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Chapter One
User Administration

This guide will explain how to configure the Opal-RAD server's settings through the Administration tab of the Study List (in Opal Web or client). The different administration screens will allow your Opal-RAD administrator to manage your Opal-RAD server's settings, including: users, groups, DICOM printers, routing, sessions, and image servers.

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Introduction

To access the administration settings: Left-Click on the Admin Menu Tab at the top of the Web’s Study List screen. On the screen that appears you will find the menu pictured on the following page. Click on a menu item to expand the node.

The Settings tab includes the following sections:

- **User Management**: This section has options for creating, editing, and deleting both users and groups. It is through these tools that we will also define our user and group permissions.

- **DICOM**: This section contains options for creating our DICOM send destinations, routing rules, and printers. There is also a Send Queue and Printer Queue for managing our sent images and print jobs, as well as a Transfer log for looking at previously sent images.

- **Monitor**: This section shows all users logged into the Client and Opal Web and also provides an option for terminating such sessions.

- **Server Settings**: Through the server configuration, we can define the location of our stored images.

- **Server Logs**: This section contains windows for viewing both the Web and Image Server log files.

☀️ only users who are members of the Admin Group will have access to the Admin Menu Tab. For information on creating Admin users consult the “Add Users” topic in this chapter.
Opal-RAD Admin Menu (expanded)
User Management: Add Users

To add a new user:

1. From the User Management node select Add User.
2. Enter a User Name and Password in the provided fields. Remember that both the User Name is not case sensitive while Password is.
3. Enter values for the First and Last Name, and select a Group from the dropdown list box. You may also wish to adjust the Login Timeout value in accordance with your organization’s security policy. Likewise enter values for the number of Concurrent logins.
4. The Has Permission check box is to indicate if such user is allowed to use his/her account. When unchecked, StudyList will be blank for user.
5. Left-Click on the Save button.
Adding Permissions

After clicking the Save button from the previous step a new screen will appear (pictured below). Through this interface the administrator will define permissions for the new user. These permissions will in turn define the user’s access to the patient studies.

These are options for limiting user access to studies, such as by Modality, Body Part, Statuses, Institution, etc. For descriptions of each of these options, please see next page.

After you have finished modifying the user’s permissions, be certain to save them by clicking on the **Save** button. To expand a node, just click on the item line from the menu.

خلافك، if you do not add permissions then, by default, the user will be given access to all studies in the study list. If, for example, you do not add Body parts to a user’s list, then that user will have access to studies of every body part.
Modalities: From this area, the administrator can limit this user to view only exams from certain modalities by selecting the desired modality from the Un-Assigned to the Assigned section.

Body Parts: From this area, the administrator can limit the user to view only exams dealing with certain body parts. Move body part tags from the left column to the right to make them available to the user. Similar criteria process applies for Study Description, Institutions, Department, Facilities, Study Statuses and Flags.

Reading and Referring Physicians: From this area, the administrator can limit the user to view exams tagged only by certain readings physician or referring physicians. Move the Referring Physicians from the left column to the right column to make them available to the user.

Reading and Referring Physician Spelling: From this area, administrator can help ensure that if a study comes into Opal tagged with a spelling similar (yet not equal) to an existing user with a certain spelling (i.e. correct or main spelling) will ensure that it links automatically to the correct user. The “Alternate Spellings” from the Reading Physicians or Referring Physicians lists are exclusive. Only one user can be assigned to one particular “Alternate Spelling”.

Linking: From this area, administrator can make use of User Permission Linking to expand the User Permission to include all of the User Permissions of the Linked users. Linked Permissions do not expand to the “Linked Users” Linked Permission. This can be used to when a site has a consortium of Referring Physicians. When more User Permissions are linked, the slower the Study List Screen will be retrieved as result of the increased number of calculations in the Database.
User Management: View/Edit Users

The View/Edit Users section of the Administration area will display all users who have been added to your system up to 50. If there are more users, you need to search by user name, role, etc. If the search criteria are greater than 100, you will need to specify a narrower search. From this window we can edit the user’s account information (name, password, group, etc.) and delete user accounts.

