



Navigating Cloud Economics in Enterprise Imaging

How Tampa General Hospital Future-Proofed Growth and Clinical Resilience

That's life in **flow.**



Executive Summary

If an extreme weather event or network disruption isolates a facility, local Severability Edge capabilities support continued clinical imaging operations without the need for continuous connectivity to cloud services. By combining centralized cloud capabilities with local continuity mechanisms, TGH, AGFA HealthCare, and AWS worked together to design an architecture tailored to the needs of a geographically diverse organization, improving resilience and scalability across the enterprise.

Customer

Tampa General Hospital - Top-ranked Florida regional academic hospital



Challenge:

- Six PACS
- Multiple legacy cardiology archives
- Growth through acquisition creating escalating operational overhead
- Hurricane resilience



Solution:

- AGFA HealthCare Enterprise Imaging (SaaS)
- Hosted on AWS



Outcomes:

- One platform
- Four month deployment
- Future-ready architecture

The Pre-Cloud Burden: Fragmented Infrastructure & Hidden Costs

Prior to its cloud transformation, TGH's imaging ecosystem was a byproduct of rapid, acquisition-led growth. The health system was divided into operational silos, supporting an array of legacy platforms and diverse vendors - each requiring independent integrations, quarterly patch cycles, and unique vendor contract management.

For Steven Johnson, Senior Director of IT and Head of Enterprise Imaging at TGH, this fragmentation created an unsustainable technical and operational burden across his workforce:

■ Expertise Dilution and Staff Burnout

Managing this patchwork of systems fell on a team of 46 IT professionals, however the sheer fragmentation diluted their collective knowledge. While individual team members brought deep expertise in specific vendor platforms, they lacked the technical training to support others. Stretched thin by reactive cycles of routine patching, software upgrades, and hardware maintenance, the staff faced severe burnout and was pulled away from higher-value clinical optimization projects.

■ Opaque Financial Planning

Budgeting was a continuous exercise in manual financial reconciliation. Because every vendor utilized distinct revenue-capture structures, licensing true-ups, and quarterly billing cycles, the imaging and IT leadership team had to spend significant time manually calculating costs to balance annual budgets.

■ Downstream Integration Complexity

Advanced visualization tools and clinical downstream applications required complex HL7 interfaces mapped to multiple local PACS archives. This siloed architecture compounded the cost and time required to deploy new technology, presenting a major barrier to the adoption of clinical Artificial Intelligence (AI) algorithms.

■ Vulnerability to Environmental Interruption

Operating in a severe weather corridor meant that localized data centre failures posed an ongoing threat to clinical access. If a hurricane interrupted power grid access or isolated the main medical campus, patient care across the wider regional network faced immediate, costly disruption.



The Strategic Shift: Designing a Fault-Proof Architecture

Recognizing that traditional infrastructure strategies could no longer sustain their trajectory, TGH leadership mandated a strict cloud-first strategy. Rather than accepting a traditional, “lift-and-shift” cloud option, which simply relocates legacy server architectures into a remote data centre without eliminating operational complexity, TGH sought a true cloud-native platform.

To define their ideal state, Johnson tasked his team with creating a visionary architecture roadmap. He asked them to design an imaging ecosystem that was as fault-proof, performant, and as resilient as possible across all geographies - completely unconstrained by traditional hardware boundaries. The resulting blueprint demanded a robust, elastic cloud core paired with specialized local severability to preserve clinical uptime under any circumstances.

“ I asked the team to put together a roadmap—if you had an unlimited budget, and technology wasn’t a constraint, how would you design a PACS that was as fault-proof and redundant as possible?”

Steven Johnson
Senior Director of IT, Tampa General Hospital



AGFA HealthCare’s Enterprise Imaging Cloud (SaaS) platform emerged as the ideal solution to fulfill this vision. Built from the ground up as a cloud-native platform on AWS, the AGFA solution provided a perfect fit. It introduced a sophisticated hybrid architecture where a resilient cloud core handles the heavy lifting of enterprise data management, while an on-premises edge infrastructure ensures local severability.

If an extreme weather event or network disruption isolates a facility, local edge capabilities are designed to support continued clinical imaging operations using locally available data, reducing dependence on continuous connectivity to cloud services. By combining centralized cloud capabilities with local continuity mechanisms, TGH and Agfa worked together to establish an architecture intended to reduce infrastructure burden while improving resilience and scalability across the enterprise.

Implementation Velocity: The 4-Month Transition

Beyond architectural alignment, TGH faced an immediate timeline crunch driven by broader organizational M&A activity. TGH had acquired three hospitals that were operating on a legacy network, and the organization was given a firm, condensed deadline to migrate and cut over to a new system or face massive, costly network lease fees to retain temporary data access.

