WORKSPACE XE's web interface, click **Shared Volumes**.
2. In the tile of the selected volume, click the link next to **Mount Location**.
3. In the Mount Location dialog, do one of the following:
   a. Select Automatic to let the volume mount on Windows Clients using the first available drive letter (default setting)
   b. Select Drive Letter and in the drop-down box select a drive letter.
4. Click **OK**

Note: The volume is mounted in the new mount location on Clients only after they remount it.

Managing Workspace XE RAID Storage

On WORKSPACE XE you can create a new RAID on the chassis of the appliance or re-build an existing RAID. As standard the WORKSPACE XE ship pre-configured with RAID 5 HDD / U.3 NVMe volume, the optional E1.S NVMe drives are also default configured as RAID 5.

For the purpose, first you have to destroy the existing RAID (if any) and then create the new RAID, choosing between the following RAID types:

- RAID 5 (default) - provides optimal performance and allows the RAID to operate with one.
- RAID 6 - provides improved fault tolerance, allows the RAID to operate with up to two failed.
- RAID 0 - provides maximum speed.

  Important: All data on the disks will be lost after creating a new RAID. It is advisable to back it up before creating the RAID.

To create a new RAID:

1. In the left pane of the web interface, click System and then Maintenance.
2. In the Maintenance page, click Enter Maintenance mode and confirm then confirm that you want to enter Maintenance mode.
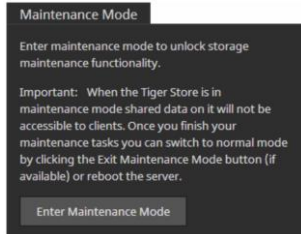
Note: All connected WORKSPACE XE Clients are automatically disconnected from the storage and any file operation going on at the moment is cancelled.

Important: If you exit Maintenance mode or the appliance is rebooted while in Maintenance mode, any maintenance operation going on at the moment is cancelled and Clients can reconnect to the WORKSPACE XE.

3. In the left pane of the web interface, click Storage Management and then Chassis.
4. In the Chassis page, find the tile of the chassis whose RAID you want to destroy and click Destroy RAID.
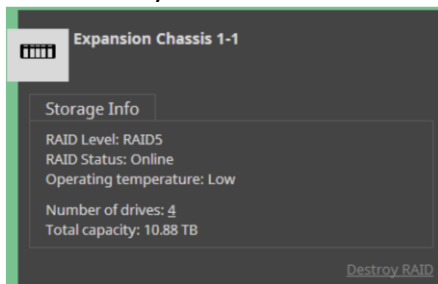
5. Click Continue to confirm that you want to destroy the RAID.

Important: This will destroy all data on the RAID

6. In the tile of the chassis, whose RAID you have just destroyed click Create RAID
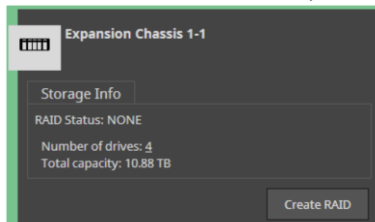
7. In Create New RAID Options dialog, select the RAID type and click Continue.
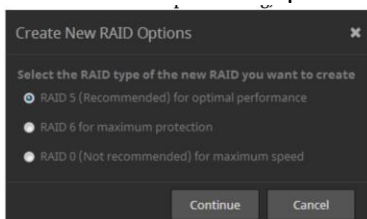
8. When the newly created RAID appears as a volume in the Volumes page, exit Maintenance mode (in System | Maintenance, click Exit Maintenance Mode) and share the new volume to Clients.

Re-build Existing RAID:

The RAID controller of WORKSPACE XE appliance the RAID status in the Volume tile of the respective backplane (HDD, U.3 NVMe and optional E1.S NVMe).
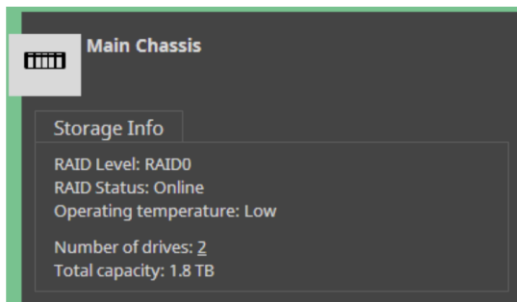
RAID Status Information:
- Online – RAID is OK
- Degraded – a drive has failed, and the RAID needs to be re-built.
- Rebuilding – the RAID is in the process of re-building.

    Note: If the re-building of the RAID has been interrupted, the status displayed is "Degraded (Rebuild - Halted)"

Depending on how your RAID is configured, you can replace one (RAID5) or two (RAID6) failed hard disks (or NVMe drives), while the appliance is operating and no data on the RAID will be lost. Once you replace the failed drive(s), you must re-build the RAID, following the steps below.

Note: For information on replacing failed RAID drive.

To re-build the RAID:

1. In the left pane of the web interface, click **Storage Management** and then **Chassis**.
2. In the tile of a volume with degraded RAID status, click **Rebuild**
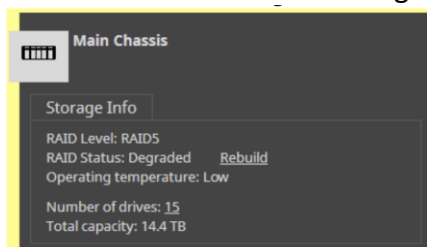
    While the RAID is being re-built, it is still available to Clients although with decreased performance. You can pause the RAID re-building and then resume it again. The RAID will rebuild faster if there are no other operations occurring.

Import RAID:

If the RAID controller of the appliance fails to detect its disks (they are reported as Foreign), you can import the RAID, following the steps below.

To import the RAID:

1. In the left pane of the web interface, click Storage Management and then Chassis.
2. In the tile of a volume whose disks are reported as Foreign, click Import RAID.
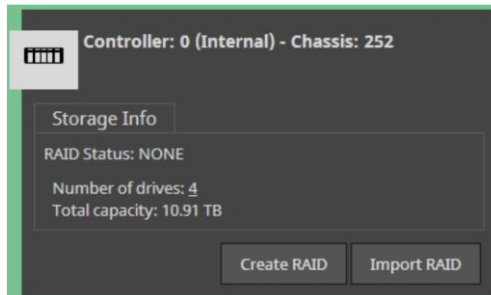
Rename a WORKSPACE XE Store Volume

The name of each volume, managed by WORKSPACE XE, is used as its label on client computers. You can change the name of a shared volume at any time. Computers that have mounted a shared volume with its old name can see it with its new name only after reconnecting to the storage server.

