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SEAGATE Lyve Mobile Link App User Guide

**Lyve Mobile Link App
User Guide**

QUICK START GUIDE

Contents

Welcome to Lyve ™ Mobile Link

Lyve Mobile Link lets you share and manage connected Lyve Mobile Arrays on a local network.

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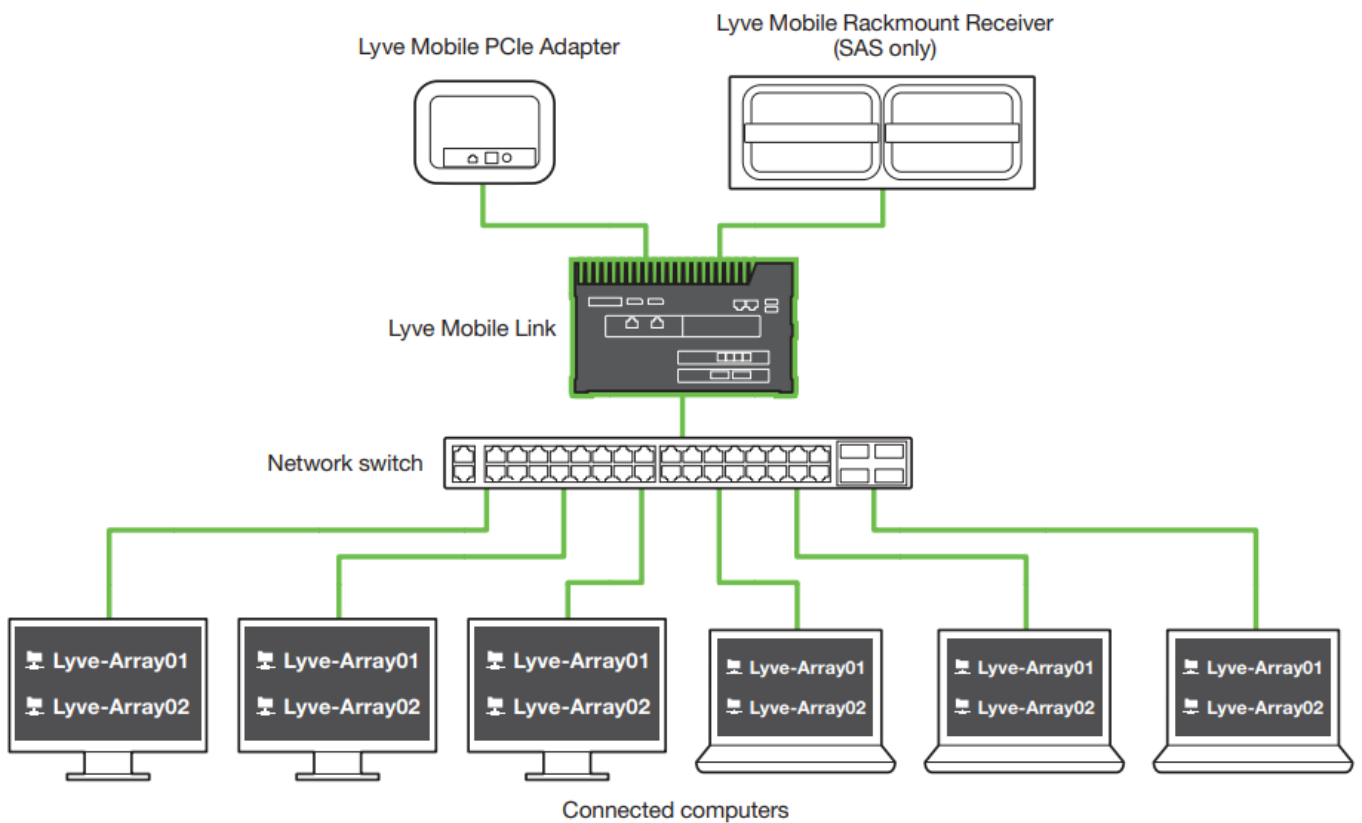
Parts list
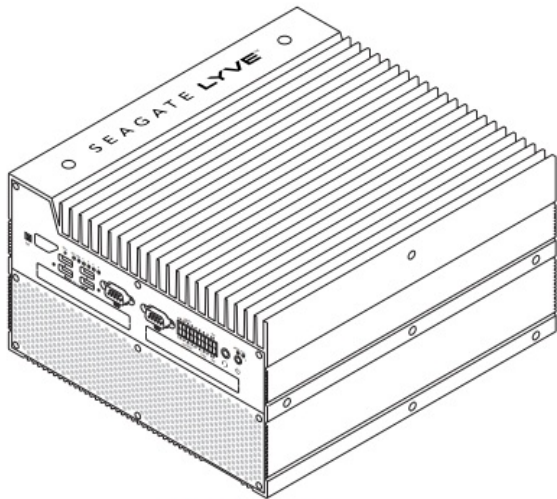
Lyve Mobile Link
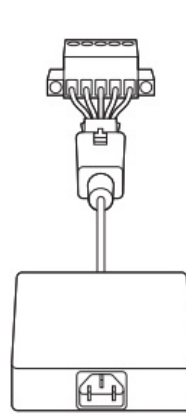
Power adapter
(24V 13.75A)

US

EU

UK

Views

Front

4x USB 3.2 Gen 2 (Type A)

Power button

Reset button (recessed)

Rear

1x power input (5 pin)

2x storage management (RJ45)

2x USB 3.2 Gen 2 (Type A)

1x 10GbE LAN (RJ45)

1x Appliance Management (RJ45)

2x 100GbE LAN (QSFP56)