► To delete a user account

1. From the User Management node, select View/Edit User.
2. Left-Click on the Delete link next to account you wish to remove.
3. Left-Click on the OK button to confirm your choice. You will not be able to delete a user if:
   - the user is currently logged on, or if
   - the user is associated or has opened a study. HIPAA regulation requests to have a record of ALL users that have accessed any medical record.

► To edit a user account

1. From the Admin node, select View/Edit User.
2. Left-Click on the Edit link next to account you wish to modify. The window (pictured next page) will appear with all of your user’s information preloaded.
3. Modify the fields as necessary.
4. Left-Click on the Update button to save your changes.
5. You will then be taken to the **Edit Permissions** window. Modify the user’s permissions as needed and then Left-Click on the **Save** button.

![Edit User Window]

**User Management: Add Groups**

A group is an organizational tool that is used for managing multiple user accounts. We can assign individual users to a group and then define access permissions for the group as a whole. Remember that certain groups (Admin, Radiologist, Referring Physician, and Transcription) have unique permissions that user created groups will not have.

► **To add a new group**

1. From the **User Management** node, select **Add Groups**.
2. Enter a **Group Name** in the textbox and check the boxes for the permissions you wish to assign to the group.

3. Left-Click on the **Save** button to confirm your choice.

(assigning a user to a group is accomplished during the Add User or Edit User process.

**User Management: View/Edit Groups**

The View/Edit Groups section of the administration area will display all groups that have been added to your system. From this window we can edit or delete user groups.
To delete a group

1. From the User Management node, select View/Edit Groups.
2. Left-Click on the Delete link next to group you wish to remove.
3. Left-Click on the OK button to confirm your choice.

* a group cannot be deleted if there is a user account associated with it.

To edit a group account

1. From the User Management node, select View/Edit Groups.
2. Left-Click on the Edit link next to group you wish to modify. The window (pictured below) will appear with all of your group’s information preloaded.
3. Modify the fields as necessary.
4. Left-Click on the Update button to save your changes.
Chapter Two

DICOM Settings

This Section will show you how to set up Send Destinations and help you configure the Opal-RAD server to automate sending out of studies through the use of Routing Rules. This chapter will also show you how to setup a Query Retrieve Source should your Site need to do so of another PACS Server. At the end of this Section you will be able to setup a film Dicom Printer if you have one such device in the Local Network of the Opal-RAD Server.

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DICOM: Send Destinations

From within the Administrator’s menu, destinations for sending exams can be set up.

To add a new Send Destination
1. From the DICOM node, select Send Destination.
2. Left-Click on Add New.
3. Enter the following information: Type (Opal if sending to another Opal Server only, otherwise choose C-Store), Host Name (remote Server’s IP address), AE Title (of sending Opal Server), Remote AE Title, Port (33336 if using Opal type), Description, Transfer Syntax (compression type) and Start Time.
4. Left-Click the Add button to save data.

To edit a Send Destination
1. From the DICOM node, select Send Destination.
2. Left-Click on a Destination in the list to the left.
3. Left-Click on the Edit button.
4. Make your changes as necessary.
5. Left-Click on the Update button to save your changes.
To delete a Send Destination

1. From the DICOM node, select Send Destination.
2. Left-Click on the checkbox of left side of Destination to be removed.
3. Left-Click on the Delete button.

You will not be prompted to confirm deletion of the Send Destination.

DICOM: Query Retrieve Sources

Query Retrieve (optional module) will allow you to perform a query of another PACS Server for a particular Study, as long as the other Server allows to be queried. You have to enter the AE Title details of such Server (similar to that of Send Destination above).

DICOM: Routing Rules

Studies that are validated (i.e. marked from Incomplete to Unread on the PACS server) can be automatically routed to another server by creating Routing Rules. In order for this process to work properly, you must first create a Send Destination (see previous topic for more information).

