

User Manual

# Exo SmartLink

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# Contents

Introduction.....	6
About this user manual.....	6
Document conventions .....	6
Getting help .....	6
Pre-Installation .....	8
System requirements.....	8
Download SmartLink .....	8
Before you begin.....	8
Extracting the SmartLink Installer Zip File .....	11
Installation.....	13
Installing SmartLink .....	13
Using SmartLink .....	17
SmartLink's Interface .....	18
Getting Started.....	19
License Key .....	19
Connections.....	20
Adding a PACS Server.....	21
Adding a DICOM Worklist server.....	22
Connecting Ultrasound Systems .....	23
Managing connections.....	24
Managing a DICOM Tag for an Existing Ultrasound Connection .....	25
SmartLink Settings .....	26
Syncing SmartLink with Exo Works.....	27
Diagnostics .....	28
Image Transfer Settings .....	29
Logs .....	30
About.....	31

Repair and Uninstall.....33

Repairing SmartLink .....33

Uninstalling SmartLink .....35

Trouble shooting.....38

Error Messages in Logs.....38

Exporting Log Files .....39

FAQs .....39

Glossary.....42

Terms.....42

Abbreviations.....42

# Introduction



# Introduction

## Chapter 1

### About this user manual

This user manual provides information about procedures for installing and using SmartLink application. It is important that all users review and understand all the instructions in this user manual, paying careful attention to the warnings and cautions throughout this manual.

SmartLink is a software platform that securely connects medical imaging devices and systems within your facility's network. SmartLink facilitates the smooth transfer of medical image data between ultrasound machines, worklist management, cloud storage, and image archiving systems.

### Document conventions

The user manual follows these conventions:

- A **warning** describes precautions necessary to prevent injury or loss of life.
- A **caution** describes precautions necessary to protect the products.
- A **note** provides supplemental information.
- Numbered and lettered steps must be performed in a specific order.
- Bulleted lists present information in list format but do not imply a sequence.
- Single-step procedures begin with ❖.

### Getting help

In addition to the information in this user guide, you can contact Exo Technical Support:

Phone 1-833-633-8396

Email [exosupport@exo.inc](mailto:exosupport@exo.inc)

Web [www.exo.inc](http://www.exo.inc)

Pre-Installation



# Pre-Installation

## Chapter 2

### System requirements

To ensure optimal performance, SmartLink should be installed on a dedicated Windows server machine within your facility's network. Please verify that your system meets the following minimum requirements:

- **Operating system:** Windows 10 or later / Windows Server 2019 or later
- **Processor:** 64-bit, Intel or AMD processor with 6-12 cores
- **RAM:** 16 GB
- **Hard disk space:** Minimum 500 GB available storage
- **Network Connectivity:** A stable Internet connection

#### Note

- The SmartLink application is currently designed exclusively for Windows operating systems. As of this version, the application does not support other operating systems such as macOS, Linux, or any mobile platforms.
- Higher specifications may be recommended for systems handling large volumes of medical image data.

### Download SmartLink

This section guides you through the process of downloading the SmartLink installation package.

#### Before you begin

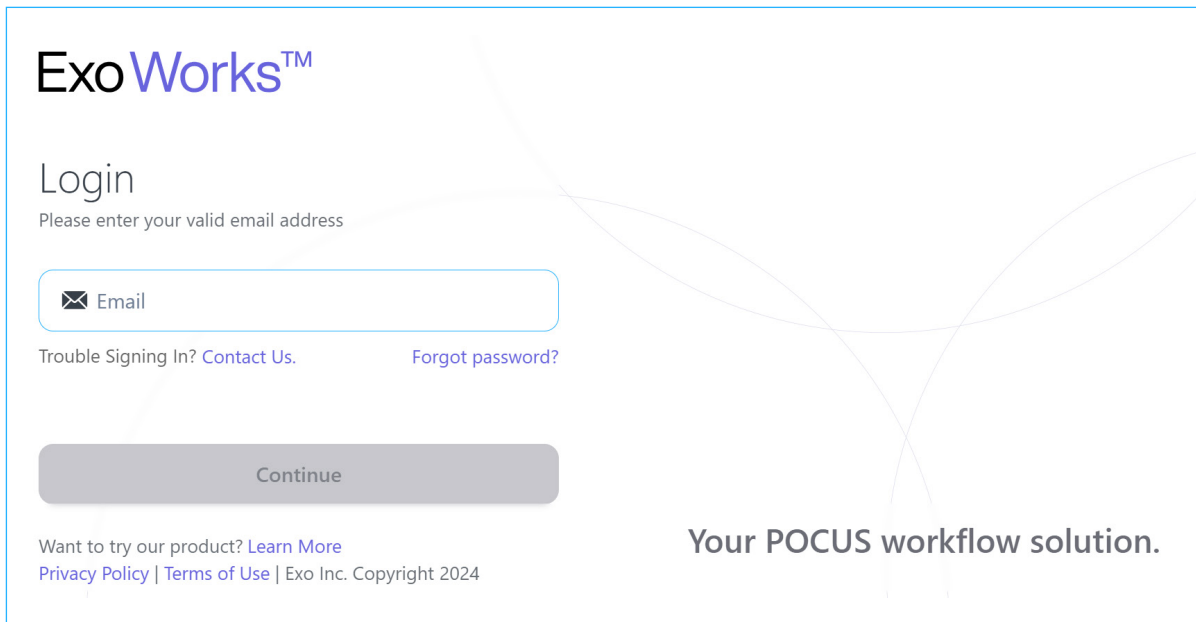
Before you begin the SmartLink installation process,

- Ensure you have a stable Internet connection.
- It is required to have your facility email address registered with Exo Works readily available.



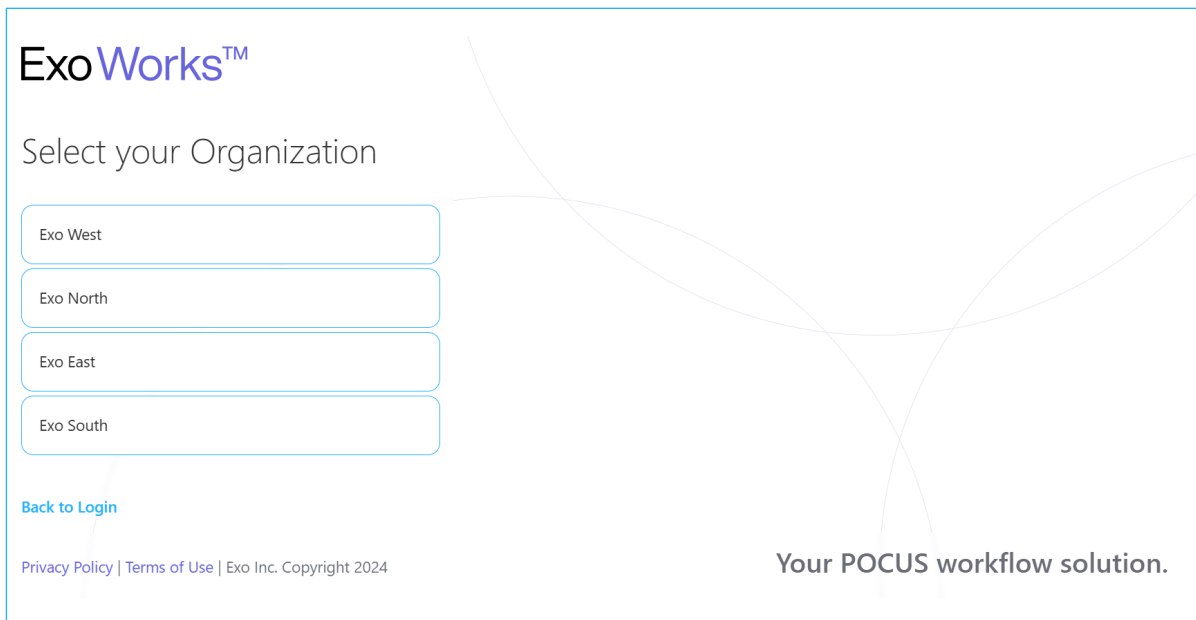
## TO DOWNLOAD SMARTLINK

1. Open a web browser and visit the following URL: <https://cloud.exoworks.inc/>.

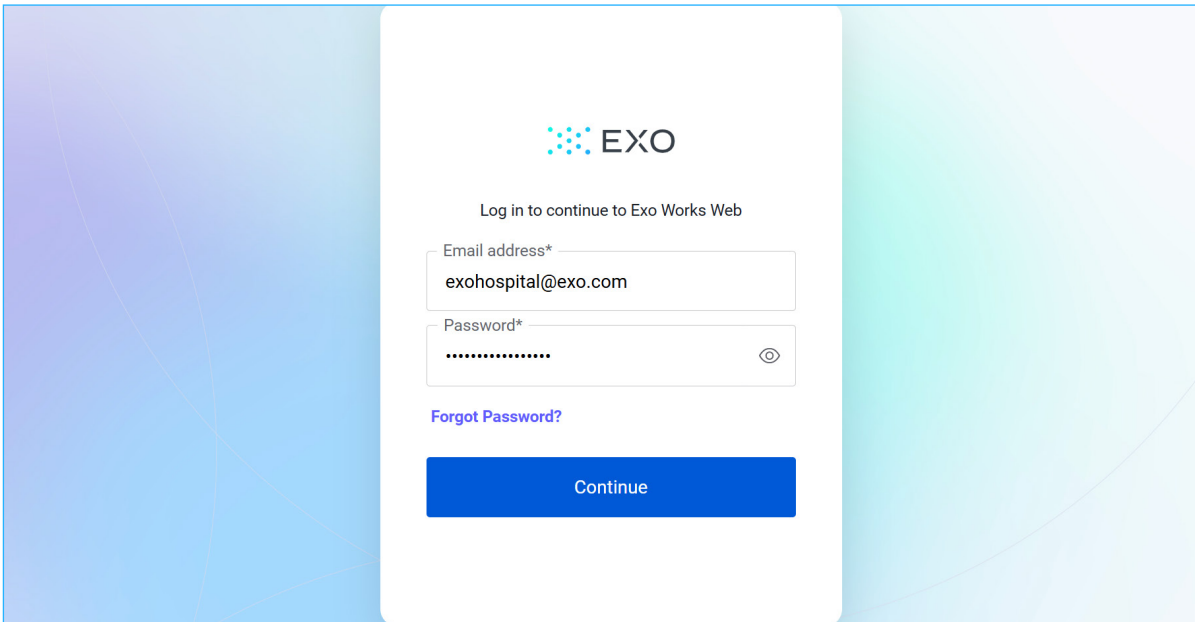


The screenshot shows the ExoWorks login page. At the top left is the ExoWorks logo. Below it is the heading 'Login' followed by the instruction 'Please enter your valid email address'. There is a text input field with an email icon and the placeholder text 'Email'. Below the field are two links: 'Trouble Signing In? Contact Us.' and 'Forgot password?'. A large grey 'Continue' button is centered below the links. At the bottom left, there is a link 'Want to try our product? Learn More' followed by 'Privacy Policy | Terms of Use | Exo Inc. Copyright 2024'. On the right side, the text 'Your POCUS workflow solution.' is displayed. The background features a faint, abstract graphic of overlapping circles.