4x storage data (SFF-8644)
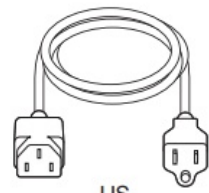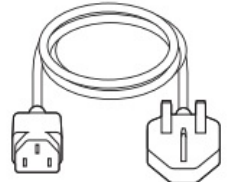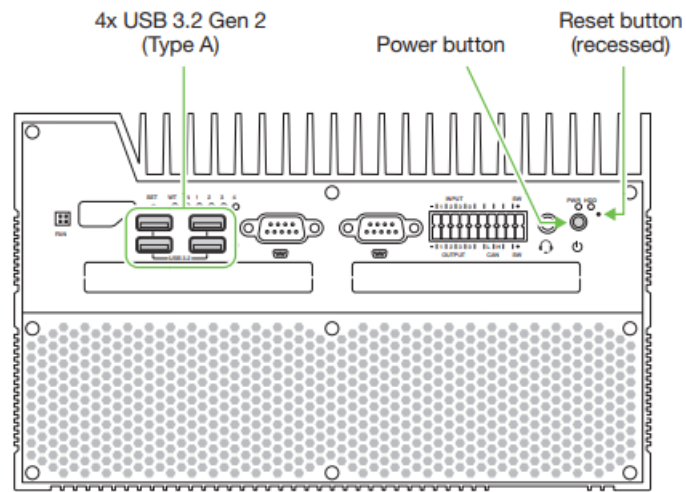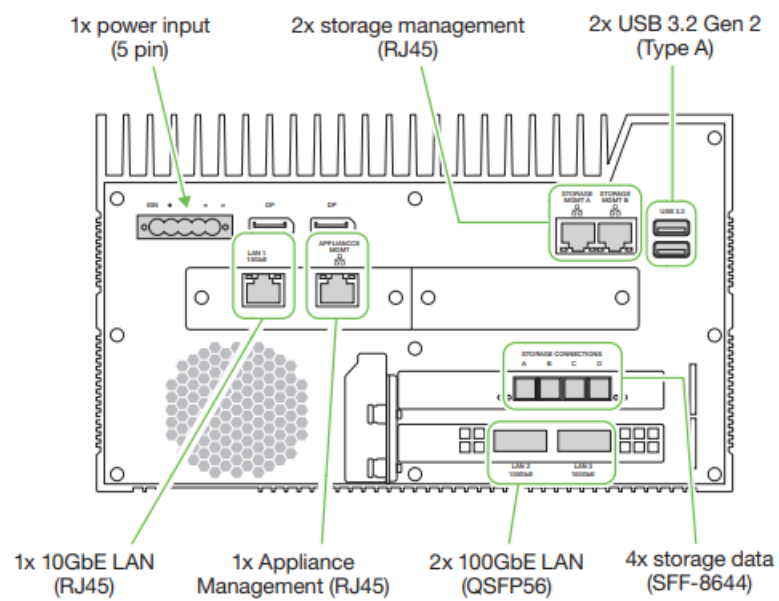
Unidentified ports are disabled.

Product dimensions
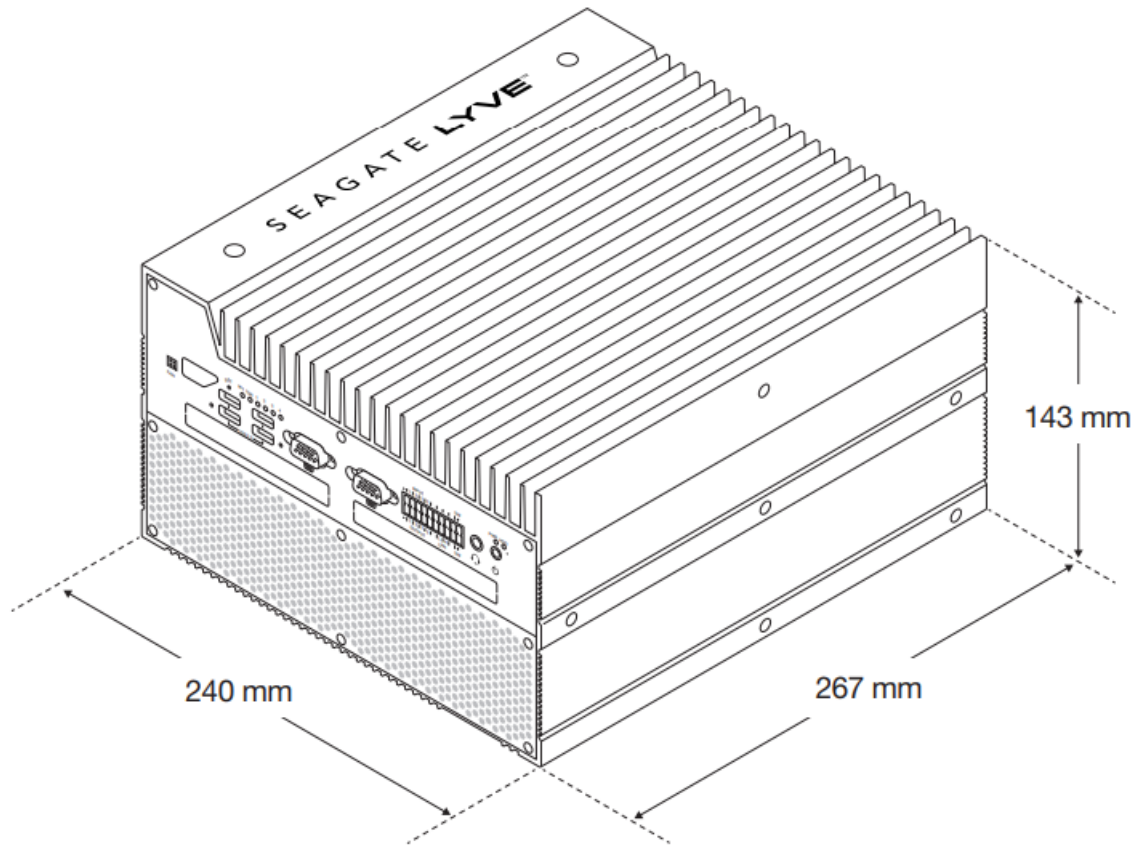
Connection types

Lyve Mobile Link requires the following connection types:

- PCIe or SAS – Data path between Link and Lyve Mobile Array
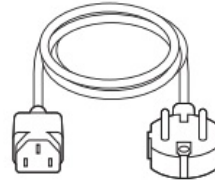- Ethernet – Management path between Link and Lyve Mobile Array
- LAN 10GbE and/or 100GbE – Data and management path between Link and the local network

Important – Link does not support Fibre Channel, iSCSI, Thunderbolt, and USB connections to Lyve Mobile Array.

Data connection to Link
Data to/from Lyve Mobile Array passes through PCIe or SAS connections.

Path	PCIe Adapter/ Rackmount Receiver	Link	Connector Type
Data	PCIe/SAS	STORAGE CONNECTIONS A-D	SFF-8644
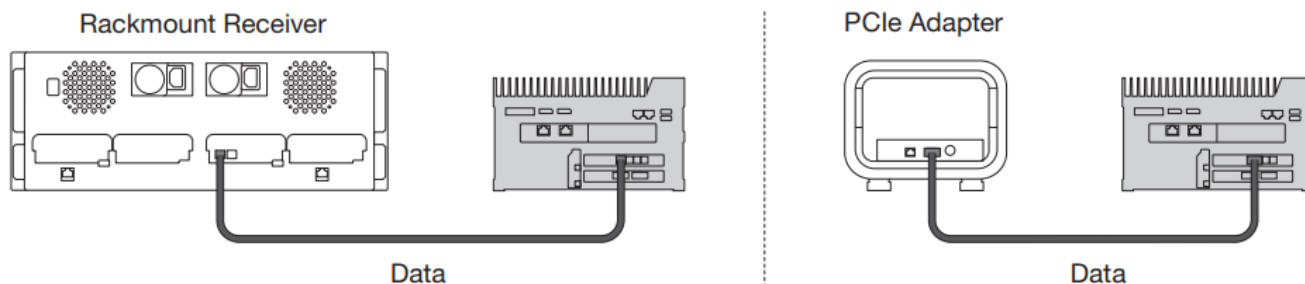
Rackmount Receiver — Data | PCIe Adapter — Data

Note — Confirm with your product administrator if your Lyve Mobile Arrays and Lyve Mobile Link use PCIe or SAS data paths before following the instructions included in this quick start guide.

