

TeleRad – The Teleradiology Solution

TeleRad is a Tele-Radiology Solution, which networks to any DICOM modality or archive thereby connecting all remote centers to a central analysis & reporting Station. This software provides a complete suite for DICOM communication across different locations taking care of radiology images, to work list to individual patient clinical notes as reported by technicians. Radiologists at a central location can retrieve non-compressed, high quality DICOM studies transferred from different remote locations for analysis and preparing reports. The solution can also be extended to clinicians, referring physicians for them to view prepared reports along study images. The suit also provides advanced image analysis tools. TeleRad is very flexible and easy to manage. It's simple interface and workflow helps users to seamlessly use this application with less of training and technical knowhow.

TeleRad Details: System Components

I. TeleRad Remote WS:

TeleRad Remote WS is the remote workstation application which will be installed at remote locations. This is generally a manned device, which will be mostly operated by the technicians or facilitator at the remote location. This powerful workstation is equipped with a basic viewer to view DICOM studies and also has the facility to send Clinical Notes of patients independently to the other end radiologist who would be reporting on the study. The Remote WS also has the facility to print un-editable reports that are being sent from the reporting radiologists from the central location.

II. TeleRad Reporting WS:

TeleRad Reporting WS is deployed generally at the central location (radiology reporting room etc) and is used for basic analysis and reporting of the studies sent from the remote locations. This workstation also comes with a DICOM viewer, report template builder and basic analysis tools (measurement, W/L control, flip/rotate, zoom/pan, full screen display, gray scale invert, angle measurement etc). The radiologists can retrieve work list and studies sent by the remote locations along with clinical notes if provided by the remote personnel and analyze and do the reporting from this workstation. N number of predefined report templates can be designed and saved in the database of this workstation for future use.

For critical studies we refer TeleRad Reporting Adv WS which gets installed on the same system of the TeleRad Reporting WS.

III. TeleRad Reporting Adv WS:

The high end and globally approved state of the art DICOM study analysis workstation. Radiologists across the globe prefer this adv workstation for reading critical images. TeleRad Reporting Adv WS combined with TeleRad Reporting WS makes a perfect combination of analysis and reporting platform.



Apart from all the basic features that are already inbuilt in this analysis workstation, there are many advanced viewing tools like:

- MIP / MPR
- Hanging Protocols
- Floating Thumbnail Panel
- Cine Loop
- Pixel for Pixel Zoom
- 3D / Volume Rendering
- New series creation from existing set of images and many more.

IV. TeleRad DICOM Router:

TeleRad DICOM Router is a remote unmanned device and plays the 1st role in DICOM image transmission under the TeleRad suite. This device is the engine which connects the medical modalities and the rest of the system. TeleRad DICOM Router has the capability to connect to n number of imaging modalities (CT, MRI, PET etc). With its robust architecture and real time speed, the DICOM router runs unmanned in the remote locations. Here lies the advantage of TeleRad DICOM router – *unmanned and no license restriction in number of modality connectivity*.