To rename a WORKSPACE XE Store volume:

1. In the left pane of the web interface, click Shared Volumes.
2. Click the name of the volume in the tile of a shared volume.
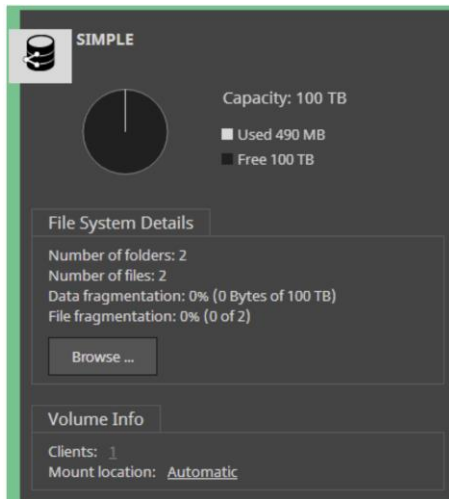
3. In the Rename dialog, enter a new name of the volume/pool and click OK
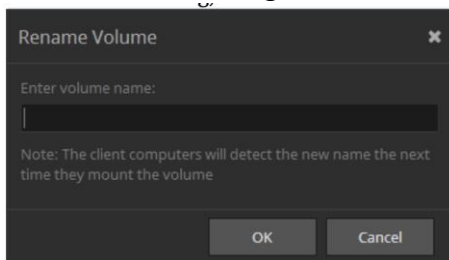
Note: *In case you need to immediately rename the volume again, wait for the web interface to refresh automatically with the latest volume name, before assigning a new one. Otherwise, it is possible to revert to the last saved name.*

The new volume name is displayed on client computers only after they remount the volume.

Workspace XE Storage Maintenance

Check and Repair the File System

Note: On the WORKSPACE XE appliance, request assistance from Symply support team for checking and repairing the file system of a volume.

Volume Defragmentation

The WORKSPACE XE defragmentation engine is designed not only to reduce the fragmentation of the file system, but also to optimize the processing of file sequences on the shared volumes. By default, the auto-defragmentation is enabled. It defragments data on the shared volume(s) only when the system is in idle state (overall traffic to the shared storage doesn't exceed 10MB/s for at least 30 minutes) and automatically pauses, when traffic above this threshold is detected. You can disable auto-defragmentation and run defragmentation manually from the web interface instead.

Note: *You cannot run defragmentation (automatic or manual) on a private volume (a volume that is not shared to Clients).*

To enable/disable auto-defragmentation:

1. In the left pane of the web interface, click **Shared Volumes**.
2. In the Auto-defragmentation field, do one of the following:
   a. Select the "Enable automatic defragmentation" check box, to enable auto-defragmentation of the volume.
   b. Clear the "Enable automatic defragmentation" check box, to disable auto-defragmentation of the volume.
3. Click Continue to Confirm the selected option.

Manually Defragment a WORKSPACE XE Store Volume

If you have disabled the automatic defragmentation, it is advisable that you perform manual defragmentation of the volume(s) when needed. You can keep track of the fragmentation of each WORKSPACE XE volume in the Volume tile - it displays information about both data fragmentation and file fragmentation. Both values show the fragmentation level of data on the disk, but using different measuring systems. Data fragmentation lists the amount of fragmented data in bytes, while file fragmentation lists the number of fragmented files. Manual defragmentation can be stopped at any time.

To manually defragment a WORKSPACE XE volume:

1. In the left pane of the web interface, click **Shared Volumes**.
2. In the tile of a selected volume, click **Defragment**.
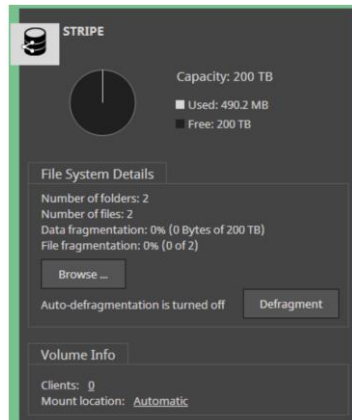
While the process is running, the Volume tile displays the defragmentation progress percentage and allows you to stop the defragmentation by clicking Stop Defrag.

Share a Workspace XE Volume as a SMB/CIFS Share

The web interface of the WORKSPACE XE appliances allow you to export a shared volume (or a folder on it) as a SMB/CIFS share to computers on the network that don't have the Client software installed. You can export as many shares as you like or remove any one of them at any time. The exported shares are accessible to all computers on the same LAN segment, by typing the name/IP address of the appliance in the file explorer of the operating system.

By default, the newly created SMB/CIFS share is accessible with "Full access" permissions to everyone. You can change the access permissions to the share for Everyone (domain or workgroup users) in the web interface.

Note: *To change the name of a share, you should first remove it then re-create it with its new name.*

To create a SMB/CIFS share on a WORKSPACE XE volume:

1. In the left pane of the web interface, go to System | SMB/CIFS Sharing and click Share a Folder.
2. In Share a Folder, click Browse and browse to the desired volume and select the folder on it.

> **Tip:** *To share a whole volume, select the root of the volume.*

3. Enter a name of the share and click OK.

Note: *If you do not specify a name of the share, it automatically takes the name of the folder.*

The share appears in the list of shares. By default, it is accessible to everyone with "Full access" permissions.

To remove a SMB/CIFS share of a WORKSPACE XE volume:

1. In the left pane of web interface, click **System** and then **SMB/CIFS Sharing.**
2. Find the tile of the share that you want to remove and click **Stop Sharing**.

    Important: All LAN clients that are currently accessing the SMB/CIFS share through WORKSPACE XE lose connection to it and any file operation going on at the moment may fail.

3. Confirm that you want to remove the share. The share is removed from the list of shares.

To set permissions of a SMB/CIFS share on a WORKSPACE XE volume:

1. In the left pane of the web interface, click **System** and then **SMB/CIFS Sharing**.
2. Find the tile of the share whose permissions you want to set.
3. In the drop-down box, select the respective permissions for Everyone. The permissions are applied on the next re-mount of the share on non-Client computers.

Managing WORKSPACE XE Clients

The administrator of WORKSPACE XE can manage Client computers in the following ways:

- View connected Clients and their connection status.
- Connect/disconnect a Client computer from the WORKSPACE XE
- Restrict Clients from disconnecting from WORKSPACE XE
- Specify the volumes, which each Client can mount.
- View traffic information for attached Clients

View WORKSPACE XE Clients Information and Connection Status

The Clients page of the web interface lists all computers on the same network, which run the WORKSPACE XE Client driver and are connected to the WORKSPACE XE appliance. The Clients Information field gives you information about the number of connected LAN client computers as well as the number of all disconnected client computers.