While incumbent healthcare IT providers stated that a deployment of this scale would require 12 to 18 months, AGFA committed to an accelerated deployment, executing a comprehensive enterprise rollout in just four months.

Made possible by the structural nature of characteristics of cloud-native deployments and the use of automated environment positioning capabilities within the hyperscaler environment.

AGFA built and validated the core staging environments within 60 days, completely eliminating the standard months-long bottlenecks associated with data centre real estate allocation, physical server procurement, and local network provisioning.

Strategic Collaboration

A key factor in achieving this rapid deployment was close collaboration between TGH leadership and AGFA's professional services teams.

Working as strategic partners rather than a traditional vendor and customer, the team combined clinical and technical expertise to carefully define the essential data footprint required for a focused and successful initial launch.

They prioritized moving two years of historical diagnostic studies and ten years of screening mammography into the cloud for immediate go-live, allowing data migration to proceed efficiently without stalling clinical adoption.

Architectural Federation

AGFA HealthCare's cloud-native architecture acted as primary enabler of this compressed timeline.

Because the platform utilizes native Web Access to DICOM Objects (WADO) diagnostic streaming for image delivery, radiologists experience high-performance image access directly from the cloud without needing to wait for massive files to pre-fetch or download locally.

Furthermore, the platform's ability to federate allowed it to read data directly from remaining legacy peripheral databases in real time.

Clinicians could instantly access non-migrated deep historical studies on day one, completely decoupling the system go-live from the multi-month process of background bulk data migration.



Realizing the Returns: The Reality of Cloud Economics

The financial transition from a Capital Expenditure (CapEx) procurement framework to a predictable Operational Expenditure (OpEx) model has unlocked profound strategic advantages for TGH.



6 to 1 Consolidation

Reduced system footprint from six disconnected legacy PACS networks to a single cohesive Enterprise Imaging ecosystem.



4 Month Core Go-Live

Compressed a complex multi-facility data migration and clinical launch from an 18-month industry standard down to 120 days.



Millions In Estimated Savings

Projected structural savings over a 5-year lifecycle by eliminating hardware refresh cycles, legacy maintenance agreements, and operational overhead.



0 In-house Patch Burdens

Shifted 100% of routine infrastructure software patching, security testing, and platform compute upkeep directly to the cloud partner.



Radical TCO Consolidation and Cost Containment

By transitioning six separate vendor relationships into a single, comprehensive Software as a Service (SaaS) subscription model, TGH eliminated a large and complex web of overlapping software licensing fees and hidden compute bills. The health system achieved immediate cost avoidance by terminating legacy maintenance contracts and eliminating the need for multi-million-dollar bare-metal server refreshes every five to seven years. Because hardware refresh and performance upkeep are natively managed within AGFA's underlying AWS cloud infrastructure, TGH's future costs remain highly linear and predictable.



Strategic Human Capital Optimization

The operational dividend of the fully managed SaaS model completely transformed TGH's IT resource allocation. Freed from lower-value manual engineering burdens like monitoring local storage arrays, tracking background server scripts, and applying system software patches, internal engineers were upskilled into platform Subject Matter Experts (SMEs). This approach helped TGH further evolve its internal IT workforce into sub-specialized clinical workflows focused directly on system performance and strategic end-user support. It also reinforced the close collaboration between IT and clinical departments, helping to further tune hanging protocols, accelerate turnaround times, and design advanced workflows for diagnostic radiologists and technologists. Tickets are triaged more efficiently, significantly lowering backlogs and eliminating the pervasive staff burnout that defined the pre-migration era.



Frictionless Mergers and Acquisitions

For an organization undergoing aggressive, acquisition-related expansion, cloud-native architecture delivers an immediate market advantage. Rather than spending a year engineering complex interface bridges every time a new hospital facility is acquired, TGH can expand its standardized cloud core to new sites almost instantly. The process of onboarding a newly acquired group of radiologists can be completed within months, completely decoupled from on-premise hardware limitations.



Downstream Integration and AI Readiness

By housing all data under one unified cloud archive, TGH eliminated the hidden downstream licensing and integration fees that plague fragmented networks. Advanced visualization licenses no longer need to be deployed across multiple distinct local systems. Instead, they pull from a centralized Vendor Neutral Archive (VNA). This single architecture future-proofs the enterprise for clinical AI deployment. Introducing an advanced algorithm now requires only a single interface connection to the AGFA cloud core, rather than six distinct custom-engineered local integrations.



Environmental Resilience as an Economic Safe Haven

In the event of a catastrophic weather event, TGH's custom edge-severability architecture ensures that its facilities can operate seamlessly, completely protected from external network failures. Clinicians maintain uninterrupted access to real-time imaging studies, safeguarding patient care and preventing the massive revenue loss and liability associated with prolonged system downtime.



