



# Enhancing the Speed and Efficiency of the Radiology Workflow

Centricity™ Universal Viewer

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# The world of radiology is changing rapidly, but one constant remains: Providing timely, accurate reads is critical to optimizing patient outcomes.

**What is changing is the need to provide quality and efficiency to remain in line with new value based reimbursement programs.** This means that now more than ever, imaging is an important, primary diagnostic tool for patient care decisions, ongoing treatment monitoring and predicting patient outcomes. This is driving a rapid rise in radiology workload and examination complexity, while at the same time reimbursement rates are declining for imaging services.

In order for radiologists to add increased value to the patients' continuum of care, simply reading faster is not the answer. Radiologists need to interact more directly with patients and referring physicians

to provide comprehensive diagnostic and advisory services. However, there are a finite number of minutes available each day and with the increasing exam workloads and complexity, there is less time for non-reading tasks necessary for radiologists to provide leadership and consultative roles in patient care decisions.

What is needed are ways to increase the efficiency of the radiology workflows to gain time for these tasks. Therefore, now more than ever radiologists and imaging centers today must seek new ways to perform at their maximum efficiency, as well as to gain more complete patient context to add value to patient and referring physician encounters.

Read on to learn how GE Healthcare is working with radiologists like you to provide **intelligent and streamlined tools to increase your reading efficiency**, while at the same time giving you a more complete patient context to increase diagnostic accuracy.



Increase reading workflow efficiency by up to **40%**<sup>1</sup>



# Speed to Diagnosis

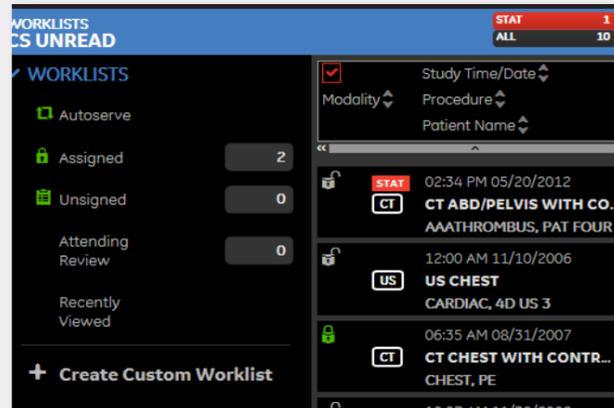
Streamlined workflow and easy access to multimodality analysis tools help reach diagnostic decisions faster.



- 01 **View your cases for the day** using the Intelligent Worklist
- 02 **Click on a patient to see details** and history in Diagnostic Hub
- 03 **Quickly find/view patient data** including Imaging Related Clinical Content
- 04 **Start your exam quickly** thanks to AI-Based Smart Reading Protocols
- 05 Even **Advanced Visualizations** can be part of your hangs

- 06 **Dictate report** with tightly integrated PowerScribe
- 07 Interrupted Workflow Design makes **managing interruptions easy**
- 08 **Optionally Save or Share** exam via folders, email or GE Health Cloud
- 09 Auto Next Workflow **takes you instantly to your next case**

# SPEED to Diagnosis



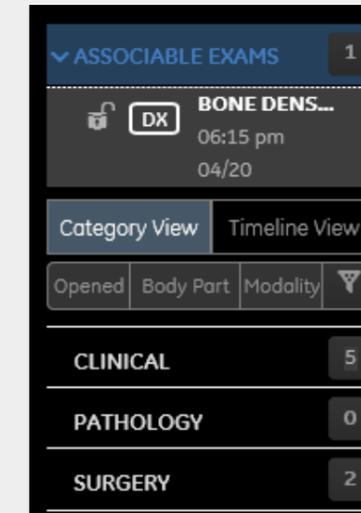
## 01 View your cases

**Intelligent Worklist with Autoserve** provides smart allocation of work, using rules to fit to diagnostician, business and patient care priorities, with the ability to redirect exams when you're not available. Worklist sorting with full screen visuals and patient context for each exam allow easy and quick identification and prioritization of work.



