GE HealthCare

Evolve Your Cardiovascular Care

with an Enterprise-Level Solution

Harness the power of connected imaging
technology to deliver ultimately human care

It's time to take cardio imaging to the next level

Cardiovascular disease takes nearly 20 million lives each year, the number one cause of death globally.[1] Technology is helping to turn this tide. Cardiovascular IT plays a pivotal role in diagnostics and treatment, and its evolution holds an important key to care advancements and improved care.

Innovations are streamlining care pathways, speeding time to insight and decisions, and optimizing workflows. They are enabling more efficient care, more time with patients, lower costs and increased revenue. Cardio imaging is one of the most promising areas of innovation, but it's also one of the most challenging, with data management at the top of the list.

Cardiology departments typically use a disparate mix of imaging devices, systems and tools, often proprietary and not interoperable. Other departments have their own proprietary technology, which only adds complexity.

This scenario causes silos within and between departments, making it difficult for all members of the care team to access the same data. This hampers the connected information and collaboration so crucial to medical decision-making. Add to this the gaps from limited EMR integration, and clinicians may get a fragmented, incomplete view of the patient that can lead to slower or suboptimal care decisions.

Cardiology departments need a solution that unifies the vast quantities of patient data available and makes it quickly accessible to anyone from any department or location, any time. It's an enterprise-size challenge that needs an enterprise-level solution.
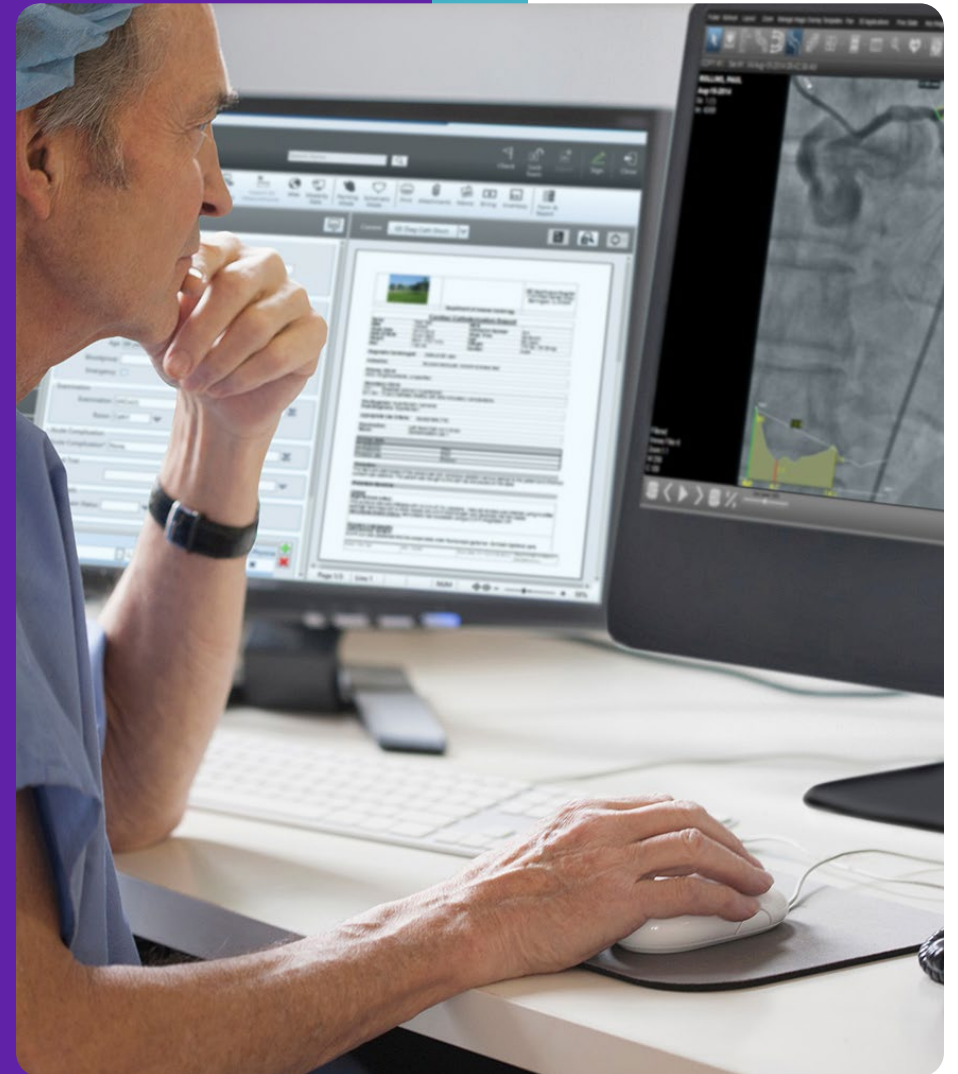
The enterprise imaging vision