Management connection to Link

Link controls Lyve Mobile Array via a direct Ethernet connection. Ethernet cables not included with Link.

Note — Only direct management connections are supported. Do not use an Ethernet switch when connecting the Ethernet management cables between Lyve Mobile Link and PCIe Adapter/ Rackmount Receiver.

Path	PCIe Adapter/ Rackmount Receiver	Link	Connector Type
Management	Ethernet managemen	STORAGE MGMT A or B	RJ45

—

Rackmount Receiver — Management | PCIe Adapter — Management
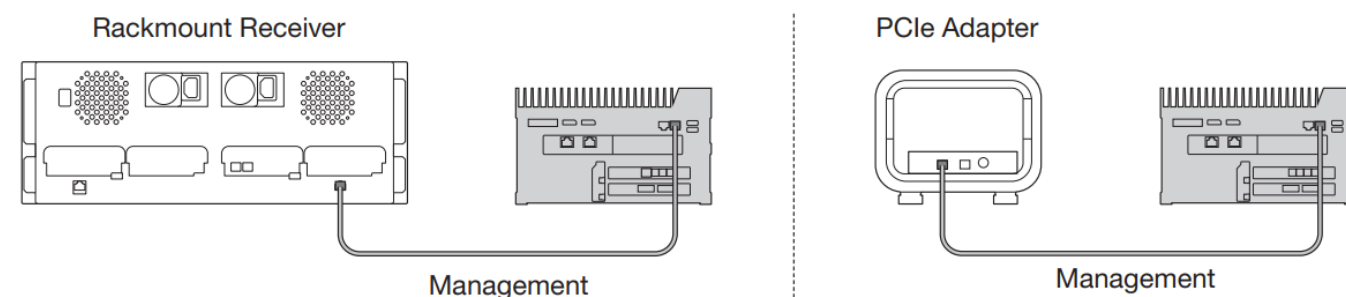
Data/management connections to network

Link's LAN ports send and receive both data and management information to the local network.

Path	Lyve Mobile Link	Network Switch	Connector Type
Data/Management	LAN 1 10GbE LAN 2 100GbE LAN 3 100GbE	RJ45 QSFP56 QSFP56	RJ45 supporting 10GbE performance QSFP56 QSFP56

Note — All LAN ports can be connected at the same time. However, Link does not support port aggregation.

Local network   Local network   Local network

LAN 1   LAN 2   LAN 3
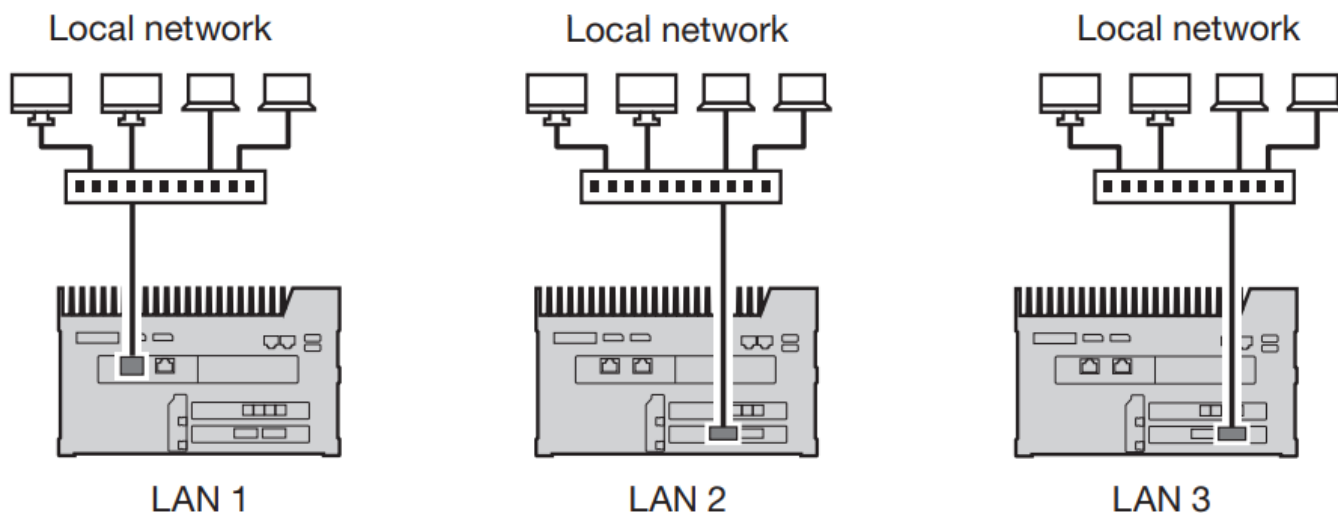
Appliance management connection

You can connect a PC directly to Link's Appliance Management port for management purposes only. Potential reasons for connecting to the Appliance Management port:

- Your network uses fixed IP addresses.
- You are unable to access the Link web app on the local network.

See Appliance management and IP addressing.

APPLIANCCE
MGMT
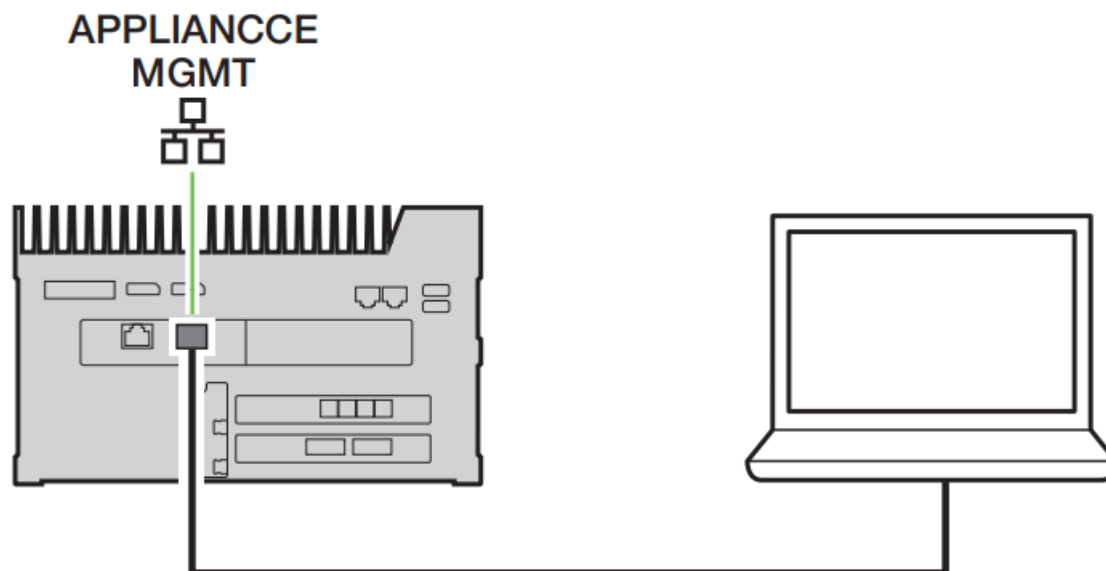
Overview of Lyve Mobile Link setup

Lyve Mobile Link lets hosts on your local network access Lyve Mobile Array storage. The storage is available to hosts as network shares.

