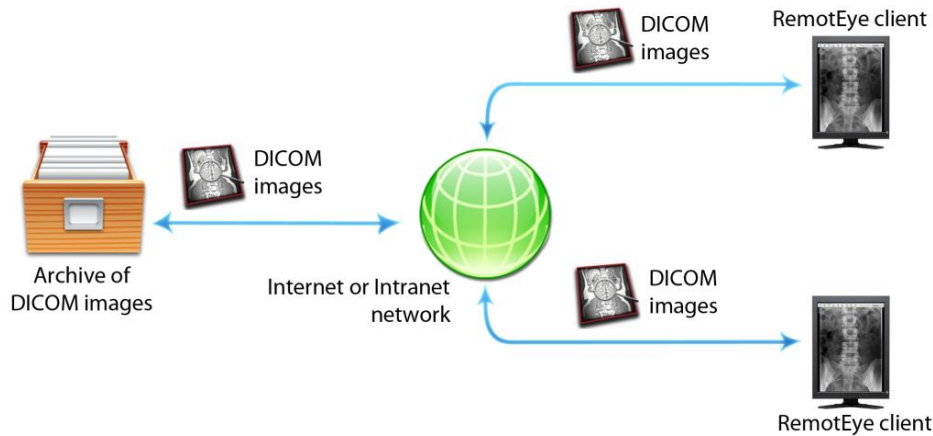




Remote viewing of DICOM images

RemotEye is a web-based DICOM image viewer which allows displaying DICOM images that are physically remote with respect to the viewing site and that are reachable through the Internet or Intranet networks. It allows retrieving medical images created by hospital's diagnostic acquisition devices and stored into digital archives, displaying them in several different ways and performing advanced Image Processing operations on them.

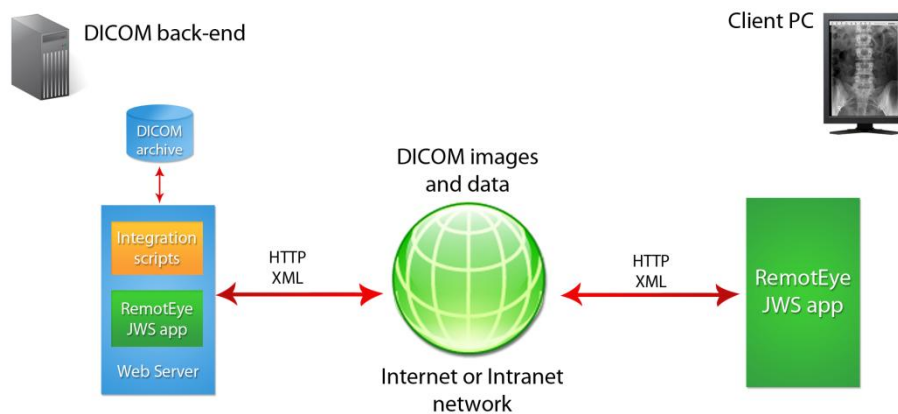


Viewing DICOM images through the Internet or Intranet networks by **RemotEye**

RemotEye: integration with back-end DICOM archives

RemotEye can be easily integrated in a Web-based system: it is based on the Java Applet and Java Web Start technologies and it has been designed specifically for being integrated into third party's Web Applications. With its great flexibility and its high number of configuration parameters, RemotEye is the perfect choice for application developers and system integrators who are looking for an add-on providing DICOM viewing and image processing capabilities to their web-based PACS or medical document management Web Application.

RemotEye supports several integration mechanisms, mainly based on the HTTP and XML standards, which allow integrating it with existing back-end DICOM archives. Thanks to appropriate integration scripts (to be developed by the System Integrator), RemotEye is able to send queries to the back-end archive through a dedicated HTTP-XML protocol. RemotEye can then retrieve and display the relevant studies, as requested by the user, even exploiting compression schemes.