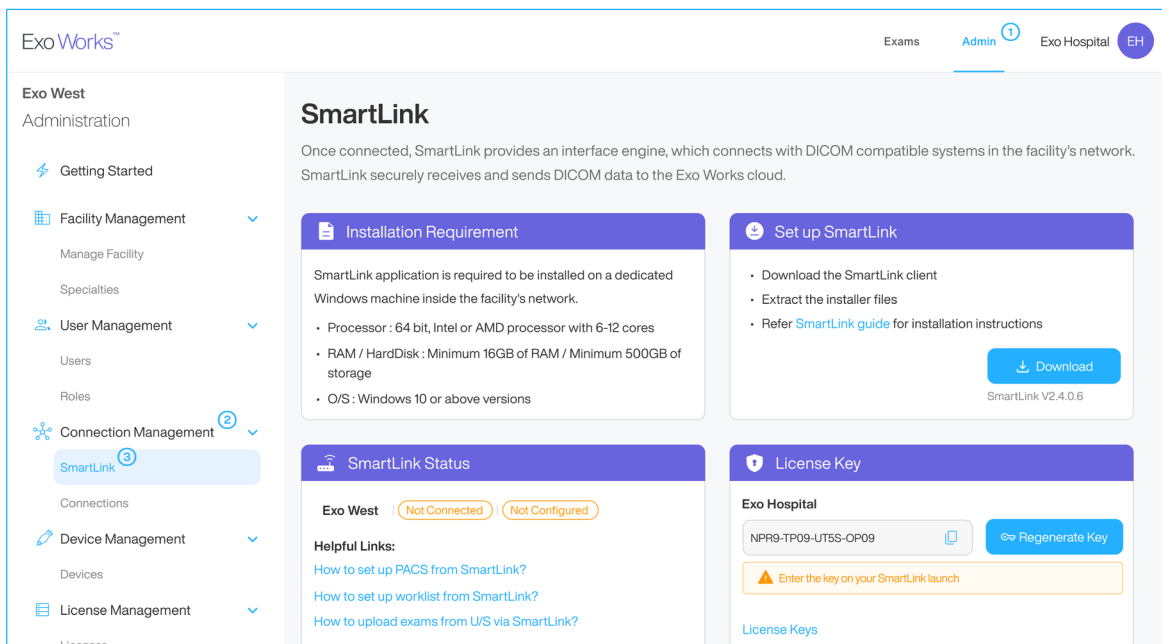
2. Enter your facility email address registered with Exo Works in the **Email** field.
3. Click the **Continue**.
4. If you have registered more than one organization with Exo Works, a list will appear. Select the appropriate organization from the list. If not, proceed to next step.



The screenshot shows the ExoWorks 'Select your Organization' screen. At the top left is the ExoWorks logo. Below it is the heading 'Select your Organization'. There are four rounded rectangular buttons stacked vertically, each containing one of the following labels: 'Exo West', 'Exo North', 'Exo East', and 'Exo South'. Below these buttons is a link 'Back to Login'. At the bottom left, there is a link 'Privacy Policy | Terms of Use | Exo Inc. Copyright 2024'. On the right side, the text 'Your POCUS workflow solution.' is displayed. The background features a faint, abstract graphic of overlapping circles.



5. In the **Password** field, type your Exo Works password.
6. Click the **Continue**.



7. Look for the **Admin** ① tab and click on it.
8. Within the Admin tab, locate **Connection Management** ② and select it.
9. From the Connection Management options, choose **SmartLink** ③ from the drop down list.
10. In the **Set up SmartLink** section, locate the **Download** button and click it.
11. The download process will begin. A ZIP file containing the SmartLink installation package will be downloaded to your computer.

# Extracting the SmartLink Installer Zip File

## TO EXTRACT THE SMARTLINK INSTALLER ZIP FILE

1. Open your computer's file explorer and navigate to the folder where you saved the downloaded SmartLink Installer ZIP file. This is typically the **Downloads** folder.
2. Right-click on the SmartLink Installer ZIP file.
3. In the context menu, choose **Extract All....** option. This will open the **Extract Compressed (Zipped) Folders** wizard.
4. The wizard will prompt you to select a destination folder for the extracted files. You can choose a new location or use the suggested default.
5. Click **Extract** to begin extracting the files.

Once the extraction process is complete, you will find the extracted SmartLink installation files in the specified location.

### Note

The exact steps might vary slightly depending on your operating system and file compression software.

### Caution

Before you proceed with the installation, read the following points carefully:

- Do not attempt to install the software without extracting the zip file.
- Do not change or rename the downloaded files.

Installation

3

# Installation

## Chapter 3

### Installing SmartLink

This chapter provides step-by-step instructions on how to install the SmartLink application on a Windows server.

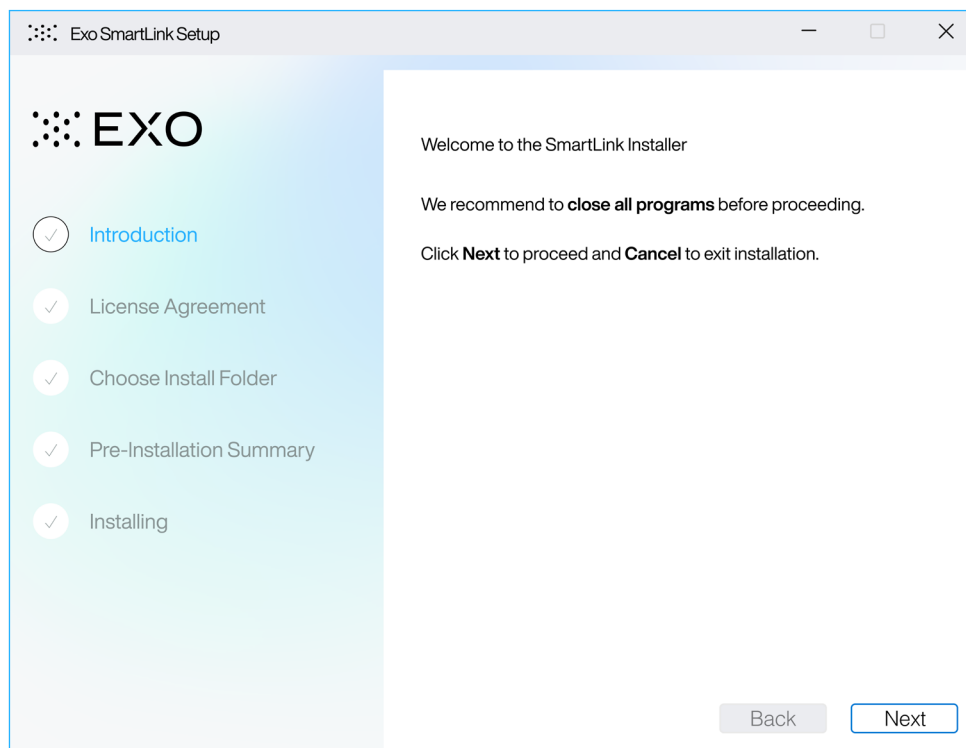
#### TO INSTALL

##### Note

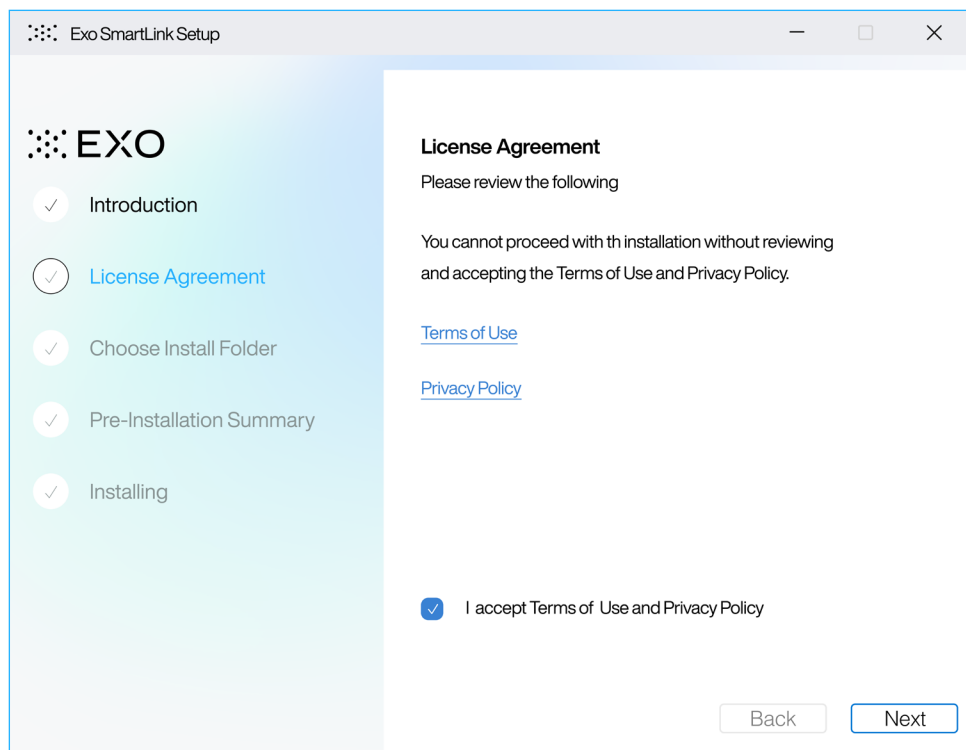
You might encounter a User Account Control prompt during the installation process. If so, please select **Yes** or **Continue** to proceed.

To install the SmartLink application, follow these steps:

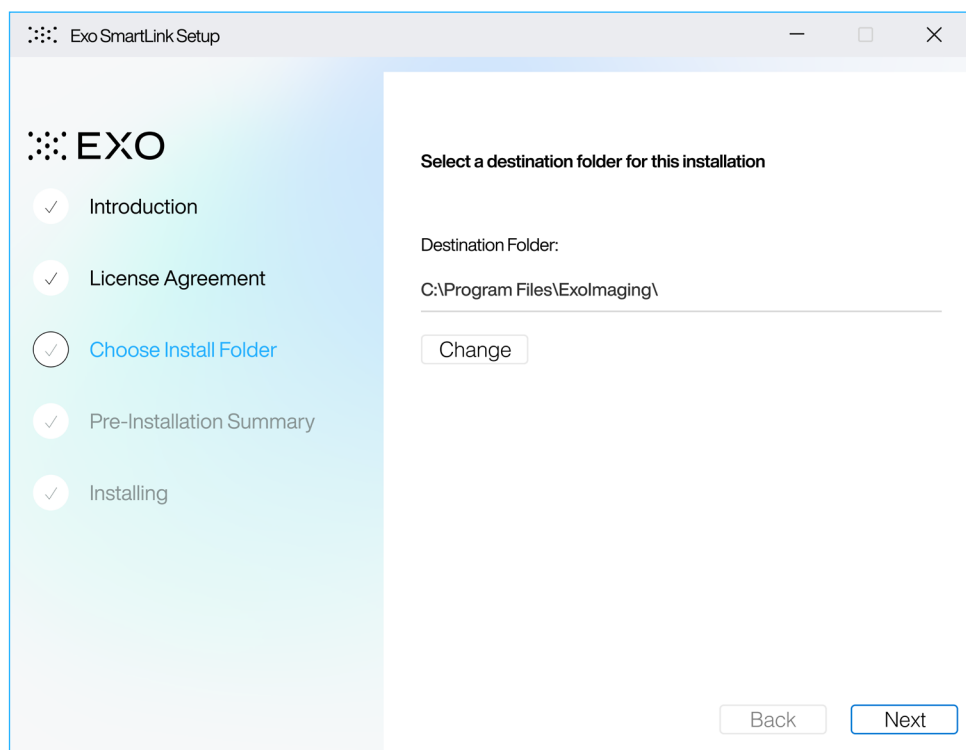
1. Locate the folder where you extracted the SmartLink installer files. Double-click the **installer** icon to initiate the installation process.
2. An Introduction window will appear. Click **Next** to proceed.