Enterprise imaging is a set of strategies, initiatives and workflows implemented across a healthcare enterprise to consistently and optimally capture, index, manage, store, distribute, view, exchange and analyze all clinical imaging and multimedia content to enhance the electronic health record.[2]

Enterprise imaging serves as a gateway to truly connected care. It facilitates one central location for integrated patient data, structured and unstructured, including imaging history, exams and reports across modalities, departments and locations. And this centralized storage, when coupled with web-based, zero-footprint clinical viewing capabilities, is easily accessed by any approved user within the health system.

Enterprise imaging can help put an end to the time-consuming search for images and patient history, helping to enable fast diagnoses, confident decisions, and thorough patient communication.
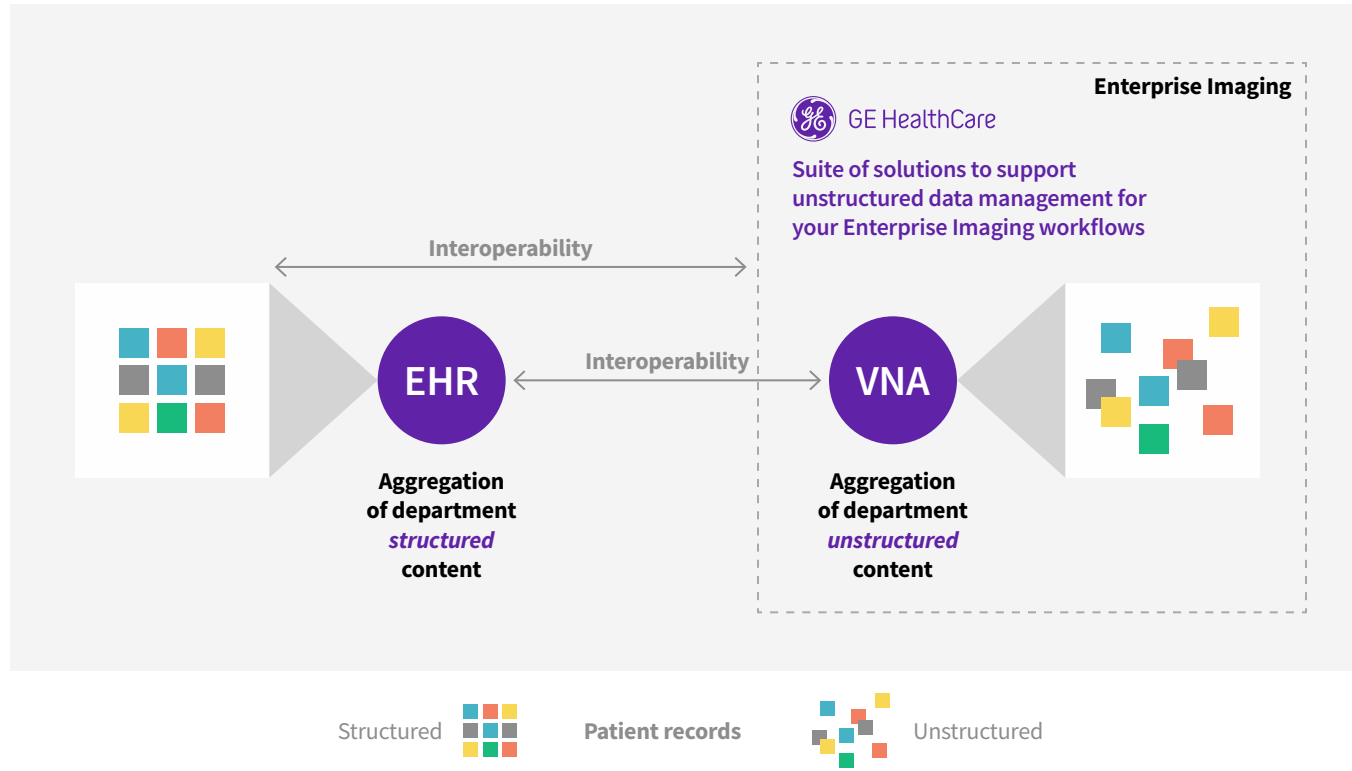
With a comprehensive longitudinal medical record, clinicians can connect the dots quickly and efficiently, for a more complete understanding—with less time spent on computers and more time on human interactions.

