User Manual

Exo Works®

Connect

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Contents

Introduction

1

Introduction

Chapter 1

About this user manual

This user manual is intended to provide instructions for the use of Exo Works® workflow software for the Connect license subscription.

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 us at Exo Support.

Getting Started

2

Getting Started

Chapter 2

About Exo Works

Exo Works is an intuitive point-of-care ultrasound (POCUS) workflow solution that enables seamless documentation, review, store and manage quality assurance (QA) and proficiency tracking for ultrasound exams in seconds from anywhere. It's accessible from phone or web and easily integrates with existing hospital IT for storage.

Exo Works is a software program that requires an annual subscription. This manual covers what is included in the software subscription for an Exo Works Connect license.

Web and iOS Mobile App

Exo Works is accessible from an Apple iOS mobile app or web browser. The interface language, including worksheets and exam search, is available in English and Spanish, and adjusts automatically based on the language settings of the Apple mobile device or web browser.

Intended use

Exo Works is intended to provide the tools to manage POCUS exams for healthcare professionals in a pre-hospital or hospital or clinic setting. Users can manage and view ultrasound exams, document exam results, view exam images and image clips, review educational exams, perform quality assurance (QA), and track proficiency for credentialing.

Exo Works supports administrators or directors who manage POCUS programs, credentialed healthcare professionals who have completed an ultrasound training program defined by the healthcare institution and use ultrasound for patient care, and non-credentialed healthcare professionals who are learning or training for certification.

Non-credentialed healthcare professionals are authorized to collect ultrasound images and document the exam; however, they are not credentialed to sign off on the documentation.

Role-based system

Exo Works is a role-based system where an approved administrator can create users and assign roles with specific access rights. See Roles section for more information.

Connectivity

Exo Works can be configured to automatically archive exams to a Picture Archiving and Communication System (PACS) or Vendor-Neutral Archive (VNA), and/or to the Exo Works Cloud.

Using standard protocols, Exo Works can be configured to connect with a facility's PACS, and user authentication, providing a more streamlined workflow. Process automation makes it easy to manage both clinical and training ultrasound workflows.

Exo Iris and any DICOM-enabled ultrasound can be configured to automatically send ultrasound exams to Exo Works for workflow management.

Cybersecurity

Exo has taken utmost care to prevent possible cybersecurity vulnerabilities throughout the product lifecycle, from production to customer delivery. However, cybersecurity threats, such as malware attacks, could exist with the use of all mobile devices.

Exo Works stores personal health information (PHI), and Exo makes every effort to protect PHI. Security and confidentiality of patient records must be handled in accordance with institutional clinical procedures. For clarification of these policies, contact the information technology (IT) department. Responsibility for ensuring that all subsequent data processing or data sharing complies with applicable legal and regulatory requirements rests solely with the user.

Visit Exo's Security Trust Center to learn more about our protocols.

If a device malfunction is suspected due to a cybersecurity incident, notify the information technology (IT) department and verify that the latest software updates are installed.

Exo Works configuration

The Exo team can support set up and configuration of Exo Works. Please contact customer success representative or reach out to Exo Support.

Organization Management

The administrative portal provides the tools to manage the facility, specialties and users. Configure Smartlink, access the devices and license and setup the user authentication method.

Users with administrative and specialties roles can access the portal from Exo Works Web by selecting the Admin tab.

To learn more about managing organizations, please refer to Chapter Managing Admin Tasks.

Roles

Each Exo Works user gets assigned at least one specialty and one role per specialty within a facility. A user can be part or multiple specialties and can be assigned multiple roles. Facility and Specialty Admins manage the users and assign the role(s) for each user.

User Roles

Administrative Roles

- Customer Admin
- Facility Admin

Clinical Roles

- Specialty Admin
- QA reviewers
- Credentialed
- Non-Credentialed

Detailed Role Descriptions

Role	Description
Customer Admin	▪ Serves as the primary contact for the organization. ▪ Each organization can have only one Customer Admin. ▪ Responsible for managing the facility or creating Facility Admins to manage the facility on their behalf. ▪ Can create users and assign Facility Admin and Specialty Admin roles. ▪ Do not have access to the Exo Iris mobile app. ▪ Do not have access to the Exams on the Exo Works web app.
Facility Admin	▪ Responsible for setting up and managing the facility's operations including users, specialties, and connections. ▪ Each organization can have multiple Facility Admins. ▪ Facility Admin information can be updated by the Customer Admin. ▪ Cannot create Customer Admins or other Facility Admins. ▪ Do not have access to the Exo Iris mobile app. ▪ Do not have access to the Exams on the Exo Works web app.

Role	Description
Specialty Admin	▪ An organization can have multiple Specialty Admins. ▪ Specialty Admin can manage one or many specialties. ▪ Responsible for setting up proficiency programs and workflows for their specialties. ▪ Manages assigned specialties, including clinical users. ▪ Specialty Admin information updates can be managed by both the Facility Admin and the Customer Admin. ▪ If a user is assigned this clinical role, the specialty needs to be specified. This user cannot be assigned QA Reviewer, Non-Credentialed, and Credentialed roles. ▪ Can perform QA reviews and has the authority to document and sign off exams. ▪ Cannot create or modify users but can view user information. ▪ Can access the Exo Iris mobile app. ▪ Can access the Exams and Admin on the Exo Works web app..
QA Reviewer	▪ Set up by authorized Specialty Admins. ▪ An organization's specialty can have one or many QA reviewers. ▪ QA Reviewers can review exams of all specialties they are part of. ▪ QA Reviewer setup is optional and only if the specialty has a review program set up. ▪ QA Reviewer's information updates can be managed by the Specialty admin from the user management module. ▪ Cannot create other users or update their status. ▪ Can access the Exo Iris mobile app. ▪ Can access only Exams on the Exo Works web app.
Credentialed	▪ Set up by authorized Specialty Admins. ▪ An organization's specialty can have one or many Credentialed users. ▪ Credentialed users can sign off exams of all specialties based on their credentialing for the specific specialty. ▪ Credentialed user setup is optional and only if the specialty's exam performing users are not credentialed. ▪ Credentialed user's information updates can be managed by the Specialty admin from the user management module. ▪ Cannot create other users or update their status. ▪ Can access the Exo Iris mobile app. ▪ Can access only Exams on the Exo Works web app.

Role	Description
Non-Credentialed	▪ Set up by authorized Specialty Admins. ▪ An organization's specialty can have one or many Non-Credentialed users. ▪ Can perform and document exams, but only within their assigned specialties. ▪ Typically works under the supervision of Credentialed or Specialty Admins. ▪ Non-Credentialed user setup for a specialty is optional and only needed based on the needs of the specialty for performing physicians. ▪ Non-Credentialed user's information updates can be managed by the Specialty admin from the user management module. ▪ Cannot sign off exams. ▪ Cannot create other users or update their status. ▪ Can access the Exo Iris mobile app. ▪ Can access only Exams on the Exo Works web app.

Note Users can be created by the Customer Admin and Facility Admin via the Admin page in the Exo Works web application.

Role Combinations and Access

Role(s) Assigned to an Organization's User				**Access to**		
Customer Admin	Facility Admin	Specialty Admin (Clinical Role)	Other Clinical Roles[1]	**Exo Works Web - Admin**	**Exo Works Web - Exams**	**Exo Iris Mobile App**
x				Yes	No	No
	x			Yes	No	No
		x		Yes	Yes	Yes
			x	No	Yes	Yes
x	x			Yes	No	No
x		x		Yes	Yes	Yes
x			x	Yes	Yes	Yes
	x	x		Yes	Yes	Yes
	x		x	Yes	Yes	Yes
x	x	x		Yes	Yes	Yes
x	x		x	Yes	Yes	Yes

1 **Other Clinical Roles:** Non-Credentialed, Credentialed, QA Reviewer.

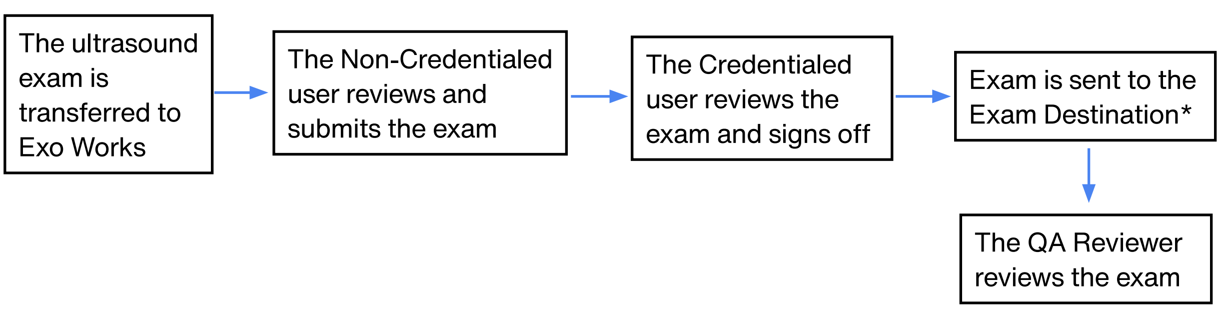
> **Note**
>
> - A user can be assigned multiple roles but only one clinical role (see Clinical Roles on page 12).
> - If a user has multiple roles, their access and permissions are dictated by the highest-level role assigned to them.

Exo Works Workflow

Clinical and Educational workflows

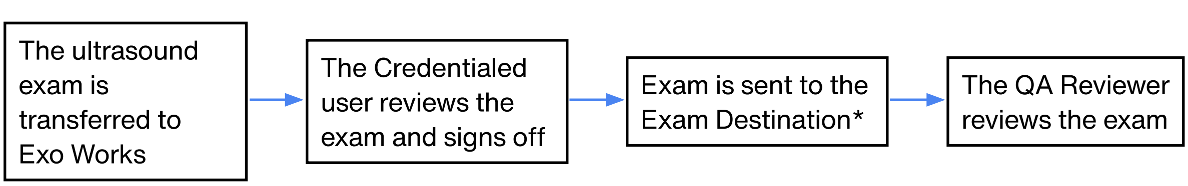
Exo Works workflow management system is an advanced ultrasound workflow manager designed specifically to meet the workflow needs of POCUS users. Exo Works supports both clinical and educational ultrasound workflow solutions. Shown below is a high-level view of each workflow.

Non-Credentialed Workflow



> **Note**
>
> For Educational exams performed by a non-credentialed user, assigning a credentialed user is optional. The non-credentialed user may choose to assign a credentialed user for sign-off or submit the exam directly.

Credentialed Workflow



***Exam Destination:** All exams will be synced to Exo Works Archive. If a PACS is configured by admin, clinical exams will also be sent to the designated PACS destination. Educational exams will not be sent to PACS.

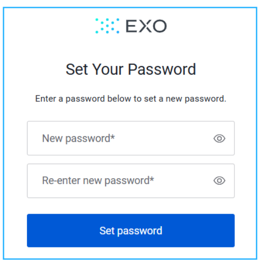
Onboarding and Log In Authentication - Web

New users receive a welcome email with instructions to register for Exo Works.

Onboarding

TO REGISTER

1. In the Welcome email, click **Setup Password** to open the password setup page**.**



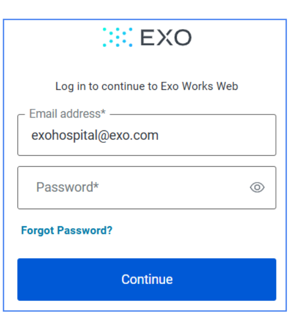
2. Enter the desired password in the **New Password** field.
3. Re-enter the password in the **Confirm Password** field.
4. Click **Continue**.

Logging in

TO LOG IN

1. Open a web browser and visit the Exo Works login page at https://cloud.exoworks.inc/.

2. In the **Email** field, type the email address associated with the Exo Works account.
3. Select the organization, only necessary if users belong to multiple organizations. Otherwise, skip this step.



4. In the **Password** field, enter the password created using the link provided in the Welcome email (only applicable if using Auth0 authentication).

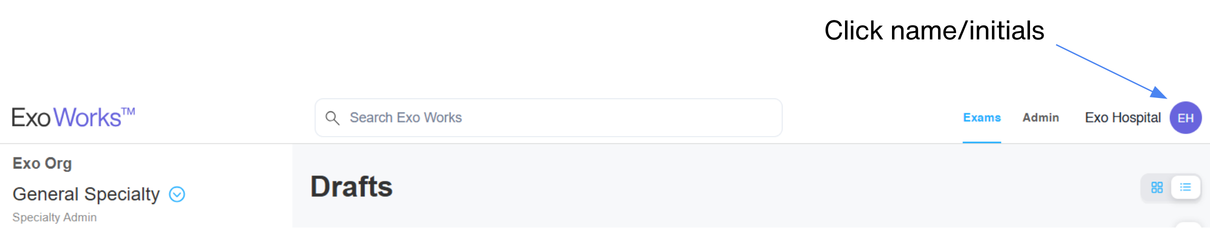
Note	For single sign-on (SSO) accounts, contact the admin to complete account setup.

5. Click **Continue**.
6. Review and agree to the Exo **Terms of Use** and **Privacy Policy**; click **Continue**.
7. Select the **Specialty** (only applicable if the user belongs to multiple specialties). The selected specialty is set as the preferred specialty and is used for redirection on subsequent logins.
8. The system redirects to the Exo Works web app home page.

Logging out

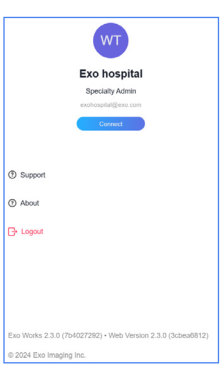
TO LOG OUT

❖ Click on name or initials displayed in the top right corner of the Exo Works screen, and select **Logout**.



Profile

Access the profile page by selecting the name or initials displayed in the top-right corner of the Exo Works screen. The profile page includes the following:



- User name, User role and license associated to the user account.
- **Support:** How to contact Exo Support and access to user manual.
- **About:** Terms and conditions, privacy policy and the Exo app version.
- **Logout:** Logs out the user.

Onboarding and Log In Authentication- Mobile

New users receive a welcome email with instructions to register for Exo Works. The email guides the onboarding process and includes a link to download the mobile app.

Downloading and Setting Up Exo Iris App

TO DOWNLOAD AND SET UP IRIS APP

1. Install the **Exo Iris** app from the Apple App Store on iPhone or iPad.
2. On the Welcome page, tap **Let's Go!**.
3. Enter registered email address and tap **Continue**.
4. Select the **organization**, if applicable (only required for users belonging to multiple organizations).
5. Enter the password created using the link in the welcome email (applicable if using Auth0 authentication).

Note	For single sign-on (SSO) accounts, contact the admin to complete account setup.

6. Set a **6-digit PIN** to secure the account.
7. Optionally, set up quick access with **Face ID** or **Touch ID** (if supported by the iPhone) and tap **Continue**.
8. Review and agree to the **Exo Terms and Conditions** and **Privacy Policy** and tap **Continue**.
9. Optionally, select an avatar by tapping **Edit** and choosing a photo from the user library, or tap **Skip** to proceed without an avatar.

Note	The profile picture can be added or updated later from the profile menu.

10. Select the **specialty** (if applicable). This step is required only when multiple specialties are associated with the account. The selected specialty is set as the preferred specialty and is used for redirection on subsequent logins.
11. Tap **Begin** to enter the Exo Works app.

Logging in to the Exo Iris App

TO LOG IN TO THE EXO IRIS APP

1. Open the **Exo Iris** app on iPhone or iPad.
2. Enter the **username** and **password**.
3. Enter the **PIN**.

Note	▪ If a password is forgotten, enter the email address and select Password Reset on the login screen. ▪ After five failed login attempts, the account will be locked. Check the email for instructions to unlock the account. ▪ For SSO users, contact the IT Admin for login assistance.

Note	The mobile app is timed out after 5 mins of inactivity or when the app is put in the background. To resume the session, user must enter their PIN, Face ID or Touch ID depending on the biometric setting, selected during onboarding.

Logging out of the Exo Iris App

TO LOG OUT OF THE EXO IRIS APP

1. Tap the **Profile** icon in the upper-right corner of the screen.
2. Select **Logout**.
3. At the prompt, tap **Logout** again to confirm.

Profile

Access the profile page by tapping on the profile icon. The profile page includes the following information:

- User name, User role, email and license associated to the user's account.
- **Support:** How to contact Exo Support and access to user manual.
- **About:** Terms and conditions, privacy policy and the Exo app version.
- **Settings:** Includes Exo Iris, PIN setup, Exo Works Archive, PACS server and modality worklists, exam policy settings, and app logs.
- **Logout:** Logs out the user.

Installing Updates for Exo Iris App

For optimal performance, ensure the latest version of the Exo Iris app and imaging firmware are in use. Regularly check for updates on the Apple App Store and follow in-app prompts to install new firmware.