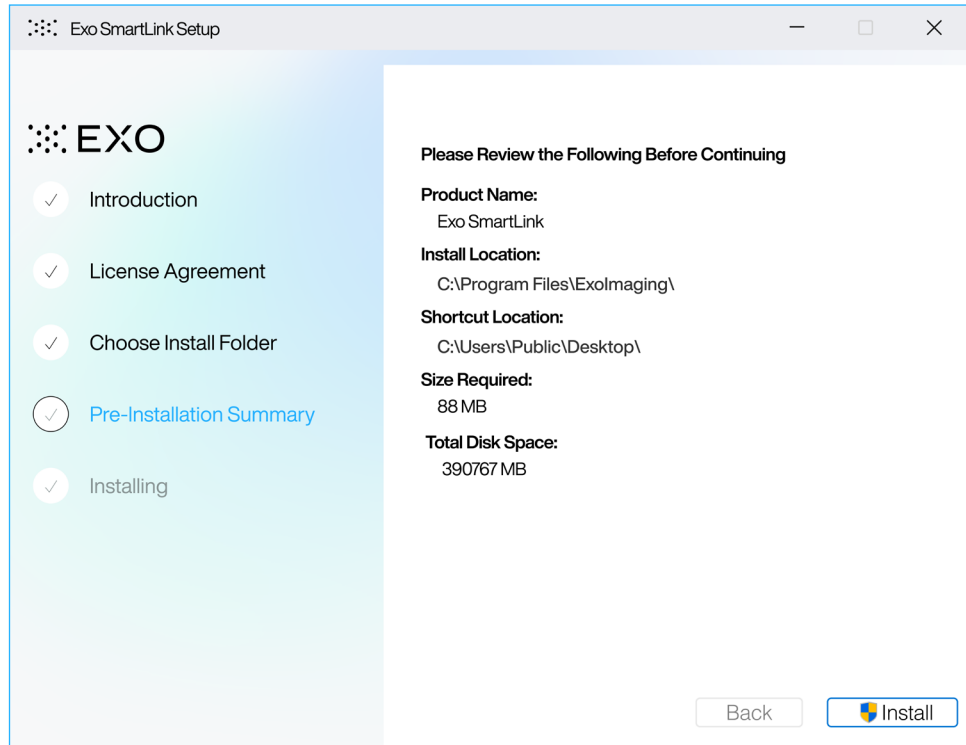
- Carefully review the software license agreement, including the Terms of Use and Privacy Policy. Indicate your acceptance by checking the **I accept Terms of Use and Privacy Policy** box and click **Next**.



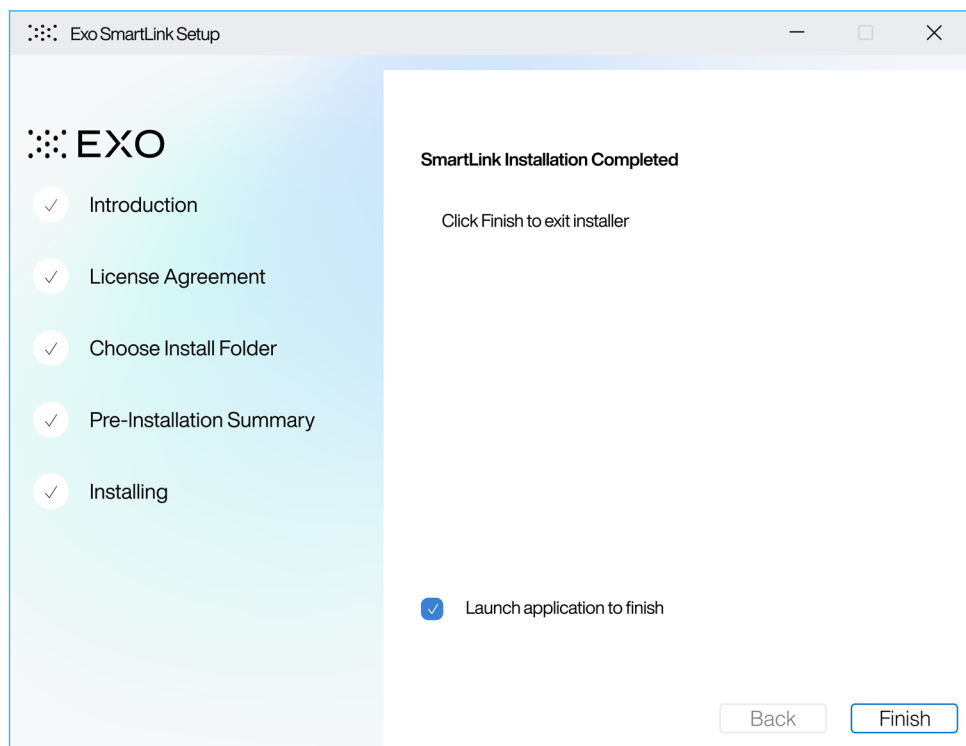
- Select the preferred location for installing SmartLink. You may choose the default location or specify a different one by clicking **Change**.
- Click **Next**.



6. Review the installation summary to ensure the settings are correct. Click **Install** to begin the installation process.



7. Wait for the installation to finish. When completed, click **Finish** to close the installation wizard.



# Using SmartLink



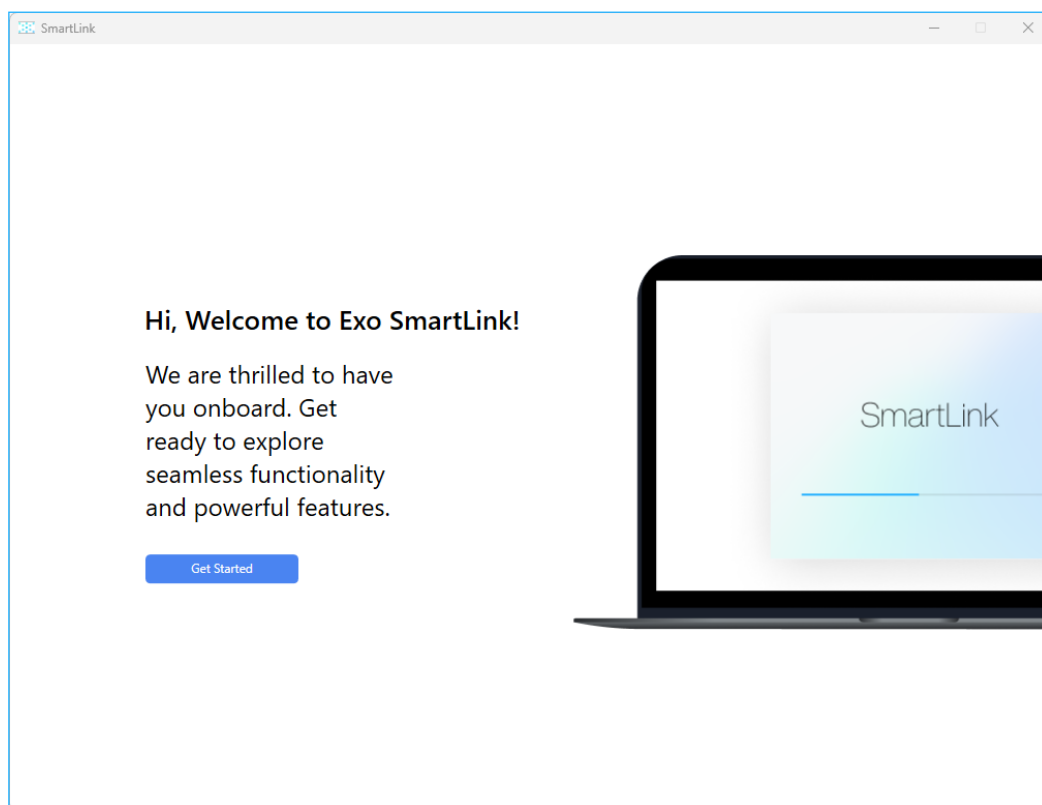


# Using SmartLink

## Chapter 4

This chapter provides comprehensive instructions for activating SmartLink and performing the initial setup. It includes guidance on adding and managing PACS, configuring DICOM Worklist servers, and third-party ultrasound systems. Additionally, it explains the SmartLink interface to help you navigate and utilize its features effectively.

The first time you open the SmartLink application, you will be presented with a welcome screen. To proceed, click **Get Started**.

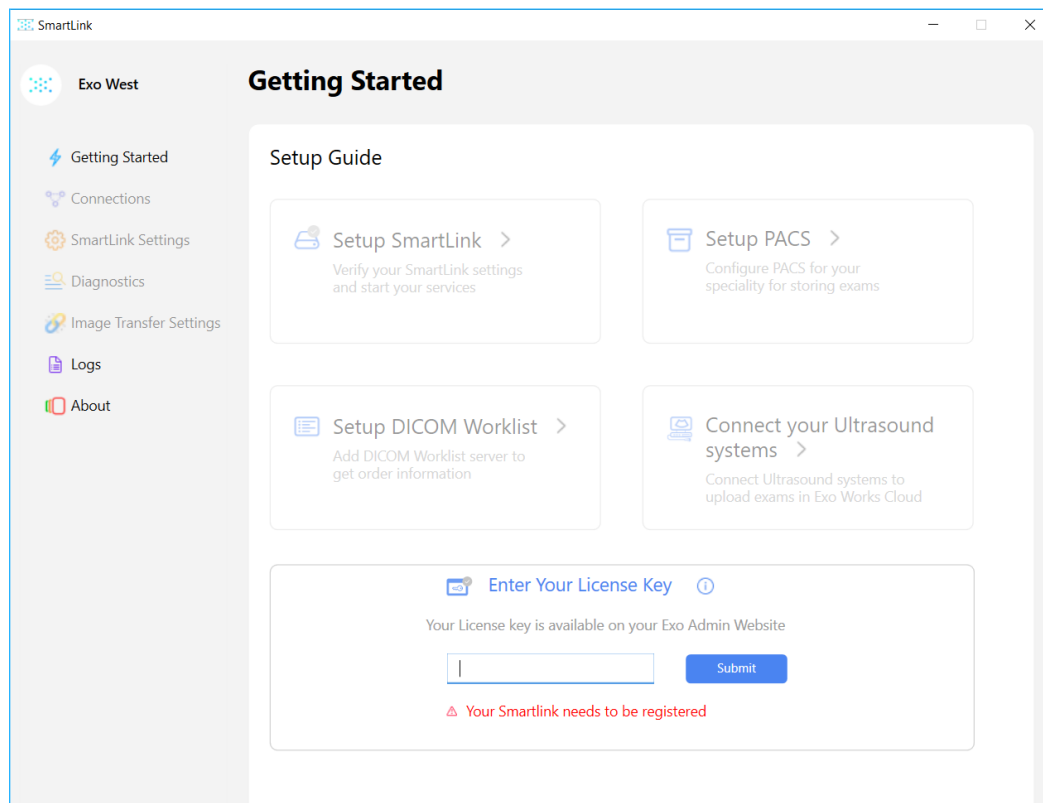


For subsequent openings of the SmartLink application, the welcome screen will not appear. You will be directly taken to the main application homepage.

