

# Image-Enabled EMRs / API

Seamless image viewing and requesting directly from your EMR.

Get full images, diagnostic reports and exam information with one click directly from the patient's EMR record. eRAD's sophisticated API frees you from multiple logins.

In medical imaging, APIs are often used to integrate image management (PACS) systems directly into EMR systems, often referred to as "Image-Enabling the EMR." This is a more seamless and robust method than the traditional way—sending just the results of the radiology report via HL7 which display only as a blob of text in the EMR. With the API, the user gets a link to the actual images and report inserted directly into a patient's record in the EMR. Absent an API interface, EMR workflows might require users to collapse the EMR window, open the PACS window, enter a username/password, and manually search for the patient exam(s). An API allows single-click access to the same information via a link inserted into the patient's record in the EMR. The API negotiates the security in the background and retrieves both the images and report for that patient—presenting it in a single view that is a very powerful combination of text and images for the user.

## eRAD PACS API

Third-party applications can use the eRAD API (a collection of HTTP commands) to access and modify PACS data. The commands include arguments identifying exam details such as the accession number, MRN, patient name and date of birth, study UID, etc. Data is secure and access can be restricted as needed.

These are some of the commands available in the eRAD PACS API library:

### Search the database

Query the database for study, order and report details.

### Edit study data

Create and modify study demographics, order information and clinical reports.

### Launch the eRAD PACS viewer

Invoke the diagnostic and web viewers, including the tools to organize and manipulate images.

### Retrieve report contents

Download report text, addenda, key images and other report details.

### Download system activity logs

Request heuristic data for dashboards, summary reports and other event analysis.

In addition to image-enabling EMRs as described above, the eRAD PACS API can be used to integrate radiology order systems, so that physicians can seamlessly request and send imaging requests to eRAD PACS.

Data-mining is also possible from the eRAD PACS API—as all logging and statistical information is available to be used in applications such as third-party dashboards and management reporting.

## Under the Hood

### API Overview

An application-programming interface (API) is a set of commands for accessing an application or system. A software company publishes its API so that other software developers can design products that are powered by its systems and services.

An API is a software-to-software interface, not a user interface. With APIs, applications talk to each other without any user knowledge or intervention. When you buy movie tickets online and enter your credit card information, the movie ticket Web site uses an API to send your credit card information to a remote application that verifies whether your information is correct. Once payment is confirmed, the remote application sends a response back to the movie ticket Web site saying it's OK to issue the tickets.

As a user, you only see one interface—the movie ticket Web site—but behind the scenes, many applications are working together using APIs. This type of integration is called seamless, since the user never notices when software functions are handed from one application to another. [source: TConsult, Inc.].

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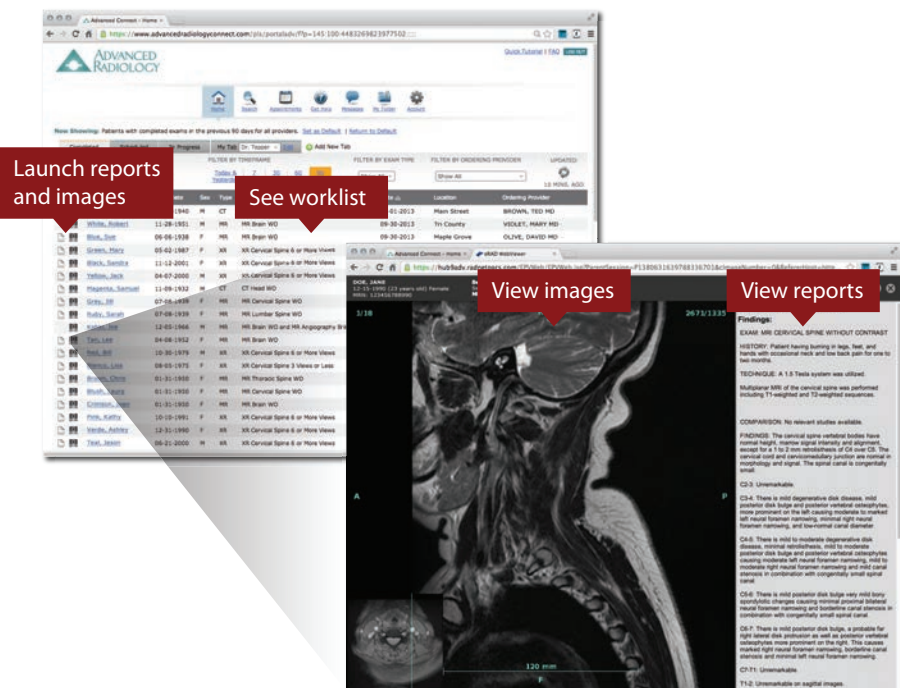
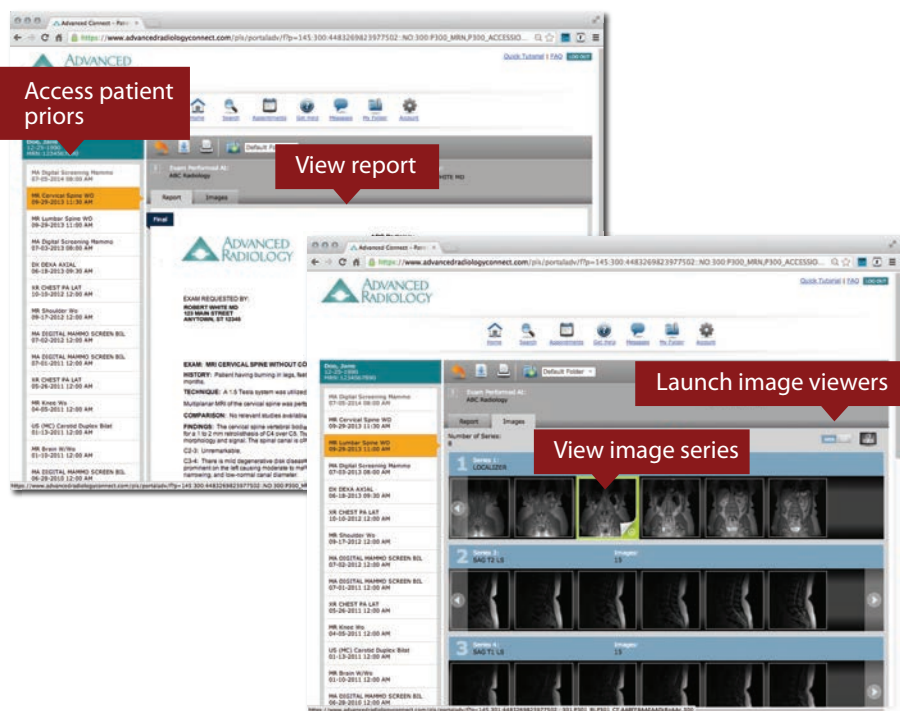
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## API Example:

Advanced Radiology, Baltimore MD, uses eRAD's API to provide referring providers access to reports and images in their online web portal.

APIs allow the portal to display a real-time worklist that allows providers to launch studies using eRAD's zero footprint Web Viewer.



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