Additionally, each Client is represented by a tile, which gives you information about the name, IP address, operating system of the computer and the version of the Client driver it has installed. The tile of a Client also gives you information about the computer's connectivity to the WORKSPACE XE client.
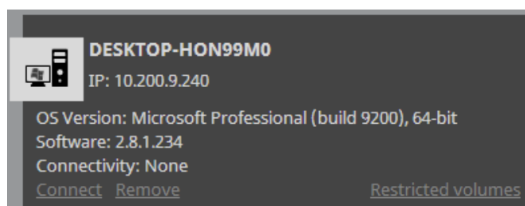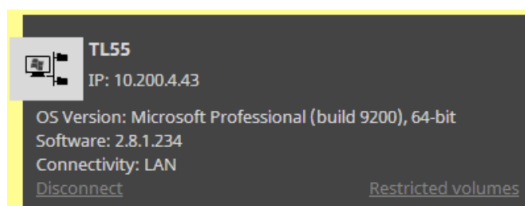
You can remove the tile of a disconnected Client computer from the list, when the computer no longer runs the Client driver, for example. If the Client computer you have removed from the list is online, the WORKSPACE XE appliance is automatically removed from the client computer's list of storage servers.

To make a removed Client appear again on the Clients page, on the client computer you must add the WORKSPACE XE appliance to the list of appliances and manually connect to it. If the client computer is offline, when you remove it from the Clients page, to make it appear on the Clients page, once it is turned on again manually connect it to the appliance.

Workspace XE Appliance Administrators' Guide

To remove a Client's tile from the list of client computers:

1. In the left pane of WORKSPACE XE's web interface, click **Clients**.
2. In the tile of a disconnected client computer, click **Remove**. The Client tile is removed from the list.

Connect/Disconnect a WORKSPACE XE Client

In the tile of a Client in the Clients page, you can force disconnect a selected Client from the shared volumes it sees, and vice versa, you can force connect a disconnected Client computer as long as it is currently online.

To force disconnect a selected client computer:

Important: *When you force disconnect a Client from a shared volume, any file operation performed from that computer on the shared volume will be cancelled.*

1. In the left pane of WORKSPACE XE' web interface, click **Clients**
2. In the tile of the computer that you want to disconnect, click **Disconnect**. WORKSPACE XE then disconnects the selected Client from all shared volumes it has mounted.
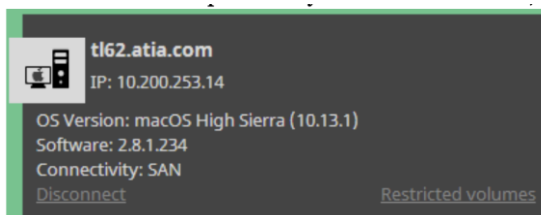
Note: The Disconnect button is not present, if the Client computer has not mounted any volume.

To force connect a selected client computer:

1. In the left pane of WORKSPACE XE web interface, click **Clients**
2. In the tile of the computer that you want to connect, click **Connect.**
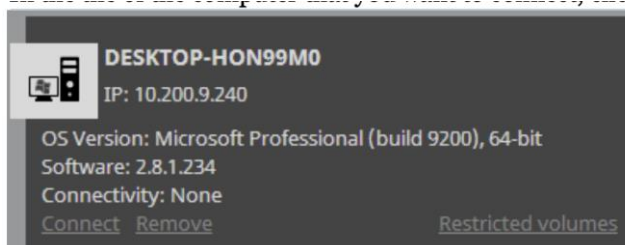
The selected Client computer mounts all volumes it is allowed to mount.

Workspace XE Appliance Administrators' Guide

Restrict WORKSPACE XE Clients from Manually Disconnecting

To ensure that a Client computer remains connected to the storage server no matter what user is currently logged on to it, you can set WORKSPACE XE to require an administrators password each time a user attempts to disconnect its computer from WORKSPACE XE. By default, this option is disabled.

To restrict a Client(s) from manually disconnecting from the WORKSPACE XE:

1. In the left pane of WORKSPACE XE's web interface, click **Clients**.
2. In **Clients Restriction**, do one of the following:
   a. Select the "Restrict client actions" check box, to require a WORKSPACE XE administrator's password when manually disconnecting from the appliance.
   b. Clear the "Restrict client actions" check box, to allow require a Client(s) to manually disconnect from the storage server.

   The option you have selected is applied on each Client computer once it reconnects to the WORKSPACE XE.

View Workspace XE Traffic Information

To facilitate you in monitoring the workload of the shared storage and the connectivity with currently connected Clients, the Workspace's web interface offers you the Traffic monitoring tool. You can view data and metadata traffic statistics between the shared volumes and all currently connected computers for a selected period.

To view traffic information:

1. In the left pane of WORKSPACE XE's web interface, click **Traffic**. The Traffic page appears.
2. In the drop-down box above the graph, select the type of metric:

   - Volume I/O in MB/s;
   - Volume I/O in requests/s;
   - Network I/O in MB/s;
   - Network packets/s;
   - Number of open operations;

3. In the drop-down box below the graph, select the time interval for which you want statistics. The Traffic page displays a graph showing you the statistics for the parameters you've chosen in the respective drop-down boxes.

   Tip: Instead of refreshing the web page to update the results displayed, make sure the "Update automatically" check box is selected, this way allowing the web interface to automatically update the information displayed.

WORKSPACE XE System Maintenance

The following options facilitate you in maintaining and monitoring your WORKSPACE XE appliance.

- WORKSPACE XE reboot and shutdown options.
- Enabling remote access to a WORKSPACE XE appliance.
- Updating WORKSPACE XE firmware.
- Backing up and restoring the WORKSPACE XE configuration.
- Email notification
- Viewing event reports

WORKSPACE XE Reboot and shutdown options

To facilitate you in performing certain tasks and in order not to obstruct users work with the appliance, the WORKSPACE XE offers you several reboot options.

You can issue the following commands:

- Restart add-on services - restarts all add-on services, installed on the storage server (like auto defragmentation).
- Restart all services - restarts all WORKSPACE XE services and starts them in the correct order, clients are disconnected from the storage server.
- Full System reboot – WORKSPACE XE automatically disconnects any connected client computer and shuts down, then starts again. Once the system is up again, the web interface is automatically refreshed.

   Note: After restarting the appliance, client computers are not automatically reconnected to it.

- Shutdown - WORKSPACE XE automatically disconnects any connected client computer from the storage server and shuts it down.

   Important: Whenever you need to restart or shut down a WORKSPACE XE appliance, it is advisable to do it from the web interface, instead of pressing the Power button on the front of the appliance.

   Important: Some of the Shut down and Reboot commands are not available when maintenance operations such as Firmware Update are going on.

To issue a reboot option command:

1. In the left pane of the web interface, click **System** and then **Maintenance**.
2. In System Reset, select the desired option in the drop-down box and then click the button below to issue the selected command.

Tip: The button below the drop-down box changes according to the selected command.