# SmartLink's Interface

The SmartLink homepage is the main entry point for accessing the application's core functionalities. The left panel navigation menu provides access to the following key areas:

- Getting Started
- Connections
- SmartLink Settings
- Diagnostics
- Image Transfer Settings
- Logs
- About



# Getting Started

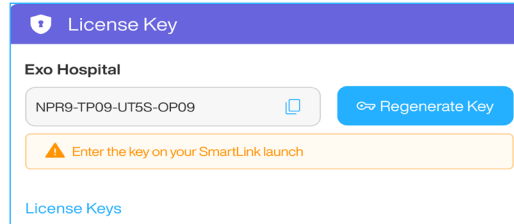
The Getting Started section is your primary entry point to the SmartLink application. It provides a simplified process to activate your license and configure essential settings, ensuring a quick and easy start to using the software.

## License Key

To use Smartlink services, a valid license key is required. Without a license key, all Smartlink services are disabled except the Logs and About sections. Once you enter a valid license key, all Smartlink services and features will be enabled, allowing full functionality of the application.

### GENERATE A LICENSE KEY FOR SMARTLINK

1. Log in to the Exo Works web application as a **Facility Admin**.
2. Go to the **Admin** tab, then select **Connections**.
3. In the dropdown menu select **SmartLink**.
4. Locate the **License Key** section.
5. Click **Regenerate Key** to generate a new code.



#### Cautions

- If you are generating a key for the first time, you can ignore the following cautions.
- When regenerating a key:
  - The SmartLink service on the existing windows server will be deactivated.
  - Check for any pending tasks in the SmartLink service before proceeding. Regenerating a key will result in the loss of all pending tasks.
- If you encounter any issues, contact [Exo Support](#) for assistance.

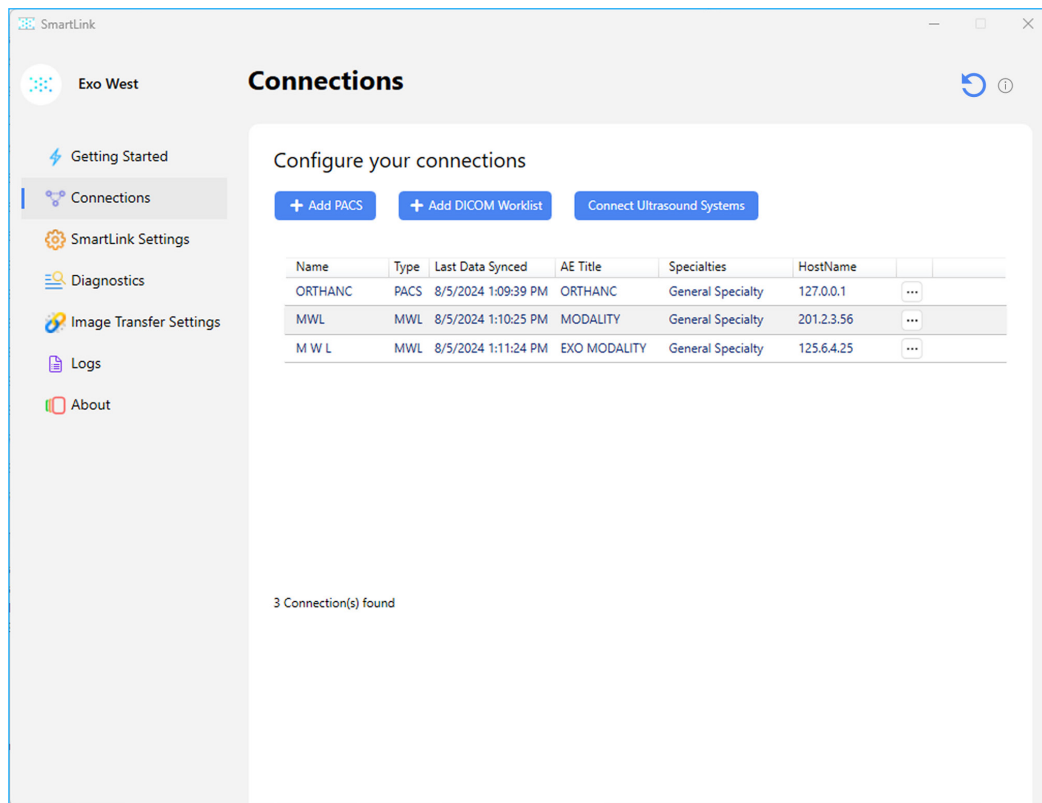
### ENTER THE KEY IN SMARTLINK

1. Open the SmartLink application.
2. In the **Getting Started** section, paste the copied key into the provided field.
3. In the **License Key** field, enter the newly generated key.
4. Click **Submit**.

# Connections

The Connections section is the main interface for managing communication links between the SmartLink application, Exo Works cloud and external systems. This critical area allows users to add and manage secure connections with:

- **PACS Servers:** Facilitates the transfer and storage of medical images to and from Picture Archiving and Communication Systems.
- **DICOM Worklist Servers:** Enables integration with systems that manage patient scheduling and exam information.
- **Third-Party Ultrasound Devices:** Supports the connection of external ultrasound equipment for data exchange and management.



## Note

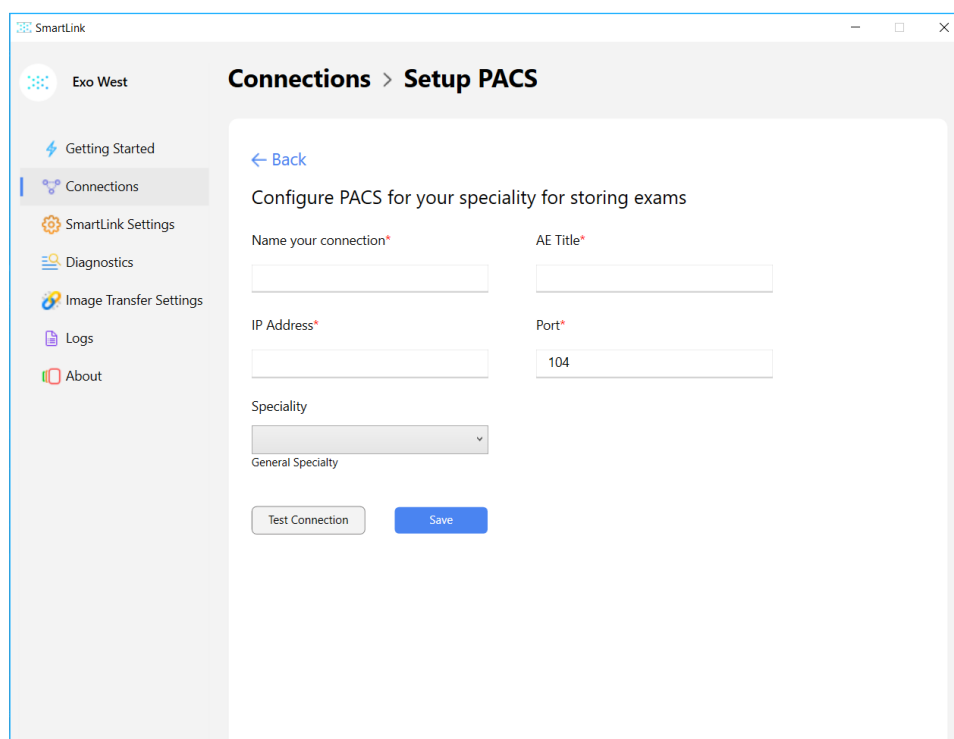
These connections are automatically synced to the cloud. If the SmartLink application is reinstalled on the current Windows server or installed on a different Windows server, these existing connections will be automatically restored, ensuring a smooth transition and continuity in connectivity settings.

## Adding a PACS Server

Configure the Connection for pushing Completed Exams from Exo Works to a PACS Server

### TO ADD A PACS SERVER CONNECTION

1. Navigate to the left panel and select either **Getting Started** or **Connections** and then click **Setup PACS** or **Add PACS**.



2. Complete the following fields:
  - **Name your connection:** Enter a descriptive name to identify the PACS server connection.
  - **AE Title:** Enter the unique title assigned to the PACS server within your network.
  - **IP Address:** Specify the network address of the PACS server.
  - **Port:** Enter the port number used by the PACS server for communication.
  - **Specialty:** Select the relevant specialties handled by the PACS server.
3. After entering the PACS server details, click **Test Connection** to verify the accuracy of the information provided. If the connection fails, double-check the entered details and perform the test again.
4. Once the connection is successful, Click **Save** to store the PACS server configuration.

#### Caution

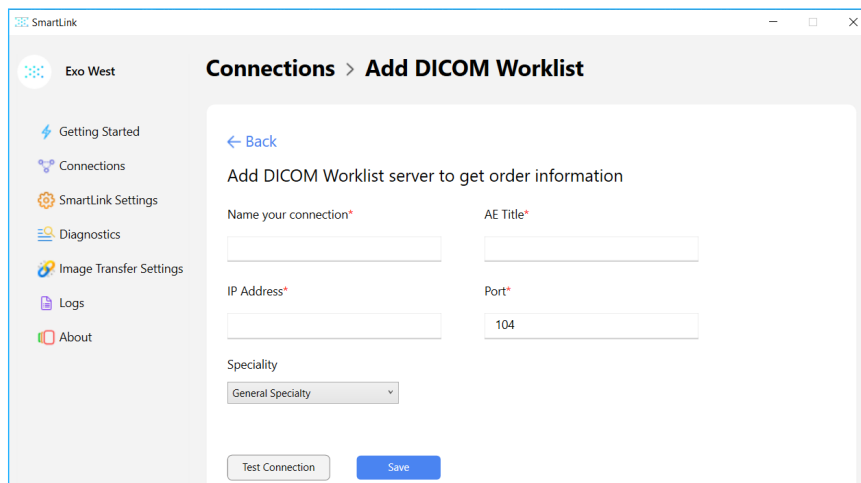
Always test the connection before saving the PACS server configuration. While the SmartLink application allows saving without a successful test, an inactive connection status will be reflected in Exo Works. To ensure smooth data transfer, it is crucial to verify the connection's functionality prior to saving.