Offline Mode in Exo Iris App

When the Exo Iris app is not connected to the internet, the following actions can still be performed in offline mode (sign-in is required at least once to enable offline mode):

- Scan
- Save **images** and **clips**
- Complete **worksheets**
- Save exams to the **Drafts** folder

However, the following actions are unavailable in offline mode:

- Access **Support**
- View or access **completed exams**
- Transfer exams to **PACS** or **Exo Archive**
- Access the **Worklist**
- Share, favorite, or delete **exams**

Managing Admin Tasks

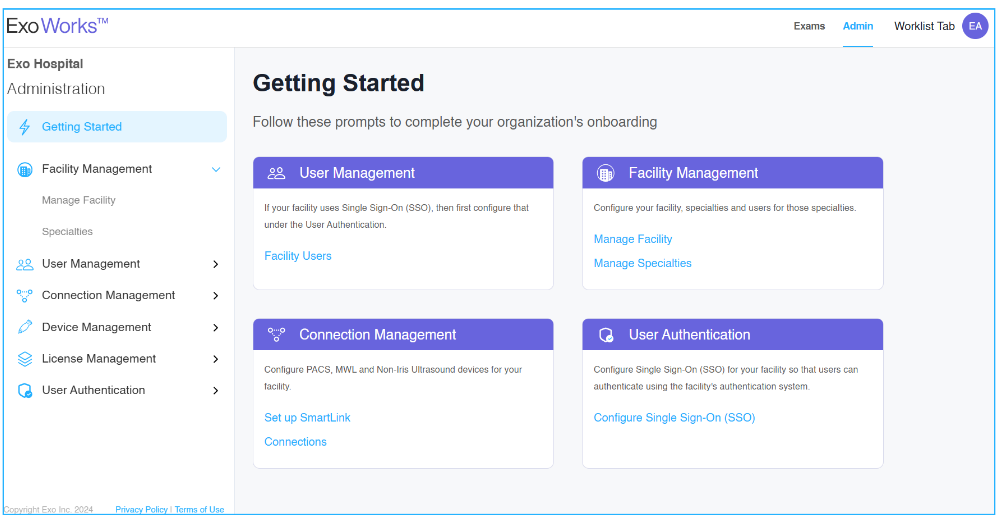
3

Managing Admin Tasks

Chapter 3

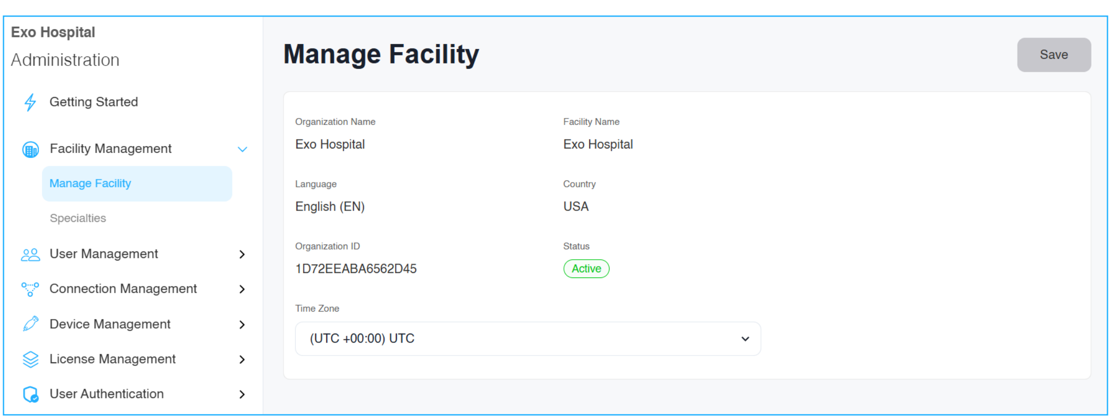
The Exo Works Admin Portal serves as a centralized management hub for organizations. Within this portal, admins can oversee facilities, manage devices and licenses, configure SmartLink, define specialties, create and manage user accounts, and setup the user authentication protocols.

To access the Admin Portal, log into the Exo Works web application with the appropriate administrative credentials (Customer Admin, Facility Admin, or Specialty Admin) and then select the **Admin** tab.



Facility Management

Managing Facility



The Manage Facility section provides detailed information about the facility, including:

- **Organization Name:** The official name of the organization.
- **Facility Name:** The specific name of the facility being managed.

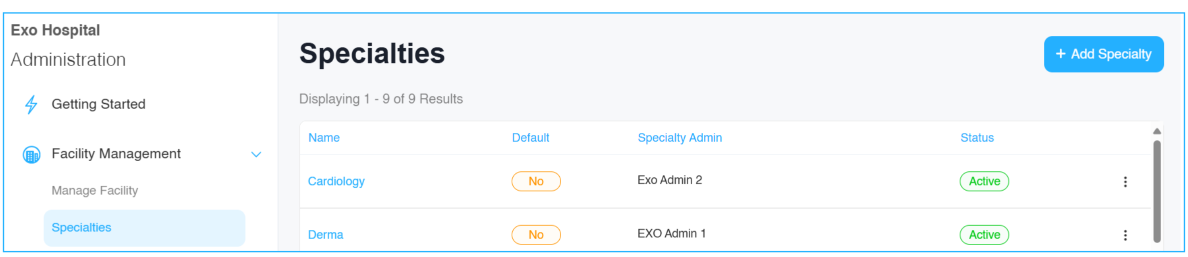
- **Language:** The primary language used within the facility. Applies to the interface, worksheets, and search. English and Spanish are available.
- **Country:** The country in which the facility is located.
- **Organization ID:** A unique identifier for the organization.
- **Status:** The current status of the organization (e.g., active, inactive).
- **Time Zone:** The time zone in which the facility operates.

> **Note** All fields except for Time Zone are view-only. To modify any field other than Time Zone, please contact Exo Customer Support.

TO CHANGE TIME ZONE

1. Navigate to **Admin** tab.
2. Select **Facility Management**, then click **Manage Facility.**
3. Go to **Time Zone** section and select the appropriate time zone for the facility from the available options.
4. Click **Save**.

Managing Specialty



TO ADD A SPECIALTY

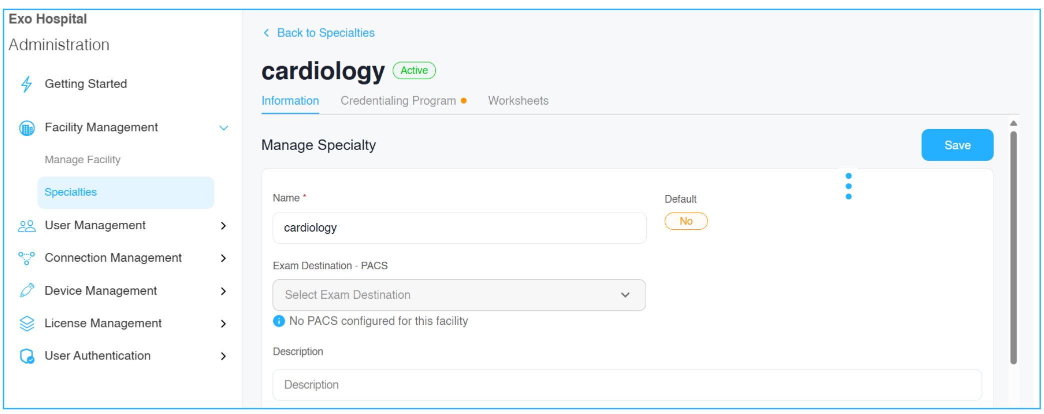
1. Navigate to **Admin** tab.
2. Select **Facility Management**, then click **Specialties**.
3. Click **+Add Specialty**.
4. Fill the required Fields:
   - **Name:** Enter name for the specialty.
   - **Specialty Admin:** Assign an existing user to be the administrator for this specialty.
   - **Description:** Enter description of the specialty.
   - **Default Specialty (Optional):** Select this option to set the specialty as the default selection for users within the organization.
5. Click **Add Specialty** to save the new specialty.

TO MODIFY DEFAULT SPECIALTY

1. Navigate to **Admin** tab.
2. Select **Facility Management**, then click **Specialties**.
3. Choose the specialty to set as the default.
4. Click ⋮ and choose **Make Default**.

Exam Destination

By default, completed exams are stored in the Exo Works Archive. If the specialty has a PACS connection configured through SmartLink, PACS can be added as an exam destination to store exams in both the Exo Works Archive and PACS.



TO CHANGE THE EXAM DESTINATION

1. Navigate to **Admin** tab.
2. Select **Facility Management**, then click **Specialties**.
3. Choose the desired Specialty.
4. Click ⋮ and select **Edit**.
5. In the Exam Destination - PACS field, select the appropriate PACS connection.
6. Click **Save**.

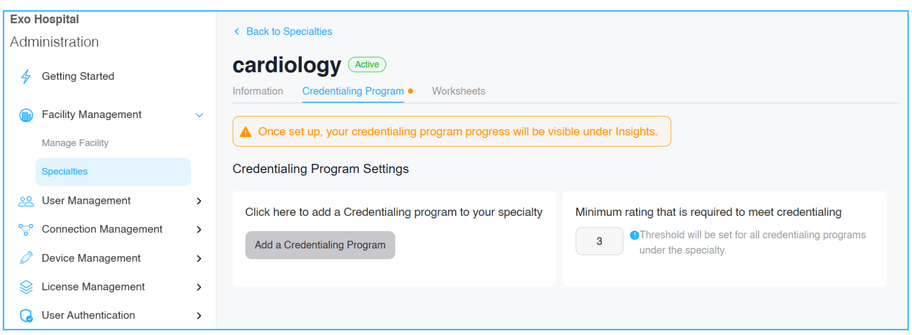
Note	The chosen destination will apply to all completed clinical exams for that specific specialty. Educational exams will not be moved to PACS.

Credentialing Program

Credentialing program ensures clinicians are skilled and competent in performing medical procedures. It involves assessing, training, and monitoring clinicians to maintain high standards of quality and safety in healthcare delivery. This process helps train users to become credentialed once they have completed a certain number of exams.

The Exo Works credentialing program allows the specialty admin to configure the number of exams to complete per exam type as well as the number of true positives and false negatives. The exam criteria are set per exam type. Facility and Specialty admins can access the Exo Works Admin portal and setup the credentialing program.

The credentialing can be configured for each specialty and will apply to all the non-credentialed users within that specialty. The minimum rating value to meet credentialing is set to 3. The credentialing program progress will be available in the Insights tab for Web and Mobile.



TO CREATE A CREDENTIALING PROGRAM

1. Navigate to **Admin** tab.
2. Select **Facility Management**, then click **Specialties**.
3. Select the desired Specialty.
4. Go to the **Credentialing Programs** section.
5. Click **Add a Credentialing Program**.
6. Enter a Title for the program.
7. Choose either **Credentialed** or **Non-Credentialed**.
8. Click **Add Credentialing Program**.

TO ADD AN EXAM CRITERIA

1. Go to the **Credentialing Programs** section.
2. Select the desired credentialing program.
3. Click **Add Exam Criteria**.
4. Choose the Exam Type.
5. Enter the required number of exams, True Positives, and True Negatives (ensure the sum of True Positives and True Negatives equals the total number of exams).
6. Click **Add Exam Criteria**.

Modifying a Credentialing Program

TO MODIFY

1. Navigate to **Admin** tab.
2. Select **Facility Management**, then click **Specialties**.
3. Select the desired Specialty.
4. Go to the **Credentialing Program** section.
5. Select the program to be modified.
6. Adjust the necessary settings.
7. Click **Save**.

Note	▪ Only two credentialing programs can be created per Specialty: one for Credentialed users and one for Non-Credentialed users. ▪ Once a user role is assigned to a program, it cannot be changed for that Specialty. ▪ The assigned exam types will be displayed within the program.

Earning Exam Credit for Credentialing Program

Minimum Rating Requirement:

- The credentialing program specifies the minimum rating needed to earn credit for performing scans and documenting patient information.
- Ratings typically range from 1 to 5.

Example: If the minimum rating is set to 3, the user does not earn credit when the QA reviewer assigns a rating of 2.

Determining Credits Earned:

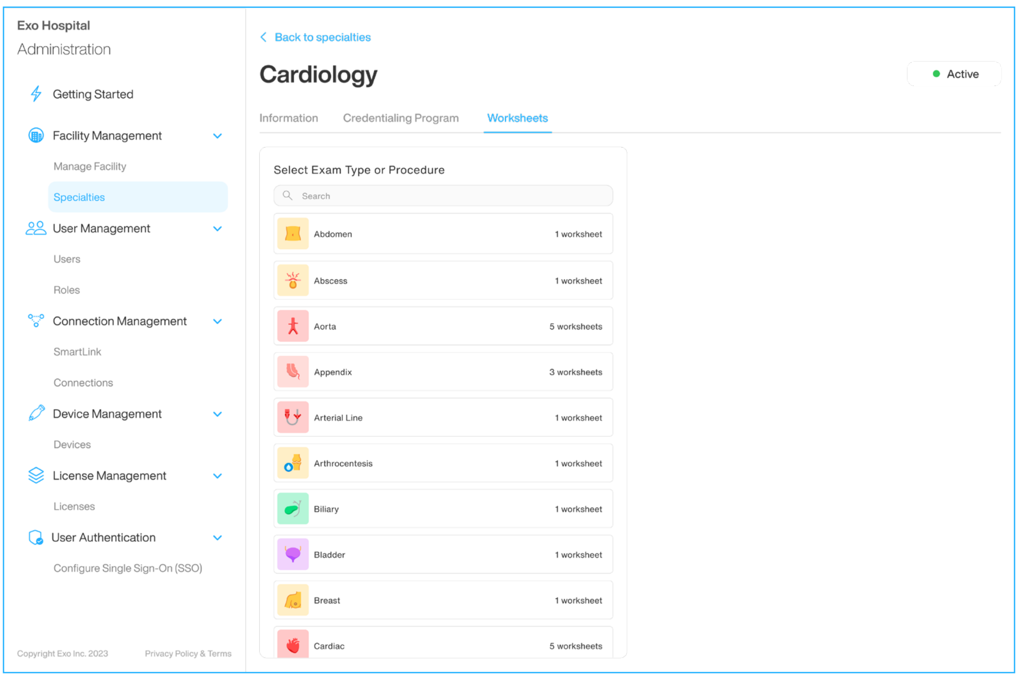
- Credits are based on:
  - The number of exams performed.
  - The required number of true positive or true negative outcomes.

Credentialing Eligibility:

- After accumulating the required credits:
  - The user becomes eligible for credentialing in the specific exam type.
  - This requires passing enough QA evaluations and meeting the credit requirements.

Managing Worksheets

Specialty Admins have the ability to duplicate existing worksheets and customize them to fit the specific needs of their specialty. Default worksheets in Exo Works cannot be modified or deleted.



TO CUSTOMIZE A WORKSHEET

1. Navigate to **Admin** tab.
2. Select **Facility Management**, then click **Specialties**.
3. Select the desired Specialty.
4. Go to the **Worksheets** tab.
5. Choose the desired exam type.
6. Select the worksheet to be customized and click the **>** arrow.
7. Click **Edit**.
8. Enter a new name for the customized worksheet (it cannot be the same as the default).
9. Select **Yes** to make this worksheet the default for the exam type, else select **No**.
10. Click **Continue**.
11. Customization options:
    - **Indications:**
        - Add new indications by clicking **New Indication +** and type the indications to add.
        - Up to 10 indications can be added (including the default).
        - Default indications can be rearranged but not deleted.

- **Views:**
    - Add new views by clicking **New View +** and type the views to add.
    - Up to 10 views can be added (including the default).
- **Findings and Interpretations:**
    - Add new findings by clicking **New Finding** and type the findings to add.
    - Click **+ Option 1** to add general interpretations.
    - Click **Nested Findings** to add sub-findings.

12. Once the changes have been made, click Save to preserve the customized worksheet.

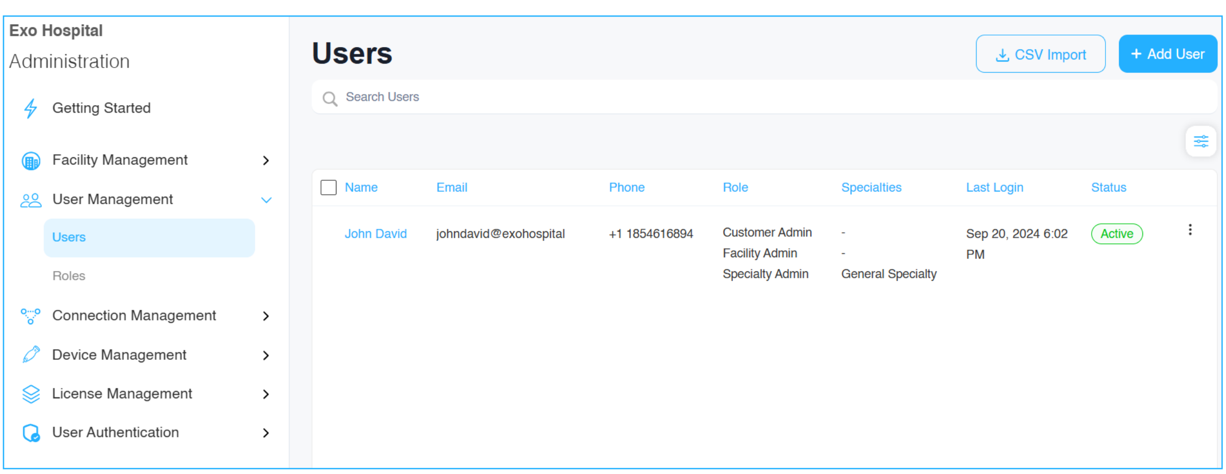
Note

- The new worksheet template will only be applied within the specified Specialty and will not affect other Specialties or the organization.
- Specialty admin can only edit worksheets for their own specialty.

