Success with **QStar**

Leading Medical and Drug Research Facility

Industry:
Clinical Research

Application:
Picture Access and Communication System (PACS)

Integrator:
Data Distributing

Solution:
QStar SntryPACS

The Organization:

This medical research facility is a global pharmaceutical research institute and development organization that is dedicated to discovering and developing best in class, innovative, therapeutic and preventive agents, with a focus on ten therapeutic areas of significant medical need. The facility has a mission to extend and enhance human life by providing the highest-quality health and personal care products. Currently the research center is working on more than 50 compounds under active development including compounds used in respiratory and cancer related diseases.
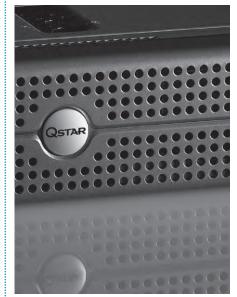
The Dilemma:

The health care industry is a heavily regulated industry around the world. As a result the facility struggles with many of the complex and challenging issues including the retention and management of digital images. They manage hundreds of studies a year with thousands of images for each study. The studies are created and captured from a range of modalities that create different types of images such as MRI, CAT-scan and X-Ray. The organization needed to create and store clinical DICOM images and data in a central repository that can be accessed and shared instantly by research staff and clinical consultants within the organization in support of the research done at the facility. They are expected to meet the highest levels of integrity and transparency. The expectation is that the facility will go beyond compliance needs to assure patients and doctors that the products are safe and effective.

Their relationships with scientists, doctors, patients and business partners must be transparent and ethical.

The Solution:

The SntryPACS is the core of the imaging management system and enables DICOM images to be stored and served to a number of users who wish to send images to it or query and retrieve specific images.
SntryPACS is a DICOM Appliance which includes an integrated DICOM server and storage server rolled into one. The 6TB SntryPACS solution is scaleable to 96 TB of storage by adding additional RAID storage if necessary. In addition to providing data security the appliance also provides a standard built in interface to offline appliances such as Blu-ray optical libraries or tape libraries.
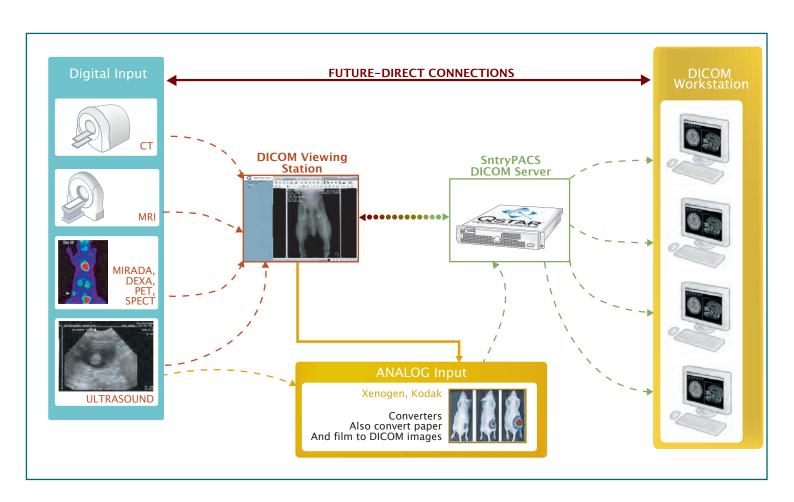
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Images are stored on the WORM (write once read many times) devices for long-term archive and to meet compliance requirements.

The front end of the solution is a DICOM engine which accepts standard DICOM 3.0 images from modalities or other servers which can push images to it. Multiple DICOM viewing stations both 2D and 3D are attached to the server and allow clinicians and research staff to view specific images and share them instantly and corroborate the research findings. For reasons of security these stations are networked within the facility firewall.

The solution also supports multiple modalities which are non-DICOM format; however they provide raw data from the studies and need to be connected to the SntryPACS as well. This is done through DICOM converter software connected to the modalities through composite video or S-Video output. With the help of a frame grabber and DICOM converter software these modalities can also send images to the SntryPACS and the entire image data repository can be centralized.

In the future scanned paper documents and XRAY films will also need to be converted and stored as DICOM files in the SNTRYPACS.

Digital Input

CT

MRI

MIRADA, DEXA, PET, SPECT

ULTRASOUND

FUTURE-DIRECT CONNECTIONS

DICOM Viewing Station

SntryPACS DICOM Server

DICOM Workstation

ANALOG Input

Xenogen, Kodak

Converters
Also convert paper
And film to DICOM images

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