



Edison

Edison™ AI Orchestrator

AI transformation. Simplified.

Edison AI Orchestrator enables healthcare providers to access a curated selection of apps from third parties and from GE Healthcare, with minimal effort and complexity.



Can productivity software actually create more work?

In a word, yes.

While many applications show promise to alleviate work and enable clinicians, they can actually cause even more work and frustration if they require additional training, time on the computer, and can't work together in a cohesive manner.

It's no surprise that numerous studies have reported that an increasing workload is one of the leading sources of job related stress leading to burnout.¹⁻⁵

In radiology, not only have workloads steadily increased over the last 20 years due to the increased utilization of imaging, they're getting more complicated. This has led to 54% of radiologists reporting the feeling of being burned out or depressed.⁶

And then there's the added stress of additional computerization of practice.⁶ The irony here is that many technologies are designed to help productivity, they actually can be adding work. In fact, over half of institutions report challenged at getting personnel to train and adopt.⁷ Thus, in attempting to alleviate radiologist burnout, adding more productivity tools may actually be adding to radiologist burnout level.

Productivity solutions should be implemented for the end result of actually alleviating work – not adding to it.



Challenges to adopting AI.

- » Complexity & costs of on-boarding new vendors
- » Risk of security breaches scales with # of vendors
- » Complexity & costs of implementing applications
- » Difficulty in integrating apps into existing workflows
- » Risk of investing time & money on apps that don't help
- » Risk of missing apps that help due to high purchase process burden

Artificial Intelligence is no longer just an idea for the future, it's a requirement today. But given the number and variety of vendors providing these applications, finding, trying and buying these applications can add significant complexity and cost of deployment and ownership.

And once integrated into your workflows, learning new software can be tedious – and one of the top reasons for personnel frustration.

What is needed are ways to effectively orchestrate the application of assistive productivity-enhancing technologies in the radiology reading workflows in a way that reduces clicks and the number of UX interactions rather than adding to them. This approach also reduces the requirement to learn and adapt reading habits to new workflows.



Efficient. Improved. Familiar.

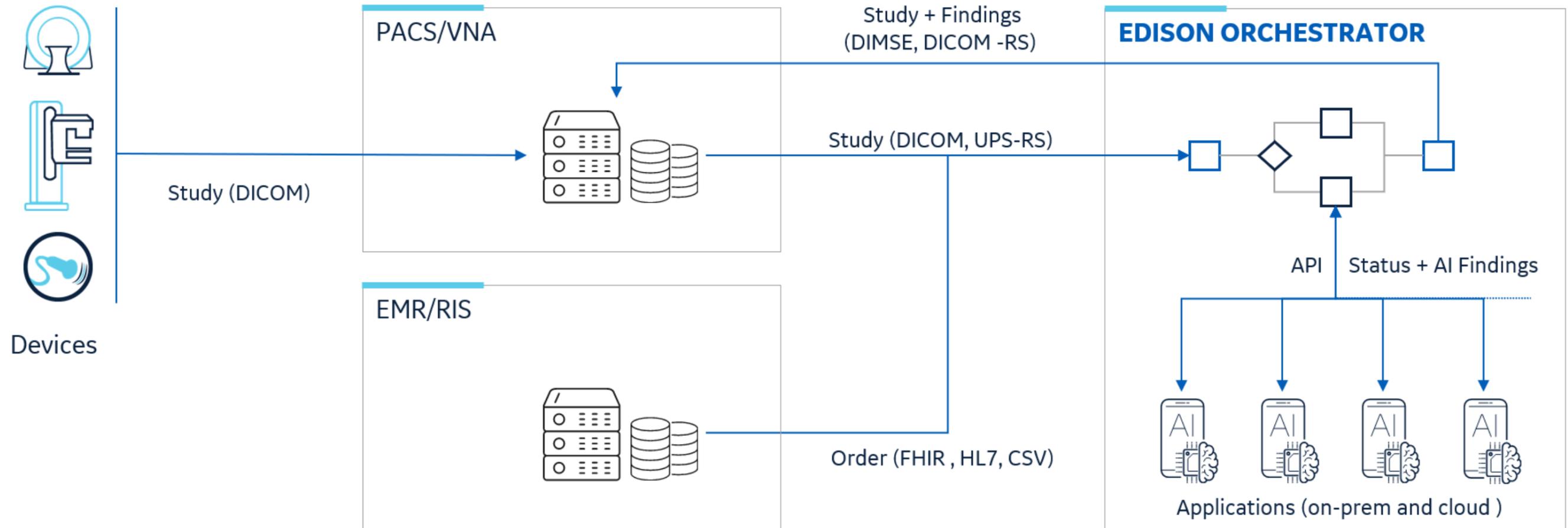
At GE, we believe solutions should work with you, not against. That is why we created Edison AI Orchestrator. Edison AI Orchestrator is designed to seamlessly integrate AI-based clinical applications into the radiology reading workflows radiologists are already using and familiar with. This helps to reduce the need for additional training and adoption times for new clinical applications

It efficiently manages these applications along with their execution and dataflows by orchestrating the inter-operation with various imaging devices, data stores and other information technology systems.

Edison AI Orchestrator provides an efficient alternative to working separately with a multitude of vendors to integrate, configure and maintain each application. This helps organizations optimize IT resources, freeing them up for other important activities.

- » Efficiently manage and automate AI and non-AI enabled processes encompassing imaging workflows
- » Easily manage rules governing use of AI applications and interoperability with external systems
- » Provide a way to instrument and subsequently learn and improve the workflow process
- » Reduce time and overhead of standing up new AI based applications in existing workflows





Seamless integration into your workflow.

