Project MICAS—Medical Information, Communication and Archive System: PACS Implementation at the University of Rochester Medical Center

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MICAS IS an integrated radiology information system and radiology image database approach to information management, a more productive and efficient alternative to a picture archiving and communication system (PACS). MICAS is being implemented incrementally using multiple vendors with the Department of Radiology assuming the role of system integrator. All hardware components adhere to open system hardware guidelines; operating system software adheres to industry standards, and no proprietary components are used except for application software that must be DICOM compliant.

The initial modalities brought online were CT, MR imaging, and nuclear medicine, with film digitization, ultrasonography, and computed radiography currently being integrated into MICAS. It is the intent to integrate “best of breed” hardware and software components into MICAS as staffing and funding allow. The next major component to be

added to MICAS will be the permanent archive. Currently, the Department of Radiology is investigating various software and hardware archive vendors that are DICOM compliant and interested in integrating their systems with MICAS.

This exhibit demonstrates the image manager, query, and graphical user physician interface (GUPI) components of the software and diagnostic workstation and temporary archive hardware. The objectives of this “hands-on” exhibit are to demonstrate:

- the seamless and transparent interface among the RIS (IDXRad), image manager and query software components developed by IDX, and the GUPI/viewer software (Shared Vision) developed by ImageLabs
- the ease of operation and flexibility of the GUPI in both the modality-specific diagnostic workstation and electronic review and consult workstation modes and
- the simultaneous multimodality, report presentation, and functional capabilities of the GUPI.

A personal computer running Windows NT with an NT version of the GUPI will be used to demonstrate the teleconferencing capability of MICAS. The design, infrastructure and components of MICAS are illustrated and described on the accompanying poster.

The DEC Alpha workstation and monitors as well as technical support are being provided courtesy of Digital Equipment Corporation.

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