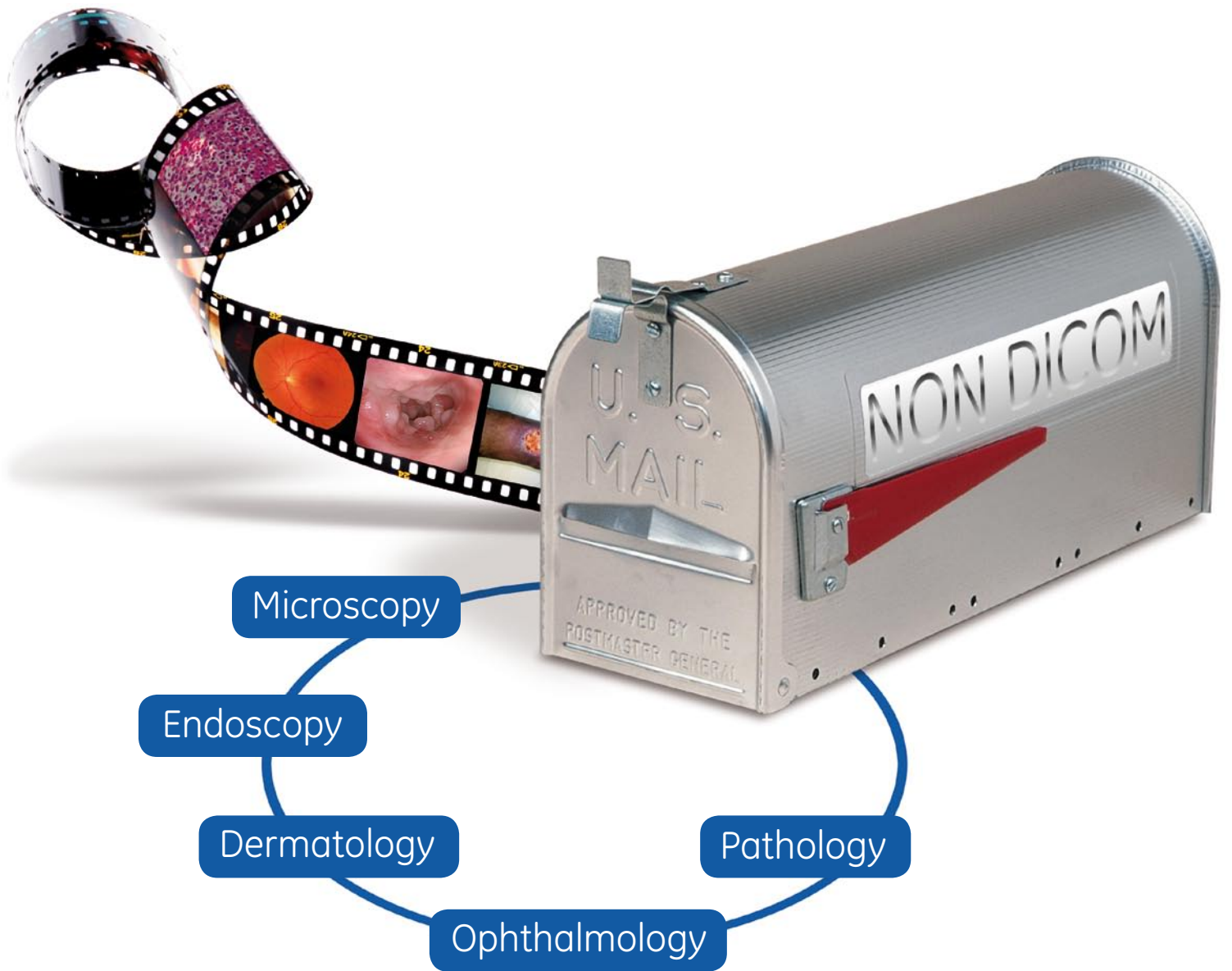


Centricity® Non-DICOM

Just send it to PACS



Non-DICOM – Just send

The Future is Digital

So far specialized hospital departments working with DICOM standards were mainly limited to radiology and cardiology. But digitization does not stop in front of other medical modalities. A sophisticated image data management with a subsequent image distribution, as we know it since quite some time from Centricity PACS and Centricity Web can now be practiced by other "ologies" like Gastroenterology, Dermatology, Ophthalmology and Pathology.

Centricity PACS serves as central archive for short term as well as long-term storage. A workflow management as you expect it from a RIS/PACS is mostly not yet established in these "ologies". But IHE (Integrating the Healthcare Enterprise) already defined first profiles for Non-DICOM image producing specialities. Ophthalmology for example adapts its workflow profile to radiology, involves the same actors and creates the same transactions. Non-DICOM data, in the past documented in minor quality on thermo printers and videotapes or even taken to a photo lab for development, can now be stored and treated digitally in Centricity PACS. This saves costs and time, optimizes the workflow and improves diagnoses by providing high quality images any time. GE Healthcare expects this trend to carry on, as more and more PACS vendors are offering digital image management outside radiology departments.