On the Routing Rules screen (pictured below) will be a button creating new routing rules. There is also a list containing all previously define rules, which can be edited, deleted, and prioritized.
- to add a new Routing Rule

1. From the DICOM node, select Routing Rules.
2. Left-Click on the New Routing Rule button.
3. The New Routing Rule window will appear. Enter a Rule Name and select a destination from the Send To dropdown list box.
4. Define the criteria for the rule, such as Body Part, Modality, Referring Physician, Institution, Stat condition, AE Title and Arrival/Departure Time. Only studies that meet these criteria will be sent to the destination you have selected above.
5. Alternatively to the default listed options, you can use a specific SQL rule to be applied in relation to any of Opal-RAD tables listed in the dropdown option box.
6. You can also specify the priority of and number of send attempts.
7. Left-Click the Save button to create your rule.

- To delete a Routing Rule

1. From the DICOM node, select Routing Rules.
4. Left-Click on the Delete link next to rule you wish to remove.
5. Left-Click on the OK button to confirm your choice.

- To edit a Routing Rule

1. From the DICOM node, select Routing Rules.
2. Left-Click on the Edit link next to rule you wish to modify. A window will appear with all of your rule’s information preloaded.
3. Modify the fields as necessary.
4. Left-Click on the Update button to save your changes.
☼ you can enable or disable a routing rule by checking or un-checking the “Active” box to the right side of the Rule Name.
DICOM: Printer Settings

The Printer Settings area allows the administrator to set up your DICOM compatible printers. These printers can be used to print studies, or individual images to film.

Before adding or editing your printer’s settings you may wish to consult your DICOM printer’s manufacturer for the correct settings for your specific printer.

► To add a DICOM Printer
1. From the DICOM node, select Printer Settings.
2. Left-Click on Add New.
3. Enter a Printer AE Title, Host Name, My AE Title, and Port Number in the first panel.
4. Enter your configuration values in the second panel.
5. When you are done Left-Click on the Add New Printer button to save your configuration.
► To delete a DICOM printer

1. From the DICOM node, select Printer Settings.
2. Left-Click on the Delete link next to rule you wish to remove.
3. Left-Click on the OK button to confirm your choice.

► To edit a DICOM Printer

1. From the DICOM node, select Printer Settings.
2. Left-Click on the printer’s title to highlight the printer.
3. Left-Click on the Edit button.
4. Modify the data as needed and then Left-Click on the Update button to save your configuration.

► To edit a DICOM Printer configuration

1. From the DICOM node, select Printer Settings.
2. Left-Click on the printer’s title to highlight the printer.
3. Left-Click on the Configuration to highlight it.
4. Left-Click on the Edit button
5. Modify the data as needed and then Left-Click on the Update button to save your configuration.
Chapter Three

Server Administration

In this Section you will have access to check on active connections to the Opal-RAD Server as well as have the ability to generate some productivity Reports and to check the different logs associated to the Opal-RAD Services.

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Monitor: Active Sessions

From the Active Sessions window, users with administrator permissions can view who is logged into the system. The Active Sessions screen will display the User Name, IP Address, Login Time, Last Access time or if connected via web or opal-client. From this window the administrator can forcibly terminate a user’s session.

To terminate a user’s session

1. From the Monitor node, select Active Sessions.
2. Left-Click on the Terminate Session link next to the user’s name.
Monitor: DB Totals

This DB Totals area allows an Admin user to make a quick query to the Database to obtain a count result based on specific modality.

Server Settings: Image Servers

From the Server Settings window, the administrator can configure the image servers from which the study list will be generated.
► To add an Image Server

1. From the **Server Settings** node, select **Image Server**.
2. Left-Click on **Add New**. Enter a Server Name, Server Address, Port Number, Http Port, and Description.
3. Left-Click on the **Add** button to save your configuration.

► To delete a Image Server

1. From the **Server Settings** node, select **Image Server**.
2. Left-Click on the Image Server you wish to remove.
3. Left-Click on the **Delete** button to remove the server.

