**Merge**

# Modernize the radiology experience and the IT workload: AI and workflow orchestration

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Given radiologist's skyrocketing workloads, imaging organizations are searching for tools that can help. Many look to artificial intelligence (AI) applications with an understanding that they can offer new insights and save both time and effort in the delivery of care. Unfortunately, radiology and IT teams find that some of these innovations actually create new frictions and even disrupt the workflow. For these reasons, among others, AI adoption has been much slower in the field of diagnostic imaging compared to other industries.

But now a new level of innovation—AI orchestration—addresses many of these frictions, to streamline the radiologist's experience and eliminate burdens on IT.

In summary, orchestrating AI applications can solve the problems of accessing and consuming AI results at scale, using existing reading tools such as PACS. However, current PACS are still based on decades-old reading paradigms.

A new paradigm is emerging: vendor-neutral, standards-based solutions, that are built with AI- and cloud-based technologies, can transform how imaging organizations capture, process, and manage patient studies across the enterprise.

Orchestration is automation of the configuration, management and coordination of computer systems, applications and services.

### Integrate multiple AI applications
– When separate AI applications are designed for a specific pathology or modality, the imaging organization ends up having to acquire many to meet the unique needs they address. This becomes fraught with complexities--both technical and clinical

– Orchestration platforms address those complexities by streamlining procurement of these applications and allowing the IT team to outsource the deployment and management. They also help standardize how the radiologist accesses AI insights within the workspace.

### Maximize usability
– The radiologist faces challenges when multiple AI applications process with different turn-around times and when they deliver results in various formats and locations throughout the workspace (pop-ups, dedicated viewers, unstructured data fields, etc.) This impacts the user experience.

– Leveraging industry standards, orchestration enables visibility into AI processing time, tells radiologists when and where to access relevant AI insights and aggregates results at decision points throughout the reading process.

### Access AI insights from anywhere
– AI adoption will be more successful if insights are available at every location where physicians and their teams work throughout the week – while ensuring they are completely secure.

– Cloud and hybrid cloud technologies, which orchestration is based on, can make AI insights portable—to Site A on Monday, Site B on Tuesday, from home on Wednesday, etc., all safeguarded with data privacy and security measures.

## Radiologists and IT teams can achieve more

In our daily lives, we expect technology to evolve and work for us in modern and interactive ways—not for us to adapt to its limitations. The same should be true in medical imaging technology. And it can be. Radiologists and IT teams can orchestrate the workflow in order to present information in a more useful way.

Orchestrating workflows can markedly improve the radiologist's experience and help simplify the role of IT support. It can:

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**Modernize the reading workspace**
- Over time, physicians have added multiple layers of application software, never truly rethinking the core clinical reading experience.

- Modern reading workflow systems should not only automate a vast collection of insights for radiologists, but they should also offer the same level of user experience that mobile applications on personal connected devices are already delivering—designed from the start with function and user experience in mind.

**Balance workloads**
- As healthcare organizations have seen their imaging volume increasing year over year, physicians are becoming overloaded with cases. This challenge requires more effective distribution of work across radiology teams.

- Effective workflow solutions should balance the reading workload automatically, enabling a fair distribution of work while accounting for physician's specializations.

**Bridge the data sources deployed on-premises and in the cloud**
- IT organizations have pressure to transition to the cloud in order to alleviate costs. This can lead to fragmentation of their systems and data.

- An effective orchestration requires a hybrid environment to allow IT leaders to connect clinicians to systems deployed on-premises and in the cloud. This also provides the invaluable benefit to let them transform their infrastructure at their own pace, letting them move to cloud-native applications over time.

Technological advances are continuously improving how clinicians "see" their patients and how they "feel" about their work environment. With continuous needs for imaging screening, diagnoses and treatments, physicians can count on a new wave of intelligently orchestrated tools to give them a head start with their delivery of care and to help restore enjoyment of their work. For IT leadership, these orchestrated tools allow the organization to accelerate their digital transformation using a flexible and secure path to the cloud, while setting essential foundations for the future.

**Merge AI Orchestrator**

provides radiologists with cloud-based, scalable access to proven regulatory-cleared AI applications without disruption to their workflows. It returns the results of these applications directly into the worklist, so physicians can access valuable insights from multiple AI applications within their current reading processes. And, it reduces maintenance burdens on IT leaders and system administrators while ensuring data privacy and security.

Learn more: Read the datasheet



Enables worklists to show the completion status of AI algorithms for more choice and control.

**Merge Workflow Orchestrator**

consolidates studies, patient data and AI results from systems across the enterprise all into one insightful and modern interface to give physicians a head start in their reading activities. Built to support advanced hybrid environments, this cloud-native SaaS helps IT departments to optimize the flow of studies, safely linking data and tools that run on-premises and in the cloud, so that radiologists can read them anywhere in the enterprise, and even out of the office.

Learn more: Read the datasheet



Offering an innovative new card view, to help make worklist management more intuitive.

## About Merge

Merge medical imaging solutions, offered by Merative, combine intelligent, scalable imaging workflow tools with deep and broad expertise to help healthcare organizations improve their confidence in patient outcomes and optimize care delivery.

Learn more at merative.com/merge-imaging

## About Merative

Merative is a data, analytics and technology partner for the health industry, including providers, health plans, employers, life sciences companies and governments. With trusted technology and human expertise, Merative works with clients to drive real progress. Merative helps clients orient information and insights around the people they serve to improve decision-making and performance. Merative, formerly IBM Watson Health, became a new standalone company as part of Francisco Partners in 2022.

Learn more at merative.com