Combining flexible operation and rugged mobility, Lyve Mobile Array offers a variety of ways to transport and manage data. Review the following overview of the steps for incorporating Link into your Lyve Mobile system.

1. Install the hardware supporting Lyve Mobile Array usage in your network environment. Note that setup instructions differ between PCIe Adapter and Rackmount Receiver. See Devices and services documentation

for links to online documentation.

2. Contact your product administrator to receive the Lyve Token file(s) to authorize access to Link and connected Lyve Mobile Arrays. See Lyve Token files for configuration details.

3. Make the connections between Lyve devices and your network:

   a. Lyve Mobile Array(s) to Link

   b. Link to your network

   See Connect devices.

4. Access the Link web app via a computer on the same network. See Open the Link web app.

5. Sign in to Link. See Select a Lyve Token file to sign in.

Lyve Mobile Array volume formatting

As part of device configuration, you will need to ensure that the formatting of your Lyve Mobile Array volumes is supported by your network protocol and compatible with your intended data workflow.
See Volume formats and network shares.

Devices and services documentation

Documentation for Lyve Mobile devices and services used with Lyve Mobile Link is available online.
You can access manuals at the links below for details on how to procure and manage Lyve Mobile storage devices.

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Online Manual	Information	URLs
Lyve Management Portal	Account, billing, project, and subscription management	**www.seagate.com/lyve-management**
Lyve Mobile Array	Lyve Mobile Array usage	**www.seagate.com/lyve-mobile-array**
Lyve Mobile Mount and PCIe Adapter	Mobile Mount and PCIe Adapter installation	**www.seagate.com/pcie-adapter-front-loader** **www.seagate.com/pcie-adapter**
Lyve Mobile Rackmount Receiver	Rack assembly	**www.seagate.com/rackmount-receiver**
Lyve Mobile Security	Lyve token files and security management	**www.seagate.com/lyve-security**

Lyve software solutions

How you authorize and manage Lyve Mobile Array depends upon your use case and the hardware associated with your project.
Lyve Mobile Link has a dedicated web app for sharing Lyve Mobile Arrays on the network. Use a computer on the same network as Link to run the web app in your preferred browser.
Lyve Client and Lyve Mobile Array CLI are used for Lyve Mobile Arrays directly connected to a macOS ® , Windows ® , or Linux ® host. These apps have dedicated installers specific to the host. You cannot use either app to access shares on the network provided by Link.

If you are moving Lyve Mobile Arrays between Link and other hosts, you may need more than one app. For example, the Link web app for the Link connection and Lyve Client on a Windows or Mac host.

Lyve Token files

Lyve Token files provide authorization to access Lyve Mobile software and devices. You must have a Lyve Token file to authorize:

- Signing in to the Link web app
- Lyve Mobile Arrays connected to Lyve Mobile Link

A Lyve Token file is created in Lyve Management Portal by the product administrator and provided to the person who manages Link. It must include the specific Lyve Mobile Link and Lyve Mobile Arrays applicable to the project.

Sign in to the Link web app
When you open the web app, select a token file to sign in. The web app lets you manage Lyve Mobile Link and connected Lyve Mobile Arrays. You must select a token file each time you sign in.

Authorize Lyve Mobile Arrays connected to Link
Token files must be used to authorize Lyve Mobile Arrays connected to Link. There are four ways to deliver a token file authorizing Lyve Mobile Arrays:

- Include Lyve Mobile Arrays on Link's token file — The product administrator includes Lyve Mobile Arrays on the same token file used to sign in to the Link web app.
- Select a token file — Use the web app to select a token file. The token file must be selected each time Link and/or Lyve Mobile Arrays are power cycled.
- Import a token file — Import a token to the Link web app's settings page. The imported token file automatically authorizes the applicable Lyve Mobile Arrays and publishes their shares to the network. The token file must be specifically created with the option to import.
- Connect USB storage containing a token file — Copy a token file to the root of a USB storage device and connect it to one Link's USB ports. Link automatically finds the token file, unlocks Lyve Mobile Arrays, and publishes their shares to the network.
  See Notes on Lyve Token file delivery for more details.

Token on USB drive versus the Link web app
To avoid selecting or importing token files in the Link web app, you have the option to keep them on the root level of a USB storage device. Connect the USB drive with one or more Lyve Token files to one of Link's USB Type A ports and Link automatically authorizes the connected Lyve Mobile Arrays A USB storage device can provide an additional level of security for an administrator who wants a physical "key" for data access. Lyve Mobile Arrays are immediately unauthorized when the USB storage device with the token(s) is removed.

Note — Link's USB ports only support Lyve Token file access.

Connect devices

Note — Confirm with your product administrator if your Lyve Mobile Arrays and Lyve Mobile Link use PCIe or SAS data paths before following the instructions included in this quick start guide.

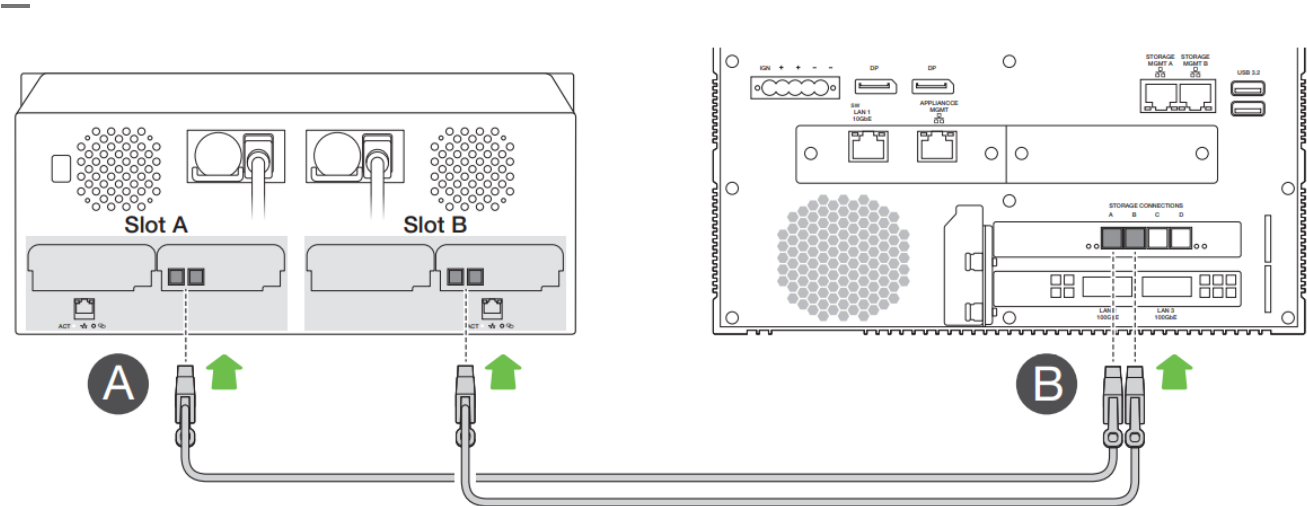1. Connect Link and Lyve Mobile Array data path