Caution

Before saving customized worksheets, ensure all entered information is accurate. Once saved, the worksheet cannot be modified.

User Management



Adding a User

TO ADD A USER

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Click **Add User** to create a new user.
4. Enter the first name, last name, email address, and phone number in the popup window.
5. Click **Add User**.

Adding Users Using CSV Import

TO DOWNLOAD CSV TEMPLATE

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Click **CSV Import**.
4. Click **Download template** to get a preformatted file. Fill in the required fields and save it.

TO ADD USERS USING CSV IMPORT

1. Go to the **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Click **CSV Import**.
4. If needed, click **Download template** to download CSV import template.
5. Upload the CSV File:
   - **Option 1:** Click the **Import File** to select and upload the CSV file.
   - **Option 2:** Drag and drop the CSV file into the designated area.
6. Click **Add Users** to start the import process.
7. Validation:
   - If the CSV file is valid and the data is correct, a success message displays the number of users added.
   - If there are errors, review the file format and data entries, then correct and try again.

Note Ensure the CSV file follows the correct format and includes all necessary details, such as usernames, email addresses, and roles. Refer to the downloaded template for specific field requirements.

Modifying a User

Note

- The Customer Administrator's information is read-only and cannot be modified.
- Reassigning another user as a Customer Admin within Exo Admin is not supported via application. To request this change, please contact Exo Support.

TO MODIFY A USER

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Click the name of the user to update.
4. Edit the first name, last name, and phone number in the popup window.
5. Click **+ Assign Role.**
6. Select **Role, Specialty** and **Exams** from the dropdown list.
7. Click **Save**.

Bulk Edit of Users for updating Roles, Specialties

As an admin, multiple users can be efficiently managed within Exo Works using the bulk edit feature. This allows quick updates to user roles and specialties.

TO BULK EDIT USERS

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Apply filters or select individual users to identify the group to be edited.
4. Click **Bulk Edit** button.
5. Modify the desired **Roles**, **Specialties and Exam types (if applicable)** for the selected users.
6. Click **Assign Role** to add more roles to the selected users (maximum of 5 roles per user).
7. Click **Save** to apply the bulk edits to the selected users.

Note

- This feature streamlines user management by allowing changes to be made to multiple users simultaneously.
- Ensure that the selected users and the assigned roles and Specialties are accurate before saving the changes.

Deactivating a User

To deactivate a user, the user account must first be paused. After the account is paused, deactivation can proceed.

TO PAUSE A USER

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Select the user to deactivate and click ⋮ .
4. Select **Pause User**.

TO UNPAUSE A USER

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Select the user to deactivate and click ⋮ .
4. Select **Un-Pause User**.

TO DEACTIVATE A USER

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Select the user to deactivate and click ⋮ .
4. Select **Deactivate User**.

Note To deactivate a user, the user must be paused. Once a user is deactivated, the action cannot be undone.

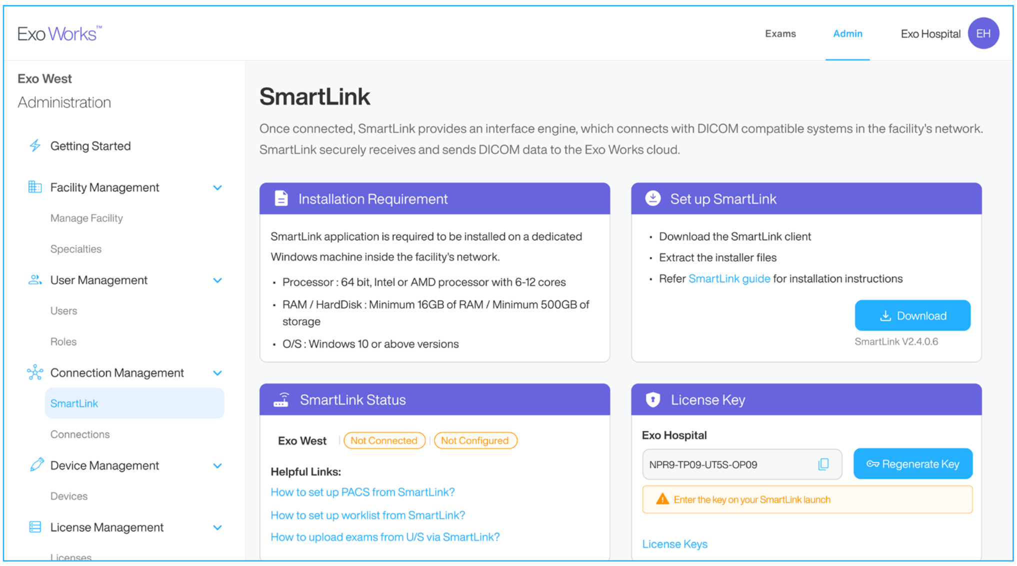
Changing Non-Credentialed to Credentialed User

Once users meet the proficiency requirements and are eligible for credentialing, administrators must confirm their status by reviewing their insights.

TO CHANGE A NON-CREDENTIALED USER TO CREDENTIALED USER

1. Navigate to **Admin** tab.
2. Select **User Management**, then click **Users**.
3. Locate the user transitioning from non-credentialed to credentialed.
4. Click ⋮ and choose **Edit User**.
5. In the **Roles Assignment** section, find the user's specialty.
6. Under the Exams section, select the exam types for which the user should be credentialed.
7. Click **Save**.

Connection Management



SmartLink

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

Installation Requirements

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

- **Operating system:** Windows 11 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

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.
- The process of downloading, installing, and configuring SmartLink should be performed exclusively by the Facility Admin. Other admin roles do not have access to these actions.

Download and Install Exo SmartLink

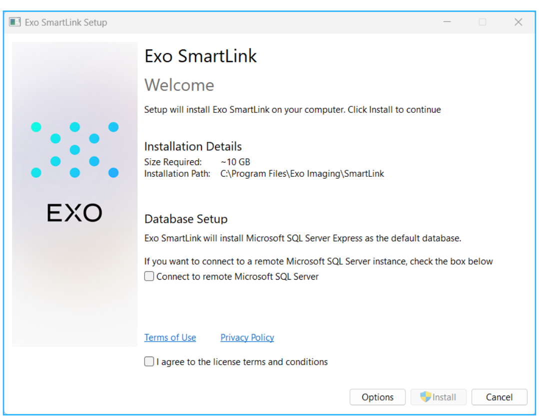
TO DOWNLOAD SMARTLINK

1. Navigate to **Admin** tab.
2. Select **Connection Management**, then click **SmartLink**.
3. In the **Set up SmartLink** section, Click **Download** button.
4. The **installer.exe** file will be downloaded to the local drive.

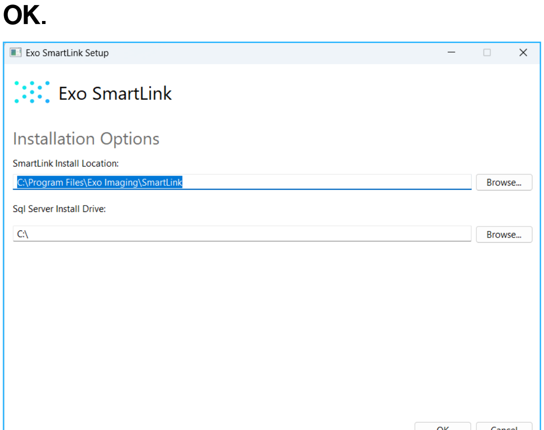
TO INSTALL EXO SMARTLINK

Note	Exo SmartLink installation supports Microsoft SQL Server Express (installed locally by default) or a remote Microsoft SQL Server instance (select to skip local installation). Local and remote options cannot be used together.

1. Locate the downloaded **Installer.exe** file and double-click.
2. When the setup screen appears, review the welcome message, installation path, and required disk space.



3. **Select database option:** Exo SmartLink installs Microsoft SQL Server Express locally by default. To connect to a remote Microsoft SQL Server instance instead (this skips local SQL installation), select the checkbox **Connect to remote Microsoft SQL Server instance.**
4. To change the installation path or SQL data drive, click **Options**, browse to the desired locations, and click **OK**.

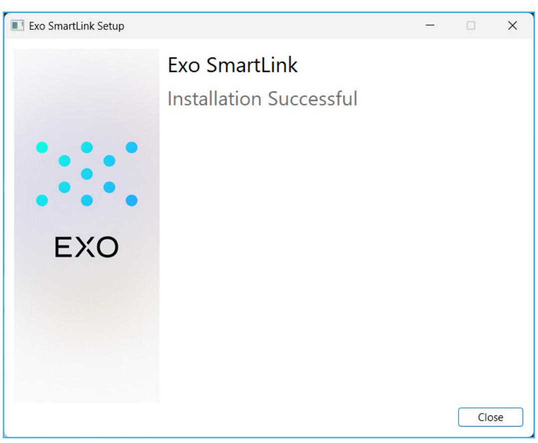


5. Read the **Terms of Use** and **Privacy Policy**, then select the checkbox **I agree to the license terms and conditions**.

6. Click **Install** to begin the installation.

Note	A User Account Control prompt may appear during the installation process. Select **Yes** or **Continue** to proceed.

7. The setup process installs both Exo SmartLink and Microsoft SQL Server (if remote option is not selected).



8. Click **Close**.

Configuring the Default Database Storage Location

By default, Exo SmartLink installs Microsoft SQL Server Express and stores the SmartLink database files on the system drive (typically C:\). In environments where the system drive has limited available disk space, database growth and local image buffering may be impacted.

This section describes how to relocate the SmartLink database files to an alternate storage location with sufficient disk capacity by detaching, moving, and reattaching the database using Microsoft SQL Server Management Studio (SSMS).

Prerequisites

Before changing the default database storage location, verify that the following conditions are met:

- Exo SmartLink is installed and has been launched at least once, ensuring that the **ExoSmartLink** database has been created.
- Microsoft SQL Server Management Studio (SSMS) is installed on the Windows server hosting the SmartLink application.
- The user performing this procedure has administrative privileges on the Windows server.
- No SmartLink services or image transfer operations are active at the time the procedure is performed.
- The destination storage location has sufficient available disk capacity to support database operation.

Caution Database files must not be moved while SmartLink services are running. Performing database operations during active service execution may result in data inconsistency or application malfunction.

Changing the Database Storage Location

The instructions below describe how to move the SmartLink database files to a different storage location.

TO LAUNCH SMARTLINK

1. Open the Exo SmartLink application using the desktop shortcut.
2. Wait for the splash screen to finish loading.
3. **Do not click Get Started**.
4. When the welcome page appears, close the application.

TO STOP SMARTLINK SERVICES

1. Right-click the **Windows taskbar** and select **Task Manager**.
2. Select the **Services** tab.
3. Locate the following services:
   - ExoSmartLinkClientSvc
   - ExoSmartLinkEHRSvc
   - ExoSmartLinkHealthSvc
4. Right-click **ExoSmartLinkClientSvc** and select **Stop**.
5. Right-click **ExoSmartLinkEHRSvc** and select **Stop**.
6. Right-click **ExoSmartLinkHealthSvc** and select **Stop**.
7. Confirm that both services show a **Stopped** status.

Note	Stop all previously listed services before proceeding with database-related steps.

TO INSTALL SQL SERVER MANAGEMENT STUDIO

1. Download **SQL Server Management Studio (SSMS)** from the Microsoft website using a web browser. https://learn.microsoft.com/en-us/ssms/install/install
2. Locate the downloaded SSMS installer file and double-click it to start the installation.
3. When the installation window opens, click **Change**... to customize the installation path.

Note	This option applies only to the installation location of the SSMS tool and does not affect database or data storage locations.

4. Update the drive letter to the preferred drive (for example, D:\).
5. Click **Install** to begin the installation.
6. When the installation completes, click **OK** to close the installer.
7. **Restart** the system if prompted.

Note	Always download SQL Server Management Studio from the official Microsoft website to ensure security and compatibility.

TO OPEN SQL SERVER MANAGEMENT STUDIO

1. Click **Start** and search for **SQL Server Management Studio**.
2. Launch **SQL Server Management Studio (SSMS)**.
3. In the **Connect to Server** dialog, select the **Browse** tab.
4. From the Browse list, select **Local → SQLEXPRESS (default)**.
5. Select **Trust Server Certificate**.
6. Click **Connect**.

TO DETACH THE SMARTLINK DATABASE

1. In Object Explorer, expand **Databases**.
2. Locate the **ExoSmartLink** database.
3. Right-click **ExoSmartLink** and select **Tasks > Detach**.
4. In the Detach Database dialog, ensure that **Drop Connections** and **Update Statistics** are selected.
5. Click **OK** to detach the database.

TO BACK UP THE DATABASE FILES

1. Open **File Explorer**.
2. Navigate to the default SQL Server data directory, for example:
   C:\Program Files\Microsoft SQL Server\MSSQL16.SQLEXPRESS\MSSQL\DATA
3. Locate the following files:
   - ExoSmartLink.mdf
   - ExoSmartLink_log.ldf
4. Copy both files to a temporary backup location.
5. After confirming the backup is complete, delete the files from the original directory.

TO MOVE THE DATABASE FILES TO THE NEW STORAGE LOCATION

1. Create a new folder on a drive with sufficient available disk space
   (for example: D:\SqlData).
2. Move the following files from the original directory to the new folder:
   - ExoSmartLink.mdf
   - ExoSmartLink_log.ldf
3. Confirm that the files are no longer present in the original directory.

TO ATTACH THE SMARTLINK DATABASE

1. Open **SQL Server Management Studio (SSMS**).
2. In **Object Explorer**, right-click **Databases** and select **Attach**.
3. In the **Attach Databases** dialog, click **Add**.
4. Browse to the new database folder (for example: D:\SqlData).
5. Select **ExoSmartLink.mdf** and **ExoSmartLink_log.ldf**.
6. Verify that both the data file **(.mdf)** and log file **(.ldf)** paths are correctly displayed.
7. Click **OK** to attach the database.

TO VERIFY DATABASE FOLDER PERMISSIONS

1. Right-click the new database folder and select **Properties**.
2. Select the **Security** tab.
3. Verify that the SQL Server service account has **Modify** or **Full Control** permissions.
4. Update permissions if required.

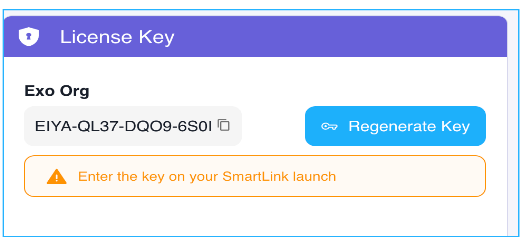
Note	Insufficient permissions may prevent SmartLink from writing data to the database.

Activating Exo SmartLink

Activating Exo SmartLink and generating a license key is a two-phase process, involving actions in both the Exo Works web application and the SmartLink application. This ensures secure integration and associates the right facility with the SmartLink service.

GENERATE A LICENSE KEY IN EXO WORKS

1. Log in to the Exo Works web application as a **Facility Admin**.
2. Navigate to **Admin** tab.
3. Select **Connection Management**, then click **SmartLink Info**.
4. Locate the **License Key** section.
5. Click **Regenerate Key** to generate a new code.



Cautions

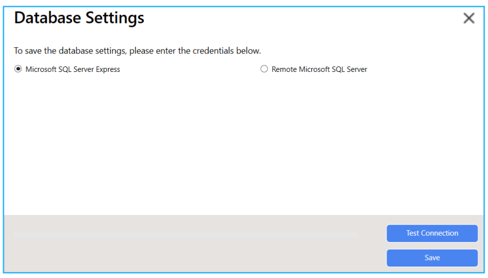
- When generating a key for the first time, the caution items can be ignored.
- When regenerating a key:
  - The SmartLink service on the existing windows server will be deactivated.
  - Check for any pending tasks in the SmartLink service before proceeding. Regenerating a key will result in the loss of all pending tasks.
- If any issues are encountered, contact Exo Support for assistance.