Enable/Disable Remote Access to the Appliance

For some maintenance operations you may need the assistance of the Symply support team. To facilitate them in diagnosing the problem and resolving it, you may have to provide remote access to the appliance. This is done by enabling the pre-installed software for remote assistance.

Enable remote access to the appliance only if requested by Symply support team. Disable the setting once remote support is no longer needed.

To disable/enable remote access to the appliance:

1. In the left pane of the web interface, click System and then About.
2. Do one of the following:
   a. Select the "Allow remote assistance" check box, to enable remote access to the appliance.
   b. Clear the "Allow remote assistance" check box, to disable remote access to the appliance

Updating the Firmware on a WORKSPACE XE

You can use the web interface of WORKSPACE XE to update the appliance firmware. You can check the current firmware version in the About page of the web interface.

Some firmware updates require that the Client software also be updated on client computers.

You can update the firmware, when no client computer is connected to the appliance and no other maintenance operation is going on. That is why before updating the firmware you should enter Maintenance mode, which disconnects all client computers.

> **Important**: make sure there are no ongoing read/write operations our occurring on clients before entering maintenance mode.

> **Important:** The process of firmware update cannot be interrupted or paused. Do not shut down or restart the appliance after a firmware update has begun.

To Updated Firmware:

1. In the left pane of the web interface, click **System** and then **Maintenance**.
2. Click **Enter Maintenance Mode** and then confirm that you want to enter Maintenance mode
3. In Firmware Update, click Browse/Choose File and then browse for and select the file containing the firmware update to upload.
4. Click Continue to confirm that you want to perform firmware update.
5. When the firmware update finishes, the system automatically restarts

Back Up/Restore the WORKSPACE XE Configuration

To facilitate the upgrading of the WORKSPACE XE appliance, the appliance allows you to back up and then restore all settings configured in the web interface, thus sparing you the effort to configure them again after the Firmware upgrade. When you restore a previously backed up configuration, you restore all settings for appliance name, default volume mount point on Windows Clients, auto-defragmentation, domain settings, and IP configuration.

> **Note:** WORKSPACE XE does not backup and restore the password for the web interface but keeps the last used password.

By default, the file with the backed-up configuration is saved with the following name:

[storage server name]_[time]_[date]_backup.json. You can create as many backups as you want and change their name to make it easier for you to discern between one another as long as you keep their extension (.json). To provide protection of sensitive information in the configuration backup file, WORKSPACE XE encrypts it. Additionally, you can ensure that no unauthorized user restores a backed-up configuration file by protecting the backup file with a password.

> **Important:** Restoring a backed-up settings configuration automatically disconnects all Clients and restarts the storage server computer.

To back up the WORKSPACE XE settings configuration:

1. In the left pane of the web interface, click **System** and then **Maintenance**.
2. In Back Up System Settings, click **Back Up.**
3. Do one of the following:
    a. Leave the password field empty and click OK, to be able to restore the settings configuration without providing password.
    b. Enter a password and click OK, to allow restoring the settings configuration only after providing a password.
4. Select the location where to save the file and click **Save**.

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To restore a WORKSPACE XE settings configuration:

1. In the left pane of the web interface, click **System** and then **Maintenance**.
2. In **Restore System Settings**, click **Choose File**
3. Select the file and click Open.
4. Do one of the following:
   a. Leave the password field empty and click OK, to restore a settings configuration, which isn't password protected.
   b. Enter a password and click OK, to restore a settings configuration protected with a password.
5. WORKSPACE XE automatically disconnects all Clients and after importing the selected backup file restarts.

Configure E-mail Notifications on Workspace XE

WORKSPACE XE offers you the opportunity to receive e-mail notifications each time there's a problem with the shared volumes. The notifications give you detailed information about the storage status and the exact disk that has failed.

To benefit from the e-mail notifications, besides specifying the email account(s) to which the notifications to be sent, you must also specify an e-mail account from which these notifications to be sent. This account must be managed by a mail server to which WORKSPACE XE is connected via the Network Port.

It is advisable to let the system administrator set the notification settings as you will also need the password, SMTP host, SMTP port, SSL and authentication type details of the account from which the notifications will be send. Your system administrator can create a new e-mail account specifically for the purposes of sending e-mail notifications from WORKSPACE XE.

You can enable/disable e-mail notifications at any time, keeping in mind that each time you disable them, you lose all e-mail notification settings you have specified.

To enable/disable e-mail notifications:

1. In the left pane of the web interface, click **Settings**.
2. In **E-mail Notification**, do one of the following:
   a. To enable e-mail notifications or edit the e-mail notifications settings, enter the needed information in the respective fields and click **Apply**.
   b. To disable e-mail notifications, click **Clear** and then **Apply.**

   Note: In case you want to set more than one e-mail account to receive notifications, in the Send To field enter the respective e-mail accounts separated by commas.

   Tip: To verify that you have correctly specified the e-mail notification settings, click Send Test Message and check the Inbox of the e-mail account for the test message.

View Event Reports

In the web interface you can view detailed reports about events regarding the shared volumes, a Client or all Clients within a selected time period. You can filter the events by three categories:

- Information
- Warning
- Errors

To generate an event report:

1. In the left pane of the web interface, click Events.
2. The Events page appears.
3. In the Type drop-down box, select whether to generate a report about all events or filter it to specific type only.
4. In the Period drop-down box, select the time period for which to generate the report.
5. In the Volumes drop-down box, select whether to generate report for a selected volume only or for all volumes.
6. In the Machines drop-down box, select whether to generate a report about all machines or filter it to a specific computer only.

The Events page displays graphs with the event types by date and below lists all events in descending order.

Installing and Uninstalling the Workspace XE Client Driver

Once you install the Client Driver, you can use the Client tray application (Windows), the menulet (macOS) or command-line (Linux) to:

- create a list of the WORKSPACE XE appliances (storage servers) on your network (if you have more than one)
- connect to and disconnect from appliances on your list and mount/dismount the volumes they share.
- overwrite the volume mount location on Windows Client.
- view connection status
- easily access WORKSPACE XE's web interface

To download and install the WORKSPACE XE client driver (macOS and Windows)

1. In a web browser, type the IP address of the WORKSPACE XE appliance for your network connection.
2. Press Enter.
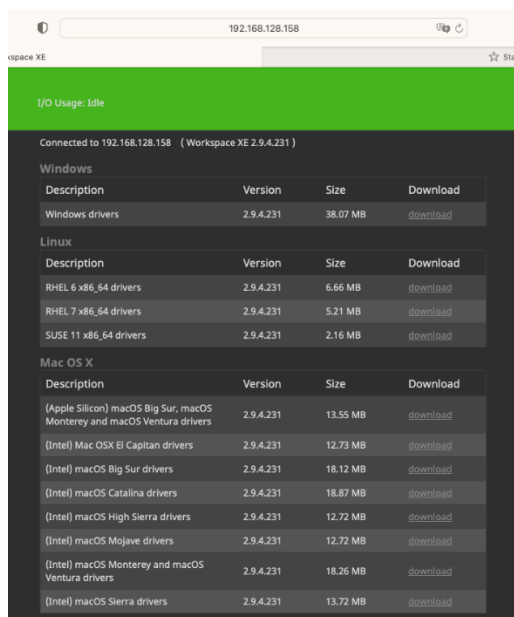
3. Find the Client installation file for your operating system and click Download.
4. When the installation file downloads to your computer, double-click it to start the installation.
5. Follow the on-screen instructions and when prompted, restart your computer.
6. On macOS and Windows, the WORKSPACE XE Client icon appears in the Menu Bar/System Tray of your computer.