► To edit an Image Server

1. From the **Server Settings** node, select **Image Server**.
2. Left-Click on the Image Server you wish to edit.
3. Left-Click on the **Edit** button.
4. Modify the data as needed and then Left-Click on the **Update** button to save your configuration.

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**Server Settings: Local IP’s**

If you would like to have your studies downloaded all at once, rather than streamed to your viewing station, you can add the IP address of the viewing station to the Local IP’s window.

► To add a Local IP Address

1. From the **Server Settings** node, select **Local IP’s**.
2. Enter your **IP Address** in the textbox. Note that you may also enter a partial IP address if you wish to include multiple workstations. (i.e. “192.168.2”)
3. Left-Click on **Add**.
To delete a Local IP Address

1. From the **Server Settings** node, select **Local IP’s**.
2. Left-Click on the **IP Address** you wish to remove.
3. Left-Click on the **Delete** button to remove the IP.

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**Server Settings: License**

The License section of Opal Admin allows you to see and check what modules and how many logins your Server has.
Server Settings: Study Flag

Through this option, Opal-RAD gives you the ability to mark or label studies that your facility deems necessary. The Flag option once is created; you can assign a study by a right-click of a study on the study in the Study List. Users have to have a permission to assign or see any created Flag.

Server Settings: Facilities Manager

The Facilities Manager section of Opal-RAD allows you to assign a default Facility, based on Institution Name, in the Transcription Window so that when transcribing, users are not forced to select a Facility Name in order to Save or submit the Transcription for Approval.
Server Reports

The Reports section of Opal Admin allows you to access productivity reports. The reports available include the following:

- **Radiologist** - displays the total number of studies that have been read and approved by each radiologist for the date range selected.
- **Transcriptionist** - displays the total number of studies that have been transcribed by each transcriptionist for the date range selected.
- **Studies by Range** - displays all studies that were created during the selected date range.
- **Peer Review Report** - displays the total number of Approved studies that have been reviewed by another Radiologist for the date range selected.

► To run a server report

1. From the **Reports** node, select one of your server reports (i.e. Radiologist).
2. Enter dates (mm/dd/yyyy) in the **From** and **To** text boxes. If you would rather use the date picker control to select a date, simply Left-Click on the calendar button.
3. Left-Click on the **Get Report** button. These reports export your data to a Comma-Separated Values (CSV) file which can be manipulated as a spreadsheet. To create this file, Left-Click on the **Get Report CSV** button, and then choose to open or save the generated file.
Server Logs

From time to time you may experience issues during the normal operation of your PACS. The source of which may be related to items such as network connectivity or stopped services. The Server Logs section of Opal Admin gives you, the administrator access to the log files for all of your Server’s PACS services. The logs are as follows:

- **Web Log** - logs session activity from your Opal-RAD Web server, such as logins and database requests.
- **Image Server Log** - logs session activity from your PACS Image server, such as server connections and patient study requests.
- **Image Server Proxy Log** - logs session activity pertaining to the opening, closing, or modification of studies and images on the PACS.
- **DICOM Receive Log** - logs the transmission of studies to your Opal PACS from other sources.
- **Listener Log** - logs the transmission of studies to your Opal PACS from another Viztek’s PACS.
- **Router Log** – logs all DICOM send activity initiated by your Opal PACS.
- **DICOM Print Log** - logs all activity generated during DICOM print functions.
- **Login Log** – logs the username, IP address, and date and time of all connections to PACS.

If you need to troubleshoot an issue with the PACS server, it is sometimes important to stop an active log. This prevents the file from growing faster than your ability to read it. With the exception of the Login Log, all logs can be both started and stopped via the Administration control panel.

 IDX the Server logs are only available to be viewed via the Opal Web and not through the client.
➤ To stop logging one of your server logs
1. From Server Logs, select the appropriate log file.
2. Left Click on the Stop button.

➤ To restart a stopped server log
1. From Server Logs, select the appropriate log file.
2. Left-Click on the Start button.
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