PCIe Adapter

A Connect a dual SFF-8644 cable to the data port on PCIe Adapter.

B Connect the other end of the cable to STORAGE CONNECTION A-B or C-D on Link.
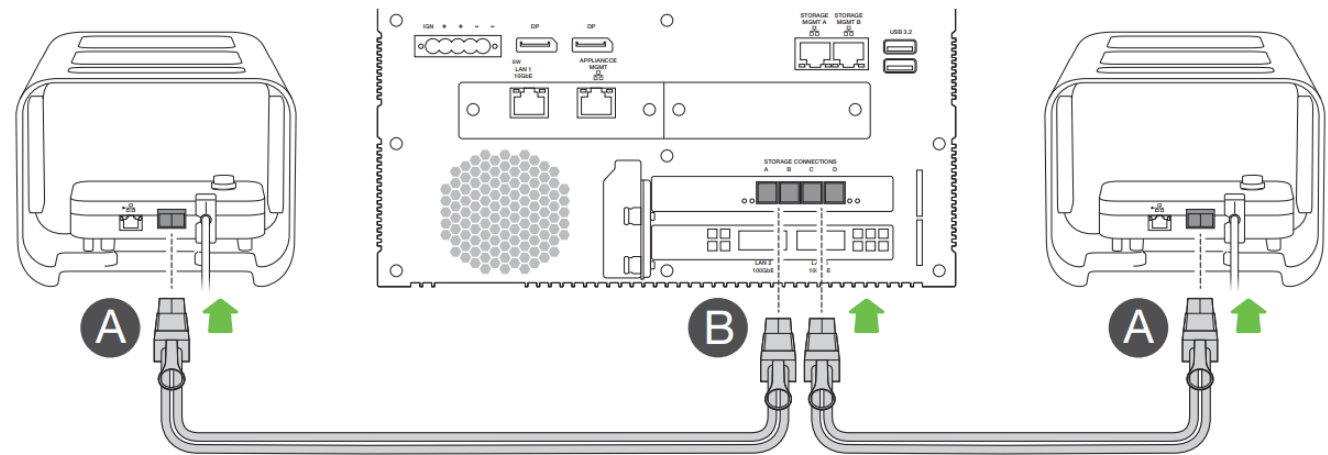
Rackmount Receiver

A Connect a single SFF-8644 cable to a SAS port on Rackmount Receiver.

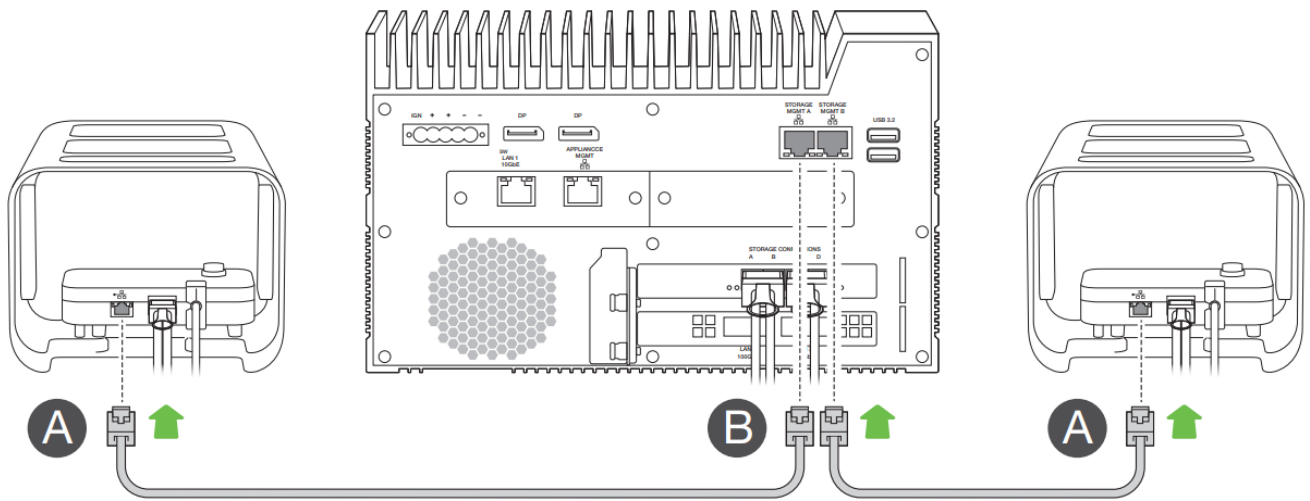B Connect the other end of the cable to STORAGE CONNECTION A or B on Link.

2. Connect Link and Lyve Mobile Array management path

   Important — Only use a direct Ethernet connection for Storage Management. Do not place an Ethernet switch between Link's Storage Management ports and the Ethernet ports on PCIe Adapter/Rackmount Receiver.

   PCIe Adapter

   A Connect an Ethernet cable to the management port on PCIe Adapter.

   B Connect the other end of the cable to STORAGE MGMT A or B on Link. Make sure to select the STORAGE MGMT port controlling data to the STORAGE CONNECTION port selected in step 1.

| Management Port	Data Ports
STORAGE MGMT A	STORAGE CONNECTION A-B
STORAGE MGMT B	STORAGE CONNECTION C-D

Rackmount Receiver

A Connect an Ethernet cable to a management port on Rackmount Receiver.

B Connect the other end of the cable to STORAGE MGMT A or B on Link. Make sure to select the STORAGE MGMT port controlling data to the STORAGE CONNECTION port selected in step 1.

