
TELE HEALTH

CASE STUDY: TELE RADIOLOGY



HealthFore – Transforming Healthcare

HealthFore Technologies Limited is a global healthcare IT solutions and advisory services company. Our B2B and B2C IT solutions help hospital chains, diagnostic centers and public health enterprises realize superior clinical outcomes.

Our patient-centric healthcare solutions focus on wellness, preventive care and condition management. Our information and health advisory services ensure prompt diagnosis and treatment of diseases. We create mass awareness to improve the quality of life through self-care.

HealthFore's IT products and services are built on leading-edge technology. Our solutions increase productivity and boost revenue for healthcare providers through process automation, interoperability and collaboration. Significantly, our customized solutions enable world-class patient care and comply with healthcare regulations, while minimizing costs.

We increase the reach of healthcare by investing in R&D. Our team of doctors, radiologists, dentists, physiotherapists, nurses, hospital administrators, pharmacists, and technicians provide insights to develop innovative solutions and streamline healthcare. Our strategic relationships with Microsoft, Oracle, IBM, HP, and Barco are the backbone of our healthcare solutions.

TELE RADIOLOGY

Teleradiology is the electronic transmission of radiographic images from one geographical location to another for the purpose of interpretation and/or consultation. It allows images to be viewed simultaneously by various users in different locations. The main applications of Teleradiology are to provide radiological expertise at remote sites more quickly than would otherwise be possible

Need of Tele Radiology in North-East

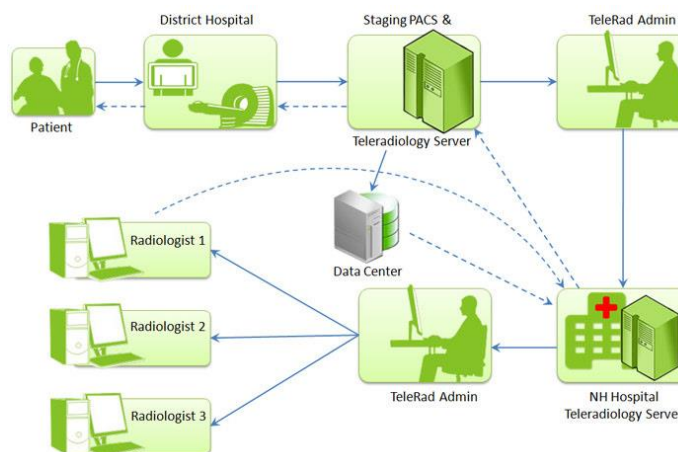
North-East region of India faces a variety of health challenges. There is a shortage of 48% in Community Health Centers and a 52% shortage of specialists at Community Health Centers. 45% of hospitals are understaffed in radiology and 56% percent of hospital radiology department heads that staffing shortages were diminishing the quality of care their departments are able to provide.

Staffing shortages are occurring at a time when radiology volume generally is increasing. The gap between demand and supply of quality radiologist is ever increasing. There are various underlying reasons why the supply of radiologists is insufficient to meet demand in many areas, but a robust and innovative solution is the need of the hour.

In this respect, Healthfore is working with State Governments in the North-East region to setup the Tele-Radiology services across various districts hospitals in the region.

Healthfore is implementing a complete Tele-Radiology solution that will help to manage the data & streamline the image flow from all district hospitals. Healthfore is setting up the required Tele-Radiology infrastructure including capturing of the data from the X-Ray/CT Scan/USB machine, software and hardware for Tele-Radiology data transmission, central data center and running of the same by deploying appropriate resources. Healthfore is also providing Diagnostic Reports through qualified experts on the tests so performed through its partners (SRL).