## 02 Click on a patient and view exam notes and history

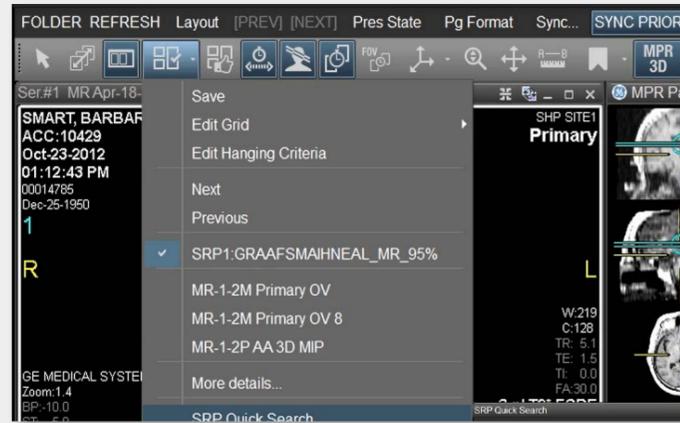
**Diagnostic Hub** provides rapid access to the patient's demographics and primary exam information, including order information and report text if available, along with comparison, imaging history and prior exam information with reports.



## 03 Quickly find and view relevant reports

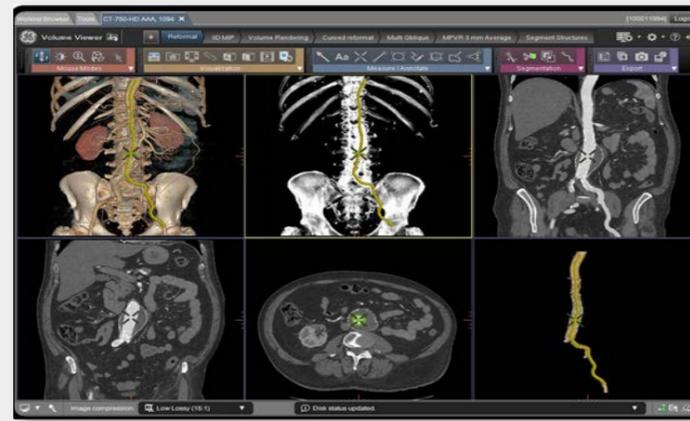
**Imaging Related Clinical Context (IRCC)** capability embeds relevant patient data such as EMR notes in the workflow, helping to eliminate the need to open and search through multiple IT systems, and supporting a quicker and more confident diagnosis.

# SPEED to Diagnosis



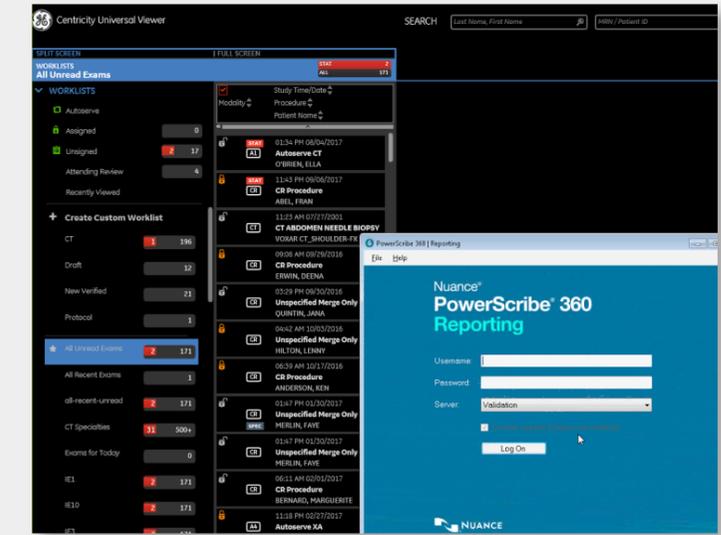
## 04 Start your Exam quickly with Smart Reading Protocols

Deep Learning **Based Smart Reading Protocols (SRP)** ensure your protocols are automatically hung according to your preference. SRP enhances the radiology workflow to help increase productivity by learning each user's or group's reading tendencies to automate image setup including launching advanced visualization and other applications.



## 05 Save time with embedded Advanced Visualizations

**Advanced Visualizations**, powered by the optional Advantage Workstation, can be combined with your protocols to help reduce manual per-exam setup and support rapid reading as part of your routine workflow. Preprocessed images are displayed on the monitor according to your preset specifications such as vessel analysis, automated bone removal, automated registration, oncology quantification, lung and colon analysis, CT perfusion and more.