Note: Additional security macOS Catalina (and later OS) does not allow you to open the Workspace Client Driver installation file by double-clicking it, because Apple cannot check it for malicious software, you must control-click it in Finder, choose Open from the menu, and then click Open in the dialog that appears.

Note: On macOS, you will need to confirm that you allow the loading of the Workspace Client kernel extensions.

Note: Like all third-party software working at system level, the WORKSPACE XE Client software uses the macOS kernel extensions, whose loading should be manually allowed by the user. By default, under the Apple ARM architecture (M1 and M2 hardware) the operating system uses the strictest security restrictions and disallows the user management of kernel extensions even from identified developers. To enable this option needed for the WORKSPACE XE Client driver to install and run.

1. Reboot the macOS Apple Silicon client system into Recovery mode
2. In the Utilities menu, select Startup Security Utility.
3. In Startup Security Utility, click Security Policy.
4. In Security Policy, do the following:
   a. Select Reduced Security.
   b. Select the "Allow user management of kernel extensions from identified developers" check box.
   c. Click OK.
5. Restart the computer.

Note: For most up-to-date steps about allowing the user management of kernel extensions on ARM-based computers, refer to:

https://support.apple.com/guide/mac-help/change-security-settings-startup-disk-a-macmchl768f7291/mac

Note: During installation of the Client on macOS, even if you specify that smct.app and the vpd daemon must be added as firewall exceptions, you should manually allow them in the firewall database of your computer.

Note that as long as the firewall of your computer is turned on, you may have to add them to the firewall database after each reboot of the computer.

To download and install the WORKSPACE XE client software (Linux)

1. In a web browser, type the IP address of the WORKSPACE XE appliance for your network connection
2. Press Enter
3. Find the Client installation file for your operating system and click Download.
4. When the installation file downloads to your computer, log on to the Linux system as root.
5. In command-line, type:
   ```
   rpm -i <path to the WORKSPACE XE client software .rpm file>
   ```
6. Press Enter.
7. In command-line, execute the following as root:
   ```
   /etc/init.d/tboxd start
   ```

Uninstalling the WORKSPACE XE Client Driver

To uninstall the WORKSPACE XE Client software (Windows):

1. In Control Panel, double-click Programs and Features.
2. Right-click WORKSPACE XE Client and select Uninstall. You are prompted to confirm that you want to remove the Client software.
3. Click Yes, to confirm. The Client uninstallation warns you that you will have to reboot the computer to complete the uninstallation.
4. Click OK.
5. When prompted, restart the computer.

To uninstall the WORKSPACE XE Client software (macOS):

1. Go to Applications | WORKSPACE XE Client
2. Double-click Uninstall.
3. Provide administrator's user name and password.
4. When prompted, confirm that you want to uninstall the Client software

To uninstall the WORKSPACE XE Client software (Linux):

1. Log on to the Linux system as root.
2. In command-line, type:
   ```
   rpm -e Workspace-XE-Client
   ```
3. Press Enter.

Connecting and Disconnecting to WORKSPACE XE Shared Volumes

You can connect to one or more WORKSPACE XE appliances to mount and work with the volumes that they are sharing.

You can manage multiple WORKSPACE XE appliance(s) on your computer using the WORKSPACE XE Client application for your operating system:

- the menulet (macOS)
- the tray application (Windows)
- the command-line interface (Linux)

Adding WORKSPACE XE appliance(s) to the Client (macOS and Windows)

1. Click the Client tray/menulet icon and then click **Settings**. The Settings dialog appears. It lists all already added WORKSPACE XE appliances.
2. Do one of the following:
   a. (macOS) Click the "+" button.
   b. (Windows) Click Add.
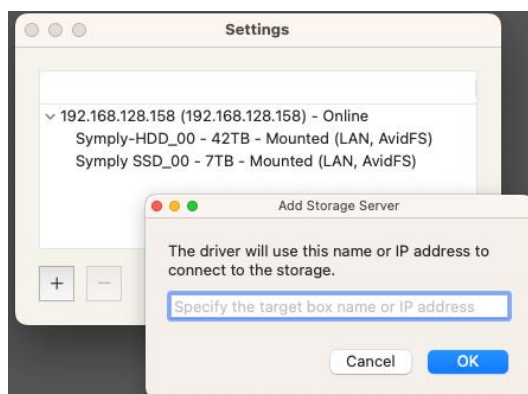
3. Enter the IP address of the WORKSPACE XE appliance.
4. Click OK. The WORKSPACE XE appliance IP address will appear in the list.
5. Repeat the process to add other WORKSPACE XE appliances.

Adding WORKSPACE XE appliance(s) to the Client (Linux)

1. In command-line, type:
   `smct –a [IP address]`
   where [IP address] is the IP address of the WORKSPACE XE appliance.
2. Press Enter. If you have successfully added the WORKSPACE XE to the list, the Client software automatically attempts to mount the volumes it shares on your computer.

   Tip: To view all WORKSPACE XE added to the list on your computer, type `smct –l` and press Enter

Connecting and Disconnecting Volume(s)

When you connect to a WORKSPACE XE listed in the client, you mount the volume(s) it shares to Clients. Vice versa, when you disconnect from a WORKSPACE XE, you automatically dismount the volumes it shares.   Note that when you disconnect from a WORKSPACE XE, you lose all unsaved information on the shared volumes.

To connect to a volume(s) (macOS and Windows):

1. Click the WORKSPACE XE Client tray/menulet icon and then click Connect/Disconnect.

2. Click a disconnected WORKSPACE XE (a WORKSPACE XE without a check mark in front of its name/ IP address) to connect to it.
3. The volumes this WORKSPACE XE shares for your computer are mounted.

   Important: If a volume with enabled support for Workspaces is set to be hidden in the web interface of Workspaces, this volume will not mount on your computer, when you connect to the WORKSPACE XE.