In the best enterprise imaging systems, the proprietary PACS short- and long-term data stores are replaced by a vendor neutral archive (VNA), the cardiovascular IT by a data management system. And instead of multiple modality-dedicated workstations, users access these applications from their compatible device[9] with a universal clinical viewer.

Enterprise-level transformation for simplicity and efficiency

Enterprise imaging can transform these three aspects of cardio practice—fundamentally changing the daily clinician, staff and patient experience.

Enterprise Imaging

GE HealthCare

Suite of solutions to support unstructured data management for your Enterprise Imaging workflows

Interoperability

EHR

Interoperability

VNA

Aggregation of department *structured* content

Aggregation of department *unstructured* content

Structured · Patient records · Unstructured

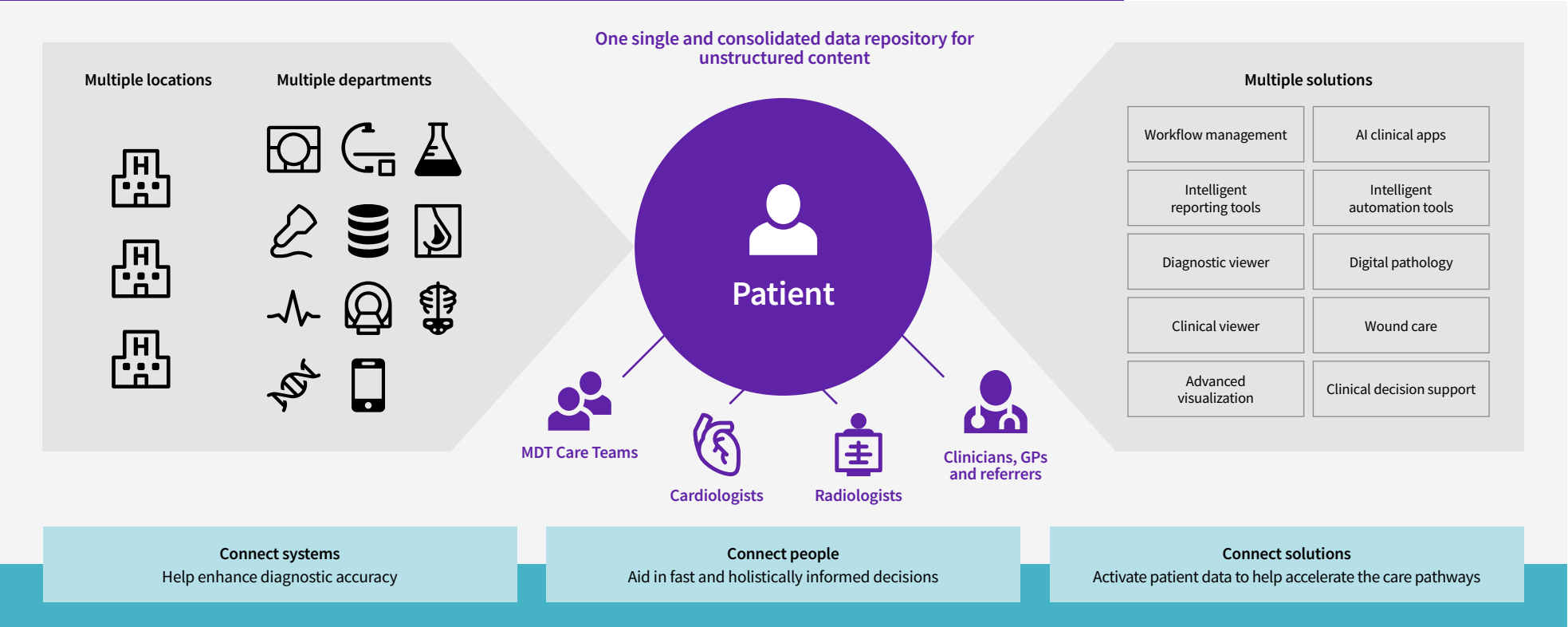| From	To
Multiple workspaces	One workspace
User-dictated reporting	Intelligent, structured reporting
Manual workflow	Automated workflow

There are also significant advantages for Cardiovascular IT teams.