OUR SOLUTION

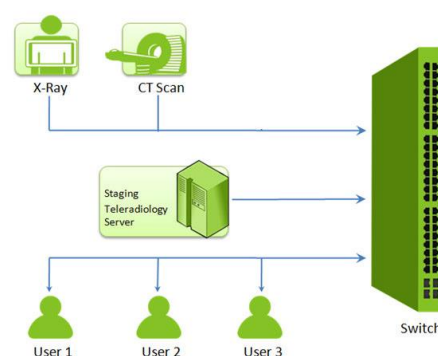


Magnum Tele-Radiology Solution, HealthFore's home grown Imaging (RIS/PACS) product is a complete Web based, enterprise class, Tele-Radiology system, offering a comprehensive enterprise class hospital. Magnum Tele-Radiology integrates images from multiple modalities with clinical patient data, streamlining radiology department workflow and improving the radiologist's efficiency. The storage of patient studies in Magnum Tele-Radiology is almost unlimited, and it was designed to handle the ever-increasing study volumes or the increasing storage demands of the newest, most modern modalities in an enterprise. Magnum Tele-Radiology connects to the multiple modalities through DICOM protocol to offer common storage and management solution. In case if the modalities are non DICOM, Magnum Tele-Radiology offers a dedicated, non DICOM to DICOM converter and stores it on to the centralized archive. Magnum Tele-Radiology is American FDA certified solution with DICOM 3.0 & HL-7 Compliance.

The overall workflow for the Tele-radiology across district hospitals, central data center and reporting center is as mentioned below:

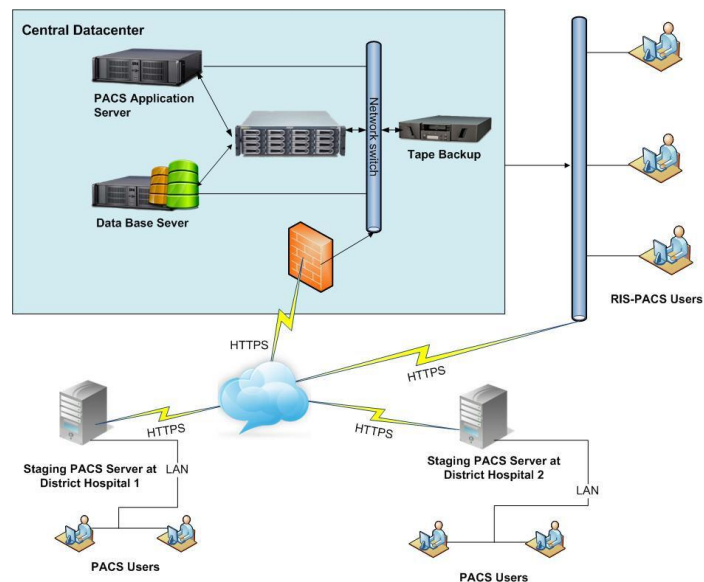
- a) Patient walk-in to hospital's diagnostic center and undergoes certain radiology procedure.
- b) Radiology image of the patient is captured and stored in the Local PACS server of hospital.
- c) These studies are sent to the reporting center for the reporting purpose using Tele Radiology solution.
- d) Radiologist accesses the Patient image using Tele-Radiology solution and reports the same.
- e) As soon as Radiologist confirms the report, it is made available at the respective hospital and also a copy is sent to the central data center for archiving. These reports are digitally signed by the radiologist and cannot be altered by any one.
- f) All these district hospitals are connected to the central data center, which backups all the images as well as data

Tele-Radiology Set-up in Hospitals



- The Tele-radiology infrastructure in the hospitals is connected to staging server at central data center.
- Images captured are pushed to PACS server.
- PACS user at the hospital's diagnostic centers is able to see images and send study to reporting centre and central data centre.
- Confirmed report is made available for viewing at the hospital's diagnostic centers also.

Tele-Radiology Set-up in Central Data Center



- Central data center has an application server, database server, SAN storage and tape backup.
- All data backup is done in the central data center.
- A copy of the image as well as report from all hospitals is archived at the central data center, and as such the central data center accommodates few PACS users making it available for the patients to collect their reports from central data center also if required.