Edison AI Orchestrator serves as a centralized application workflow automation system that allows routing of images from data storage to 3rd party processing applications and routing the results of these processing applications back to data storage to be viewed with the facility image viewer. It leverages standards to interface with the worklist of customer's choice⁸ in which applicable filtering and prioritization may be applied.

1. Image is acquired on imaging device.
2. DICOM study is sent to PACS or VNA.
3. The DICOM study is then routed to Edison AI Orchestrator. Order information from an EMR or RIS can also be routed with the study.
4. Using rules incorporated into the defined workflows, Edison AI Orchestrator identifies an image or series that correspond to one or more clinical applications designed for a specific anatomical body part, order indication, disease process or other specified criteria.
5. The Edison AI Orchestrator then routes the relevant images and other necessary data, including priors, from a PACS, archive, RIS and EMR to these applicable clinical

applications which may be hosted on-premises or in a private cloud.

6. The GE Healthcare or third-party clinical AI applications processes information, and sends status and AI findings back to Edison AI Orchestrator.
7. Edison AI Orchestrator sends the DICOM study with any AI findings and status back to the appropriate data store.
8. AI findings reported by the clinical application can be used to triage and prioritize exam worklists as well as provide decision support in the radiologists' viewer of choice.⁹



The power and freedom clinicians need.

As powerful as new AI-based tools are, they are not replacing the radiologist or clinician. They are providing support to assist healthcare organization in their goal to provide the right diagnosis for the right patient at the right time.

As they operate in the workflows, AI applications will still need to be monitored and adjusted by humans, as they will be assessing the relevancy and effectiveness and of the output of these tools in radiology workflows for the foreseeable future.

To assist in assessment and optimization by clinicians vs. IT personnel, Edison AI Orchestrator provides visual workflow display and a comprehensive administration interface to facilitate easy management of multiple AI solutions from any number of vendors. It explicitly documents the implemented care process and required parameters of operation.

This helps facilitate an understanding and building trust with AI algorithms before committing to large scale deployment. It can also help reduce the complexity and risk of implementation errors associated with interfacing multiple systems and algorithms.



Backed by world-class service.

It's no secret that there are numerous AI companies to choose from – and selecting a vendor for your AI needs requires significant consideration.

At GE Healthcare, we understand the fundamental importance of functionality. We also know you need to think about the future, and how your investment will be supported. This includes:

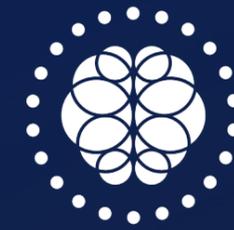
- » Seamless integration with existing imaging equipment
- » Pre-integrated with Centricity™ PACS version 7 and above and Edison True PACS
- » Utilizes industry standards to support interoperability with third-party vendors⁸
- » World-class service and support
- » Rich history and company stability
- » Ability to maximize existing PACS, VNA, EHR and RIS investments

In addition, GE Healthcare's team of workflow and application specialists have decades of clinical and IT experience working with imaging organizations to ensure they maximize their investment in new applications. This is a comprehensive pre- and post-implementation engagement that encompasses not just automating current workflows, but also assisting customers to re-imagine their workflows in support of achieving their organizational KPIs.

The bottom line? GE Healthcare can provide the level of service you need to help you understand how to best utilize your AI capabilities.

We'll even help you explore a wide choice of AI based clinical applications to ensure your investment in AI results in optimized imaging workflows and improved care delivery.

That's the GE difference.



Edison

WHAT IS THE EDISON PLATFORM?

Edison AI Orchestrator is part of GE Healthcare's intelligence platform designed to help you achieve greater efficiency, improve and increase access to care.

Embedded within existing workflows, Edison applications can integrate and assimilate data from disparate sources, and apply analytics or advanced algorithms to generate clinical, operational and financial insights.

To learn more about how GE Healthcare can assist your organization in deploying AI-based applications for radiology, **please contact your GE Healthcare representative, or call (866) 281-7545.**





GE Healthcare provides transformational medical technologies and services to meet the demand for increased access, enhanced quality and more affordable healthcare around the world. GE (NYSE: GE) works on things that matter – great people and technologies taking on tough challenges. From medical imaging, software & IT, patient monitoring and diagnostics and performance improvement solutions, GE Healthcare helps medical professionals deliver great healthcare to their patients.

Building a world that works

- ¹ Magnavita N, Fileni A, Magnavita G, et al. Work stress in radiologists. A pilot study. *Radiology Med.* 2008; 113:329–346.
- ² Graham J, Ramirez AJ, Field S, et al. Job stress and satisfaction among clinical radiologists. *Clin Radiology* 2000; 55:182–185
- ³ Chew FS, Mulcahy MJ, Porrino JA, et al. Prevalence of burnout among musculoskeletal radiologists. *Skeletal Radiology* 2017; 46:497–506.
- ⁴ Harolds JA, Parikh JR, Bluth EI, et al. Burnout of radiologists: frequency, risk factors, and remedies: a report of the ACR commission on human resources. *J Am Coll Radiology* 2016; 13:411–416.
- ⁵ Nicola R, McNeeley MF, Bhargava P. Burnout in radiology. *Current Problems in Diagnostic Radiology*, 2015; 44:389–390.
- ⁶ Medscape National Physician Burnout, Depression & Suicide Report 2019, Leslie Kane, MA, January 16, 2019
- ⁷ Brian P. Watson, The State of Enterprise Software Adoption, CIO Insight, October 21, 2009.
- ⁸ Not available with all radiology IT systems. Please contact your local GE Healthcare representative for more information.
- ⁹ Edison AI Orchestration does not alter the intended use of the 3rd party application it interfaces with. Refer to 3rd party application labeling for intended use.

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