To connect to a volume(s) (Linux):

1. In command-prompt, type:
   `smct –c [number/host/IP address]`
   where [number/host/IP address] is the IP address of the WORKSPACE XE or its number in your list of appliances.
2. Press Enter

   Tip: To connect to all WORKSPACE XE on your list, type:
   `smct –c all` and press Enter.

   Important: If a volume with enabled support for Workspaces is set to be hidden in the web interface of Workspaces, this volume will not mount on your computer when you connect to the WORKSPACE XE.

To disconnect from a Volume(s) (macOS and Windows):

1. Click the Client tray/menulet icon and then click Connect/Disconnect.
2. Click a disconnected WORKSPACE XE (a WORKSPACE XE without a check mark in front of its name/ IP address) to connect to it.
3. If prompted, confirm that you want to disconnect from the appliance.
4. (Optional, if client's restriction is enabled on WORKSPACE XE) Enter the WORKSPACE XE administrator's password in the dialog, which shows and then click OK.

To disconnect from a Volume(s) (Linux):

1. In command-prompt, type:
   `smct –d [number/host/IP address]` where [number/host/IP address] is the IP address of the storage server or its number in your list.
2. Press Enter
3. (Optional, if client's restriction is enabled on WORKSPACE XE) Enter the WORKSPACE XE administrator's password in the dialog, which shows and then click OK.

   Tip: To disconnect from all appliances on your list, type:
   `smct –d all` and press Enter.

Accessing the WORKSPACE XE Web Interface

Once the Client computers adds WORKSPACE XE to its list, they can load the web interface directly through the tray application (Windows), the menulet (macOS), command-line (Linux).

To access the web interface from a WORKSPACE XE Client (macOS and Windows):

1. Click the tray application/the menulet.
2. In the menu, click Open Configuration.
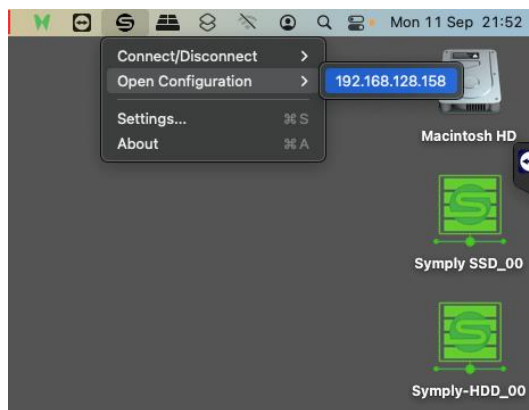
3. Click the WORKSPACE XE, whose web interface you want to open.
4. The web interface of the selected storage server loads in the default web browser of your computer.

   Note: To connect to the WORKSPACE XE web interface from the tray application/the menulet, the WORKSPACE XE needs to be present in the list of accessible storage servers (see "Connect and Disconnect to WORKSPACE XE")

Overwrite The Volume Mount Location (Windows)

By default, each volume shared by WORKSPACE XE uses Automatic mount location on all Clients:

- Windows - the first available drive letter.
- macOS - /Volumes.
- Linux - /mnt directory with an automatically created symbolic link /Volumes, which points to the /mnt directory.

In the web interface of the WORKSPACE XE, an administrator can specify a preferred drive letter as mount location of the shared volume(s) on all Windows Clients. This way, a volume can be mounted in one and the same location on all Windows Clients that see it. Using the WORKSPACE XE Client tray application, you can overwrite this setting on your Windows Client computer and specify a different drive letter as default mount point on this computer.

To overwrite the default volume mount location on your Windows computer:

1. Click the WORKSPACE XE tray application and then click **Settings**. The Settings dialog appears. It lists all already added WORKSPACE XE appliance.
2. Expand a disconnected storage server and select the volume whose mount location you want to overwrite.
3. Click Edit Volume. The Edit Volume Properties dialog appears.
4. Do one of the following:
   a. Select Automatic to let the volume mount on your computer using the first available drive letter.
   b. Select Drive Letter and in the drop-down box select a drive letter.
   c. Click OK. The volume will be mounted in the new mount location on your computer the next time you mount it.

   Note: WORKSPACE XE doesn't allow you to select a drive letter that is already in use on your computer.

View Connection Status

The WORKSPACE XE Client tray application/menulet icon on your computer shows the connectivity status of your computer:

- Apple macOS:
    - connected to all WORKSPACE XE in the list;
    - there's problem with the connection between your computer and one or more WORKSPACE XE in list;

- Windows:
    - connected as LAN client to all WORKSPACE XE in the list
    - there's problem with the connection between your computer and one or more WORKSPACE XE in list;

- Linux:
    - Online - the WORKSPACE XE is online, but you are not connected to it;
    - Mounted (LAN) - your computer is connected as a LAN client to all WORKSPACE XE on the list;
    - Offline - there's problem with the connection between your computer and one or more WORKSPACE XE on the list;

Best Practices

Using Identical Time and Date Settings

It is advisable to use identical settings for time and date on all computers on your WORKSPACE XE network (appliance and all client computers). Using different time and date settings may hamper communication with the WORKSPACE XE and the Traffic and Events reports may display incorrect information.

Assigning IP Addresses to Network Port

When assigning IP addresses to the network ports of WORKSPACE XE, make sure that you avoid the following IP addresses as they are either link-local addresses or are in use by WORKSPACE XE services:

- Link-local addresses in the range 169.254.0.0 - 169.254.255.255
- IPMI addresses in the range 1.1.1.0 - 1.1.1.255

Installing WORKSPACE XE Client on macOS Catalina and above

Additional security macOS Catalina (and later OS) does not allow you to open the Workspace Client installation file by double-clicking it, because Apple cannot check it for malicious software, you must control-click it in Finder, choose Open from the menu, and then click Open in the dialog that appears.

Allow the User Management of Kernel Extensions on Apple Silicon macOS

Like all third-party software working at system level, the WORKSPACE XE Client software uses the macOS kernel extensions, whose loading should be manually allowed by the user.

By default, under the Apple ARM architecture (M1 and M2 hardware) the operating system uses the strictest security restrictions and disallows the user management of kernel extensions even from identified developers. To enable this option needed for the WORKSPACE XE Client driver to install and run, follow the sample steps below.

Note: Even though the option is available only after you change the level of security on the startup disk to "Reduced", this poses no risk to your operating system as it is applicable only to signed operating system software ever trusted by Apple to run.

1. Reboot the macOS Apple Silicon client system into Recovery mode
2. In the Utilities menu, select Startup Security Utility.
3. In Startup Security Utility, click Security Policy.
4. In Security Policy, do the following:
   a. Select Reduced Security.
   b. Select the "Allow user management of kernel extensions from identified developers" check box.
   c. Click OK.
6. Restart the computer.