## 06 Dictate reports with tightly integrated PowerScribe

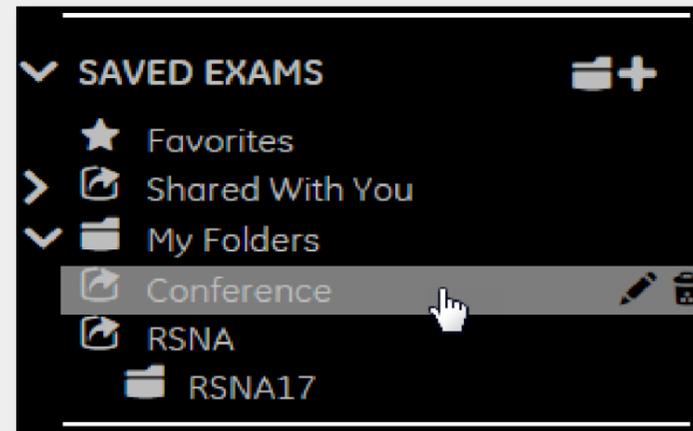
**Auto Dictation Launch** starts dictation when you launch an unlocked exam. Recent exam lists with reverse chronological ordering of opened cases, reports and other items makes it easier to find read exams to review against the transcription.

# SPEED to Diagnosis



## 07 Interruptions are easily managed

A unique **Interrupted Workflow Design** allows exams to be held in mid-review to address urgent cases, then quickly re-opened later. When dictating, the system automatically saves dictation and image annotation and reopens where you left off. Bidirectional integration ensures you are always dictating on the right patient.



## 08 You can optionally Save or Share exams

User **Defined Foldering** provides the ability to create folders and save exams for future reference such as teaching/academia and peer/quality review. Email integration and send to GE Health Cloud makes it easy to share imaging studies with bookmarks to collaborate on clinical workflows, communicate results and support seamless multi-disciplinary exam reviews.

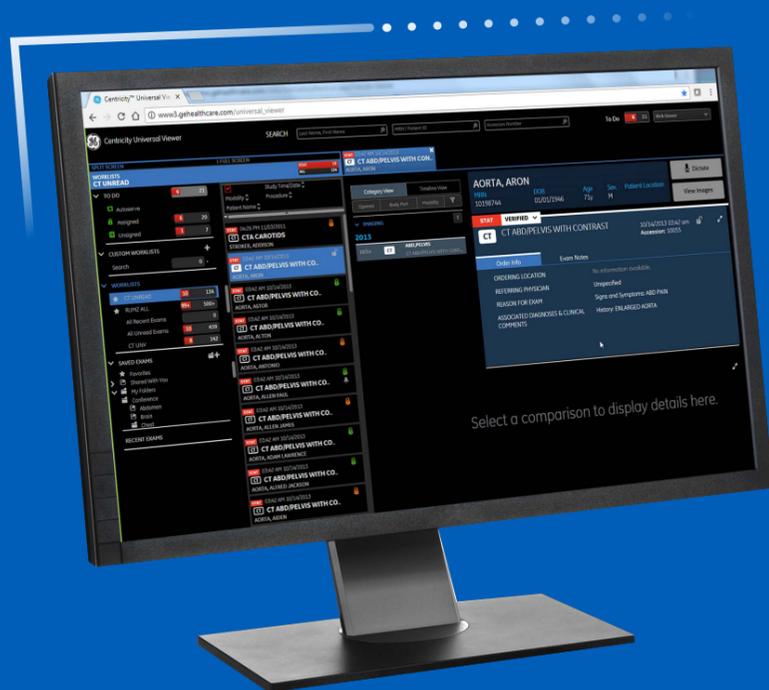


## 09 Automatically be taken to your next case

**Auto Next Workflow** takes you to your next case after saving, dictating or finalizing an exam in the dictation system. Any Stat exam is automatically served next to reduce the risk of not seeing and reading an urgent exam in a timely manner.

# Centricity Universal Viewer Workflow Manager

is an intuitive workspace uniquely designed for radiologists and trained professionals to organize, prioritize, and manage exams for interpretation. It provides access to clinical information and images along with connectivity to third party information and reporting systems, presenting images and information in an intuitive format and supporting them with clinical relevance.