Management Port	Data Ports
STORAGE MGMT A	STORAGE CONNECTION A
STORAGE MGMT B	STORAGE CONNECTION B
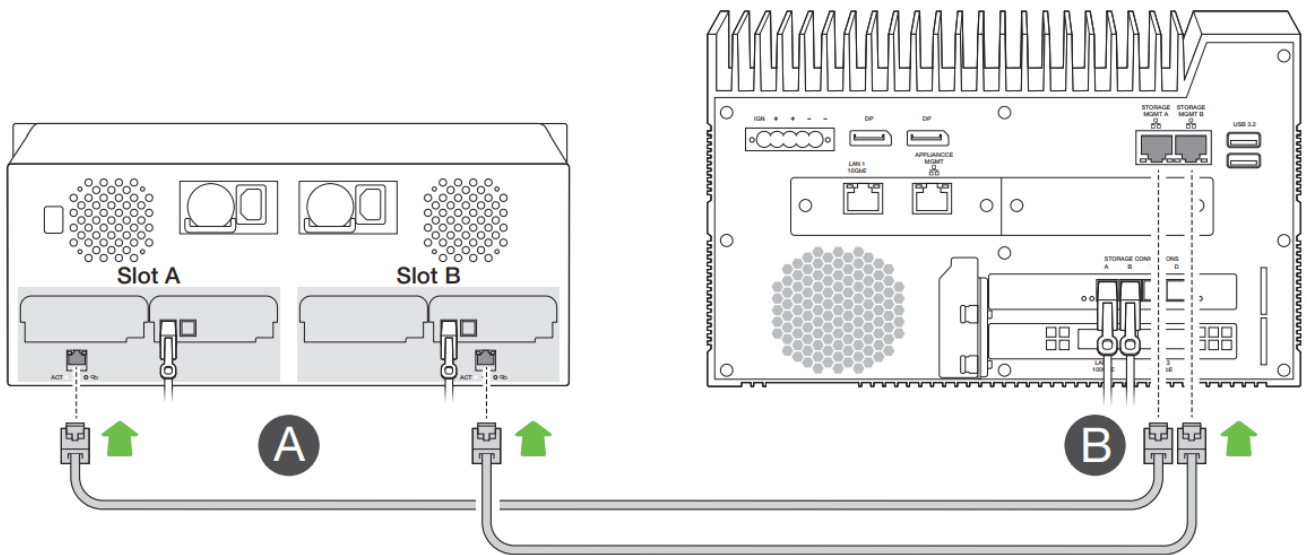
3. **Connect Link to network**

Note — Network cables are not included with Link.

A Connect the appropriate cable to one or more of the following LAN ports on Link:

• LAN 1 10GbE (RJ45 supporting 10GbE performance)

• LAN 2 100GbE (QSFP56)

• LAN 3 100GbE (QSFP56)

All LAN ports can be connected at the same time. However, Link does not support port aggregation.

B Connect the other end of the cable to the network switch.
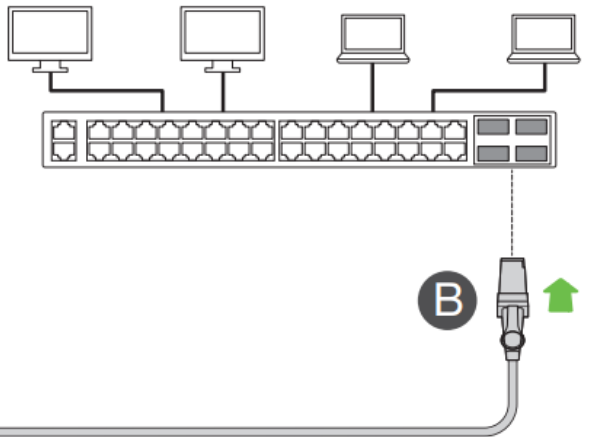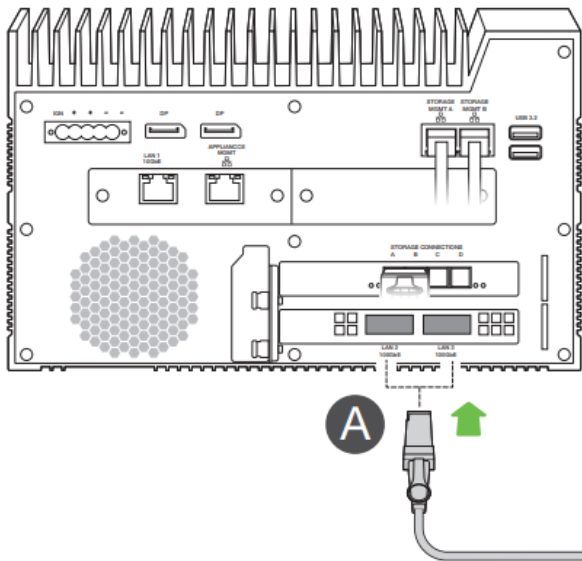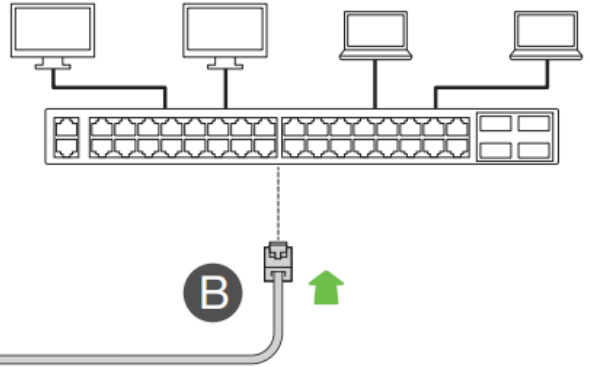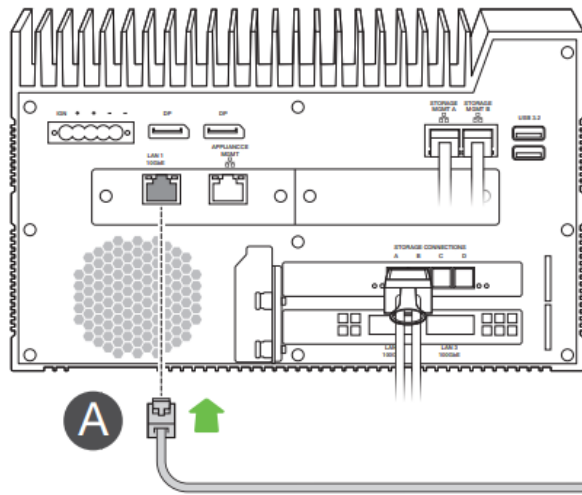
4. Connect power

   A Connect the power supply to Lyve Mobile Link's power input.

   B Connect the power cord to the power supply.

   C Connect the power cord to a live power outlet.

Link will power on once it's connected to a live outlet.

Open the Link web app

You must sign in to the Link web app for shares to appear on the local network. You can run the Link web app on a single host on the same network as Link. See the following instructions for your operating system.

Windows

On your Windows PC, open a file browser and click Network. Double-click on the Link icon under Other Devices. The Link web app will launch in your default browser.