V. TeleRad Server:

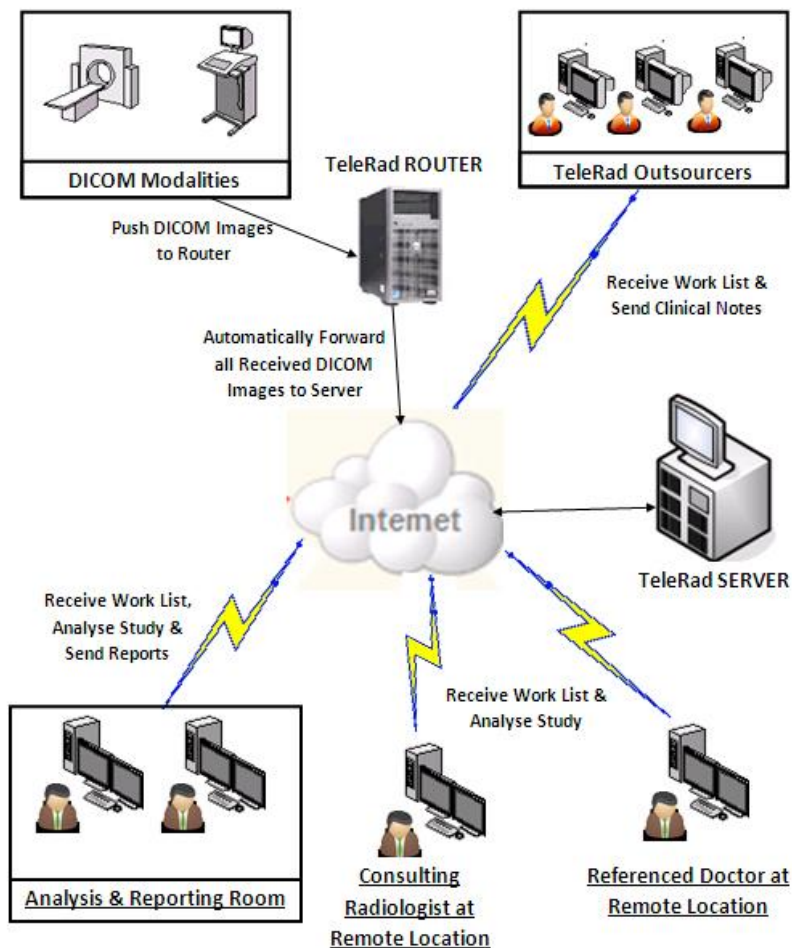
TeleRad Server manages the entire TeleRad suite or rather you can say this is the base of the entire TeleRad tele-radiology solution. TeleRad server hold the entire application for managing the work list, images, image transmission, retrieval, AET management, user management, new location allocation, licensing management etc.

Being such a robust platform the TeleRad server still has certain flexibilities in terms of operation, it is able to create and deliver the most suitable licensing environment. The flexibility lies in “server location”.



Description of Workflow

- ❖ Technician at remote locations pushes studies to TeleRad Router which then automatically takes care of the image transmission along with the study information. The TeleRad Router connects to the TeleRad Server.
- ❖ Technician if required can retrieve sent Studies from Server for basic analysis. They can also send Clinical Notes from their TeleRad Remote WS.



- ❖ Radiologists at central location will be notified of the new studies that has been send to the server from remote location for analysis and reporting.



- ❖ A radiologist analyzes with both TeleRad Reporting WS and TeleRad Reporting Adv WS and then prepares reports to be sent back to the respective remote location. The radiologists don't have to bother about the transmission of the reports (like whose report to send to which remote centre). TeleRad Server takes care of all these automation, so that the particular centre only receives its report and there is no chance of cross sending.
- ❖ If required Radiologists can also consult Consulting Radiologists and Referring Physicians outside the network. They will view the Study with the help of TeleRad Viewer WS(*this is a small http based tool which comes bundle along with the TeleRad Suite*)
- ❖ Technicians at remote locations will be notified of the new reports arrived in the system. They will take print out of the reports and do the needful. The reports arrive in un-editable format in order to protect original information.
- ❖ TeleRad Server will be installed at any of the above mentioned desired location as explained the flexibility of the TeleRad Server. It will be central repository of all the Studies from different diagnostic centre at remote locations.

TeleRad – Unique Features & Competitive Advantages over Others:

- Automated DICOM transmission (study images) to DICOM server without remote workstation's interference.
- Lossless transmission of DICOM images – 0 compromise on image quality
- Clinical notes can be sent separately (independent of study image sending); at reporting end automated linking of both.
- Reporting doesn't have to wait for clinical notes for odd hour ER studies.
- Each patient study or DICOM series and its corresponding reporting template can be manually tagged with different colour sets for easy visual recognition of study. This is very helpful while working on multiple studies at a time. This is an unique feature of TeleRad.
- 100% flexible when working with multiple monitors. Any working window – DICOM series, individual DICOM image, worklist, reporting window, and basic viewer can be pushed to secondary monitor.



- Visual indication of reports and notes for the user to understand at a glance the status of the study.
- Works on any network backbone
- Batch sending of studies and reports
- Storing of temporary incomplete reports as draft for later on reporting.
- Remote site can be kept unmanned
- Continuous log for all sites
- Flexibility of server location – central site, data center.
- Flexible licensing options
- Remote support option
- Integrable with PACS.
- Cloud computing architecture compliant

Licensing Models:

All the system components of TeleRad is available in both “Annual” and “Perpetual” licensing models.

Further Queries:

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