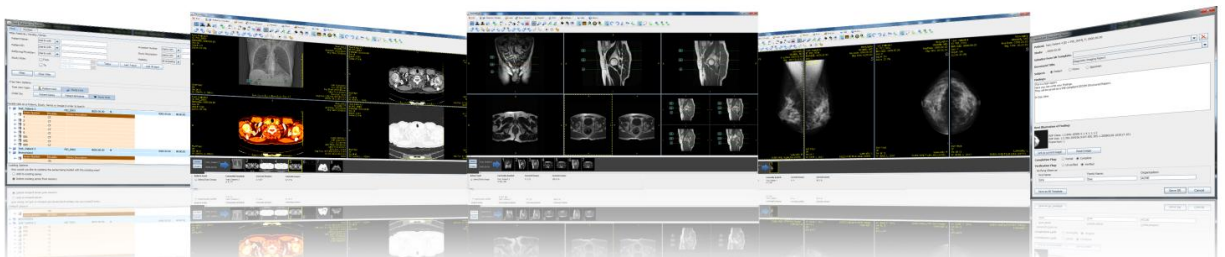


Architecture of a **RemotEye**-based remote DICOM viewing solution



RemotEye: technical features

- ◆ Java-based, cross-platform DICOM image viewer: both the client-side and the server-side can run on Windows, Mac OS X, Linux and other OS's.
- ◆ Runs on standard PC hardware.
- ◆ Supports virtually all kinds of DICOM image files: grayscale and colour, single- and multi-frame, JPEG-compressed (lossy and lossless), JPEG-2000-compressed (reversible and irreversible), RLE-compressed, MPEG-encoded movies and ZIP-compressed studies.
- ◆ Supports stream-based compression schemes.
- ◆ Advanced image manipulation tools, including Window / Level contrast tuning, zoom, rotation, flipping, pseudo-colouring, enhancement filters.
- ◆ Distance, Area, Angle and Density measurement tools.
- ◆ Graphical annotation tools.
- ◆ Cine-playback of multi-frame sequences.
- ◆ Hanging Protocols.
- ◆ Reference lines (a.k.a. Scout Lines) and 3D localizer cursor for MR and CT studies.
- ◆ Print to standard PC printers or to DICOM Printers (through the DICOM Print operation).
- ◆ Reporting functions: support for DICOM Structured Reports (SR), plain text reports, voice reports.
- ◆ Export functions: export DICOM files (including Presentation States and Key Images) to server and local disk, export images in JPG, PNG, JPEG-2000 and AVI formats to local disk and to server.
- ◆ DICOM CD/DVD production functions, with embedded cross-platform auto-running viewer.
- ◆ DICOM anonymization features on DICOM export and DICOM CD/DVD production.
- ◆ Supports dual-head and tri-head display configurations.
- ◆ Flexible and powerful integration interface, allows interfacing with virtually all kinds of back-end DICOM archives and integrating in any medical web application.
- ◆ Multi-language GUI.
- ◆ CE-marked and FDA-listed as a class I medical device.

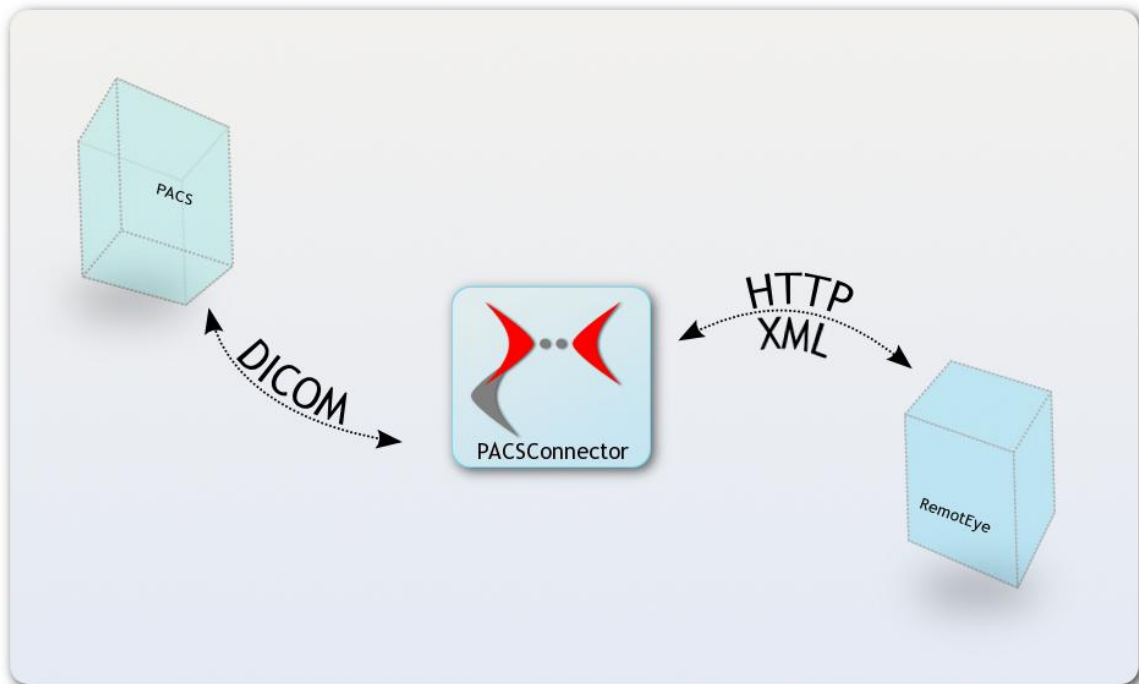


Images from the Graphical User Interface of **RemotEye**



RemotEye and standard PACS server: integration through PACSConnector

Thanks to the PACSConnector software option, RemotEye can now be deployed as a “ready-to-use” solution, without requiring development of custom integrations for a specific DICOM server or archive. Searching for patients and studies, sending DICOM files to server, reporting, downloading and displaying images from server and all operations typically supported by RemotEye are now available through the special module developed by NeoLogica: PACSConnector. PACSConnector works as a bridge between the DICOM server (PACS) and the RemotEye client, implementing the DICOM protocol on one side, and the RemotEye-specific HTTP/XML protocol on the other side. PACSConnector is provided with an easy-to-use web interface, through which it is possible to set all parameters necessary for its proper functioning. Once the simple initial configuration phase is complete, it will be immediately possible to interact with the PACS server from the RemotEye web client, without further complications. PACSConnector will take care of the DICOM communication with the PACS, as well as of the communication with the RemotEye client.



Architecture of a web-based DICOM viewing solution based on *RemotEye* and *PACSConnector*