TO ACTIVATE EXO SMARTLINK

1. Open the SmartLink application.
2. Click **Get Started**.
3. In the **License Key** field, enter the newly generated key.
4. Click **Submit**.
5. The application validates the key and displays the associated facility or facilities linked to the license.
6. Click **Done** to complete the activation. The connection between Exo Works and SmartLink is now authorized, and data flows can begin according to facility configurations.

Database Configuration

After license key activation, the Database Settings window appears.



The window shows available database options based on local setup:

- Microsoft SQL Server Express (if installed locally).
- Remote Microsoft SQL Server (always available).

TO CONFIGURE LOCAL DATABASE

Local database uses the Microsoft SQL Server Express instance available on the machine.

1. Select **Microsoft SQL Server Express**.
2. Click **Test Connection**.
3. Click **Save**.

Note

Always click **Test Connection** before Save. Proceed with Save only after a successful test. If test fails, verify Microsoft SQL Server Express installation on the local machine, then retry.

Remote Microsoft SQL Server – Additional Setup

Remote database configuration requires additional setup on the remote Windows server hosting Microsoft SQL Server. Perform the following steps before configuring the Remote Microsoft SQL Server option in SmartLink.

Warning

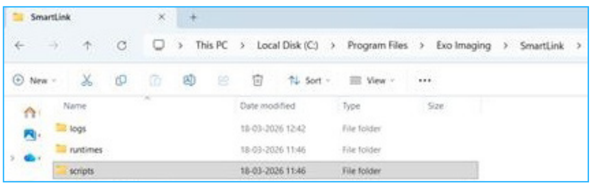
Remote database setup must be completed by an IT administrator with SQL Server administrative privileges. Incorrect configuration may prevent SmartLink from connecting to the database or may impact data availability.

Note

These steps apply only when SmartLink is configured to use a remote Microsoft SQL Server instance. They are not required when using the local Microsoft SQL Server Express option.

TO COPY SMARTLINK DATABASE SCRIPTS TO THE REMOTE SERVER

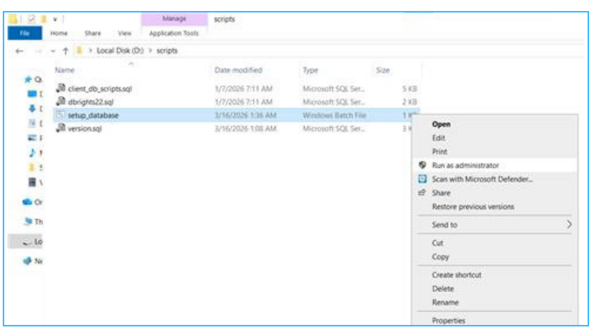
1. On the SmartLink server, open File Explorer.
2. Navigate to the Exo SmartLink installation directory (for example, C:\Program Files\Exo Imaging\Exo SmartLink).
3. Open the **Exo SmartLink** folder, then open the **scripts** folder.



4. Copy the entire **scripts** folder.
5. On the remote Windows server that hosts the Microsoft SQL Server instance, paste the **scripts** folder into a local directory (for example, C:\ExoSmartLink\Scripts).

TO RUN THE SMARTLINK DATABASE SETUP SCRIPT ON THE REMOTE SERVER

1. On the remote Windows server, open File Explorer and navigate to the copied **scripts** folder.
2. Locate the batch file **setup_database.bat**.

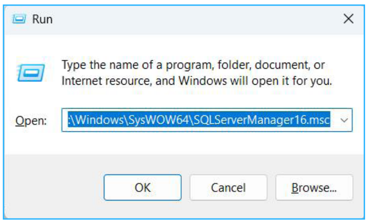


3. Right-click the batch file and select **Run as administrator**.
4. When prompted, enter the SQL Server connection details (Server name or IP address, instance name if applicable, and SQL login credentials with permission to create and modify databases).
5. Follow the on-screen instructions to complete database creation and configuration.
6. After the script finishes, open SQL Server Management Studio on the remote server and verify that the SmartLink database has been created successfully.

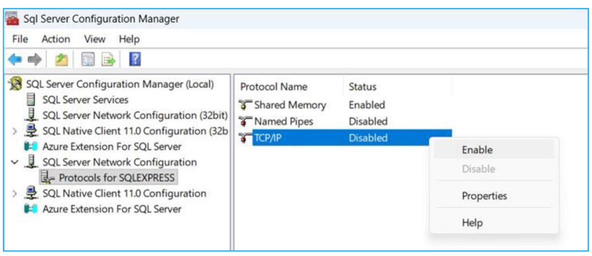
Note	If the database creation fails or any error is displayed during script execution, do not proceed with the Remote Microsoft SQL Server configuration in SmartLink. Resolve the issue with your IT or database administrator before continuing.

TO ENABLE SQL SERVER NETWORK CONNECTIVITY ON THE REMOTE SERVER

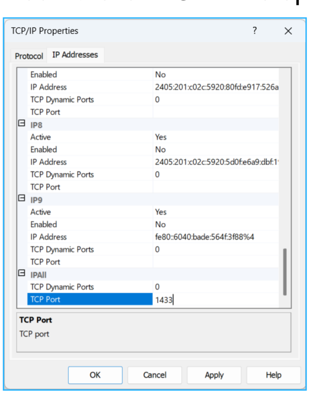
1. On the remote Windows server, press **Windows + R**.



2. In the Run dialog box, type **C:\Windows\SysWOW64\SQLServerManager16.msc** and press **Enter** (the path and version number may differ depending on the installed SQL Server version).
3. In **SQL Server Configuration Manager**, expand **SQL Server Network Configuration**.
4. Select **Protocols for SQLEXPRESS** (or the named instance used for SmartLink).



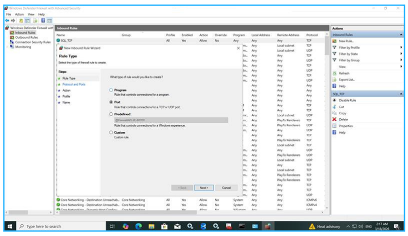
5. In the right pane, right-click **TCP/IP** and select **enable**.
6. Restart the **SQL Server (MSSQLSERVER)** service.
7. Double-click **TCP/IP** to open its Properties.



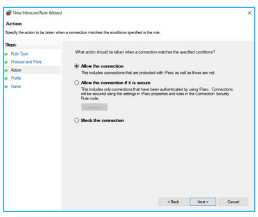
8. Select the **IP Addresses** tab and scroll down to **IPALL**.
9. In **TCP Dynamic Ports**, delete any existing value so that the field is blank.
10. In TCP Port, enter **1433**.
11. Click **OK**, then restart the SQL Server service again.

TO CONFIGURE WINDOWS DEFENDER FIREWALL ON THE REMOTE SERVER

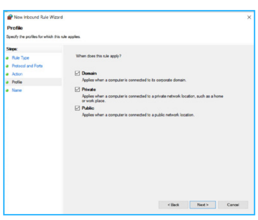
1. On the remote Windows server, open **Windows Defender Firewall**.
2. Select **Advanced settings**.
3. In the left panel, select **Inbound Rules**.
4. In the right panel, click **New Rule**.
5. Select **Port** and click **Next**.



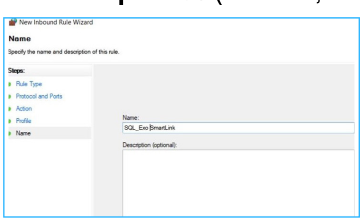
6. Select **TCP**.
7. In **Specific local ports**, enter **1433** and click **Next**.



8. Select **Allow the connection** and click **Next**.



9. Select **all profiles** (Domain, Private, and Public), then click **Next**.



10. Enter a descriptive name, such as SQL Server TCP 1433, and click **Finish**.

> **Caution** Opening SQL Server ports in the firewall may expose the server to unauthorized access if not properly secured. Always follow your organization's IT security policies when configuring firewall rules.

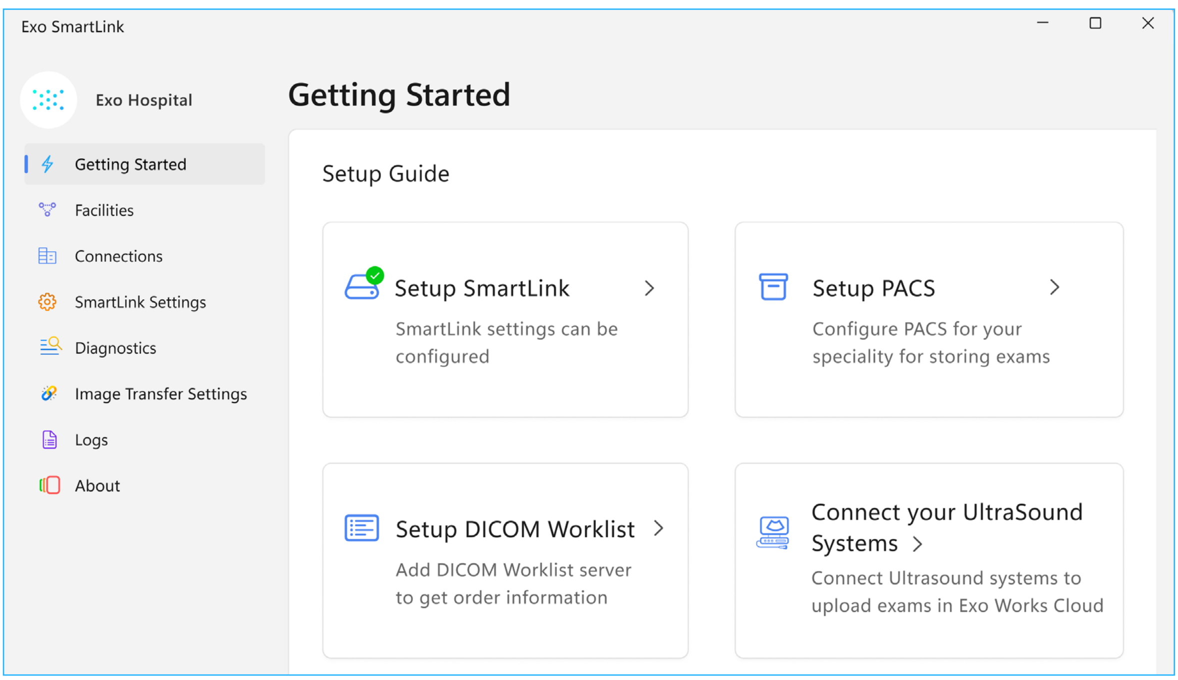
TO CONFIGURE SMARTLINK TO USE THE REMOTE DATABASE

1. On the **SmartLink server**, open the SmartLink application.
2. After license key activation, when the **Database Settings** window appears, select **Remote Microsoft SQL Server**.
3. In **Server IP Address**, enter the IP address or hostname of the remote SQL Server.
4. Enter the **User Id** and **Password** for the SQL account that has access to the SmartLink database.

5. Click **Test Connection**.
6. If the test is successful, click **Save**.
7. If the test fails, verify the Server IP address, SQL credentials, SQL Server network configuration, and firewall rules, then repeat the test.

Note	The Test Connection will fail if the preceding remote SQL Server configuration steps (database script execution, TCP/IP configuration, and firewall rules) are not completed properly on the remote server. Verify each step before attempting the connection test.

Exo 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
- Facilities
- Connections
- SmartLink Settings
- Diagnostics
- Image Transfer Settings
- Logs
- About

Getting Started

The Getting Started section serves as the primary interface providing quick access to key Exo SmartLink features and shortcuts. It is designed to streamline initial navigation and facilitate an efficient onboarding experience.

Facilities

The Facilities section provides an overview of the facility linked to Exo SmartLink, including details about the facility admin and the specialties associated with that facility.

Connections

The Connections section is the main interface for managing communication links between the SmartLink application, Exo Works cloud and external systems. It provides users with the capability to securely add and manage connections to:

- **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.
- **DICOM Enabled Third-Party Ultrasound Devices:** Allows connectivity with external ultrasound equipment for seamless data exchange and device management.

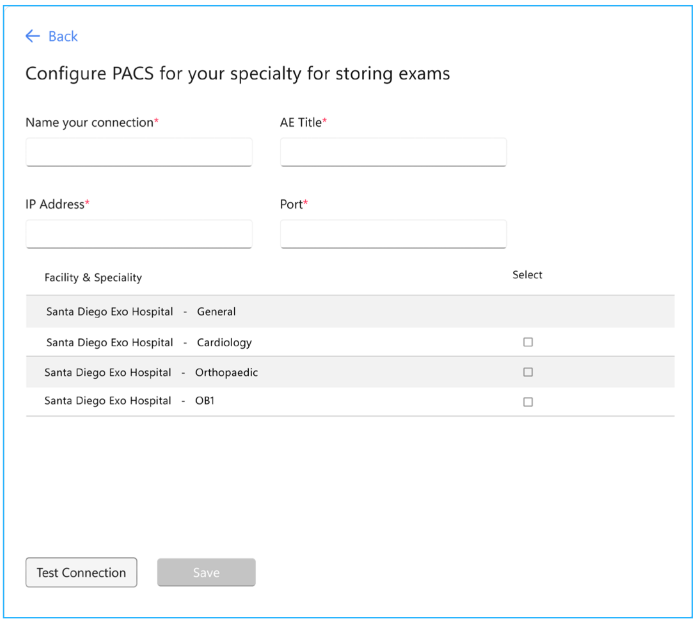
> **Note** These connections are automatically synchronized to the cloud, ensuring that if the SmartLink application is reinstalled on the same Windows server or installed on a different one, these saved connection settings are automatically restored. This process guarantees continuity and a smooth transition without the need for manual reconfiguration.

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 identifier assigned to the PACS server within the facility's network.
   - **IP Address:** Specify the network address of the PACS server.
   - **Port:** Enter the port number used by the PACS server for communication.
   - **Facility and Specialties:** Choose the specialties from the list that will route exams to this 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.

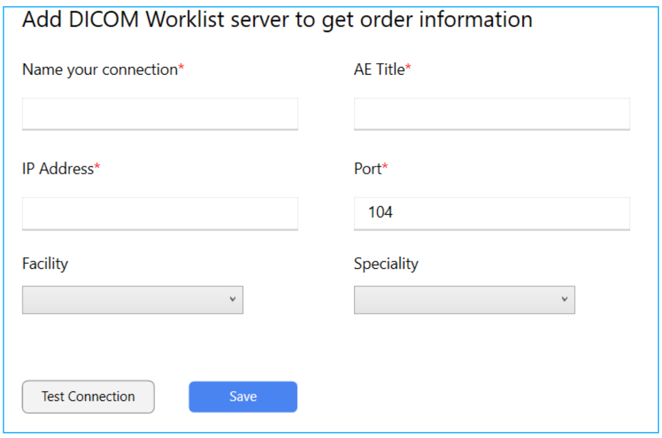
Caution Always test the connection before saving the PACS server configuration. While the SmartLink application allows saving without a successful test, an inactive connection status will be reflected in Exo Works. To ensure smooth data transfer, it is crucial to verify the connection's functionality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



2. Complete the following fields:
   - **Name your connection:** Enter a descriptive name to identify the DICOM Worklist server.
   - **AE Title:** Enter the unique identifier 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.
   - **Facility:** Select the facility (only one facility is available under the Connect license).
   - **Specialty:** Select the specific specialty handled by the Worklist server.

Note

- When Worklist Server details are added in the SmartLink application, the connection is established and SmartLink attempts to communicate with the Worklist Server. 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 (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 connection before saving the Worklist 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.

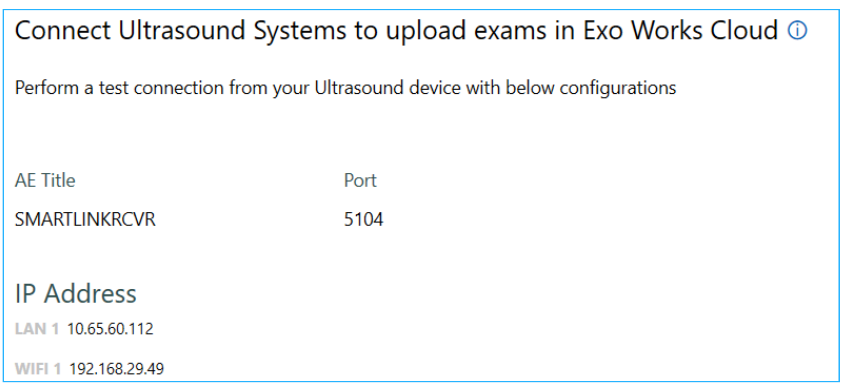
Connecting Ultrasound Systems

TO CONNECT AN ULTRASOUND SYSTEM TO EXO WORKS

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.

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



2. Locate the DICOM setup screen on the ultrasound machine. This screen is most often found in the same general area as the Network configuration screen. If the screen cannot be located, refer to the ultrasound machine user manual.
   a. 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.
3. 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.
4. If the test is successful, **save** the settings on the ultrasound machine.