**Custom User Worklists** reduce dependency on system administrators by allowing users to create their own worklists.

**Worklists Filtering** and **Sorting** with full screen visuals and patient context for each exam allow easy and quick identification and prioritization of work.

**PIX Based Multi-Domain** support enables single or multi-facility worklist.

**Case Assignment and Locking** with auto-unlocking rules.

**Recent Exam List** with reverse chronological ordering of opened cases, reports and other items makes it easier to find and read exams to review against the transcription.

**User Defined Foldering** provides the ability to create hierarchical folders and save exams for future reference such as teaching/academia and peer/quality review.

## Centricity Universal Viewer

helps remove barriers to efficiency, while helping radiologists achieve their goal of high quality patient care. With advanced efficiency tools, it ensures that valuable time is spent solving diagnostics challenges, not navigating software. A customizable, intuitive user interface and optimized layout reduce the steps required to view and interpret studies and helps you focus on the images, rather than the software. In addition to the visualization features in the previous pages, these additional features help to increase the efficiency of your reading workflow.



**Adaptive Streaming Engine** doesn't keep you waiting as the first image is displayed quickly. It anticipates study content needed to prioritize fetches and adjusts for network conditions, device compute power, and image compression to provide the most efficient way to deliver images.

**Cross Enterprise Display (XED)** provides radiologists and cardiologists with seamless access to a patient's historical imaging data, discovering patient information in affiliated systems and presenting it in the patient timeline. Comparison images are streamed directly from the source to the client, reducing the need to transfer images, alleviating the creation of uncontrolled copies, and minimizing the challenges of data synchronization.

**Third Party Application Launch** eliminates the need to switch to separate workstations for interoperable applications and automatically loads and hangs images to keep you "in the workflow."

**Send to GE Health Cloud** makes it easy to share imaging studies with bookmarks to collaborate on clinical workflows, communicate results and support seamless Multi-Disciplinary exam reviews.

**Patient Timeline with Smart Relevancy** provides multiple options to locate priors and easily identify similar body parts and modalities with imaging history quick filters.



## Intelligent tools

GE Healthcare continues to drive innovation in healthcare by providing radiologists and clinicians with solutions for image viewing, editing, and evaluation of patient conditions, leading to quick diagnoses and enhanced outcomes in patient care. The Centricity Universal Viewer Intelligent Tools act as Intelligent Clinical Assistants to help improve productivity and increase access to patient data to help enhance diagnostic confidence.

**Smart Reading Protocols (SRP)** is GE Healthcare's exclusive, patented technology that reduces Image setup time, helping to improve productivity. Using Artificial Intelligence (AI) algorithms, SRP does not require the user to setup hanging protocol rules. Rather, during the normal review process, radiologists hang images based on their preferences and simply "teach" the system using a one-click learning feature.

**Timeline and Navigator with Smart Relevancy** presents the patient's imaging history in simple graphical format, with gaps in service clearly highlighted. Relevant remote studies are inserted on the timeline with the local studies. Relevancy for remote studies is determined by ontology mapping rules, using the same AI technology as SRP to match to the primary study.

**SmartLoading™** delivers diagnostic quality images to most locations quickly. It uses a sophisticated algorithm to immediately deliver discernible images and to adapt its load method to the user. It "reads" any actions by the user and upgrades images accordingly.

**Intelligent Worklist** is fed by AutoServe, an AI feature that allocates studies to Radiologists using rules based algorithms to drive efficient workload balancing. Rules can encompass a number of variables such as modality, body part, location, procedure type, SLAs and RVUs for the procedures. Working together with the Intelligent Worklist, it provides smart allocation and serving of studies including workload balancing, ensuring the right study gets routed to the right diagnostician at the right time, including the ability to redirect exams when the radiologist is not available.

**Imaging Related Clinical Context (IRCC)** delivers relevant patient clinical content in context, including EMR data such as surgical notes, pathology reports, and clinical notes, directly to the radiologist and embedded in their existing workflow. This allows radiologists a more complete picture of the patient to more quickly reach a more confident diagnosis.



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From medical imaging, software & IT, patient monitoring and diagnostics to drug discovery, biopharmaceutical manufacturing technologies and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

## Imagination at work

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<sup>1</sup> Source: Helimed Diagnostic Imaging Case study March 2014

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