Moving our enterprise imaging to AGFA's cloud-native SaaS platform completely rewritten our operational playbook. We transitioned a team of forty-six IT professionals from being buried under a mountain of routine infrastructure maintenance across six different systems into true strategic partners for our clinicians. Offloading that baseline hardware and patching burden to AGFA hasn't just protected our budget from unpredictable refresh cycles—it has allowed us to refocus our human capital on optimizing workflows, supporting our frontline staff, and driving clinical excellence across our growing health system."

Steven Johnson
Senior Director of IT, Tampa General Hospital



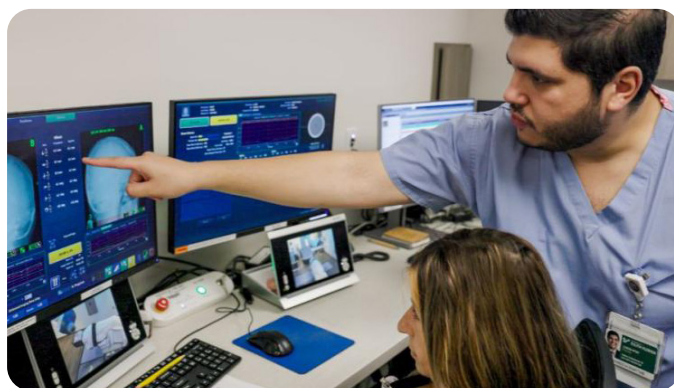
Future-Proof Continuous Improvement & Innovation

A major economic advantage of the cloud environment is the agility it provides for future software lifecycles. As TGH moves along AGFA HealthCare's roadmap, plans are already underway to transition the enterprise to the latest release. This move will enable adoption of advanced pixel streaming capabilities, further augmenting reading performance for distributed care networks, ensuring TGH remains locked into the latest tier of clinical technology without experiencing compounding capital costs. As well, this cloud-driven upgrade can be seamlessly deployed into parallel test environments, avoiding the extensive local server positioning and engineering hours required by on-premises updates. decoupled from on-premise hardware limitations.

A Blueprint for Enterprise Imaging Transformation

Tampa General Hospital's transition to AGFA HealthCare Enterprise Imaging Cloud proves that a strategic shift to the cloud is far more than a simple infrastructure update; it is a lever for true organizational modernization and optimization. By dismantling a fragmented legacy environment and embracing a fully supported SaaS model, TGH successfully contained total cost of ownership, converted unpredictable capital spikes into linear operational expenses, and eliminated technical barriers to strategic growth.

For healthcare executives evaluating their own operational roadmaps, TGH provides a clear blueprint. True cloud economics isn't merely found by comparing subscription costs against hardware invoices; it is realized in the massive organizational agility gained by optimizing technical personnel, accelerating M&A integration timelines, and securing ironclad clinical resilience against the unexpected.



Cloud Economics in Action

- Lower complexity through consolidation of six PACS into one platform
- Faster time to value with enterprise deployment completed in four months
- Greater IT efficiency by eliminating routine infrastructure management
- Predictable operating costs through a fully managed SaaS model
- Scalable growth that simplifies future acquisitions
- Operational resilience with a cloud-native architecture designed for continuity

About Tampa General Hospital

Tampa General Hospital is one of Florida's leading academic health systems, recognized for clinical excellence, research, and innovation. As the organization expanded through acquisitions and integrated new hospitals into its network, modernizing enterprise imaging became a strategic priority to support continued growth and operational efficiency.



That's life in **flow.**

Want to learn more?

Transform your imaging strategy for a scalable resilient future. Get in touch today.

AGFA 
HealthCare

Visit:

agfahealthcare.com

Get in Touch:

agfahealthcare.com/contact

AGFA, the AGFA rhombus, and the AGFA HealthCare logo are trademarks of AGFA-Gevaert N.V., Belgium, or its affiliates. That's life in flow and RUBEE are trademarks of AGFA HealthCare N.V., Belgium or its affiliates. All rights reserved. RAD AI Reporting is a trademark of Rad AI, Inc. BI-RADS and PI-RADS are registered trademarks of The American College of Radiology. All other trademarks are held by their respective owners and are used in an editorial fashion with no intention of infringement. The data in this publication are for illustration purposes only and do not necessarily represent standards or specifications that must be met by AGFA HealthCare. All information contained herein is intended for guidance purposes only, and the characteristics of the products and services described in this publication can be changed at any time without notice. Products and services may not be available for your local area. Please contact your local sales representative for availability information. AGFA HealthCare diligently strives to provide as accurate information as possible but shall not be responsible for any typographical error.