# Adding a DICOM Worklist server

Configure the Connection to Receive DICOM Data from a Modality Worklist Server

## TO ADD THE DICOM WORKLIST SERVER CONNECTION

1. Navigate to the left panel and select either **Getting Started** or **Connections** and then click **Setup DICOM Worklist** or **Add DICOM Worklist**.

The screenshot shows the SmartLink application window. On the left is a sidebar with navigation links: 'Getting Started', 'Connections', 'SmartLink Settings', 'Diagnostics', 'Image Transfer Settings', 'Logs', and 'About'. The main area is titled 'Connections > Add DICOM Worklist'. It contains a 'Back' link, a heading 'Add DICOM Worklist server to get order information', and several input fields: 'Name your connection\*' (text), 'AE Title\*' (text), 'IP Address\*' (text), 'Port\*' (text with '104' pre-filled), and a 'Specialty' dropdown menu (currently showing 'General Specialty'). At the bottom are 'Test Connection' and 'Save' buttons.

2. Complete the following fields:
  - **Name your connection:** Enter a descriptive name to identify the DICOM Worklist server.
  - **AE Title:** Enter the unique title assigned to the Worklist server.
  - **IP Address:** Enter the network address of the Worklist server.
  - **Port:** Enter the port number used by the Worklist server for communication.
  - **Specialty:** Select the specific specialty handled by the Worklist server.

### Note

- When you add Worklist Server details in the SmartLink application, the connection is established and SmartLink attempts to communicate with the Worklist Server. However, in some cases, the Worklist Server may not accept the communication.
- To allow successful communication, the Worklist Server administrator must configure their system to whitelist the Worklist Client AE Title assigned in [SmartLink Settings](#) (default: **SMARTLINKWLSCU**) in the Worklist Server configuration.

3. After entering the Worklist server details, click **Test Connection** to verify the accuracy of the information provided. If the connection fails, double-check the entered details and perform the test again.
4. Once the connection is successful, Click **Save** to store the Worklist server configuration.

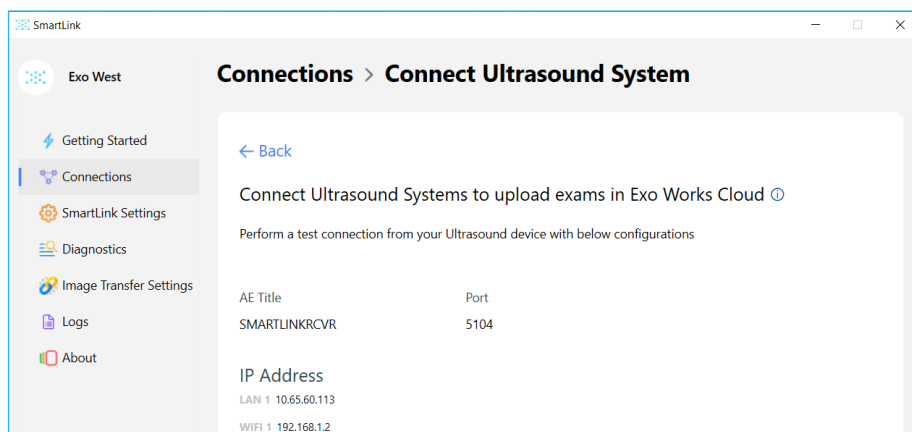
### Caution

Always test the Worklist Server connection before saving. Although SmartLink lets you save without a successful test, a failed connection will appear as inactive in Exo Works and may disrupt data transfer.

# Connecting Ultrasound Systems

## TO CONNECT AN ULTRASOUND SYSTEM TO EXO WORKS

1. Navigate to the left panel and select either **Getting Started** or **Connections** and then click **Connect Ultrasound Systems**.



2. Find the DICOM setup screen on your ultrasound machine. Most often, this is found in the same general area as your Network configuration screen. If you can't find it, refer to your ultrasound machine user manual.
3. Complete the following fields on the ultrasound machine's DICOM setup screen:
  - **Name:** Enter a name for the ultrasound system connection.
  - **AE Title:** Enter the AE Title displayed on the SmartLink application.
  - **IP Address:** Enter the IP address displayed on the SmartLink application.
  - **Port:** Enter the port number displayed on the SmartLink application.
4. Click the **Verify** or **Test** on the ultrasound machine to check the connection. If the connection fails, double-check the entered details and perform the test again.
5. If the test is successful, **save** the settings on the ultrasound machine.

### Caution


- Always perform a test connection before saving the configuration. Attempting to save without a successful test may result in connection issues and prevent data transfer.
- Ensure that both the SmartLink application and the ultrasound machine are connected to the same network for successful communication.

### Note


After successfully adding a new ultrasound device to Smartlink, it will initially be assigned to the default specialty. To modify the specialty, please see ["To modify a Ultrasound device connection" on page 24](#). Additionally, the device will be assigned the default Dicom tag **Performing Physician's Name (0008,1050)**, to change this tag, please see ["Managing a DICOM Tag for an Existing Ultrasound Connection" on page 25](#).

# Managing connections


## TO MODIFY A PACS SERVER CONNECTION

1. Navigate to the left panel and select **Connections**.
2. Select the desired PACS server from the list.
3. Click the  button select **Edit**.
4. Modify necessary fields such as Name of the connection, AE title, IP address, and select the desired specialty(s).
5. Click **Test Connection** to verify the accuracy of the information provided. If the connection fails, double-check the entered details and perform the test again.
6. Click **Save** to apply the modifications.

## TO MODIFY A WORKLIST SERVER CONNECTION

1. Navigate to the left panel and select **Connections**.
2. Select the desired Worklist server from the list.
3. Click the  button select **Edit**.
4. Modify necessary fields such as Name of the connection, AE title, IP address, and select the desired specialty.
5. Click **Test Connection** to verify the accuracy of the information provided. If the connection fails, double-check the entered details and perform the test again.
6. Click **Save** to apply the modifications.

## TO MODIFY A ULTRASOUND DEVICE CONNECTION


1. Navigate to the left panel and select **Connections**.
2. Select the desired Ultrasound from the list.
3. Click the  button select **Edit**.
4. Modify necessary fields such as Name of the connection, select the desired specialty and the DICOM tag (see "[Managing a DICOM Tag for an Existing Ultrasound Connection](#)" on [page 25](#)) based on third party ultrasound specification.
5. Click **Save** to apply the modifications.



# Managing a DICOM Tag for an Existing Ultrasound Connection

This section guides you through the steps to configure SmartLink's to automatically assign exams in to the correct physician's Draft folder based on information extracted from DICOM tags.


## TO ASSIGN THE SPECIFIC DICOM TAG

1. Navigate to the left panel and select **Connections**.
2. Select the desired Ultrasound from the list.
3. Click the  button select **Edit** to modify the connection settings.
4. Locate **Performing physician mapped** from and click down arrow to expand the list.
5. From the drop down list, select the DICOM tag based on third party ultrasound specification. The following options are available:
  - **Performing Physician's Name (0008,1050)**: Assigns exams to the physician in Exo Works based on the name of the performing physician.
  - **Referring Physician Name (0008,0090)**: Assigns exams to the physician in Exo Works based on the referring physician's name.
  - **Operator Name (0008,1070)**: Assigns exams to the physician in Exo Works based on the operator's name.
  - **Name of the Physician Reading Study (0008,1060)**: Assigns exams to the physician in Exo Works based on the name of the reading physician.
  - **Persons Telecom Information (0040,1104)**: Assigns exams to the physician in Exo Works based on the contact information (phone number or email) of the physician.
  - **Map to Unassigned Folder (None)**: Assigns the exam to the unassigned folder in Exo works.
6. Click **Save** to apply the modifications.

### Caution

If there are any discrepancies or typos in the information entered in the third party ultrasound application that do not match the corresponding user information in Exo Works, the exam will be automatically moved to the unassigned folder. To ensure accurate exam assignment, it is crucial to maintain data integrity and consistency between the DICOM tags and Exo Works user records.

## TO DELETE ANY EXISTING CONNECTION

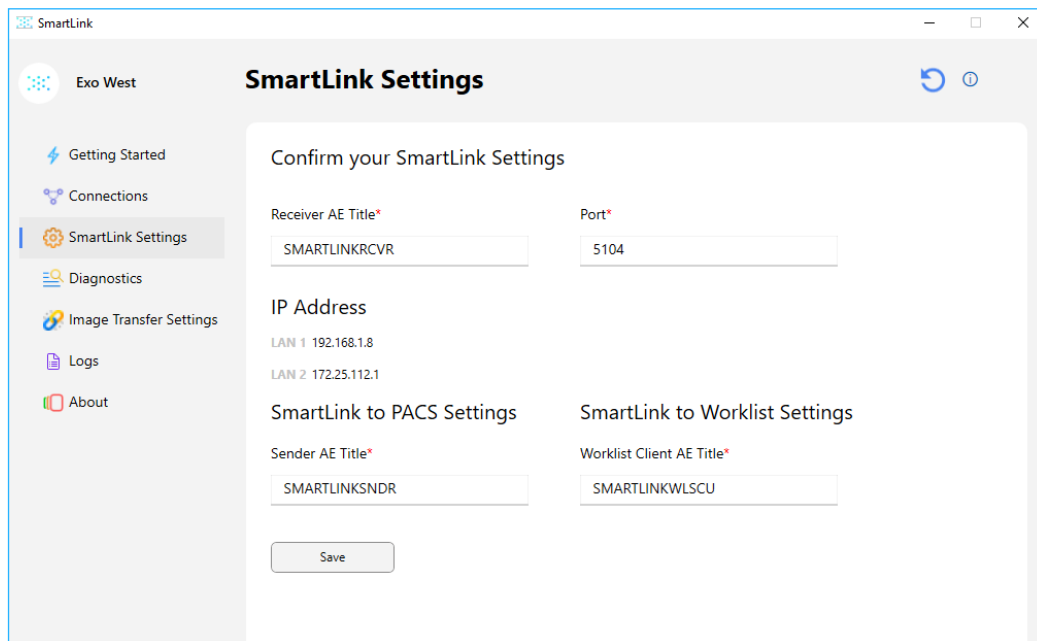
1. Navigate to the left panel and select **Connections**.
2. Select the desired connection from the list.
3. Click the  button select **Delete**.

### Caution

Deleting a connection is permanent and cannot be undone. Exercise caution when deleting connections.

# SmartLink Settings

The SmartLink Settings section serves as the main control point for configuring the core parameters necessary to the application's operation. SmartLink Settings is crucial for defining key parameters to ensure smooth communication and data exchange within the DICOM environment.



## TO CONFIGURE SMARTLINK SETTINGS

1. Navigate to the left panel and select on either **Getting Started** and then **Setup SmartLink**, or directly select **SmartLink Settings**.
2. Complete the following fields:
  - **Receiver AE Title:** A unique title assigned to the SmartLink application for receiving DICOM data within the network.. A default title of "SMARTLINKRCVR" is assigned. Users can assign a custom title if needed.
  - **IP Address:** Displays the system's network addresses. This field is read-only.
  - **Port:** The communication port for the SmartLink application. A default port of "5104" is assigned. Users can specify a different free port if necessary.
  - **Sender AE Title:** A unique title assigned to the SmartLink application for sending DICOM data to the PACS server. A default title of "SMARTLINKSNDR" is assigned. Users can assign a custom title if needed.
  - **Worklist Client AE Title:** A unique title assigned to the SmartLink application to query modality worklists from the Worklist Server. A default title of "SMARTLINKWLSCU" is assigned. Users can assign a custom title if needed.
3. Once you've entered the necessary information, click **Save** to apply the changes.