- Reduced maintenance for disparate imaging software and services
- Centralized platform that enables simpler cybersecurity
- Common architecture that makes it easier to scale
- Common standards that reduce complexity for future integrations and upgrades
- Fewer data migrations
- Common system and user interface that requires less support

Put patients in the center with a suite of GE HealthCare solutions

Centricity™ Cardio Enterprise[3] delivers a powerful set of integrated tools for cardiology imaging. It bridges the gaps between cardiology service lines and healthcare information systems—combining a single point of access to patient data, waveforms and images with powerful end-to-end management, analysis and workflow tools.

One single and consolidated data repository for unstructured content

Multiple locations

Multiple departments

Patient

MDT Care Teams

Cardiologists

Radiologists

Clinicians, GPs and referrers

Multiple solutions

Workflow management	AI clinical apps
Intelligent reporting tools	Intelligent automation tools
Diagnostic viewer	Digital pathology
Clinical viewer	Wound care
Advanced visualization	Clinical decision support

Connect systems
Help enhance diagnostic accuracy

Connect people
Aid in fast and holistically informed decisions

Connect solutions
Activate patient data to help accelerate the care pathways

The Centricity Cardio Enterprise solution is made up of Centricity Cardio Workflow and the Centricity Universal Viewer. Pairing these with GE HealthCare's Edison™ Datalogue™ vendor neutral archive (VNA) delivers a full enterprise imaging solution that allows for a single, consolidated data repository, facilitating connections between systems, people and solutions.

Centricity™ Cardio Enterprise:
Better care starts with better vision

Centricity™ Cardio Enterprise is a perfect starting point to implementing your enterprise imaging strategy.

It can enlarge the volume and variety of patient data available for clinician reference, which can have a dramatic impact on clinicians, staff and their patients, with advantages extending department- and system-wide. These features and benefits can help contribute to more time for patients, more informed decisions and better care.

Consolidated care pathway management: Single point of access for all cardiovascular data and tools

Easy multispecialty collaboration: Simple, flexible access to more complete longitudinal patient records

Deep clinical analysis: Sophisticated tools that analyze data from multiple information systems and cardio service lines

High workflow efficiency: Case workflow analysis to identify efficiencies and time savings helping clinicians focus more of their time with patients

Simplified structured reporting: Out-of-the-box clinical solution for compliant documentation and dramatically reduced reporting time

Actionable insights: Interactive, analytic dashboards help to drive operational and financial improvement

Improved charge capture and inventory: Robust administrative tools to help streamline inventory management, reduce waste and automate billing

Centricity™ Cardio Workflow:
Smarter workflows mean more time for what matters most

Centricity™ Cardio Workflow is a comprehensive set of tools for all department data and information management.

It streamlines workflow, tracks and manages inventory, creates structured clinical reports, and runs clinical and administrative queries. Newfound efficiency can help create a better day-to-day experience for clinicians—with less time spent searching for images and documenting exams, leaving more time for face-to-face interaction with patients.

Centricity Cardio Workflow comes with a variety of interfaces and administrative modules that help unite service lines to a single point of access, while building a unified cardiovascular data warehouse—all aimed at removing complexity, redundancy and wasted time, so the clincian's focus is on patients, not technology.

- Intelligent reporting: Transforms the physician reporting experience with side-by-side reporting and quick reports that significantly reduce clicks
- Workflow efficiency tools: Boosts efficiency with time savings through task reduction, plus helps improve patient throughput and enhance staff productivity
- Decision support: Seamless ECG management, powered by MUSE™ NX[10]
- Worklist prioritization: Within noninvasive modes, helps prioritize physician worklists by identifying STAT, urgent and routine studies
- Reporting contradictions: Alerts user to conflicting statements in the clinical report

Management modules for time and cost savings

Inventory management

Comprehensive set of stock management tools to track cardiology inventories

Charge capture

Provides the capability to assign procedure codes for each patient encounter while reporting on the procedure outcome at the point of care

Scheduling

Web-based scheduling module accessible within the application or via the web from any PC

Registry

Registry submission, partnered with Cedaron CardiacCare, the leading software solution in the US for cardiac registries, GE HealthCare keeps aligned with the requirements for various registries, and helps ensure data consistency between monitoring devices, reporting solutions and registry data

Clinical reporting modules

Centricity Cardio Workflow provides clinicians with workflow-specific modules that act as information hubs for clinical content, workflow optimization and reporting:

