



*Preserving Life's Most Valuable Asset...
OUR HEALTH*

E*HealthLine PACS

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Introduction

E*HealthLine PACS (Picture Archiving Communications System) combines state-of-the-art computer-based imaging, database, storage, and networking technologies to provide an efficient alternative to the traditional film-based handling of radiology information in a medical facility. E*HealthLine manages and transports digital medical images for clinical interpretation, diagnosis and consultation within a single department or outside the hospital boundaries in an enterprise setting.

System Description

E*HealthLine features a modular, scaleable architecture and design addressing the need for storage, distribution and display of digital images and information in a radiology environment.

All the E*HealthLine components are supported by standard, off-the-shelf, networking components over Ethernet. The on-demand system integrates field-proven, cost effective, high-performance components from E*HealthLine Integrated Medical Information System and other major suppliers.

E*HealthLine is an on-demand PACS system, that delivers superior on-demand performance and workflow management throughout your healthcare enterprise. E*HealthLine's workflow benefits enhance productivity through intelligent pre-fetching and customized user preferences.

A medium size hospital that performs 24,000 CR, 8,000 MR and 8,000 CT exams per year expressed the interest to streamline their film operations and become more productive within the radiology department. In addition, because of anticipated consolidation with other facilities in the area, the system would have to eventually grow to an enterprise level information management system that could support in excess of 400,000 exams per year.

Site assessment indicated that a E*HealthLine configuration will get the department into a path for a digital transformation while at the same time addressing the expansion concerns. The site configuration included 30 days online storage on a RAID device (effective online storage of 216 GB using CompressXpress), one E*HealthLine workstation with a color monitor (1200 x 1600), one E*HealthLine workstation with a dual-bank portrait monitor (1K x 1K), a one and a half year's worth of long term archive (effective storage of 1.5 TB using CompressXpress), basic RIS integration and associated software licenses. The facility had a state of the art network and there was not a need to provide networking infrastructure as part of the system deployment.

Feature

No More Lost Films

The E*HealthLine PACS is designed as a basic front- end in larger PACS or image distribution networks. Built on the premier Windows NT platform, the E*HealthLine PACS facilitates passive viewing functionality with standard teleradiology send and receive capabilities and standard NT print functionality. Thanks to fast networking and the use of Windows NT, the E*HealthLine PACS can be easily integrated with Hospital Information Systems. Traffic of images and reports can be significantly improved compared to traditional film usage, resulting in time savings, cost reduction and patient care improvement.

Data Selector Features

- Supports CT, MR, US, CR, Secondary Capture, Traditional X-ray, X-ray Angiography, X-ray R&F, NM
- Multi-frame support for NM, US, X-ray Angiography and X-ray R&F
- DICOM Query and Retrieve
- Teleradiology
- DICOM JPEG Lossless support
- Extensive Auto-routing capabilities including time-based criteria
- DICOM receive capability with or without compression
- Local database and configurable remote views on other DICOM devices
- Worklist-aware (DICOM worklist management support, but also proprietary worklist)
- Select all studies from same patient
- Sorting and filter options on the database
- Configurable views on the databases
- Multi- letter type ahead feature
- Patient report information
- Immediate access to all DICOM information
- Auto deletion option (rule based)
- Reading of DICOM Part 10 CDs
- Access to additional modules if installed

Viewing Section Features

- Single monitor maximum viewing matrix (1280x1024)
- Support for monochrome and 24-bit true color images
- Configurable Pictorial Index and View port layout
- Configurable desktop (toolbars, command buttons, shortcut keys)
- Interactive windowing, preferred settings, grayscale invert
- True size image display

- Linear, exponential, logarithmic and sigmoid windowing
- ROI tool for fast Windowing and Leveling
- Window/Level and Invert for Magnifying Glass
- One cine
- Playback of MPR/MIP cines
- Sharpening and edge enhancement filters
- Support for cutlines display
- Key image display & Pinning of images
- Image, series, study and patient compare
- Integrated reporting (display)
- Unique identifiers for annotations
- Measurement: distance, angle, profile, ROI, Cobb angle supported
- Resizable shutter in various forms
- Copying images to clipboard
- Print images to Windows NT and Printers
- Export of ROI statistics to Excel.
- Export of images to TIFF, BMP

The E*HealthLine software product line from E*HealthLine Integrated Medical Information Management System consists of many products for acquiring, transmitting, viewing, post-processing and archiving. They can be applied in any DICOM 3.0 compliant multi-vendor environment.

The E*HealthLine ASP Solution

The E*HealthLine ASP offering allows E*HealthLine Integrated Medical Information Management System to host, manage and deliver healthcare applications from mission-critical data centers using secure Wide Area Network connections - in essence, transforming healthcare applications into Internet-based, enterprise-wide solutions offering rapid deployment, predictable costs, IT-infrastructure expertise, and affordable, secure access to clinical data.

ASP configurations vary by institution type, number of procedures per modality and organizational needs. The E*HealthLine ASP offers an all inclusive service to satisfy the needs of a healthcare organization and allows extensive flexibility.



**Embracing a new technology for the future of
healthcare.**

**An innovative healthcare information infrastructure enabling an
Internet web environment, which embodies the new paradigm of
healthcare applications with reality-based interfaces.**

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