## Syncing SmartLink with Exo Works

SmartLink synchronizes with Exo Works to ensure that specialty information is always updated. It automatically connects with the linked Exo Works organization every hour to retrieve the latest updates, including newly added specialties, modifications to existing specialties, and changes to the default specialty.

In addition to automatic synchronization, users can manually trigger a sync at any time. This allows immediate retrieval of the most recent updates from Exo Works without waiting for the next scheduled sync.

## Manually Sync SmartLink with Exo Works

**To manually initiate a sync between SmartLink and Exo Works:**

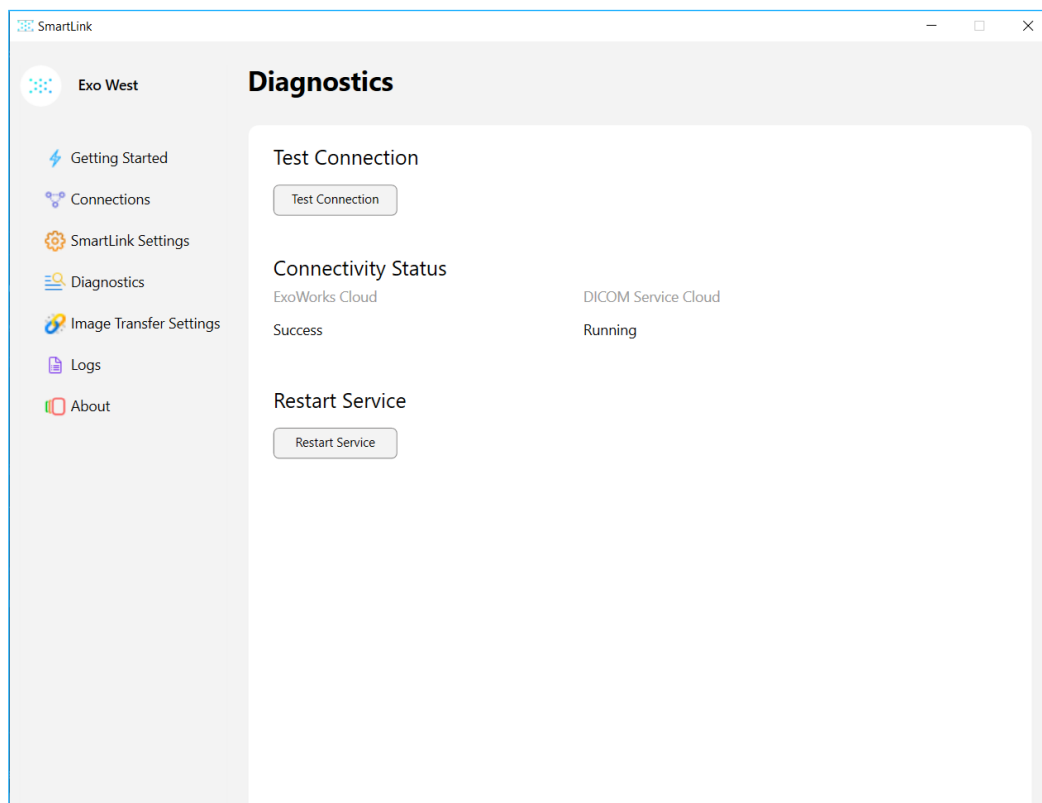
1. Navigate to the left panel of **SmartLink** application, select **Connections** or **SmartLink Settings**.
2. In the top-right corner of the page, click the **Sync**  icon to initiate a manual sync.
3. Once the sync is complete:
  - A green checkmark  icon indicates a successful sync.
  - A red sync  icon indicates the sync failed.

### Note

If the sync fails, check your internet connection and try again.

# Diagnostics

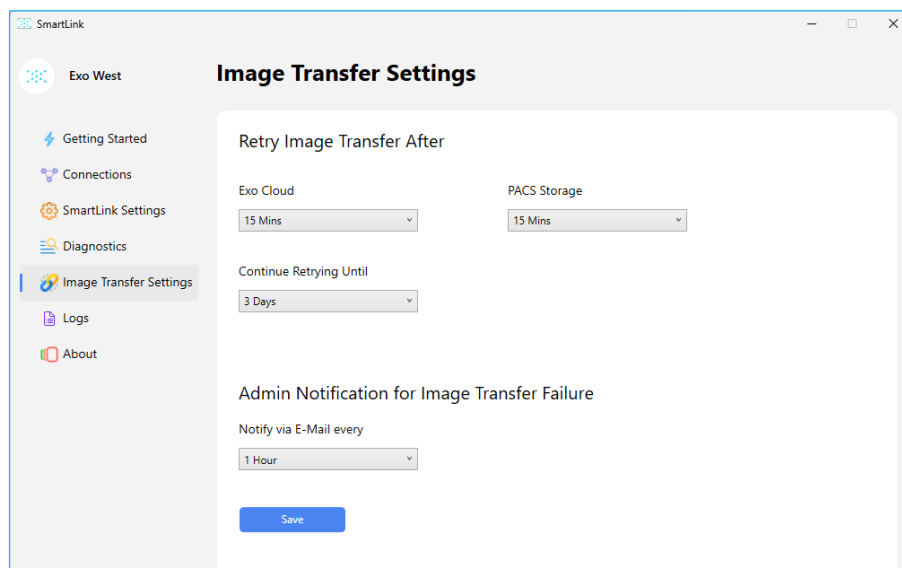
The Diagnostics section provides tools for monitoring the health and performance of the SmartLink application and its connections to external systems. Users can track the status of Exo Works cloud and PACS server connections, identify potential issues, and perform troubleshooting steps.



# Image Transfer Settings

The Image Transfer Settings section governs the parameters related to the successful transmission of images to Exo cloud and PACS storage. By carefully configuring these settings, users can optimize image transfer reliability and proactively manage potential issues. Key functionalities within this section include:

- **Retry Interval Settings:** Users can configure the frequency at which failed image transfers are re-attempted. This setting allows for flexibility in determining the optimal retry interval based on network conditions and system load.
- **Notification Configuration and Frequency:** The system can be configured to send notifications to specific recipients in case of persistent image transfer failures. These notifications can be directed to facility admin, and Exo internal team to ensure timely intervention and resolution of issues. The frequency of notifications can be set to a desired interval, ranging from every hour to every 24 hours, allowing for customized alert schedules.



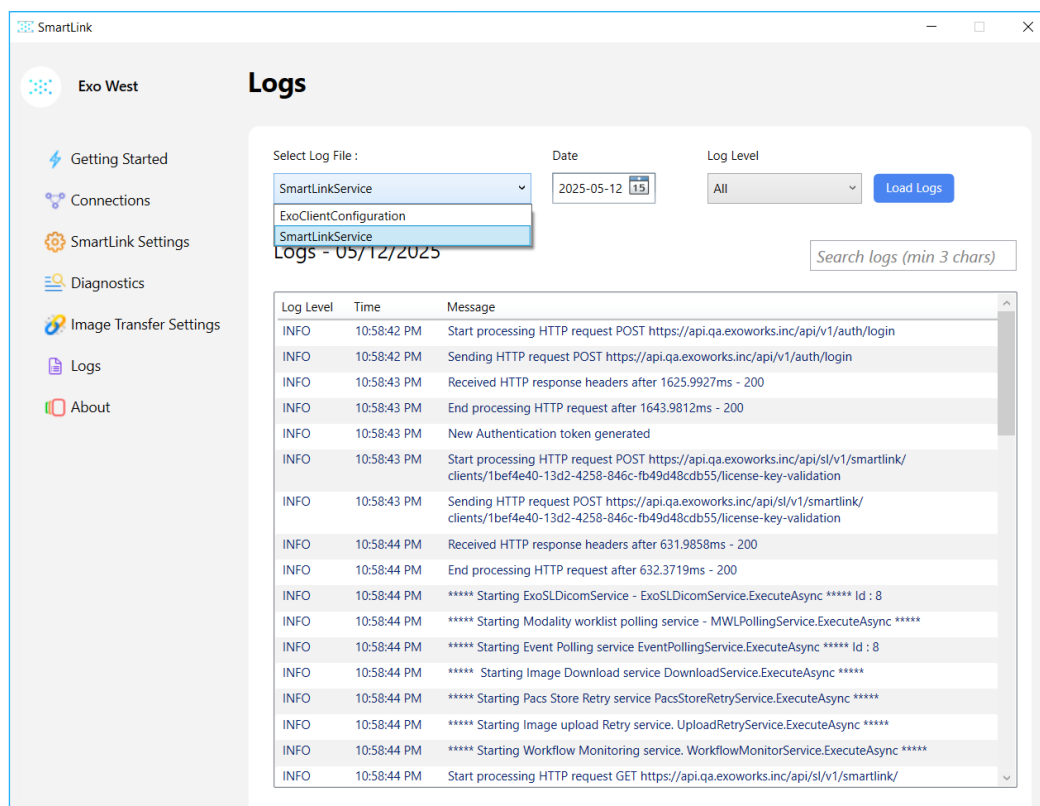
## TO CONFIGURE IMAGE TRANSFER SETTINGS

1. Navigate to the left panel and select **Image Transfer Settings**.
2. Complete the following fields:
  - **Exo Cloud:** Set the desired retry interval for image transfer to the Exo Cloud. Options include every 5, 15, or 30 minutes.
  - **PACS Server:** Specify the retry interval for image transfer to the PACS server. Options include every 5, 15, or 30 minutes.
  - **Continue Retry Until:** Determine the maximum number of days for retry attempts. Options include 1, 2, 3, or 4 days.
  - **Notify via email every:** Set the frequency for sending email notifications to the facility admin in case of continuous retry failures. Options include every 1 to 24 hours.
3. Click **Save** to apply changes.

# Logs

The Logs section serves as a comprehensive repository for system activities, precisely documenting actions performed by both ExoClientConfiguration and SmartLink service. The log entries are categorized into different levels of severity:

- **Info:** Provides detailed information about system operations and events.
- **Error:** Records instances of unexpected conditions that may have disrupted normal system functioning.
- **Fatal:** Indicates critical errors that have caused the system to fail or terminate.
- **All:** Includes a comprehensive view of all log entries, encompassing informational, error, and fatal messages.



## TO FILTER LOGS

- ❖ Select Log File type, date and log level, then click **Load Logs**.