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 Managing connections. Additionally, the device will be assigned the default Dicom tag **Performing Physician's Name (0008,1050),** to change this tag, please see .

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 "TO assign the specific Dicom Tag" on page 50) based on third party ultrasound specification.
5. Click **Save** to apply the modifications.

Routing 3rd Party Ultrasound Exams to the Performer's Drafts Folder

To automatically route 3rd party ultrasound exams to the correct performer's Drafts folder in Exo Works:

- Set up the ultrasound device to transmit exams to SmartLink using a specific DICOM tag for identification (see "TO assign the specific Dicom Tag" on page 50).
- Exo Works will automatically parse the DICOM tag and route the exam to the appropriate performer's Drafts folder.

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.

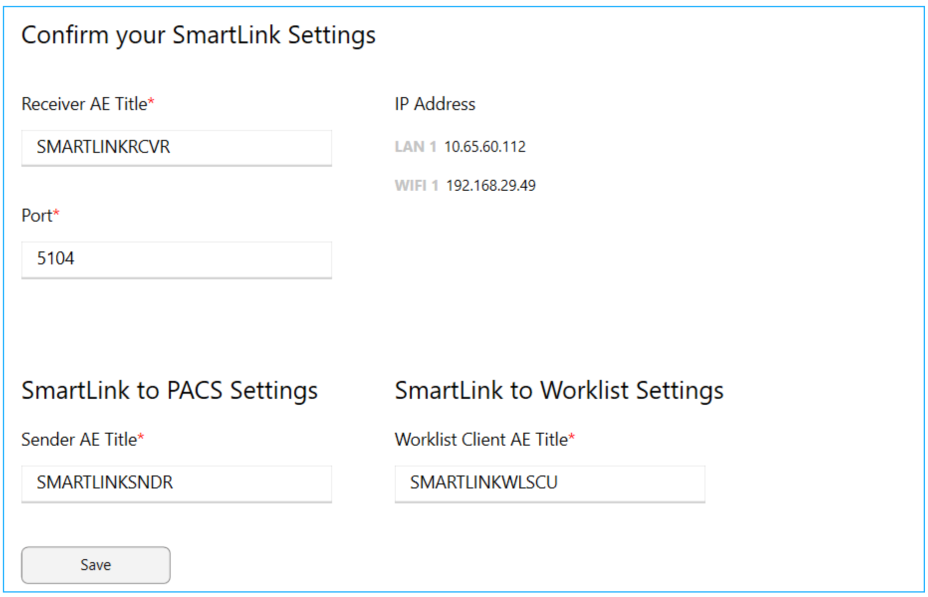
TO DELETE ANY EXISTING CONNECTION

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 either **Getting Started** and then **Setup SmartLink**, or directly select **SmartLink Settings**.
2. Complete the following fields:
   - **Receiver AE Title:** A unique identifier 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 identifier 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 the necessary information has been entered, click **Save** to apply the changes.

TO MODIFY REMOTE DATABASE SETTINGS

1. Navigate to the left panel and select either **Getting Started** and then **Setup SmartLink**, or directly select **SmartLink Settings**.
2. Update the following fields:
   - **Server/IP Address**
   - **User Id**
   - **Password**
3. Click T**est Connection**.
4. Click **Save**.

Note	Always click **Test Connection** before Save. Proceed with Save only after a successful test. If test fails, verify Server/IP Address, User Id, Password credentials, and network connectivity, then retry.

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 the 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.

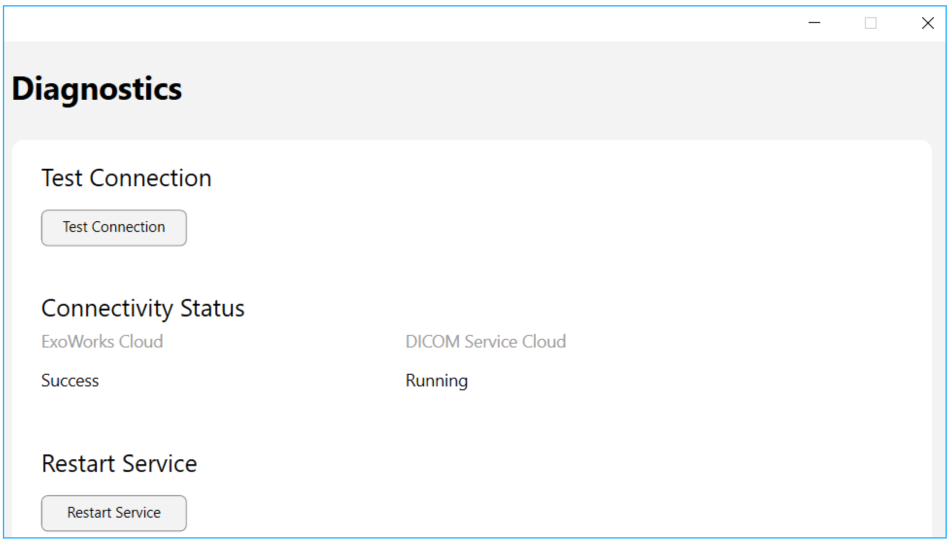


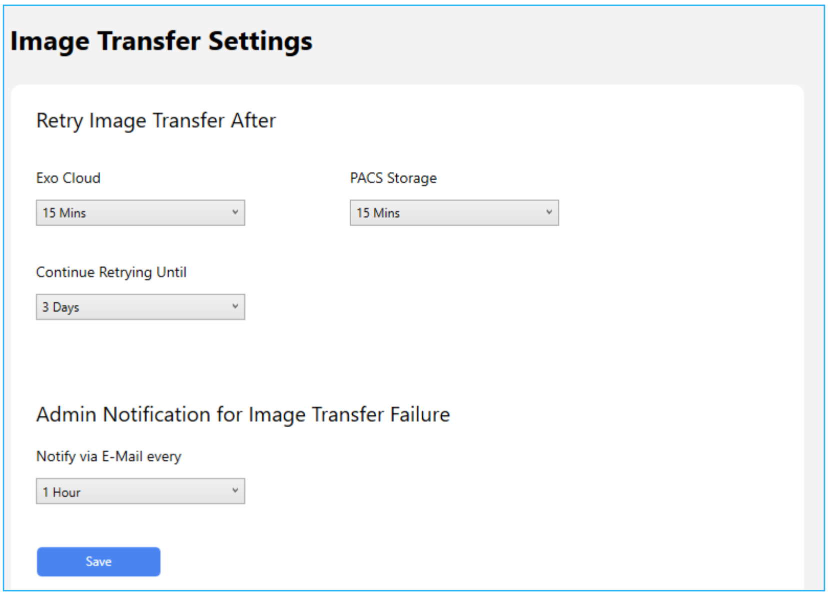
Image Transfer Settings

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**.



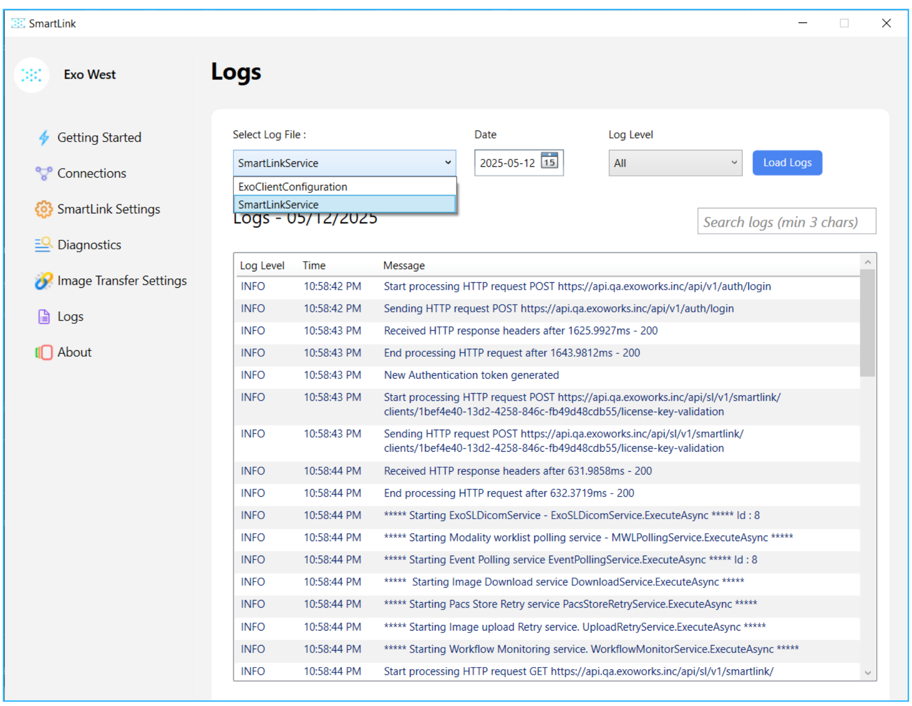
2. Complete the following fields:
   - **Exo Cloud:** Set the desired retry interval for image transfer to the Exo Cloud. Options include every 5, 15, or 30 minutes..
   - **PACS Server:** Specify the retry interval for image transfer to the PACS server. Options include every 5, 15, or 30 minutes.
   - **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

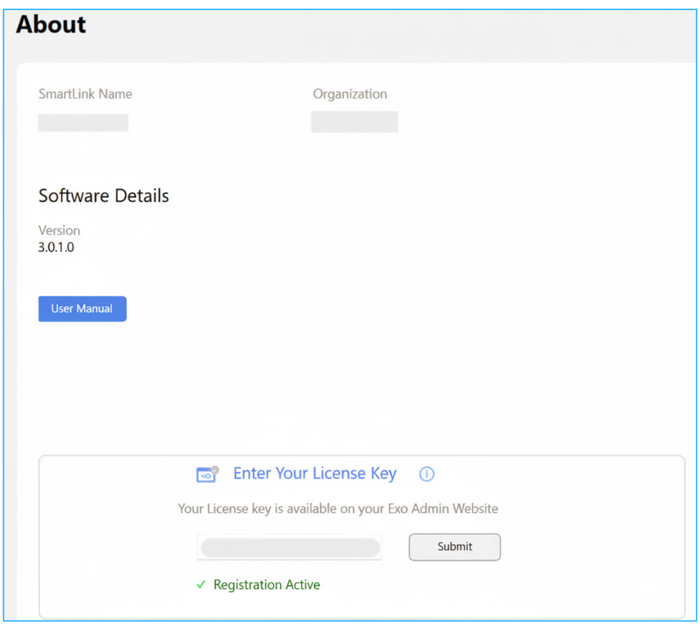
❖ Enter keywords in the **Search box** to find specific logs.

About

The About section provides essential details to help users manage and understand their SmartLink installation. It includes information about the facility and specialty that SmartLink supports, along with details about the organization utilizing the application. This section also displays the current software version, which is important for troubleshooting and ensuring compatibility.

Users can also check the status of their SmartLink license key in this section, allowing them to confirm whether the application is properly activated and licensed for use.

Additionally, the About section allows users to check for available software updates, helping them keep the 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.



Connections

The Connections section displays a list of all current connections and their statuses.

- **Active:** Connections that are currently operational and actively transmitting data. These connections are fully functional and engaged with the system.
- **Inactive:** Connections that are not currently active. These connections are not transmitting data or engaging with the system.
- **Blocked:** Connections that are blocked and unable to communicate with the system. This status typically indicates that the connection is being restricted or has encountered issues preventing its activity.

Ensure SmartLink is set up to establish connections.. For detailed instructions to set up and manage connections please refer to https://support.exo.inc/hc/en-us/articles/28685773854363-Exo-SmartLink-User-Manual.

Device Management

Device Management offers a comprehensive view of all Iris devices within the organization. This feature is designed to provide valuable insights into the status and usage of each device.

TO ACCESS DEVICE INFORMATION

1. Navigate to the **Admin** tab, Select **Device Management**.
2. Click **Devices.**
3. For each device, the following information is displayed:
   - **Serial number:** A unique identifier for the device.
   - **Order number:** The reference number associated with the device purchase.
   - **Last Usage By:** The user who last used the device.
   - **Last Used Date:** The date and time of the device's last usage.

License and Feature Management

TO VIEW LICENSES

1. Navigate to the **Admin** tab, Select **License Management**.
2. Click **Licenses.**
3. For each device, the following information is displayed:
   - **License Type:** The specific type of license
   - **Catalog #:** A unique identifier for the license.
   - **Start Date:** Date when the license or subscription started.
   - **End Date:** Date when the license or subscription will expire.
   - **Order ID:** Unique identifiers for each subscription.
   - **Quantity:** Number of licenses available.
   - **Status:** Current status of the licenses (active or inactive).
4. If additional licenses are needed, please reach out to the Exo Support.

User Authentication

Facility Admin can configure the Single Sign-On (SSO) authentication method to enable users to securely authenticate on both the mobile and web versions of Exo Works.

General Settings

TO CONFIGURE GENERAL SETTINGS

1. Navigate to the **Admin** tab, then select **User Authentication**.
2. Click **Configure Single Sign-On (SSO)**.
3. Go to the General Settings tab.
4. Complete the following fields:
   - **SAML Provider Settings:** Provide the following information to the SAML Identity Provider
     - **Entity ID:** This field is automatically populated
     - **SSO URL:** This field is automatically populated
   - **SAML IdP Settings:**
     - **Metadata URL:** Toggle this option to configure SAML using the Metadata URL.
     - **Sign-In URL**
     - **Sign Certificate**

Advanced Settings

TO CONFIGURE ADVANCED SETTINGS

1. Navigate to the **Admin** tab, then select **User Authentication**.
2. Click **Configure Single Sign-On (SSO)**.
3. Go to the General Settings tab.
4. Complete the following fields:
   - **Disable Sign-Out:** Toggle this option to enable or disable the advanced settings.
   - Make selections for the following fields:
     - **Sign Request Algorithm**
     - **Sign Request Algorithm Digest**
     - **Protocol Binding**
   - **Mappings:**
     - **User ID Attribute**
     - **SAML Attribute for User Name**
     - **SAML Attribute for User Email**

Managing Exams - Web

4

Managing Exams - Web

Chapter 4

> **Note** Accessing the Exams on the Exo Works web application requires a clinical role (see Clinical Roles on page 12).

Exo Works Home screen

After signing in, the user will be directed to the home screen. The left panel of the screen displays the following:

- **Specialty:** Indicates the currently selected specialty.
- **Shared Tab:** Displays content shared with the user by other users.
- **Insights Tab:** Provides valuable insights and analytics.
- **Quality Tab:** Holds all completed exams that require QA review.
- **Folders:** These folders organize exam locations and serve various purposes.

Switching Specialties

Users who belong to multiple specialties can easily switch between them.

TO SWITCH SPECIALTIES

1. Click the button next to the current specialty on the left side of the home screen.
2. Select the desired **specialty** from the list.

Once a new specialty is selected, the home screen will automatically update to reflect the choice.

Folders

- **All Exams:** Contains all exams within the specialty accessible by the specialty admin.
- **Drafts:** Stores exams that are in progress but not yet completed.
- **Sign Off:** Stores exams awaiting review and sign-off by credentialed users.
- **Feedback:** Stores exams with feedback from the QA team.
- **Unassigned:** Stores exams that have not been assigned to specific users.
- **Favorites:** Stores exams marked as favorites for quick access.
- **Completed:** Stores exams that have been successfully completed.

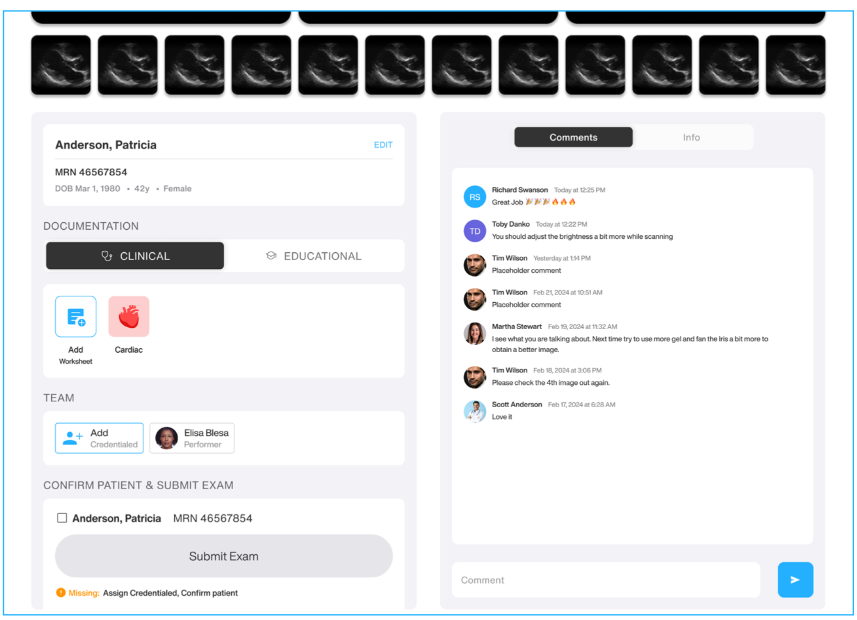
- **Trash:** Stores deleted exams temporarily for 30 days before permanent removal.
- **Outbox:** Temporarily holds exams that are being processed for transfer to PACS or Exo Works Archive.

