

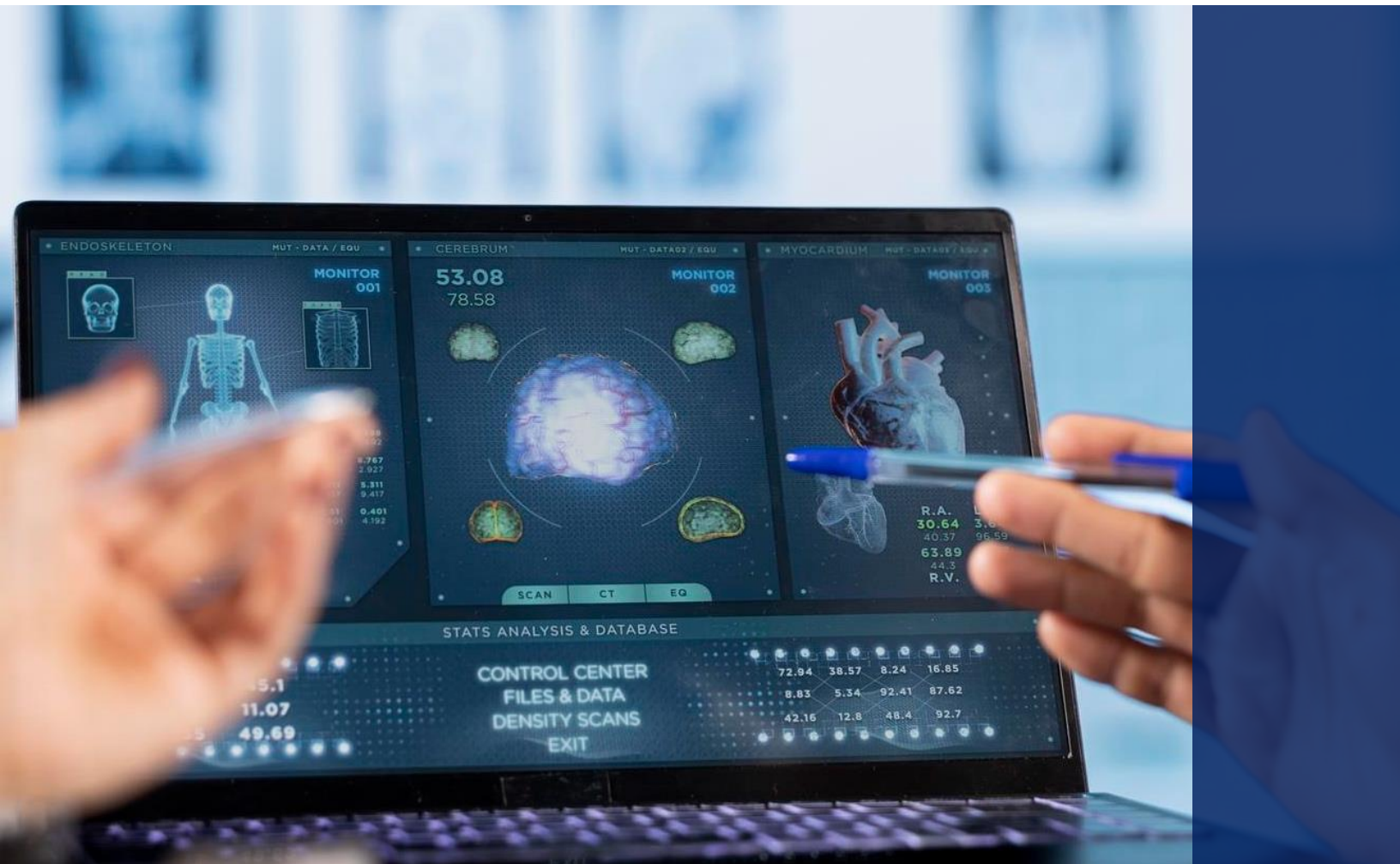


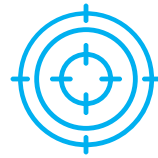
# APP Orchestrator – A Vendor-Neutral AI Integration Platform for Medical Imaging



## Executive Summary

A global MedTech leader aimed to revolutionize medical imaging workflows by developing the APP Orchestrator—a vendor-neutral AI integration platform. Designed to seamlessly incorporate third-party AI applications into diverse radiology workflows, the APP Orchestrator bridges the gap between proprietary AI integration, clinical image processing, and scalable AI solutions. This platform empowers radiologists, clinicians, and IT leaders to enhance diagnostic accuracy, improve productivity, and elevate patient care across 20+ hospitals and labs.





## Challenges

- Complexities in integrating diverse AI applications with existing imaging systems
- Inconsistent workflows due to proprietary AI integration methods
- Limited scalability and adaptability of current AI solutions
- High overhead costs of individual AI integrations with PACS and RIS
- Difficulty in accessing a wide range of FDA-approved AI solutions

## Objectives



- Create a vendor-neutral platform for seamless AI integration
- Standardize AI/ML workflows across radiology departments
- Enhance clinical decision-making through streamlined access to AI tools
- Improve scalability, adaptability, and cost-efficiency





## Solution Approach

- Cloud-Based AI Integration: Enabled “bring your own AI” capabilities, allowing seamless onboarding of third-party AI apps.
- Standardized Protocol Support: Supported DIMSE, DICOM Web, WADO, DICOM Proxies, and non-DICOM AI applications.
- Scalable Architecture: Utilized microservice-based design hosted on Kubernetes for flexible and self-hosting capabilities.
- Subscription Module: Allowed radiologists to subscribe to AI applications specific to their modality.
- Extensive App Ecosystem: Onboarded 50+ AI applications on the cloud platform.
- Cloud-Native Services: Integrated service mesh, edge device support, observability, certificate management, and licensing.
- Multi-Tenant Cloud Environment: Provided medical inferencing and insights to 20+ hospitals and labs.



## Results & Impact

- Reduced Integration Overhead: Minimized costs and complexity of individual AI integrations with PACS and RIS.
- Standardized Workflows: Streamlined AI/ML processes for consistent insights, reporting, and worklist prioritization.
- Expanded Access to AI Solutions: Faster access to a broader range of FDA-approved AI tools.
- Enhanced Clinical Decision-Making: Improved radiologist efficiency and diagnostic accuracy through seamless AI integration.
- Revenue Growth Opportunities: Facilitated new revenue streams through integration with external PACS systems.



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