Note: For most up-to-date steps about allowing the user management of kernel extensions on ARM-based computers, refer to the Apple documentation at:

https://support.apple.com/guide/mac-help/change-security-settings-startup-disk-a-macmchl768f7291/mac

Disable Mac OS X Time Machine for Shared Volumes

It is highly advisable to exclude all WORKSPACE XE volumes from the list of locations Time Machine is set to back up on your macOS. Keeping this feature turned on for shared volumes may hamper performance.

To exclude a shared volume from Time Machine's backup:

1. In Time Machine preferences, click the Options button.
2. In the sheet with locations, select a shared WORKSPACE XE volume and click the "-" button.
3. Repeat the above step for each shared WORKSPACE XE Store volume.
4. Click Save

Using a DHCP Server on Your WORKSPACE XE Network

A Dynamic Host Configuration Protocol (DHCP) server automatically assigns and leases IP addresses to computers as they are added to a network.

While you can allow run-time configuring of IP addresses of both the WORKSPACE XE and the Clients, to ensure the proper cross-network communication, there should be a DNS server on the network that resolves the IP address of each connected computer to its domain name. Additionally, each Client should add the WORKSPACE XE to its storage servers' list using its domain name instead of the IP address with which it is currently identified.

In case there isn't a DNS server on the network, you should configure your DHCP server to use static allocation of IP addresses to the WORKSPACE XE and Clients

Configure a DNS Reverse Lookup Zone to use Active Directory in Heterogeneous Environment

When WORKSPACE XE operates in cross-platform environment (with macOS Clients), to benefit from Active Directory support, DNS reverse lookup zone must be configured on the domain controller. Otherwise, the domain permissions will not be respected by the macOS Client.

For information about configuring DNS reverse lookup zone, refer to your Active Directory domain controller documentation.

Avid File System Emulation and Avid Versions Without Bin Locking

WORKSPACE XE Avid file system emulation allows you to mount one and the same Avid project with Read & Write permissions on multiple Client computers simultaneously, letting Avid restrict accesses to the bins that are currently in use.

When you use an Avid version, which does not provide bin locking (like Avid Media Composer | First, for example) even though Avid file system emulation may be enabled on the volumes, WORKSPACE XE cannot prevent users on different computers from accessing the same bin and from overwriting each other's changes.

Final Cut Pro X Project Names on the Shared Volumes

It is advisable that the Final Cut Pro X projects you create on the shared volumes have names that do not exceed 31 characters.

Avoid Frame Corruption with Baselight Software

To avoid frame corruptions when using Baselight colour grading and editing software on WORKSPACE XE volumes, it is advisable to contact FilmLight's support team for assistance on setting up Baselight to use the cache for I/O operations (nodirect=1 setting)

Avoiding Long File Names

By default, on Windows the length of file names is limited to 260 characters and on macOS - to 1024 characters. On both Windows and macOS, the full path to the file is also included in the character count. That is why it is possible to receive errors when attempting to create or copy a file with long file name. For this reason it is advisable to avoid long file names in order to ensure that file operations on the shared storage are normally processed.

Generally, on all supported file systems you should try to limit path length (filename included) to below 255 characters.

Change the TCP Port for Access to the Web Interface

By default, TCP port 80 is designated for access to the web interface of WORKSPACE XE. If this port is already in use by another service, it is possible to assign a different port for the purpose. Please contact the Symply support team.

Avoid Backing Up the Settings Configuration in Maintenance Mode

WORKSPACE XE cannot ensure the consistency of the settings configuration backup, when you save it while in Maintenance mode. To avoid potential problems, it is advisable to always backup and restore the settings configuration when the appliance is not running in Maintenance mode.

Known Issues

Teaming Network Ports

At the moment the Teaming of the 2 x 25Gb ports that are native on the system or Teaming of the 4-Port 25Gb upgrade ports is not available via the Workspace XE user interface. For configuration of Teaming please email support@gosymply.com to schedule a professional service engagement.

Allowing smct.app and vpd During Client Installation on macOS

During installation of the Client on macOS, even if you specify that smct.app and the vpd daemon must be added as firewall exceptions, you should manually allow them in the firewall database of your computer.

Note that as long as the firewall of your computer is turned on, you may have to add them to the firewall database after each reboot of the computer.

No Support for Manual Defragmentation

Currently, you cannot perform manual defragmentation of your shared volumes. To keep your volumes defragmented it is advisable to enable the automatic defragmentation.

Volume Status not Preserved after Exiting Maintenance Mode

Volumes that have been shared before entering Maintenance mode may become Private after exiting Maintenance mode even though their tiles show Shared status. That is why after exiting Maintenance mode, it is advisable to check the status of all volumes seen in the Workspace XE user interface and manually change it. If the status of the volume is Shared, but it cannot be mounted on Clients, first set it to Private and then set it to Shared to let client computers mount it.

No Support for Sparse Files

WORKSPACE XE does not provide support for sparse files.

Executing Operation on a Shared Volume from macOS Terminal

When WORKSPACE XE is deployed in an Active Directory domain, you will not be able to execute certain operations on the shared volume(s) from the Terminal of a macOS client computer even if you have logged on as a user that has Full Control. These security mapping issues are not valid for operations performed in the file browser.

No Support for Spotlight Indexing

Currently, Spotlight Indexing is not supported on macOS Clients. While you can search the contents of a shared volume in the Finder, to index it you must use Spotlight alternatives.

No Support for Indexing Service on Shared Volumes

Currently, WORKSPACE XE does not support the Windows indexing service on shared volumes mounted on Clients

Manually Refreshing the Contents of a Directory

The contents of a directory may not be automatically refreshed on Clients and some file operations may fail. For instance, if a Linux Client tries to copy a directory that is deleted by a Windows Client, the Linux computer may not be notified about this, and the copy operation will result in error.

To overcome such problems, you may have to manually refresh the contents of the disks/directories you are working with.

Changing Volume's Icon on macOS

You can change the appearance of a shared volume's icon on a macOS client computer, but the original icon of the volume will be restored immediately after restarting the storage server and your personal icon will be deleted.

Compressing or Encrypting Folders on Shared Volumes

You will not be able to compress or encrypt any folder on a shared volume. If you try to complete any of these operations, the system displays an error message.

Renaming a Volume

You may have to rename a volume twice in the web interface of WORKSPACE XE in order to permanently change its name.

Exporting a SMB Share in Domain Environment

To ensure that WORKSPACE XE can export a SMB share to computers without the Client software, when your appliance is deployed in an Active Directory domain, the domain account "Everyone" must have at least Read Only access to the root of the volume from which the share is exported.