Exam and Image management

Selecting and Viewing an Exam

TO SELECT AND VIEW AN EXAM

1. Select a folder to view the exams it contains.
2. A list of exams with their details will appear.
3. Click the exam to view.
4. Once an exam is opened, the interface is organized as follows:



- **Top of the Screen:** Displays the images or clips related to the exam.
- **Left Panel:**
  - **Patient Data:** Displays patient information and allows editing.
  - **Documentation:** Toggle between clinical and educational worksheets, add new worksheets, and view associated worksheets.
  - **Team:** Displays the team assigned to the exam and allows performers to be added.
  - **Confirm Patient and Submit Exam:** Enables exam submission.
  - **Destination:** Specifies where the exam will be stored (Exo Works Archive, or Exo Works Archive + PACS).
- **Right Panel:**
  - **Comments:** Shows comments made by performers.
  - **Info:** Displays the exam status and exam information.

Adding a Patient to an Exam

TO ADD PATIENTS

1. Select the **Add/Edit** button within the patient information field.

Note	Iris exams will always have a patient associated once sent to Exo Works cloud and therefore, will only have the update/edit capability. Non-Iris ultrasound exams may require adding of patient information.

2. This prompts the ability to manually edit the previously entered information.
3. There are three ways to change patient information
   - Manually enter/edit patient information by completing the necessary fields.
   - When connected to a DICOM Modality Worklist, the Patient Worklist icon can be selected to view existing patients. After selecting the Patient Worklist icon, a list of existing patients will appear. Search by MRN or patient name, then select the desired patient. The patient details will be pulled into the patient information section within the exam.
4. Click **Save Changes**.

Exam Documentation

PRE-DEFINED WORKSHEETS

Exo Works has twenty-two pre-defined worksheets available for documentation.

- Abdomen
- Aorta
- Arterial Access
- Biliary
- Bladder
- Breast
- Cardiac
- Central Venous Line
- Deep Vein
- eFAST
- GYN
- Lung
- MSK
- Nerve Block
- OB1
- OB2/3

- Ocular
- Paracentesis
- Peripheral Access
- Renal
- Testicular
- Thoracentesis

Reviewing Images Within an Exam

TO REVIEW IMAGES

1. Navigate to any folder and search for the desired exam.
2. Click the exam to open it.
3. The images or clips will be displayed at the top.
4. Click on a specific image or clip to view it in more detail.
5. If applicable, measurements and selected exam types will be shown below the image.

Global AI Search

Exo Works web offers a powerful global search feature to help find information quickly and efficiently. From the main screen, use the search field to locate items such as:

- Patient information such as MRN and patient name
- Exam types
- Folder names
- Exam creation dates
- Worksheet content including keywords, comments, notes, and worksheet titles
- Exam comments and clinician's NPI
- Team members involved in an exam, including non-credentialed users, credentialed users, additional performers, and QA reviewers
- AE Titles

AI Mode

AI Mode allows searching using natural, conversational language instead of predefined filters. Enter a question or phrase to locate exams, for example:

- "Show all cardiac exams"
- "Find kidney exams showing hydronephrosis"

TO TURN ON AI MODE:

❖ Click the **AI Mode** button in the search bar.

TO TURN OFF AI MODE:

❖ Click the **Exit** button in the same location.

Searching, Sorting, and Filtering Exams

TO SEARCH AN EXAM

1. Click the **Search** icon at the top of the home screen.
2. Type a search term, which can be:
   - Exam Type
   - Patient's Medical Record Number (MRN)
   - Patient's Name
   - Doctor's Name

TO SORT AN EXAM

1. Click button on Right panel above list of exams.
2. Choose from the available options:
   - **Newest First:** To view the most recent exams first.
   - **Oldest First:** To view the oldest exams first.

TO FILTER AN EXAM

1. Click button on Right panel above list of exams.
2. Choose the filters from the available options:
   - Last 24 Hours
   - Last 7 Days
   - Last 30 Days
   - Custom Date Range

Assigning an Unassigned Exam to Yourself

Exams from ultrasounds that are not mapped with any **DICOM tags** can be found under the Unassigned folder

TO ASSIGN AN UNASSIGNED EXAM TO YOURSELF

1. Open the **Unassigned** folder to view all exams that haven't been assigned.
2. If the desired exam cannot be found, use the search bar at the top of the **Unassigned** section.
3. Choose the exam to be assigned.
4. The selected exam will open, showing images at the top and patient information below.
5. In the **Team** section at the bottom, click **Assign Performer**.
6. Click **Assign myself as Performer** to confirm
7. The user name will appear under the **Team** section.
8. The exam will be moved from **Unassigned** to the **Drafts** folder, as it now has a performer assigned.

Completing an Exam

Documenting an Exam

TO DOCUMENT AN EXAM

1. Go to **Drafts** folder to select an exam for documentation.
2. Update patient information as needed, see To Add patients section.
3. Select clinical or educational.
   - A clinical worksheet is a structured document used in healthcare to record patient data, examination findings, and treatment plans. If clinical, the exam can be sent to a PACS or VNA and/or the Exo Works Archive for storage.
   - An educational exam cannot be sent to PACS. For an educational exam, if the exam destination is set to PACS and Exo Works Archive, the exam will only be archived to Exo Works, and not sent to PACS.
4. Click **Add Worksheet** to select desired worksheet(s). Minimum of one worksheet is required.
5. Select at least one indication.
6. Select at least one view. Toggling **All Views** automatically populates all views.
7. Click **>** arrow to navigate to the next section.
8. Complete the Findings & Interpretation section.
   - Toggling **No remarkable findings** automatically populates the associated normal findings.
9. Click **>** arrow again to review the final report.
10. Select the **Mark as Complete** button to complete the worksheet.

Adding Additional Performers to Exams

TO ADD ADDITIONAL PERFORMERS

1. Open the **Drafts** folder to view all exams.
2. If the desired exam cannot be bound, use the search bar at the top of the **Drafts** section.
3. Choose the exam to add additional Performers.
4. The selected exam will open, showing images at the top and patient information below.
5. In the **Team** section at the bottom, click the **Add Additional Performers**.
6. Select up to five performers from the list.
7. Click **Add** to confirm the selection.
8. The newly added performers names will appear under the **Team** section.
9. Once the exam is completed, it will be available in the **Completed** folder of both the main performer and the additional performers.
10. After QA review, the exam will be available in the **Feedback** folder of all performers. All performers will receive credit for the exam.

Note	The performer and specialty admin can assign additional performers.

Assigning an Exam to a Credentialed User

To complete the exam process, a non-credentialed user must assign the exam to a credentialed user for sign off.

Note	For Educational exams, a non-credentialed user can submit the exam directly without assigning a credentialed user.

TO ASSIGN AN EXAM TO A CREDENTIALED USER

1. After the exam is performed, ensure the worksheet has been completed.
2. In the **Team** section at the bottom, click **Add Credentialed**.
3. A list of users credentialed for the chosen worksheet will appear. Choose the **Credentialed** user to whom the exam should be assigned.
4. Click **Add** to confirm selection.
5. The exam will appear in the credentialed user's **Sign Off** folder for review and sign-off.

Note	The credentialed user is responsible for reviewing and signing off on the assigned exam.

Exam Destination

Review the exam's archive location in the Exam Destination section. All exams will be synced to Exo Works. If a PACS is configured by the admin, exams will also be sent to the PACS destination.

Confirm Patient and Submit Exam

1. Review and confirm the patient by checking the box.
2. Click **Submit**.
3. The signed exam will move to the **Completed** folder of the non-credentialed user. For Clinical exams, it will also appear in the **Sign Off** folder of the credentialed user. For Educational exams submitted without a credentialed user, it will route directly to the **Quality** folder of the QA reviewer.

Sign Off as a Credentialed Reviewer

Credentialed users will find exams awaiting review and sign-off in the **Sign Off** folder on the home screen.

Ensure all clips and images are present in the exam before Sign-off.

TO SIGN OFF AS A CREDENTIALED REVIEWER

1. Open the exam to review patient information and documentation.
2. Verify all information and documentation.
3. If approved, Click **Sign off**.
   - If not approved, edit the performer's work, then proceed with signing.
4. The signed exam will move to the Completed folder of the credentialed user.

Quality Assurance (QA)

Selecting an Exam for QA Review

TO SELECT AN EXAM FOR QA REVIEW

1. Ensure the **QA Reviewer** role has been enabled, which grants access to the **Quality** folder containing exams reviewed by performing and credentialed users.
2. Click **Quality** tab to view exams awaiting QA review. Exams are categorized into:
   - **Pending:** QA review has not yet started.
   - **In Progress:** QA review is underway but not completed.
   - **Reviewed:** Exams that are fully reviewed and submitted by a QA user.
3. Select an exam by browsing through the folders or using the search and sorting features in the search bar (see Global AI Search).
4. Click on the exam to assign the user as the **QA Reviewer**. The user name will appear in the Team section of the exam.
5. Initiate the QA review by clicking the **Rate** button at the bottom of the screen.

Performing QA Review

TO PERFORM A QA REVIEW

1. Select an exam as described in the Quality Assurance (QA) section.
2. Click the **Rate** button to proceed.
3. View the worksheets of the performing and credentialed users. If there are multiple worksheets, they will be displayed at the bottom with their names and icons.
4. Click worksheet icons to switch between them for review.
5. Complete the QA reviewer's worksheet by:
   - Agreeing with the final report
   - Scanning questions
   - Assessing image quality
   - Providing feedback
   - Adding flags for follow-up requirements

6. Responses will determine if the performing and credentialed users receive credit.
7. Submit the review by clicking the **Submit** button. The exam will be marked as QA submitted and moved to the completed folder of the QA reviewer and the feedback folder of the performing and credentialed users.

Receiving QA Feedback

1. Both non-credentialed and credentialed users will receive QA feedback.
2. Reviewed exams will be placed in the **Feedback** folder of both non-credentialed and credentialed users.
3. Open the **Feedback** folder and select the desired exam. The QA review will be displayed beneath the Team section.
4. Click the **Feedback** button or select the worksheet icon to view detailed feedback.
5. If the exam has been flagged, the exam can be unflagged after the issue has been addressed with the QA reviewer.
6. After reviewing the feedback, the exam will remain in the **Feedback** folder of the respective user.

All Exams Folder Access for Specialty Admins

Specialty Admins have exclusive access to the All Exams folder, allowing them to:

- **Reassign Exams to Themselves or Credentialed Users:**
  - Specialty Admins can reassign exams to themselves or other credentialed users.
  - Once an exam has been submitted by the performer, the Specialty Admin can reassign a new credentialed user.
- **Reassign Themselves as QA Reviewers:**
  - Specialty Admins can assign themselves as QA reviewers, provided they have not performed the exam themselves.
  - If the exam has already been assigned a QA reviewer and the QA process is not yet complete, the Specialty Admin can take on this role.

Note It is not permitted to unassign a user from an exam.

TO REASSIGN YOURSELF OR A CREDENTIALED USER TO AN EXAM

1. Open **All Exams** Folder.
2. Select and open the exam to reassign.
3. Locate the **Team** section and click the current performer's name.
4. Search and select a credentialed user from the list.
5. The reassigned user's name will now appear in the **Team** section.
6. The exam will automatically move to the Drafts folder of the reassigned credentialed user.

TO REASSIGN YOURSELF AS A QA REVIEWER

1. Click the **Quality** tab on the home screen
2. Toggle to **In Progress**.
3. Open the exam to reassign.
4. Click the current QA reviewer's name in the **Team** section.
5. Click **Assign Myself as QA Reviewer**.
6. The user name will now appear in the Team section as the new QA reviewer.

Delete an Image or Exam

TO DELETE AN IMAGE

1. From Exo Works, images or clips can only be deleted in the **Drafts** Folder.
2. Access the **Drafts** Folder.
3. Click the image or clip to be removed.
4. In the right panel, click **Select** to begin choosing the items to delete.
5. Select the image(s) or clip(s) for deletion. Multiple items can be selected. Selecting all deletes the entire exam.
6. Click to prompt a confirmation pop-up to confirm the deletion.
7. Once confirmed, the selected image(s) or clip(s) will be permanently removed from the exam.

TO DELETE AN EXAM

1. From Exo Works, Exams can only be deleted in the **Drafts** Folder.
2. Access the **Drafts** Folder.
3. Click the button for the exam to access and select **Delete**.
4. Deleting the exam will move it to the **Trash** folder.

Note

- In the **Trash** folder, select the exam and choose to permanently delete it. Alternatively, click the three-dot icon for the same option to permanently delete.
- Exams in the **Trash** folder can be recovered within 30 days. After this period, they will be permanently deleted.

Exporting Exams in Folders

TO EXPORT EXAMS IN FOLDERS

1. On the Exams homepage, select the desired exam folder.
2. Click the **Export CSV** button.
3. Click **OK** to confirm.
4. Click **Exports** below the folder name to view the export list with date and time details.
5. Select the desired export entry and click the icon next to it.
6. The **CSV file** will be downloaded to the local drive.

Sharing an Image or Exam

TO SHARE AN IMAGE

1. Select the exam to share.
2. Select one or all image(s) or clips(s).
3. Click the share icon .
4. A share window will appear, Click **Continue**.
5. Select the file type to export the image in DICOM, JPG/MP4 format, or both.
6. Select the **Export** button to save to the local Downloads folder on the PC.

TO SHARE AN EXAM

1. Open the desired folder.
2. Click the button for the exam to access and select **Share**.
3. A sharing window opens with the following options:
   - **Share with in my organization:** Displays a list of team members. Select one or more users, then select **Share Exam**.
   - **Share public link:** Provides a public link, Copy and paste the public link to share the exam externally. The shared public link will expire after 30 days.

TO SHARE WITHIN MY ORGANIZATION

1. Exams can be shared with members of the organization using either of the following options:
   - Clicking the icon in the exam card menu and select **Share**.
   - Open the exam and click the ••• icon on the top right and select **Share**.
2. Tapping **Share** will open up a list of all clinical users within the organization. Select the desired team members to share the exam with.
3. Once shared, the exam will be moved into the **shared** folder of the user(s) that the exam has been shared with. Exams within the Shared folder are in a read-only format.

TO SHARE PUBLIC LINK

1. Select the exam to share.
2. Click the ⋮ icon for the exam to access and select **Share Exam**.
3. A share window will appear. Select the Share Public Link to copy the secure URL.
4. In web, paste the public link in applications installed on the PC to share externally.
5. The shared public link will expire after 30 days.

Favorite and Unfavorite an Exam

TO FAVORITE AN EXAM

1. Access the exam to add to Favorites.
2. There are two ways to Favorite an exam:
   - Click the exam menu option on the exam to access and select **Favorite**.
   - Click ⋮ icon for the exam to access and select **Favorite**.
3. The exam will be placed in the **Favorites** folder.

TO UNFAVORITE AN EXAM:

1. Access the exam to be removed from Favorites.
2. There are two ways to unfavorite an exam:
   - Click the exam menu option on the exam to access and select **Unfavorite**.
   - Click ⋮ icon for the exam to access and select **Unfavorite**.
3. The exam will be removed from the **Favorites** folder.

Commenting on an Exam

Any user with access can add a comment to an exam.

TO COMMENT

1. Open the exam to add a comment.
2. Type the comment in the **Add Comment** field at the bottom.
3. Click to post the comment.
4. Comment will appear beneath any previous comments.

TO DELETE A COMMENT

1. Select the comment.
2. Click to delete the comment.

Note All comments will be retained for 30 days. After that, they will be automatically deleted from the exam's comment section.

Managing Exams - Mobile

5

Managing Exams - Mobile

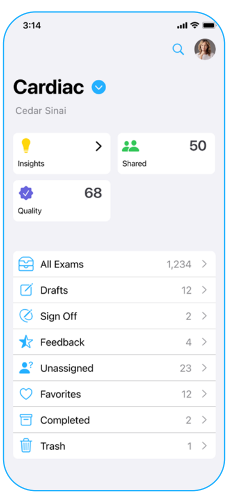
Chapter 5

Exo Iris App Home screen

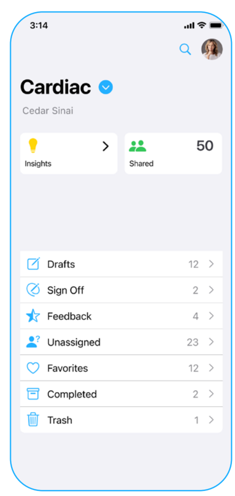
Note	Accessing the Exo Iris mobile app requires a clinical role (see Clinical Roles on page 12).

1. Open the **Exo Iris** app on mobile device.
2. After login, the Home screen opens and displays features and options specific to the user role.