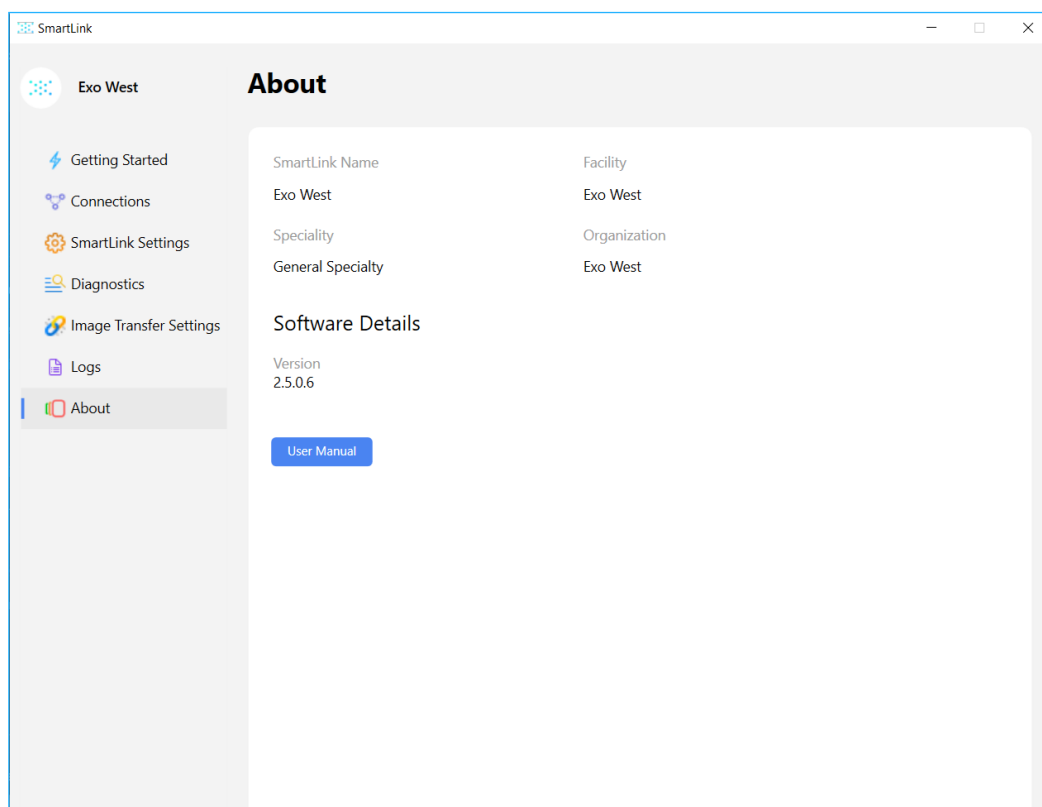
## TO SEARCH LOGS

- ❖ Enter keywords in the **Search box** to find specific logs.

These logs serve as invaluable tools for troubleshooting, auditing, and performance analysis. By examining log entries, users can identify patterns, pinpoint error sources, and gain insights into system behavior.

# About

The About section provides essential details to help users manage and understand their software. It includes information about the facility and specialty that SmartLink supports, along with details about the organization utilizing the application. This section also shows the current version of the software, which is important for troubleshooting and ensuring compatibility. Additionally, users can check for available software updates here, keeping their application up-to-date with the latest features and improvements. For further assistance, users can access the user manual by clicking the **User Manual** button.



Repair and Uninstall

5



# Repair and Uninstall

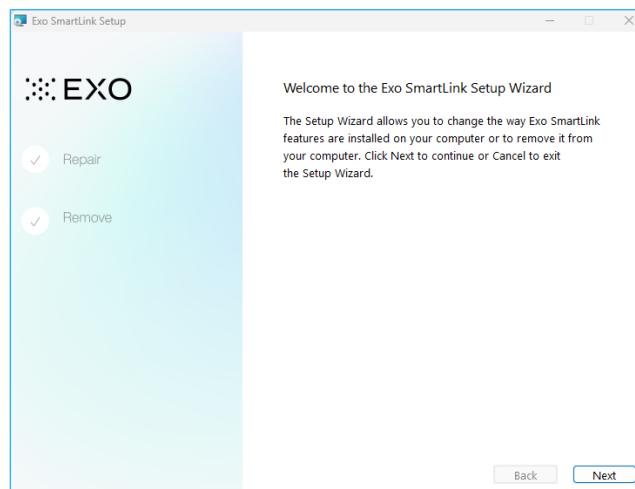
## Chapter 5

### Repairing SmartLink

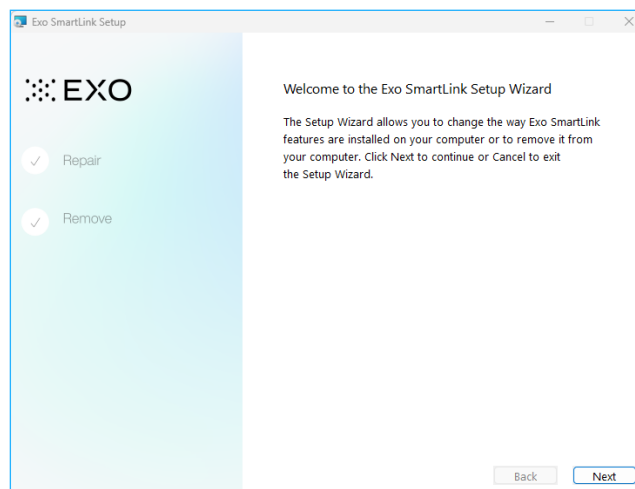
#### TO REPAIR

If you encounter unexpected behavior with the SmartLink application, repairing the installation might resolve the issue. Follow these steps:

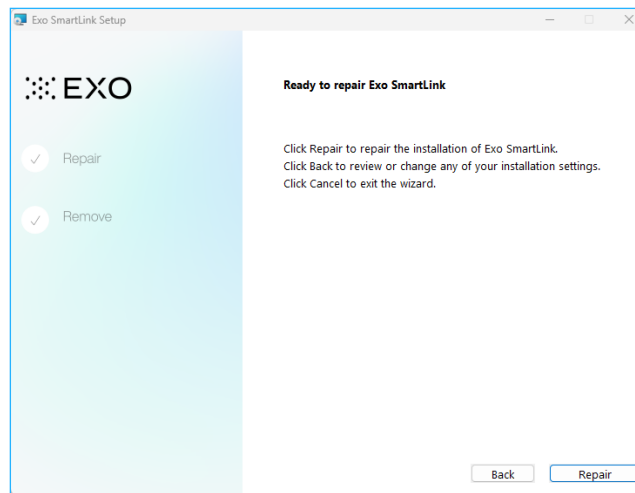
1. Ensure all SmartLink instances are closed on your computer.
2. Find the downloaded SmartLink installer file.
3. Double-click the **installer** file to launch it.



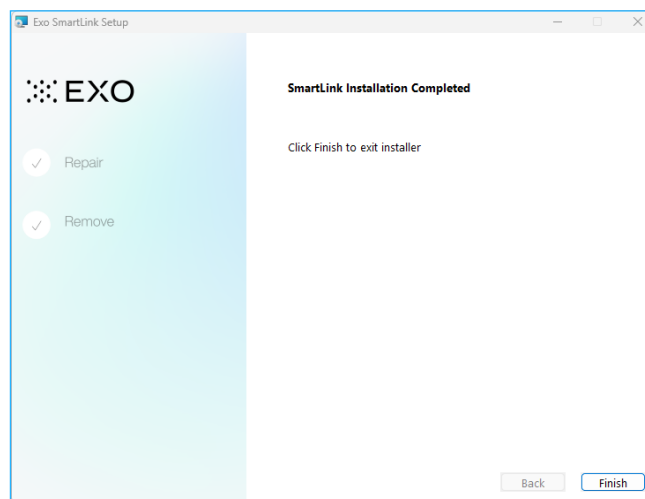
4. Choose the **Repair** option from the installation wizard.



5. Click **Next**.



6. Click **Repair** to begin the repair process.



7. Wait for the repair to complete and click **Finish**.

**Note**

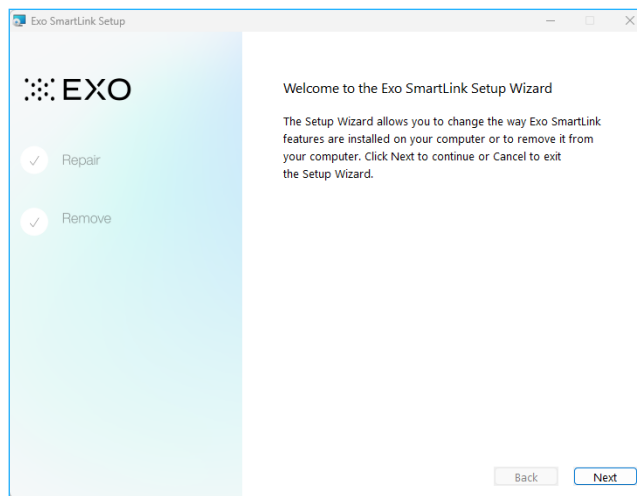
You might be prompted to restart your computer after the repair process. Save your work and restart if necessary.

# Uninstalling SmartLink

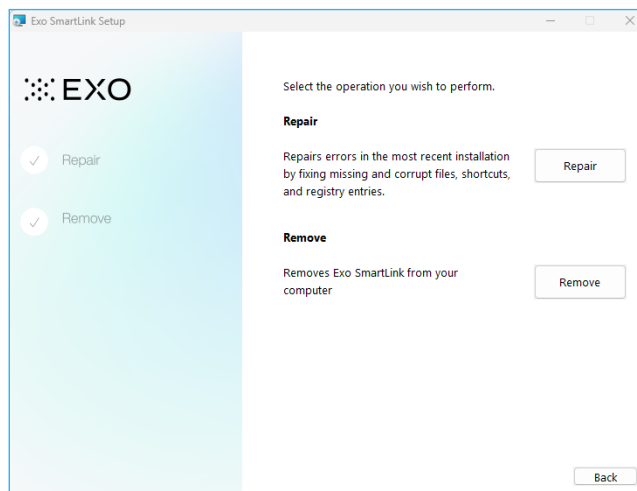
## TO UNINSTALL

Uninstalling SmartLink will permanently remove the application and all associated data from your system. If you decide to reinstall SmartLink later, you will need to reconfigure all settings. Follow these steps:

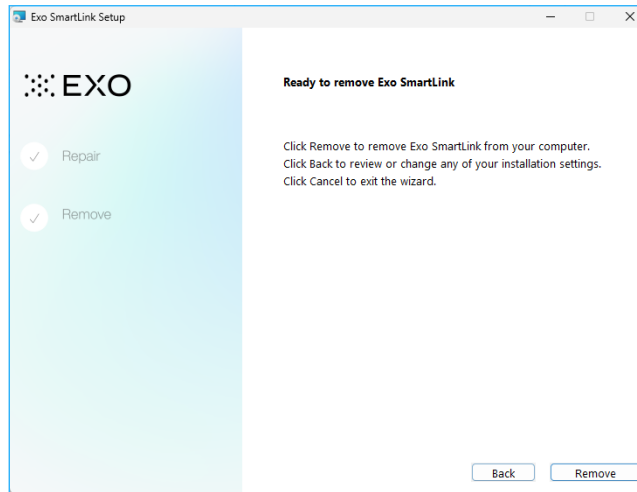
1. Ensure all SmartLink instances are closed on your computer.
2. Find the downloaded SmartLink installer file.
3. Double-click the **installer** file to launch it.



