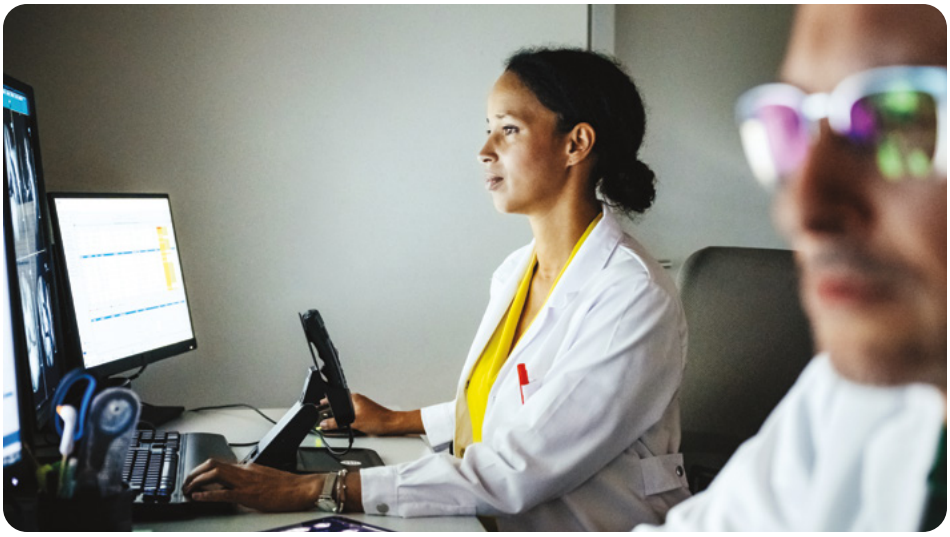
GE HealthCare

# App Orchestrator

## AI transformation. Simplified.



**Unlock AI-based productivity.**
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.

App Orchestrator helps address these challenges and 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 more important activities.

App Orchestrator is an enterprise solution, designed to enable healthcare providers to access a curated selection of clinical imaging applications with minimal effort and overhead. Providers benefit from the extensive application portfolio and integration expertise of GE HealthCare. That means a single contact for implementing many clinical applications and streamlined integration into your imaging workflows, especially AI-based ones.

**Efficient. Improved. Familiar.**
Designed to be easily integrated into existing workflows, App Orchestrator will enable connections to existing PACS, worklist, and/or Vendor Neutral Archive (VNA) using industry standards. By using their familiar PACS interface, radiologists can help reduce the need for additional training and adoption times for new clinical applications with seamless integration into existing workflows.

**Scalable. Future-ready.**
As AI solutions from startups continue to flourish, it's important to consider how they are connected to other applications and services, as well as how they will continue to be supported. App Orchestrator leverages standards to interface with existing imaging infrastructure. As the number of image interpretation applications continues to expand, it is important to create a sustainable plan for managing this growing ecosystem. GE HealthCare is continuing to onboard new applications in vital areas of radiology. This means you can be confident that your choice of App Orchestrator delivers the high quality technology you need today, while ensuring you are ready to meet the challenges of the future.

### Designed to help radiology groups:

- Allow fast deployment of AI in existing imaging workflows
- Reduce the overhead of acquiring and deploying multiple AI applications from multiple vendors
- Keep current with new diagnostic reading and workflow technology
- Make more efficient use of IT resources
- Ensure radiologists are working smarter – not harder

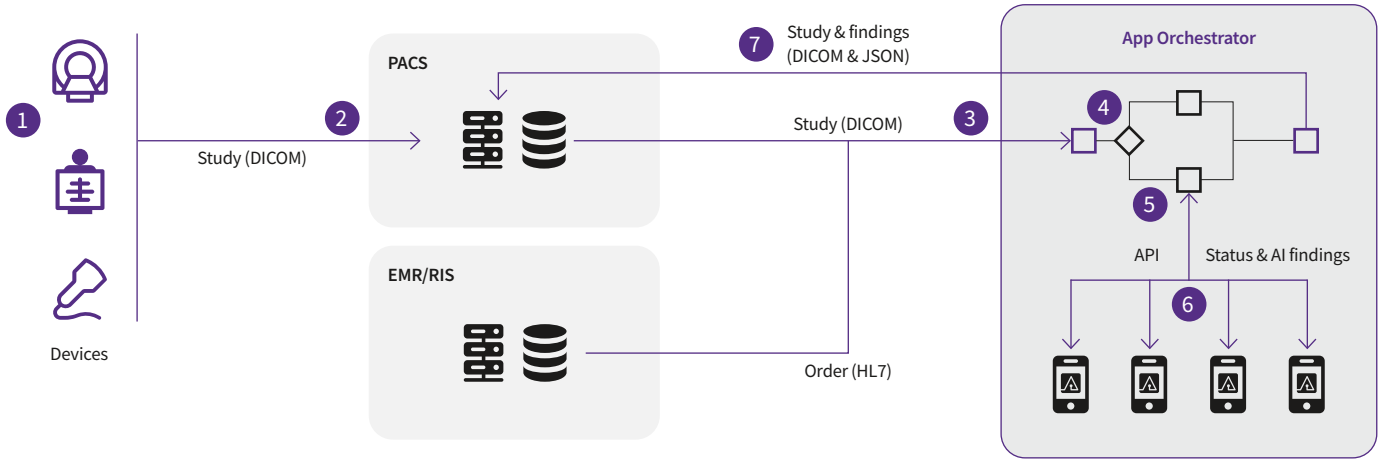
### Open architecture for vendor-neutral deployments.

App Orchestrator serves as an image communication system that manages the routing of images from data storage to data processing applications, then routes the results of these applications back to data storage to be subsequently consumed in your imaging workflow. Depending on the capabilities of your existing PACS, this could allow worklist prioritization or display of AI results and reports in your facility's image viewer.

App Orchestrator leverages standards to interface with existing imaging infrastructure. It's connectors act as interface between the various external systems and the solution using protocols such as HL7, FHIR, DICOM and regular files. An external source could send the data to App Orchestrator or it can poll the data from the source. The result is App Orchestrator is designed to be interfaced with GE HealthCare as well as non GE HealthCare products such as PACS, Vendor Neutral Archives (VNA), Radiology Information Systems (RIS) and viewers to allow seamless and efficient integration of AI-based clinical imaging applications into your existing workflows.

### Components of the App Orchestrator solution include:

- The orchestration engine controls the execution and management of workflows. A workflow is a set of task execution steps to enable the retrieval and transmission of images to compatible GE HealthCare and 3rd party applications and to collate and communicate the results of these applications back to the invoking system.
  The orchestration engine allows transfer of data to and from AI algorithms without analyzing or interpreting the algorithm results.
- DICOM services used to transfer DICOM images and files from the external source to and from the algorithms or solutions.
- Smart C-Move (SCM) that can be configured to poll the external DICOM source periodically for new images. When a new series or study is detected, appropriate workflows are then invoked in App Orchestrator to execute one or more algorithms/solutions.
- An X-tention Health Service Bus (HSB) used in communicating with healthcare provider systems, such as EMR or PACS/RIS, subscribing to HL7 events based on Images Availability Notifications (IAN), and sending results back to HL7 receivers.
- A catalog of optional GE HealthCare and 3rd party processing applications.




## How it works:

1. Image is acquired on imaging device.
2. DICOM study is sent to PACS or VNA.
3. The DICOM study is then routed to App Orchestrator. Order information from an EMR or RIS can also be routed with the study.
4. Using rules incorporated into the defined workflows, App 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. App 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 App Orchestrator.
7. App 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.

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