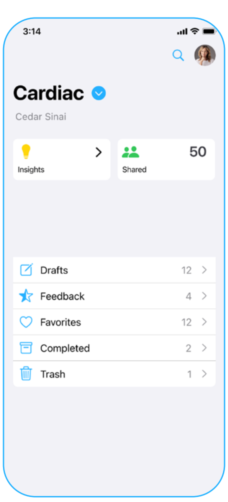
For a QA Reviewer / Specialty Admin



For a Credentialed user



For a Non-Credentialed user



3. The screen displays the following:

- **Specialty:** Indicates the currently selected specialty.
- **Shared Tab:** Displays content shared with the user by other users.
- **Insights Tab:** Provides valuable insights and analytics.
- **Quality Tab:** Holds all completed exams that are pending QA, in progress, and QA complete.
- **Folders:** These folders organize exam locations and serve various purposes.

Switching Specialties

Users who belong to multiple specialties can easily switch between them.

TO SWITCH SPECIALTIES

1. Tap on ⌄ button next to the current specialty.
2. Select the desired **specialty** from the list.

After a new specialty is selected, the Home screen automatically updates to reflect the selection.

Changing Preferred Specialty

TO CHANGE PREFERRED SPECIALTY

1. Tap on ⌄ button next to the current specialty.
2. Tap **Change Preferred Specialty**.
3. Select a specialty to indicate a preferred choice.
4. A confirmation message appears to ensure the selection is correct. Once confirmed, the system redirects to the updated specialty page.

Folders

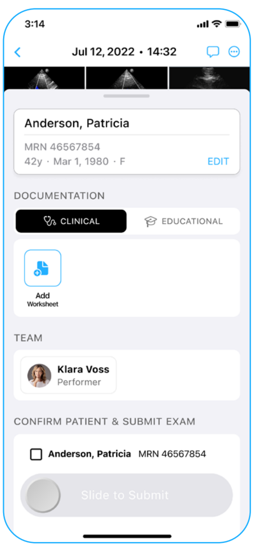
- **All Exams:** Contains all exams within the specialty accessible by the specialty admin.
- **Drafts:** Stores exams that are in progress but not yet completed.
- **Sign Off:** Stores exams awaiting review and sign-off by credentialed users.
- **Feedback:** Stores exams with feedback from the QA team.
- **Unassigned:** Stores exams that have not been assigned to specific users.
- **Favorites:** Stores exams marked as favorites for quick access.
- **Completed:** Stores exams that have been successfully completed.
- **Trash:** Stores deleted exams temporarily for 30 days before permanent removal.
- **Outbox:** Temporarily holds exams that are being processed for transfer to PACS or Exo Works Archive.

Exam and Image Management

Selecting and Viewing an Exam

TO SELECT AND VIEW AN EXAM

1. Tap on a folder to view the exams it contains.
2. A list of exams with their details will appear.
3. Tap on the exam to view.
4. Once the exam is opened, the interface is organized as follows:



- **Media Section:** At the top, displays the images or clips related to the exam.
- **Patient Information:** Directly below the media, patient details will be displayed.

Additional Details (Accessible by Swiping Up):

- **Documentation Type:** Toggle between clinical and educational exams.
- **Worksheets:** Access pre-defined worksheets for documentation.
- **Team:** View the team members involved in the exam.
- **Exam Destination:** Choose where to store the exam (PACS/VNA, Exo Works Archive, or both).
- **Patient Information Confirmation:** Verify the accuracy of patient details.
- **Sign Off:** Submit the final exam after review.

Adding a Patient to an Exam

TO ADD PATIENTS

1. Select the **Add/Edit** button within the patient information field.

> **Note** Iris exams will always have a patient associated once sent to Exo Works cloud and therefore, will only have the update/edit capability. Non-Iris ultrasound exams may require adding of patient information.

2. This prompts the ability to manually edit the previously entered information.
3. There are three ways to change patient information:
   - Manually enter/edit patient information by completing the necessary fields.
   - When connected to a DICOM Modality Worklist, the Patient Worklist icon can be selected to view existing patients. After selecting the Patient Worklist icon, a list of existing patients will appear. Search by MRN or patient name, then select the desired patient. The patient details will be pulled into the patient information section within the exam.
   - Alternatively, the barcode scanner can be used to populate patient MRN.
4. Click **Save Changes**.

Exam Documentation

PRE-DEFINED WORKSHEETS

Exo Works has twenty-two pre-defined worksheets available for documentation.

- Abdomen
- Aorta
- Arterial Access
- Biliary
- Bladder
- Breast
- Cardiac
- Central Venous Line
- Deep Vein
- eFAST
- GYN
- Lung
- MSK
- Nerve Block
- OB1
- OB2/3

- Ocular
- Paracentesis
- Peripheral Access
- Renal
- Testicular
- Thoracentesis

Reviewing Images Within an Exam

TO REVIEW IMAGES

1. Tap on any folder and search for the desired exam.
2. Tap on the exam to open it.
3. The images or clips will be displayed at the top.
4. Tap on a specific image or clip to view it in more detail.
5. If applicable, measurements and selected exam types will be shown below the image.

Searching, Sorting, and Filtering Exams

TO SEARCH AN EXAM

1. Tap on the icon at the top of the home screen.
2. Type in a search term, which can be:
    - Exam Type
    - Patient's Medical Record Number (MRN)
    - Patient's Name
    - Doctor's Name

TO SORT AN EXAM

1. Tap on **SORT BY** above list of exams.
2. Choose from the available options:
    - **Newest First:** To view the most recent exams first.
    - **Oldest First:** To view the oldest exams first.

TO FILTER AN EXAM

1. Tap on **FILTER BY** above list of exams.
2. Choose the filters from the available options:
    - Last 24 Hours
    - Last 7 Days
    - Last 30 Days
    - Custom Date Range

Assigning an Unassigned Exam to Yourself

Exams from ultrasounds that are not mapped with any **DICOM tags** can be found under the Unassigned folder

TO ASSIGN AN UNASSIGNED EXAM TO YOURSELF

1. Tap on **Unassigned** folder to view all exams that haven't been assigned.
2. If the desired exam cannot be found, use the search bar at the top of the **Unassigned** section.
3. Tap on the exam to be assigned.
4. The selected exam will open, showing images at the top and patient information below.
5. Scroll down to **Team** section at the bottom, Tap **Assign Performer**.
6. Tap **Assign myself as Performer** to confirm.
7. The user name will appear under the **Team** section.
8. The exam will be moved from **Unassigned** to the **Drafts** folder, as it now has a performer assigned.

Completing an Exam

Documenting an Exam

TO DOCUMENT AN EXAM

1. Go to **Drafts** folder to select an exam for documentation.
2. Update patient information as needed, see To Add patients section.
3. Select clinical or educational.
    - A clinical worksheet is a structured document used in healthcare to record patient data, examination findings, and treatment plans. If clinical, the exam can be sent to a PACS or VNA and/or the Exo Works Archive for storage.
    - An educational exam cannot be sent to PACS. For an educational exam, if the exam destination is set to PACS and Exo Works Archive, the exam will only be archived to Exo Works, and not sent to PACS.
4. Tap **Add Worksheet** to select desired worksheet(s). Minimum of one worksheet is required.
5. Select at least one indication.
6. Select at least one view. Toggling **All Views** auto-populates all the views.
7. Swipe left to move to the next page.
8. Complete the Findings & Interpretation section.
    - Toggling **No remarkable findings** auto-populates the associated normal findings.
9. Swipe left to review the final report.
    - Swipe right to make edits if needed.
10. Select the **Mark as Complete** button to complete the worksheet.

Adding Additional Performers to Exams

TO ADD ADDITIONAL PERFORMERS

1. Open the **Drafts** folder to view all exams.
2. If the desired exam cannot be found, use the search bar at the top of the **Drafts** section.
3. Tap on the exam to add additional Performers.
4. The selected exam will open, showing images at the top and patient information below.
5. Scroll down to **Team** section at the bottom, tap on the **Add Additional Performers**.
6. Select up to five performers from the list.
7. Tap **Add** to confirm selection.
8. The newly added performers names will appear under the **Team** section.
9. Once the exam is completed, it will be available in the **Completed** folder of both the main performer and the additional performers.
10. After QA review, the exam will be available in the **Feedback** folder of all performers. All performers will receive credit for the exam.

Note	The performer and specialty admin can assign additional performers.

Assigning an Exam to a Credentialed User

To complete the exam process, a non-credentialed user must assign the exam to a credentialed user for sign off.

Note	For Educational exams, a non-credentialed user can submit the exam directly without assigning a credentialed user.

TO ASSIGN AN EXAM TO A CREDENTIALED USER

1. After the exam is performed, ensure the worksheet is filled out.
2. Scroll down to **Team** section at the bottom, tap **Add Credentialed**.
3. A list of users credentialed for the chosen worksheet will appear. Choose the **Credentialed** user to whom the exam should be assigned.
4. Tap **Add** to confirm selection.
5. The exam will appear in the credentialed user's **Sign Off** folder for review and sign-off.

Note	The credentialed user is responsible for reviewing and signing off on the assigned exam.

Exam Destination

Review the exam's archive location in the Exam Destination section. All exams will be synced to Exo Works. If a PACS is configured by the admin, exams will also be sent to the PACS destination.

Confirm Patient and Submit Exam

1. Review and confirm the patient by checking the box.
2. Slide to **sign** and **submit** the exam.
3. The signed exam will move to the **Completed** folder of the non-credentialed user. For Clinical exams, it will also appear in the **Sign Off** folder of the credentialed user. For Educational exams submitted without a credentialed user, it will route directly to the **Quality** folder of the QA reviewer.

Sign Off as a Credentialed Reviewer

Credentialed users will find exams awaiting review and sign-off in the **Sign Off** folder on the home screen. Ensure all clips and images are present in the exam before Sign-off.

TO SIGN OFF AS A CREDENTIALED REVIEWER

1. Open the exam to review patient information and documentation.
2. Verify all information and documentation.
3. If approved, Slide the bottom bar to sign.
   - If not approved, edit the performer's work, then proceed with signing.
4. The signed exam will move to the Completed folder of the credentialed user.

Quality Assurance (QA)

Selecting an Exam for QA Review

TO SELECT AN EXAM FOR QA REVIEW

1. Ensure the user have the **QA Reviewer** role, which grants access to the **Quality** folder containing exams reviewed by performing and credentialed users.
2. Tap on **Quality** tab to view exams awaiting QA review. Exams are categorized into:
   - **Pending:** QA review has not yet started.
   - **In Progress:** QA review is underway but not completed.
   - **Reviewed:** Exams that are fully reviewed and submitted by a QA user.
3. Select an exam by browsing through the folders or using the search and sorting features in the search bar (see Searching, Sorting, and Filtering Exams).
4. Tap on the exam to assign the user as the **QA Reviewer.** The user name will appear in the Team section of the exam.
5. Initiate the QA review by tapping on the **Rate** button at the bottom of the screen.

Performing QA Review

TO PERFORM A QA REVIEW

1. Select an exam as described in the Quality Assurance (QA) section.
2. Tap on the **Rate** button to proceed.
3. View the worksheets of the performing and credentialed users. If there are multiple worksheets, they will be displayed at the bottom with their names and icons.
4. Tap on the worksheet icons to switch between them for review.
5. Complete the QA reviewer's worksheet by:
    - Agreeing with the final report
    - Scanning questions
    - Assessing image quality
    - Providing feedback
    - Adding flags for follow-up requirements
6. Responses will determine if the performing and credentialed users receive credit.
7. Submit the review by Tapping on the **Submit** button. The exam will be marked as QA submitted and moved to the completed folder of the QA reviewer and the feedback folder of the performing and credentialed users.

Receiving QA Feedback

1. Both non-credentialed and credentialed users will receive QA feedback.
2. Reviewed exams will be placed in the **Feedback** folder of both non-credentialed and credentialed users.
3. Open the **Feedback** folder and select the desired exam. The QA review will be displayed beneath the Team section.
4. Tap on the **Feedback** button or select the worksheet icon to view detailed feedback.
5. If the exam has been flagged, the exam can be unflagged after the issue has been addressed with the QA reviewer.
6. After reviewing the feedback, the exam will remain in the **Feedback** folder of the respective user.

All Exams Folder Access for Specialty Admins

Specialty Admins have exclusive access to the All Exams folder, allowing them to:

- **Reassign Exams to Themselves or Credentialed Users:**
  - Specialty Admins can reassign exams to themselves or other credentialed users.
  - Once an exam has been submitted by the performer, the Specialty Admin can reassign a new credentialed user.
- **Reassign Themselves as QA Reviewers:**
  - Specialty Admins can assign themselves as QA reviewers, provided they have not performed the exam themselves.
  - If the exam has already been assigned a QA reviewer and the QA process is not yet complete, the Specialty Admin can take on this role.

Note	It is not permitted to unassign a user from an exam.

TO REASSIGN YOURSELF OR A CREDENTIALED USER TO AN EXAM

1. Open **All Exams** Folder.
2. Select and open the exam to be reassigned.
3. Locate the **Team** section and click on the current performer's name.
4. Search and select a credentialed user from the list.
5. The reassigned user's name will now appear in the **Team** section.
6. The exam will automatically move to the Drafts folder of the reassigned credentialed user.

TO REASSIGN YOURSELF AS A QA REVIEWER

1. Tap on the **Quality** tab on the home screen
2. Toggle to **In Progress**.
3. Open the exam to be reassigned.
4. Tap on the current QA reviewer's name in the **Team** section.
5. Tap **Assign Myself as QA Reviewer.**
6. The user name will now appear in the Team section as the new QA reviewer.

Delete an Image or Exam

TO DELETE AN IMAGE

1. From Exo Works, images or clips can only be deleted in the **Drafts** Folder.
2. Tap on the **Drafts** Folder.
3. Tap on the image or clip to remove.
4. Select **Select Scans**.
5. Select the image(s) or clip(s) for deletion. Multiple image(s) or clip(s) may be chosen. If all image(s) or clip(s) are selected, the entire exam will be deleted.
6. Tap **Delete** to prompt a confirmation pop-up to confirm the deletion.
7. Once confirmed, the selected image(s) or clip(s) will be permanently removed from the exam.

TO DELETE AN EXAM

1. From Exo Works, exams can only be deleted in the **Drafts** Folder.
2. Tap on the **Drafts** Folder.
3. Long press the exam to access the option to delete the full exam. Alternatively, open the exam and tap on the ⋮ button on the top right of the screen to prompt a dropdown with the delete option.
4. Deleting the exam will move it to the **Trash** folder.

Note

- In the **Trash** folder, select the exam and choose to permanently delete it. Alternatively, click on the three-dot icon for the same option to permanently delete.
- Exams in the **Trash** folder can be recovered within 30 days. After this period, they will be permanently deleted.

Recover a deleted exam

TO RECOVER A DELETED EXAM

1. Access the **Trash** folder.
2. There are two ways to recover an exam
   - Long-press on the exam to access and select **Recover**.
   - Tap on ⋮ icon for the exam to access and select **Recover**.

Sharing an Image or Exam

TO SHARE AN IMAGE

1. **Select** the exam to share.
2. Select one or all image(s) or clips(s).
3. Tap on the share icon.
4. A share window will appear, tap **Continue**.
5. After tapping continue, it will automatically open the iOS share kit where JPG or MP4 can be shared with any of the installed apps that allow sharing. For example, email, text, etc...

TO SHARE ALL IMAGES AND CLIPS IN MOBILE

1. **Select** the exam to share.
2. Tap or click on the **three-dot icon** for the exam to access and select **Share Exam**.
3. A share window will appear. Select the **Share All Images and Clips**.
4. The iOS Share Sheet opens automatically, allowing JPG or MP4 files to be shared through installed apps that support sharing, such as email, text, social media, or Slack.

TO SHARE AN EXAM

1. Tap on the desired folder.
2. Tap on ⋮ icon at the top right corner for the exam to access and select **Share**.
3. A sharing window opens with the following options:
   - **Share within my organization:** If this option is chosen, a list of team members will appear. Select one or more users, then click **Share Exam**.
   - **Share public link:** Provides a public link, Copy and paste the public link to share the exam externally. The shared public link will expire after 30 days.

TO SHARE WITHIN MY ORGANIZATION

1. Exams can be shared with members of the organization using either of the following methods:
   - Tapping on the exam card menu and tap **Share**.
   - Open the exam and tap on the top right action menu and tap **Share**.
2. Tapping **Share** opens a list of all clinical users within the organization. Select one or more team members to share the exam.
3. Once shared, the exam moves to the **Shared** folder of the selected user(s). Exams in the Shared folder are read-only.

TO SHARE PUBLIC LINK

1. **Select** the exam to share.
2. Tap on ⋮ icon for the exam to access and select **Share Exam.**
3. A share window will appear. Select the Share Public Link to copy the secure URL.