- Cath Lab
- Invasive Peripheral Vascular
- Electrophysiology
- Structural Heart
- Cardiac Rhythm Management (CRM) Implant and Follow-up
- Adult Echo with Intelligent Reporting
- Pediatric Echo
- Resting and Stress ECG
- Noninvasive Peripheral Vascular
- Nuclear Cardiology

Centricity™ Universal Viewer:
Clarity and convenience

This unified, clinical viewer supports today's complex and fast-paced radiology reading workflows. Designed to help promote enhanced productivity and reduce clinical costs, the viewer enables clinicians to interpret, analyze and collaborate across modalities, accessing images via a web browser to support remote and distributed reading:

- Supports the enterprise imaging goal of consolidation by eliminating the need for dedicated workstations
- Improves clinical workflows with a central workspace that facilitates organizing, prioritizing and managing exams
- Makes a wide range of images and clinical information available through seamless connections to third-party systems and information sources
- Provides advanced efficiency tools to help clinicians find, view and use data for more informed interpretations
- Supports clinicians to quickly find, review and analyze images from multiple modalities in one convenient application, including 2D, 3D, 4D and other advanced image formats

Centricity™ Universal Viewer Zero Footprint

GE HealthCare's Centricity Universal Viewer Zero Footprint serves as a powerful web-based viewer. It provides advanced diagnostic tools and system-wide image management platforms across the care continuum, facilitating specialist consults and referring physician access, to connect care. Cleared for diagnostic use, this zero-footprint viewer provides:

- Device compatibility among proprietary imaging modalities and information systems
- Fast, secure access to patient information across multiple platforms
- Tools to help physicians collaborate on patient exams
- Server-side rendering with streaming for real-time access to current exams
- A consolidated timeline view of the patient's data across multiple archives

Edison™ Datalogue:
Bringing it all together

Edison™ Datalogue[11] is a vendor neutral archive at the core of GE HealthCare's enterprise imaging solution—the world's number one VNA by market share. It's a standards-based solution that unifies and intelligently manages patient data, images and enterprise content.

Edison Datalogue is the central, common repository. It integrates and houses cardiology data from any number of modalities across departments and locations, enabling seamless data flow with a single point of entry and organization-wide access.

This solution consolidates and manages the huge volume of unstructured patient data distributed throughout a patient's care journey—helping to close the EHR data gap.

- Helps overcome delayed and incomplete image availability
- Provides seamless interaction with multiple systems
- Supports cloud deployments[11] for difficult remote access
- Interacts with Electronic Health Records
- Enables creation of powerful longitudinal healthcare records

Edison™ True PACS[12]

If you are not yet ready for a VNA, consider Edison True PACS. It brings together image visualization, workflow, AI and archiving to provide enterprise functionality in a single platform, at an affordable cost. Edison True PACS contains GE HealthCare's Universal Viewer.

Transforming workflows

Electrophysiology and cardiac rhythm management

Simplified EP and cardiac rhythm management in the hospital and at follow-up

6
clicks to complete an RF/Cryo Ablation[4]

140+
out-of-the-box quick reports

Electrophysiology

• Complete EP solution with Centricity Cardio Enterprise plus GE HealthCare's CardioLab™ and Innova™ IGS 6 with AutoRight™

• End-to-end solution from image acquisition to EP measurements and monitoring to procedure documentation and structured reporting

Cardiac rhythm management module

• Imports implant and follow-up data to provide data in a variety of formats

• Streamlined interface between proprietary devices and Centricity Cardio Enterprise allows for automatically prepopulating reports, reducing error-prone manual data entry

Adult/pediatric echo

Automated measurement flow
and Intelligent Reporting

83%

**complete routine adult echo reports
before the physician opens for review[6]**

19

out-of-the-box quick reports

- Rules-based engine automatically
populates findings into the
physician report based on imported
measurement values
- Configurable for organization-
specific needs
- Vendor-agnostic echo measurement
and analysis
- Fetal echo reporting capabilities
- 167 out-of-the-box interactive
Meyer-Mullins diagrams to help
document complex anatomy

ECG and stress ECG

Seamless integration powered
by MUSE™ NX

6

**clicks to perform a
normal stress echo[7]**

82%

**reduction in stress echo
report turnaround time[8]**

- Direct connection enables reading
and signing ECGs from Centricity
Cardio Workflow
- Decision-making support with proven
algorithms and validated measurements
- Configurable for organization-
specific needs
- Support for multiorganization ECG
worklist with exam status updates
- Full access to MUSE review and
editing tools without leaving Centricity
Cardio Workflow

Structural heart

Comprehensive structural
heart procedure support

41

out-of-the-box quick reports

**Integration with AW TAVI
Analysis application**

- Procedural information captured
from various devices is aggregated
into a structured database and
autopopulates physician reports and
documentation records
- Final structured physician reports can
be autorouted as the final patient record
- Supports a wide range of structural
heart procedures

Here's what customers are saying about their experiences and results with Centricity Cardio Enterprise solutions.