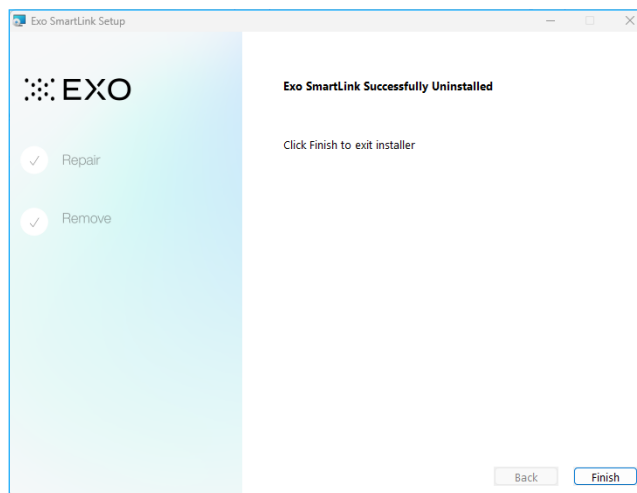
4. Choose the **Remove** option from the installation wizard.



5. Click **Next**.



6. Click **Remove** to begin the repair process.



7. Click **Finish** to exit the uninstallation wizard.

**Note**

You might be prompted to restart your computer after the repair process. Save your work and restart if necessary.

# Troubleshooting

The bottom of the page features three overlapping, semi-circular shapes in shades of blue, ranging from a light sky blue to a medium blue. A large, white, stylized number '6' is positioned on the right side, partially overlapping the blue shapes.

6

# Trouble shooting

## Chapter 6

### Error Messages in Logs

Periodically check log files even if the software appears to be functioning normally. This proactive approach can help identify potential issues before they impact usability. If you encounter errors or unexpected behavior, reviewing these log files can provide valuable insights into what went wrong.

**Note**

If an error message shows that is not listed in this table, contact customer support.

Below are the error messages along with their explanations:

Error Message	Recommended Actions
Store to PACS Failed	Check if PACS server is down.
Uploading Image Failed	<ul style="list-style-type: none"><li>Check the Internet connection.</li><li>If the Exo Cloud server is down, please contact customer support for assistance.</li></ul>
Failed to Notify Image Upload Failure	
Failed to Notify Image Download Failure	
Error uploading DICOM file	
Exo Cloud Services not reachable	
Failed to Delete Connection	
Failed to add Connection	
Could not get Pre-Signed Url for DICOM Upload	
Could not get Pre-Signed Url for DICOM Download	
Exams will not be uploaded until the connection is added	Check if details of added connections are correct and saved in third-party ultrasound devices.
Check for possible duplicate connections with AETitle	Check in Exo cloud if any other connection is added with same AE Title.
Failed to store image in local database	Repair / Reinstall SmartLink application.
Received Http Response: {response.StatusCode} in ExoSmartLinkService.{methodName}	<ul style="list-style-type: none"><li>Check the Internet connection or Exo cloud server down.</li><li>If you see Status code other than 20x, contact customer support for assistance.</li></ul>

# Exporting Log Files

When reaching out to customer support, a representative may request log files to assist you more effectively.

## TO EXPORT LOG FILES FROM THE SYSTEM

1. Navigate to the log file directory: **C:\Program Files\Smartlink\Logs**.
2. Locate the log files you need.
3. Copy the relevant log files to your desired location or compress them into a single archive file for easier sharing.

Ensure you provide all requested log files to help the support team diagnose and resolve the issue more efficiently.

## FAQs

### 1. Why can't I set up PACS or Modality Worklist connections?

If you are unable to set up PACS or Modality Worklist connections, it is likely due to an incomplete setup of SmartLink.

To enable these configurations, please complete the ["SmartLink Settings" on page 26](#). Once the settings are saved, you should be able to proceed with setting up PACS and Modality Worklist connections.

### 2. Unable to save SmartLink settings

If you are encountering difficulties saving SmartLink settings, please consider the following:

- **User Permissions:** Ensure that the user attempting to save the settings has the necessary permissions and credentials.
- **File Integrity:** Verify that the downloaded JSON file and installer are not corrupted. If there is any suspicion of corruption, re-download the files.

If the issue persists, please contact SmartLink support for further assistance.

### 3. What happens if the PACS server is experiencing downtime?

If the PACS server is unavailable or experiencing downtime, SmartLink employs the following measures:

- **Local Data Storage:** SmartLink temporarily stores image data in a local database.
- **Retry Attempts:** The system will repeatedly attempt to transfer images to the PACS server based on the configured retry settings.
- **Data Archiving:** If the maximum retry limit is reached without successful transfer, the images will be moved to the Exo Works outbox for manual transfer once the PACS server is back Online.

By implementing these strategies, SmartLink ensures minimal data loss and efficient image transfer when PACS server connectivity is interrupted.

### 4. Why is data not being uploaded into Exo Works?

If data is not being uploaded into Exo Works, several potential reasons could be causing the issue. Here are some common possibilities to consider and troubleshoot:

- **Network Connectivity:** Ensure a stable Internet connection for the device or system uploading data to Exo Works.
- **Firewall/Network Restrictions:** Check for any firewall or network settings blocking outbound connections to Exo Works servers.
- **User Permissions:** Verify that the user or system has the necessary permissions and credentials.
- **Exo Works Server Status:** Confirm that Exo Works servers are operational and not experiencing downtime or maintenance.
- **SmartLink Configuration:** Review the SmartLink parameters to ensure correct configuration.
- **Data Volume:** Consider the size of the data being uploaded. Large datasets might require longer upload times.
- **Error Logs:** Check SmartLink logs for any specific error messages.

If the issue persists, please contact SmartLink support for further assistance.

#### 5. **Can I use the same AE Title for different PACS/MWL connections?**

No, SmartLink requires unique AE Titles for each PACS or MWL connection. Using duplicate AE Titles can lead to conflicts and prevent proper data transfer. Ensure that each connection has a distinct AE Title to avoid issues.

#### 6. **Why can't I see the specialty listed for the PACS and MWL server?**

SmartLink retrieves specialty information from Exo Works. If you cannot find a specific specialty in the list, please ensure that the specialty has been added to Exo Works. Once the specialty is added to Exo Works, it should become available in the SmartLink specialty list.

#### 7. **Can I restore a deleted connection?**

No, deleted connections cannot be restored. If you need to re-establish a connection, you will have to create a new one.

#### 8. **What should I do if I encounter an error or the software crashes?**

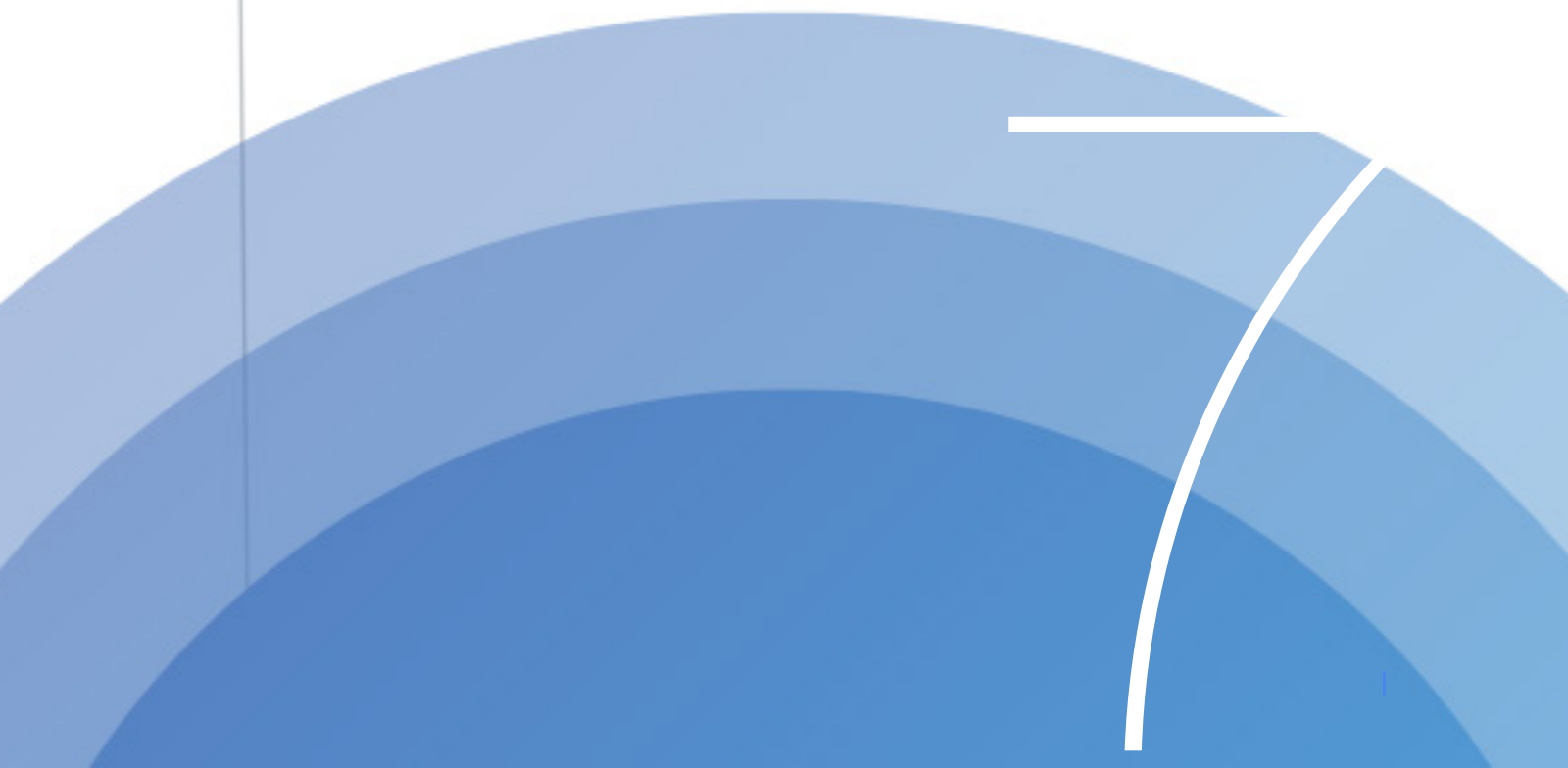
If you encounter issues with SmartLink, try restarting the application. If the problem persists, repairing or reinstalling SmartLink might resolve the issue.

#### 9. **Why doesn't SmartLink allow sending duplicate images across specialties?**

SmartLink is designed to ensure accurate and efficient image management. By preventing duplicate image transfers across specialties, SmartLink helps maintain data integrity and prevents unnecessary storage consumption. This feature also optimizes system performance and reduces potential errors.



# Glossary



# Glossary

## Chapter 7

### Terms

Exam	An association of customizations specific to a clinical procedure.
Modality	In medical imaging, any of the various types of equipment used to acquire images of the body, such as radiography, ultrasound, and magnetic resonance imaging.

### Abbreviations

AE	Application entity
DICOM	Digital Imaging and Communications in Medicine
PACS	Picture Archival and Communication System
MWL	Modality Worklist



LBL-0023 REV. C