Applying New Network Environment Settings

It is possible when changing the settings for network environment (domain or workgroup) of your appliance after clicking the Apply button in the Settings page an error to be displayed, when in fact the changes have been applied. It is advisable to refresh the web UI of WORKSPACE XE in order to verify whether the new settings have been applied.

Renaming the Appliance in an Active Directory domain

Should you rename your WORKSPACE XE appliance after it has been added to an Active Directory domain, Clients may fail to browse the volumes it shares even if they re-add it to their storage servers list. It is advisable before renaming the appliance, to set the network environment to workgroup and manually delete the records about the appliance from the domain controller. It is advisable to do this each time you switch the network environment of your WORKSPACE XE from domain to workgroup.

Alternatively, you can manually change the DNS record for the WORKSPACE XE appliance in the respective DNS Zones in your domain so they can match the new name of the appliance. For details about configuring DNS services, refer to your Windows documentation.

Errors When Entering/Exiting Maintenance Mode

When entering/exiting Maintenance mode, the web UI of Workspace may display errors, when in fact the operation has succeeded. To verify that you have entered/exited Maintenance mode, refresh the browser. If on exiting Maintenance mode the error persists, restart the appliance.

No Authorization Required When Removing WORKSPACE XE from the Domain

If you decide to switch your WORKSPACE XE from domain to workgroup environment, the domain controller does not require that you authenticate yourself as a user authorized to remove computers from the domain.

No Support for File Security on Linux Clients

To allow Linux Clients to connect to the storage server and work with shared volumes, you must disable file security on your WORKSPACE XE network. Once you disable file security, domain access permissions to files and folders will not be applicable, even if your storage server operates in Active Directory domain and all users will have full access to all resources on your shared storage.

Refer to "Enable/Disable File Security in the WORKSPACE XE Network" about enabling/disabling file security.

Note: File security is automatically enabled on a WORKSPACE XE appliance once it is added to an Active Directory domain. For assistance on disabling file security, contact Symply support.

Disconnecting Clients from the WORKSPACE XE

When the "Restrict client actions" check box is enabled, macOS and Linux clients may fail to manually disconnect from the storage server (through the menulet or the command-line interface, respectively) as the field for providing an administrator's password may not appear.

Incorrect Connection Status on macOS Clients

The Client software on macOS may sometimes fail to correctly display the connection status to the WORKSPACE XE appliance. For example, the Settings dialog of the Client menulet may display that the WORKSPACE XE is online, when it is actually offline.

User Switching Known Issue (macOS & Windows)

Switching between users on a single machine, without quitting applications and logging out, lets users leave their applications running and their files open, when another user needs to log in.

While operations on the shared volumes are not interrupted when you switch users on a Client computer, the Client tray application/menulet may not be present when a new user logs on, thus preventing that user from controlling the available Client commands. A workaround to this problem is to force display the Client tray icon/menulet by restarting it.

Note: As users on Linux computers use the command-line interface to manage the Client driver, you can use fast user switching without problems.

To restart the Client tray application on a Windows computer:

1. Run the Task Manager as administrator.
2. In the Processes tab, right-click smct.exe and select End Process.
3. In the Run command (press Windows logo key+R to display it), execute this:

```
C:\Program Files\Symply\Workspace-XE\smct.exe
```

Note: Where C: is the drive, on which the Client driver is installed

To restart the Client menulet application on macOS

1. Start the Activity Monitor (go to Applications | Utilities | Activity Monitor).
2. In the Disk tab, in the Process name column select smct.
3. Click End Process in the Activity Monitor task bar.
4. Provide an administrator's user name and password.
5. On the drive, on which the operating system is installed, go to /Library/Application Support/embedded/smct and double-click it.

AC Warning Statements

The following statements are industry standard warnings, provided to warn the user of situations which have the potential for bodily injury. Should you have questions or experience difficulty, contact SYMPLY's Technical Support department for assistance. Only certified technicians should attempt to install or configure components.

Warning! Read the installation instructions before connecting the system to the power source.

Warning! This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that the protective device is rated not greater than: 250 V, 20 A

Warning! The system must be disconnected from all sources of power and the power cord removed from the power supply module(s) before accessing the chassis interior to install or remove system components.

Warning! There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions

Warning! Hazardous voltage or energy is present on the backplane when the system is operating. Use caution when servicing.

Warning! Installation of the equipment must comply with local and national electrical codes.

Warning! Hazardous moving parts. Keep away from moving fan blades. The fans might still be turning when you remove the fan assembly from the chassis. Keep fingers, screwdrivers, and other objects away from the openings in the fan assembly's housing.

Warning! When installing the product, use the provided or designated connection cables, power cables and AC adaptors. Using any other cables and adaptors could cause a malfunction or a fire.

Warranty

The Symply Workspace XE system comes with a limited three (3) year warranty, but with the option to purchase an upgrade to a five (5) year warranty. Terms and conditions apply.

Warranty and technical support service can be accessed at support.gosymply.com

SYMPLY ("the Company") warrants its products will be free from defects in material and workmanship for three years from the date of purchase of the product. This Limited Warranty only applies to the original purchaser of the product and is not transferable to subsequent owners. This Limited Warranty is void if the product is subjected to abuse, misuse, abnormal, excessive or improper conditions (including, without limitation, attempts to utilize the product under any condition that exceeds its design capabilities, or any other use beyond the use specified in any product instructions), or if the product is altered or modified in any manner. This Limited Warranty does not cover damage to the product due to external causes (including, without limitation, accident, liquids, chemicals, oxidation, corrosion, or exposure to the elements), or problems caused by use of parts and components not supplied by the Company. The sole remedy under this Limited Warranty is product repair, replacement, or refund of the purchase price, at the sole discretion of the Company.

In order to make a claim the purchaser must ship the product to the Company at the purchaser's expense, together with proof of purchase and a description of the nature of the defect. The Company will not be held responsible for any product that is damaged or lost in transit to the Company.

PURCHASER AGREES THAT SYMPLY SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, SECONDARY OR CONSEQUENTIAL DAMAGES, OR FOR THE DAMAGE, INJURY, OR LOSS OF LIFE, PROPERTY OR OTHER PRODUCTS THE PURCHASER CONNECTS TO THE PRODUCT, OR LOSS OF REVENUE OR DATA, WHETHER BASED ON CONTRACT, TORT, PRODUCTS LIABILITY OR ANY OTHER LEGAL THEORY, EVEN IF THE DAMAGE, INJURY OR LOSS IS CAUSED BY THE NEGLIGENCE OR OTHER FAULT OF SYMPLY. THE FOREGOING WARRANTY IS THE ONLY WARRANTY MADE BY SYMPLY, AND SYMPLY MAKES NO OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

This Limited Warranty shall be governed by the laws of England & Wales, and each party hereby submits to the non-exclusive jurisdiction of the English courts.