"Centricity Cardio Enterprise helps us ensure clear, accurate and comprehensive documentation, improving clarity of the patient's story within the medical record. It enables us to share reports more efficiently with involved caregivers. By providing the information they need to make faster, more informed healthcare decisions for the patient, we can help enhance overall patient care and satisfaction."

Jennifer L. Gallis
RN-BC Project Coordinator, Cardiovascular Services
Licking Memorial

"Implementation of Centricity Cardio Workflow has greatly improved our ability to provide high quality and efficient cardiovascular services. The application allows providers to access reports in real time, in a manner that is accessible and easy to understand. CCW also creates a platform for detailed structured reporting, which supports our financial goals."

Mary Jo Kohout DNP RN
Vice President Patient Care
Ascension Wisconsin

"We are very proud of the success of the interventional radiology and cardiology teams in the implementation of the GE HealthCare Centricity Cardio Workflow Inventory Management program. The charge capture and inventory management achieved through this addition have exceeded our expectations."

Tim Martin
Vice President of Hospital Operations
Edwards Comprehensive Cancer Center

See how **Licking Memorial** changed their approach to cardiac care for a better patient experience.

See how Centricity Cardio Workflow helped standardize workflow and physician reporting for multisite IDN **Ascension.**

See how Centricity™ Cardio Workflow helped improve operational efficiency and the bottom line at **Cabell Huntington.**

Your evolution to Enterprise Imaging starts here

Integrating disparate diagnostic imaging data from across the health system and making it accessible within the EMR is not a new idea. But technology has never been as ready and able to support the vision of enterprise imaging and its essential role in delivering ultimately human care as it is today.

With rich, longitudinal patient records, multidisciplinary care teams are empowered with deeper understanding to enable better care management decisions. With workflow tools, clinicians are equipped to be more efficient, freeing up time for their first priority—their patients. And with advanced analytical capabilities, cardiovascular IT can streamline management and resourcing for better operational outcomes.

GE HealthCare's Centricity Cardio Enterprise solutions are designed to accelerate your enterprise imaging strategy, wherever you are on the path to digital transformation. When you're ready, we're here to help. And when you engage, we offer comprehensive services before, during and after your purchase.

Centricity Services offer a continuum of support, designed to connect productivity with care by increasing usability, enhancing performance and optimizing your solution's ROI.

From comprehensive clinical workflow assessments to flexible and ongoing education, Centricity Services offer the support you need for the entire product lifecycle, including:

- Consultation
- Implementation
- Configuration
- Education
- Support
- Enablement

Find out how enterprise imaging can transform the way your organization sees patients. Contact your GE HealthCare representative today.

GE HealthCare

References

1   World Health Organization, https://www.who.int/health-topics/cardiovascular-diseases#tab=tab_1, accessed October 12, 2023

2   Definition from a collaboration between Healthcare Information and Management Systems Society (HIMSS) and Society of Imaging Informatics in Medicine (SIIM)

3   Centricity Cardio Enterprise is a solution comprised of Centricity Universal Viewer and Centricity Cardio Workflow.

4   Based on prereleased product testing and assessment

5   Implantable Device Cardiac Observation Source: http://wiki.ihe.net/index.php?title=PCD_Implantable_Device_Cardiac_Observation&redirect=no

6   Centricity Cardio Workflow v7 Intelligent Reporting out-of-the-box configuration compared to 2017 IAC guidelines excluding doppler on pre-release product testing and assessment

7   Based on prereleased product testing and assessment

8   JB42777XXb – Licking Memorial Case Study. Results may vary depending on the site-specific workflow

9   Mammography images may only be interpreted using a monitor compliant with requirements of local regulations and must meet other technical specifications reviewed and accepted by the local regulatory agencies. Lossy compressed mammographic images and digitized film screen images should not be reviewed for primary image interpretations.

10 Software module requires an additional purchase

11 US only. Not commercially available.

12 Edison True PACS is a solution that contains the following products: Universal Viewer, Enterprise Archive, Universal Viewer Zero Footprint Client, Edison™ Open AI Orchestrator and third-party AI applications.