Linux and macOS

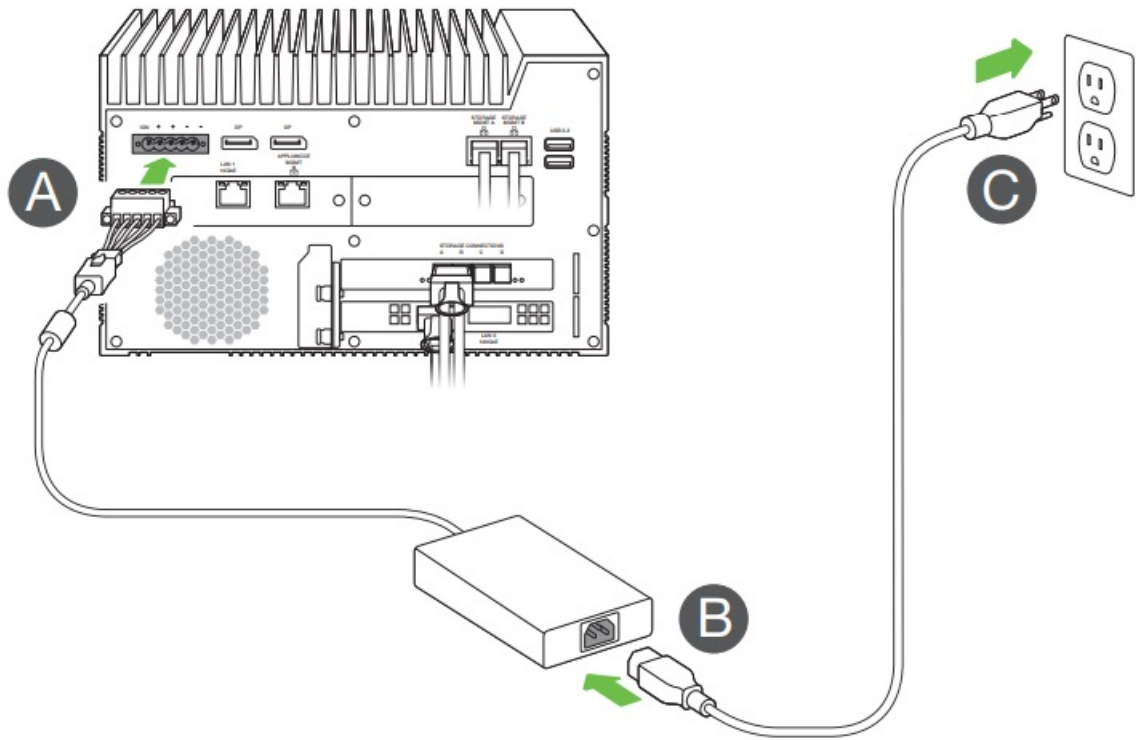On your Linux or Mac computer, open a web browser and navigate to **https://Link-SerialNumber.local**, replacing SerialNumber with the 8-digit serial number found on the label on the bottom of Lyve Mobile Link.

Note — Your web browser may display an HTTP alert when attempting to access the Link web app. Please disregard the alert and allow access.

Lyve software for Link and other hosts

Lyve Mobile Link has its own web app for management and security. Other Lyve apps such as Lyve Client and Lyve Mobile Array CLI are used to manage Lyve Mobile Arrays that are directly connected to a host.
Lyve Client and Lyve Mobile Array CLI cannot be used to access shares on the network provided by Link.

Select a Lyve Token file to sign in

To access and manage Link via its web app, a Lyve Token file authorizing the device must be provided when signing in. A Lyve Token file can be downloaded from the Lyve Management Portal or provided by your product administrator.

1. Open the Link web app. At the prompt, click SELECT TOKEN FILE.

2. Navigate to the location of the token file authorizing access to Link.

3. Select the token file and click Open.

Notes on Lyve Token file delivery

Token Delivery	Lyve Mobile Arrays	Duration
Link web app sign-in	• Lyve Mobile Arrays on the same token file as Link are authorized but not mounted on the network. • Choose UNLOCK or MOUNT in the Link web app for an authorized Lyve Mobile Array to publish its share(s) to the network.	• Authorization to access the Link web app is available for the time that the web browser tab is open. • The token file is required with each sign in. • Authorization for Lyve Mobile Arrays remains in place as long as Link and the Mobile Arrays are powered on.
Select token file in the Link web app	• Choose AUTHORIZE to select a token for Lyve Mobile Arrays that appear as Unauthorized. • After the Lyve Mobile Array is authorized, choose UNLOCK or MOUNT to publish its share(s) to the network.	• Authorization for Lyve Mobile Arrays remains in place as long as Link and the Mobile Arrays are powered on. • Authorization must be performed whenever Link and/or the Mobile Arrays are power cycled.
Import the token file to the Link web app	• Import the token file from the settings page in the Link web app. • Lyve Mobile Arrays on the token file are authorized, unlocked, and mounted on the network.	• An imported token file allows for continued access to the connected Lyve Mobile Arrays. • No need to reselect the token with each power cycle of devices.
Connect USB storage containing the token file	• Copy the token file to the root of a USB storage device and connect it to one of Link's USB Type A ports. • Link automatically finds the token file. • Lyve Mobile Arrays are authorized, unlocked, and mounted on the network.	• Lyve Mobile Arrays lose their authorization and access when the USB storage device is disconnected.

Volume formats and network shares

Lyve Mobile Array volumes can be shared on the network using the Server Message Block (SMB) and/or Network File System (NFS) protocol. Volumes formatted as NTFS, HFS+, or exFAT can only use the SMB network service, while volumes formatted as ext4 or XFS can use both SMB and NFS.

	SMB	NFS
ext4	Yes	Yes
XFS	Yes	Yes
exFAT	Yes	No
NTFS	Yes	No
HFS+	Yes	No

ext4 and XFS provide optimal performance for Lyve Mobile Arrays when connected to Lyve Mobile Link for sharing on the local network. Use either format if you intend to only share Lyve Mobile Arrays on the local network. However, before formatting Lyve Mobile Array volumes using the Link web app, consider which file system formats are best for your data workflow. If your data workflow requires connecting Lyve Mobile Arrays directly to Windows and/or macOS computers as well as to Lyve Mobile Link, then NTFS, HFS+, or exFAT are more appropriate volume formats. ext4 and XFS are not native formats for Windows and macOS operating systems, making it difficult to move Lyve Mobile Arrays between network sharing via Link and direct connections to other hosts.

The Link web app allows you to format Lyve Mobile Arrays as ext4, XFS, or exFAT:

1. Open the Link web app.
2. Click Devices at the top of the page.
3. Make certain that the Lyve Mobile Array you want to format is unlocked and then click INSPECT on its device card.
4. Click FORMAT on the Volume card.
5. Acknowledge that formatting the drive will delete all data on the volume.
6. Select the format best suited to your network environment and device usage.
7. Click START.