4. In mobile, selecting **continue** automatically opens the iOS share kit, allowing the public link to be shared through installed apps that support sharing, such as email, text, social media, or Slack.
5. In web, paste the public link in applications installed on the PC to share externally.
6. The shared public link will expire after 30 days.

Favorite and Unfavorite an Exam

TO FAVORITE AN EXAM

1. Access the exam to add to Favorites.
2. There are two ways to Favorite an exam:
   - Click the exam menu option on the exam to access and select **Favorite**.
   - Tap on ⋮ icon for the exam to access and select **Favorite**.
3. The exam will be placed in the **Favorites** folder.

TO UNFAVORITE AN EXAM:

1. Access the exam to be removed from Favorites.
2. There are two ways to unfavorite an exam:
   - Click the exam menu option on the exam to access and select **Unfavorite**.
   - Tap on ⋮ icon for the exam to access and select **Unfavorite**.
3. The exam will be removed from the **Favorites** folder.

Commenting on an Exam

Any user with access can add a comment to an exam.

TO COMMENT

1. Open the exam to be commented.
2. Locate the message icon at the top.
3. After selecting, a text field will appear, showing potential previous comments.
4. Type the comment in the text field at the bottom.
5. Tap on icon to post the comment.
6. The comment will appear beneath any previous comments.

TO DELETE A COMMENT

1. Select the comment.
2. Tap on icon.

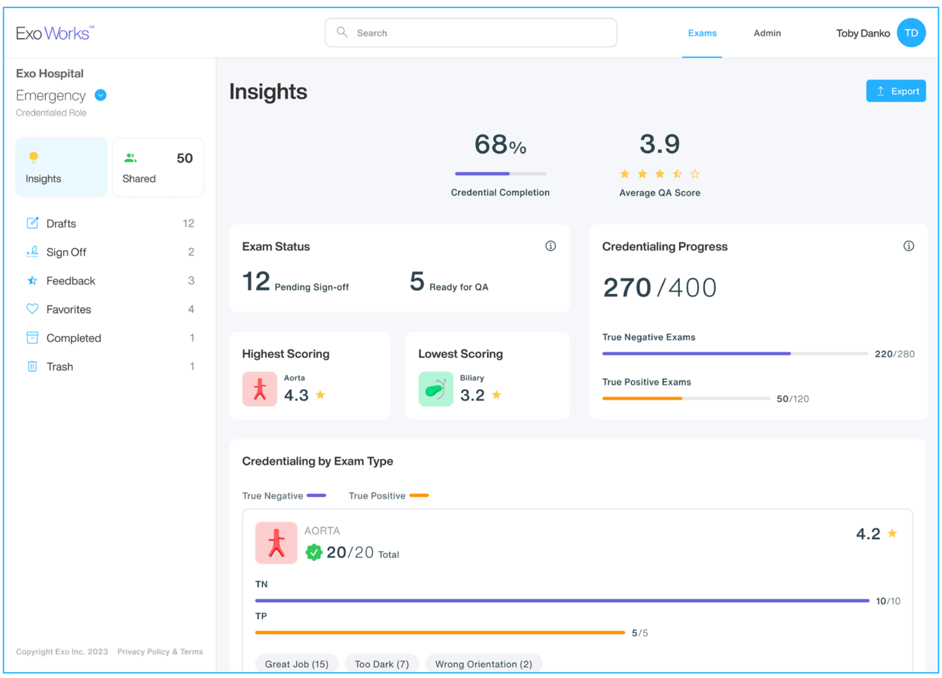
Note	All comments will be retained for 30 days. After that, they will be automatically deleted from the exam's comment section.

6 Insights

Insights
Chapter 6

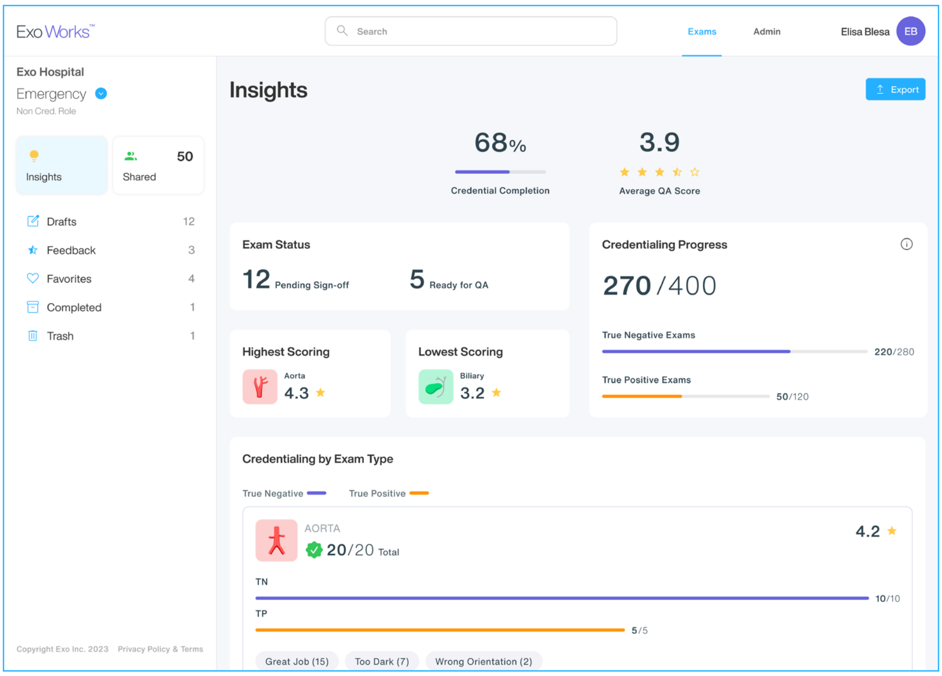
Insights View with Credentialing Program

INSIGHT DISPLAY FOR CREDENTIALED USERS WITH CREDENTIALING PROGRAM



1. **Credential Completion:** Credentialed users can see their completion percentage toward credentialing.
2. **Average QA Score:** User can view the average QA score for completed exams.
3. **Exam Status:** User can track the number of exams pending sign-off and those ready for QA review.
4. **Credentialing Progress:** The system provides a detailed breakdown of total completed exams, including true negatives and true positives breakdown.
5. **Highest Scoring and Lowest Scoring:** Users can monitor their highest and lowest scoring exam types.
6. **Credentialing by Exam Type:**
   - For users pursuing credentialing across multiple exam types, an overview displays earned credits and remaining requirements.
   - Detailed breakdowns by exam type are available for further analysis.
7. **Credentialed Exam Performance:** Users Performance metrics for their credentialed exam types, helps to identify strengths and areas for improvement.

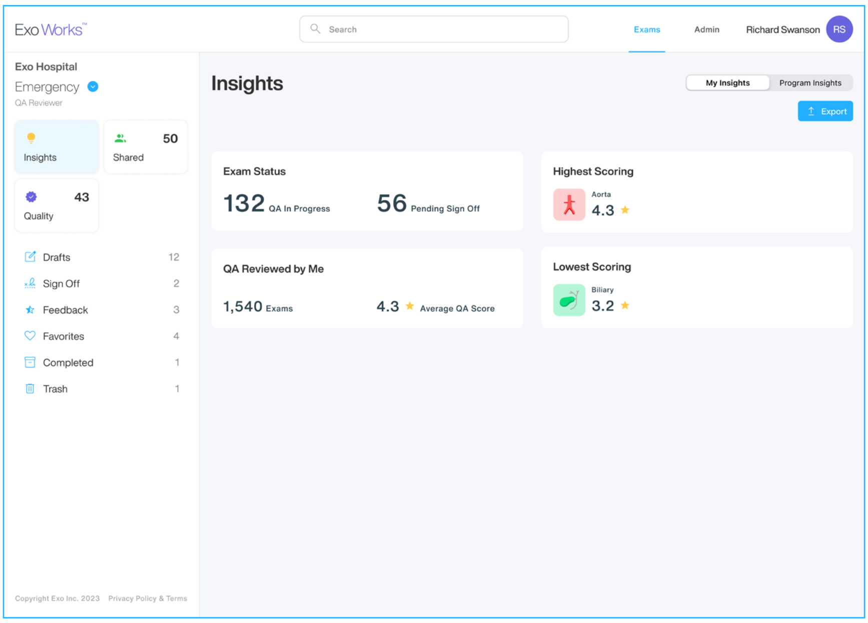
INSIGHT DISPLAY FOR NON-CREDENTIALED USERS WITH CREDENTIALING PROGRAM



1. **Credential Completion:** Non-Credentialed users can see their completion percentage toward credentialing.
2. **Average QA Score:** User can view the average QA score for completed exams.
3. **Exam Status:** User can track the number of exams pending sign-off and those ready for QA review.
4. **Credentialing Progress:** The system provides a detailed breakdown of total completed exams, including true negatives and true positives breakdown.
5. **Highest Scoring and Lowest Scoring:** Users can monitor their highest and lowest scoring exam types.
6. **Credentialing by Exam Type:**
   - For users pursuing credentialing across multiple exam types, an overview displays earned credits and remaining requirements.
   - Detailed breakdowns by exam type are available for further analysis.

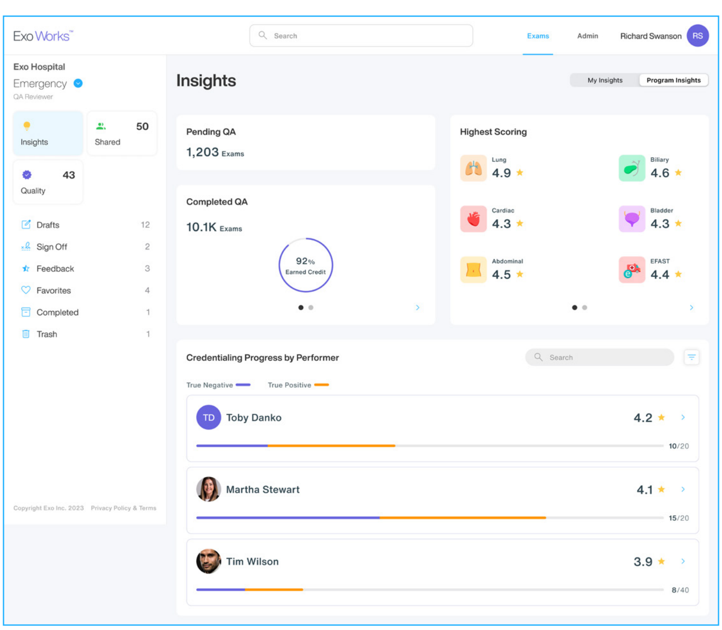
Note	Performers who have completed the required number of exams can still enhance their average QA score by continuing to conduct more exams.

My Insights for QA Reviewers and Specialty Admins



1. **Exam Status:** View the status of exams, including those in QA progress and pending sign-off. See the highest and lowest scoring exam types.
2. **QA Reviewed by Me:** Track user QA activity, including the total number of exams reviewed and the average QA score provided.
3. **Highest Scoring and Lowest Scoring:** Users can monitor their highest and lowest scoring exam types.

Program Insights for QA Reviewers and Specialty Admins



1. **Pending QA:** Monitor the total number of exams awaiting QA review.
2. **Completed QA:** Track the total number of exams QA'ed, including the percentage earning a credit. Also, view the number of exams QA'ed per exam type.
3. **Exam Type Insights:** See the highest and lowest scores for each exam type.
4. **Credentialing Progress by Performer:** Track credentialing progress by performer, including a breakdown of true negatives and true positives.

Insights View without Credentialing Program

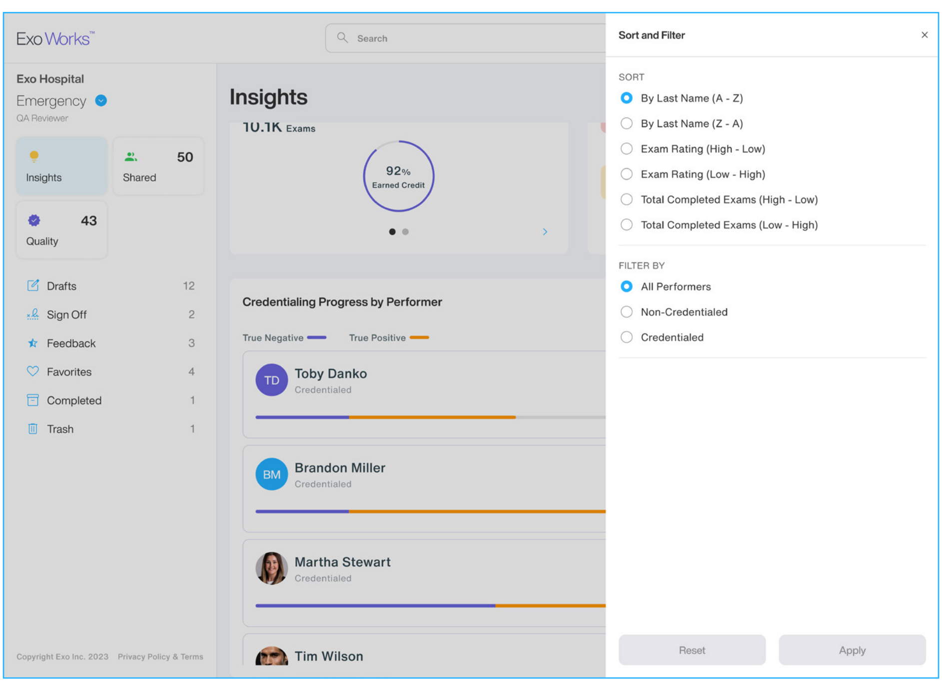
For non-credentialed and credentialed users not involved in a credentialing program:

- The Insights section will show the total number of exams pending sign-off and those ready for QA review.

For QA reviewers without participation in the credentialing program:

- Insights will display the total number of exams currently in QA progress, exams pending sign-off, and exams already reviewed by the QA reviewer.

Searching, Sorting, and Filtering Program Insights



TO SEARCH

1. Click on the **Search** icon in Credentialing Progress by Performer section.
2. Type in a search term, which can be:
   - Performer Name

TO SORT AN EXAM

1. Click button next to **Search** icon in Credentialing Progress by Performer section.
2. Choose from the available options:
   - **By First Name (A - Z)**
   - **By Last Name (Z - A)**
   - **Exam Rating (High - Low)**
   - **Exam Rating (Low - High)**
   - **Total Completed Exams (High - Low)**
   - **Total Completed Exams (Low - High)**

TO FILTER AN EXAM

1. Click button next to **Search** icon in Credentialing Progress by Performer section.
2. Choose the filters from the available options:
   - All Performers
   - Non-Credentialed
   - Credentialed

Exporting Insights

TO EXPORT INSIGHTS FOR CREDENTIALED AND NON-CREDENTIALED USERS

1. Navigate to the **Insights** section on the Exo Works homepage.
2. Click **Export**.
3. Follow the on-screen instructions for both mobile and web applications to select PDF format and download location.

TO EXPORT MY INSIGHTS FOR QA REVIEWERS AND SPECIALTY ADMINS

1. Navigate to the **Insights** section on the Exo Works homepage.
2. Select **My Insights** on top right corner below name/initials.
3. Click **Export**.
4. Follow the on-screen instructions for both mobile and web applications to select PDF format and download location.

TO EXPORT PROGRAM INSIGHTS FOR QA REVIEWERS AND SPECIALTY ADMINS

1. Navigate to the **Insights** section on the Exo Works homepage.
2. Select **Program Insights** on top right corner below name/initials.
3. Select and open a Performer from the list in Credentialing Progress by Performer Section.
4. Click **Export**.
5. Follow the on-screen instructions for both mobile and web applications to select PDF format and download location.

Glossary

7

Glossary

Chapter 9

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.
Credentialing	Process through which a performing provider in an ultrasound accreditation program attains certification.
EMR	An electronic medical record (EMR) is a digital version of the traditional paper-based medical record for a patient. The EMR represents a medical record within a single facility, such as a clinic or a hospital.
Quality Assurance (QA)	The process by which Non-Credentialed users get their ultrasound examinations and findings reviewed by a QA reviewer and get feedback.
QA reviewer	A user with QA permission. Providers with QA permission review the findings of Non-Credentialed users enrolled in an ultrasound accreditation program. Their agreements to Non-Credentialed clinicians' findings count for the required program passing scores.
Credentialed	A provider that attained certification through an ultrasound accreditation program. Users with credentialed rights are entitled to complete a worksheet, sign it, and send the associated report to EMR.
Non-Credentialed	A user that didn't attain certification through an ultrasound accreditation program. Users without credentialed rights can review patient worksheets, set their findings, and mark the worksheet as ready to be reviewed by an attending or QA reviewer.

Abbreviations

DICOM	Digital Imaging and Communications in Medicine
PACS	Picture Archival and Communication System
MWL	Modality Worklist
AE	Application entity
EMR	Electronic medical record
POCUS	Point of Care Ultrasound
MRN	Medical record number
SSO	Single sign-on
VNA	Vendor Neutral Archive

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