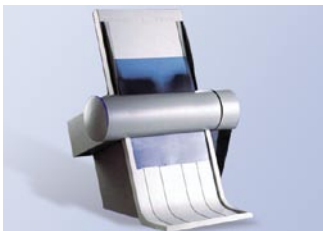
From Non-DICOM to DICOM

In order to improve image quality and exchange of data, the analogue video technology is increasingly replaced by digital technology. No matter if Endoscopy sequences in Gastroenterology, digital camera exposures in Dermatology or microscopy procedures in Pathology, all of them can be turned into a DICOM compatible format. Using a clinical Gateway, examination order requests can easily be turned into a worklist for the particular DICOMizer workplaces. The doctor selects the scheduled patient and generates the appropriate exposure e.g. an Endoscopy video sequence. Centricity converts these data into DICOM objects and sends them to PACS to be stored in short term and long term archive. For all actions clinicians will be supported by an intuitive user interface.

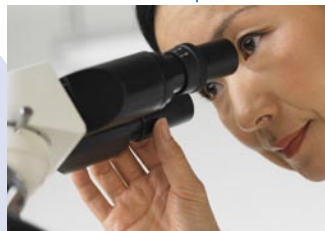
One Step Closer to Digital Hospital

IHE profiles have proven themselves in the radiology area and describe the data exchange between different systems. Thereby Centricity PACS solutions consequently follow international standards like IHE and HL7. This is the guarantee for a smooth data migration in future projects. GE Healthcare has many years of experience in this area and always offered state-of-the-art products in terms of interoperability. This know-how now also flows into Centricity PACS image archiving for non-radiological data.

Film Scanner



Electron Microscope



Endoscope



Ultrasound



Document Scanner



Digital Camera



Office Documents



Videofiles/Bitmaps



Centricity® PACS

it to PACS

Paper based documents

A flatbed scanner digitizes the paper document. Afterwards the generated bitmap file will be turned into DICOM secondary capture and archived in Centricity PACS.

Office documents

From each Microsoft Windows application, which supports a windows printer, a DICOM secondary capture can be generated. Simply select the patient in the work list and send your documents to the PACS printer. All common office features will support you: Excel charts, PowerPoint slides, Word documents etc. – now be stored in PACS. This enables drawings, notes, Excel charts, PowerPoint slides, Word documents etc. – now to be stored in PACS.

File Import

Are there any image files already on your hard disk? Mark the images, select the patient in your work list and simply send them to Centricity PACS. We support all common image types like JPEG, TIFF, BMP etc.

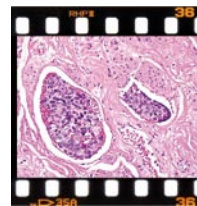
Frame Grabber

Whether S-VIDEO, PAL, NTSC, RGB, 768x576 or 1600x1200 pixels, color or grayscale, all these signals can be used for capturing static images or video sequences – and converted into DICOM format. As an example, such procedures are mainly used for connecting endoscopy devices.

Fluoroscopy

The documentation for old fluoroscopy devices is based on film. Since these devices do not have a digital interface, we use high resolution frame grabber video cards to capture static images and video sequences. The captured exposures comply with diagnostic requirements and can be used for reporting. Video sequences and static images are turned into DICOM format and again ... sent to PACS.

No matter which „ology“... Just send it to PACS:



Microscopy

Analog cameras built in conventional microscopes generate video signals. Frame grabber video cards receive these signals, amplify, filter and turn them into a JPEG file to be stored in PACS.



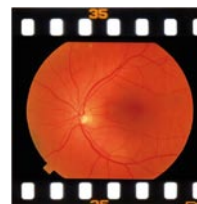
Endoscopy

Any data captured on thermo paper and video tape until now, from today on will be sent to PACS. Static images or video sequences digitized via frame grabber are turned into DICOM and archived in PACS.



Dermatology

Dermatology increasingly uses digital cameras. The created JPEG files are converted to DICOM and stored in Centricity PACS without any loss.



Ophthalmology

Ophthalmic examinations and surgery already do extensively use digital technology. This enables a computer based post processing. No need to develop images in a photo lab ... just send it to PACS.



Pathology

Microscope slide scanners create images in a superior quality within minutes. Only high performing archives like Centricity PACS manage such huge amounts of data. Via Centricity Web Telepathology becomes reality.

Infrastructure

Thanks to our Centricity Clinical Gateway (CCG) we integrate the Non-DICOM solution into an existing network infrastructure. CCG analyses examination requests sent by HIS and turns them into DICOM Modality Worklist information, which is afterwards provided to the appropriate DICOMizer workstation. To guarantee a further mapping in Centricity PACS the CCG provides patient information and study information within the work list. Mainly including study ID, accession number, patient ID, patient name etc.

We use DICOM Modality Performed Procedure Step to keep the worklist information up to date. This process changes the examination status according to the progress of the performed examination from "Scheduled" to "Completed". Non-DICOM can be stored in Centricity PACS now. Centricity Web enables referrers to get access to stored data. An OpenAPI interface connects an existing Electronic Patient Record via hospital network.

For more information please contact
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GE imagination at work