   To format as Windows NTFS or macOS HFS+, connect your Lyve Mobile Arrays to the applicable host.

Important — Volumes formatted as APFS or ReFS are not supported by Lyve Mobile Link.

Appliance management and IP addressing

You can connect a PC directly to Link's Appliance Management port for management purposes only. Potential reasons for connecting to the Appliance Management port:

- Your network uses fixed IP addresses.
- You are unable to access the Link web app on the local network.

Fixed IP Addressing
You must assign an IP address to Lyve Mobile Link's LAN ports (1-3) if your network does not include a DHCP server. Make certain you have a token file that allows for signing in to Link before following the instructions below.

1. Connect your computer to the Appliance Management Port on Link via an Ethernet cable.
2. The IP address for Link is 172.31.255.1. Set your PC's IP address to 172.31.255.2 and Netmask 255.255.255.252 to communicate with Link.
3. Windows PC — Open a file browser and click Network. Click on the Link icon under Other Devices.
   The Link web app will launch in your default browser.
   Linux and Mac — Open a web browser and navigate to https://Link-SerialNumber.local, replacing SerialNumber with the 8-digit serial number found on the label on the bottom of Lyve Mobile Link.
4. Select the token file at the prompt.
5. On the Link web app Ports page, you can assign fixed IP addresses to Link's LAN ports (LAN 1-3).
   Note that 172.31.255.[0-255] is reserved for internal Link usage and cannot be assigned to other devices on the network.
6. Disconnect the Ethernet cable when you have made all necessary updates.

Note — Link manages the IP addresses for connected Lyve Mobile Arrays.

Cannot Access the Link Web App

For troubleshooting purposes, you may need to connect directly to Lyve Mobile Link to determine if there is a problem with IP addressing or some other issue. Make certain that all hardware connections are correct before following the steps below. You must have the token file for Lyve Mobile Link to access the Link web app.

1. Connect your computer to the Appliance Management Port on Link via an Ethernet cable.
2. The IP address for Link is 172.31.255.1. Set your PC's IP address to 172.31.255.2 and Netmask 255.255.255.252 to communicate with Link.
3. Windows PC — Open a file browser and click Network. Click on the Link icon under Other Devices. The Link web app will launch in your default browser.
   Linux and Mac — Open a web browser and navigate to **https://Link-SerialNumber.local**, replacing SerialNumber with the 8-digit serial number found on the label on the bottom of Lyve Mobile Link.
4. Select the token file at the prompt.
5. Review the Ports page for details regarding the IP address. If you are troubleshooting with the support team, you can download log files on the Settings page.
6. Disconnect the Ethernet cable when you are finished.

Unlock Lyve Mobile Arrays connected to other hosts

If your network environment includes other PCs connected to Lyve Mobile Arrays via PCIe Adapter, Fibre Channel, or SAS, you can use Lyve Mobile Link to unlock them.

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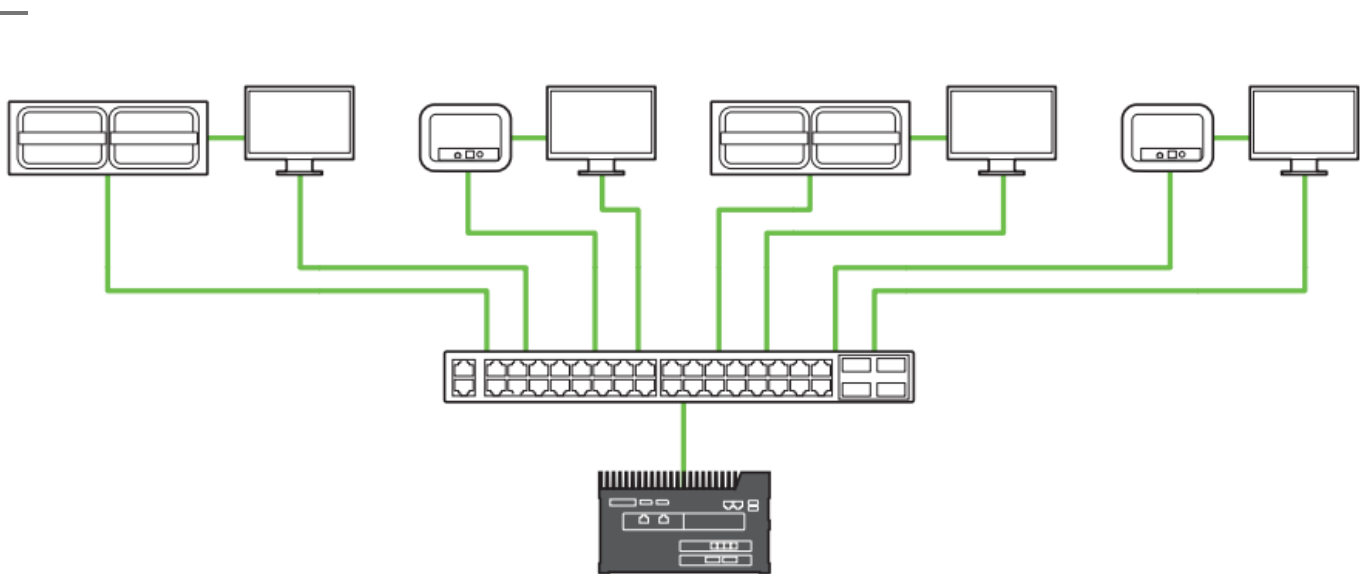
Unlocking can occur under the following conditions:

- All applicable PC hosts and Lyve Mobile Arrays are connected to the same network as Link.
- The Lyve Token file authorizes applicable Lyve Mobile Arrays.

Note — Lyve Mobile Arrays connected to Link's data ports appear in the Link web app as Connected Devices. Lyve Mobile Arrays on the same network and connected to other hosts appear in the web app as Network Devices.
The LED on a Lyve Mobile Array changes from solid orange to solid green when Link has successfully unlocked

the device.

FCC DECLARATION OF CONFORMANCE
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. this device may not cause harmful interference, and

2. this device must accept any interference received, including interference that may cause undesired operation.

CLASS A

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 will be required to correct the interference at his own expense.

PN: 206781200 11/23

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Seagate Singapore International Headquarters Pte. Ltd., 90 Woodlands Avenue 7 Singapore 737911

Documents / Resources

SEAGATE Lyve Mobile Link App [pdf] User Guide
Lyve Mobile Link App, Lyve Mobile Link, App

References

- ⟁ **Lyve Mobile Security | Seagate US**
- ⟁ **Lyve Mobile Mount and PCIe Adapter | Seagate US**
- ⟁ **Lyve Mobile Mount and PCIe Adapter - Front Loader | Seagate US**
- ⟁ **Lyve Mobile Rackmount Receiver | Seagate UK**
- **User Manual**