

Designing infrastructure around the way healthcare operates

A strategic briefing for the new reality of imaging

Executive summary

Enterprise imaging is under pressure. Study sizes are expanding, AI is increasing demand on data, and reimbursement models haven't kept pace. Traditional infrastructure models are forcing providers to choose between performance, complexity, and cost at a time when they need greater predictability, clinical access, and financial clarity.

This briefing outlines the drivers behind that shift and includes key questions to help healthcare organizations assess whether their current infrastructure still meets the demands of modern imaging. It also introduces Evergreen//One™ for Medical Imaging: a new model designed to match how healthcare works by aligning cost with care delivery, offloading operational burden, and restoring the control and predictability infrastructure leaders need.



What's changing in imaging and what it means for your infrastructure

Imaging has never mattered more, and data demands are growing faster than ever. AI is expanding how and when studies are accessed, while modern imaging technologies are increasing the size and complexity of every file. Clinicians expect instant availability, and infrastructure teams are expected to deliver it consistently, even as data volumes grow and system demands intensify.

Meanwhile, financial models haven't kept pace. Hospitals and imaging centers are typically reimbursed once per study, early in the care cycle, but must retain and manage that data long after. **Imaging expenditures have risen by 35.9% over the past decade**,¹ but storage costs continue to accrue long after revenue is recognized. As access expectations rise and reimbursement stays flat, the curves are trending in the wrong direction.

Storage has quietly become a bottleneck for performance, planning, and predictability. Teams are forced to make tradeoffs between cost and control. And the cost of getting it wrong can be substantial. **For a 200-bed U.S. hospital, downtime in enterprise imaging can cost \$22,075 per hour, with annual losses from unplanned outages approaching \$371,000.**²

These aren't edge cases. This is the new baseline. And the pressure is still increasing.

Imaging is growing and AI is raising the stakes.

27% projected increase in imaging utilization per person by 2055.³

~30% annual growth in MRI and CT dataset sizes, doubling every three years.⁴

Up to 90% reduction in diagnostic time with AI in radiology and pathology,⁵ driving demand for instant access.

Together, these trends are putting more pressure on storage and access infrastructure to keep up.



Why current models make planning **harder than it should be**

In imaging, the real challenge isn't necessarily planning. It's uncertainty. The risk of getting it wrong (overbuying, under-provisioning, or locking into the wrong model) keeps teams operating defensively instead of strategically.

Legacy storage models put infrastructure leaders in a constant tradeoff.

These models weren't built for the scale, unpredictability, or reimbursement challenges infrastructure leaders face now.

It's no longer enough to choose between performance, cost, and control. Healthcare organizations need infrastructure that delivers all three and reflects how imaging is delivered and reimbursed.

CapEx requires upfront bets on capacity, performance, and longevity.

Teams are still expected to estimate needs three to five years out in a market where study sizes and access patterns are anything but predictable.

Cloud and OpEx models scale with data, not care, tying pricing to raw data growth instead of study volume.

As archives grow and modalities evolve, costs can escalate quickly. Storage tiers, egress charges, API fees, and variable SLAs add cost and complexity instead of reducing it.

Vendor-bundled storage limits leverage over time.

While it may simplify procurement in the short term, storage tied to specific PACS or VNA platforms can make migrations harder and vendor negotiations less balanced as systems evolve.

A per-study model, built for **healthcare's realities**

Legacy models were designed to monetize storage growth, not support care delivery. Evergreen//One for Medical Imaging was built on a different premise: to align with how healthcare actually operates and how it's reimbursed. **It's the first solution of its kind to bring per-study pricing and guaranteed performance to enterprise imaging infrastructure.**

This is more than a new contract. It's a new way of thinking about performance, ownership, and planning. *And it's available now.*

With **Evergreen//One™** for Medical Imaging, you can:



Gain financial clarity with per-study pricing.

This model mirrors how providers are reimbursed, breaking the link between data growth and rising storage costs.

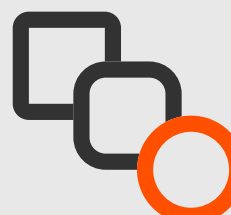


Plan with confidence, even as demands evolve.

Guaranteed service level agreements (SLAs), SafeMode (our built-in data protection layer), and a no-surprises pricing model eliminate uncertainty around performance, security, and cost.



Reduce operational overhead and keep performance aligned. Pure Storage® handles system performance and lifecycle planning, keeping infrastructure aligned with clinical needs over time.



Maintain control over your imaging strategy.

Designed for PACS/VNA compatibility and supported by Pure's partner ecosystem, this model supports future flexibility without vendor lock-in.

What impact looks like

Up to 46% cost savings

vs. comparable OpEx storage

Up to 4x faster study ingest,

eliminating storage queues

Up to 37% faster study access,

including time to first and last image

Imaging is changing. It's time your infrastructure did too.

What happens next and what to watch for

Change doesn't always happen all at once. But the signs that it's time to re-evaluate are often right in front of you.

Use these questions to gather insight across IT, imaging, clinical, and finance teams.

The bottom line?

Now is the time to reexamine what your infrastructure is doing today and whether it can keep pace with where imaging is going.



Finance department:

How has your imaging infrastructure budget changed relative to imaging reimbursement?

If storage costs are growing faster than revenue, the model may no longer be aligned.

PACS/Imaging IT:

How long does it take to load large or archived studies like 3D mammography or CT datasets?

Even small delays can quietly erode clinician productivity.

Infrastructure/Procurement:

How often have you replaced or refreshed storage infrastructure over the last 15 years (or since going digital)?

Full system replacements or unplanned refresh cycles may be happening more often than expected.

IT & Clinical Strategy:

How well does your current data platform support AI, analytics, and increasing clinical data demands? And with AI adoption accelerating, how many models will be running against your PACS or VNA in two years? In five?

If you're still relying on cold storage or tiering, you may already be falling behind.

What you’ve been sold and what you actually need

Imaging has outgrown the assumptions that shaped traditional infrastructure. Storage decisions that once felt pragmatic now limit scale, delay innovation, and complicate planning. This gap between what imaging needs and what infrastructure delivers is where cost, complexity, and clinician friction start to build.

Here’s how the status quo compares to what strategic infrastructure must deliver next:

The status quo	Why it’s no longer working	What strategic infrastructure looks like
CapEx models require long-range capacity and performance planning	Imaging demands are harder than ever to forecast	A cost model tied to how providers are reimbursed (per study)
OpEx and cloud models scale with data, not revenue	Budgets are flat while data grows exponentially	Financial predictability and operational simplicity as performance and study sizes grow
Storage tiers and tuning are part of the architecture	Clinicians expect fast, seamless access, regardless of study age or size	Guaranteed performance, without tuning or migration cycles
Vendor-bundled infrastructure limits flexibility	Locked-in solutions restrict innovation and negotiation	Operational flexibility with ecosystem support
Cold storage limits access to older studies needed for AI	AI tools need access to data alongside human users	Always-on access—no matter the study age or location

Where to go from here

Evergreen//One™ for Medical Imaging

was built to close the infrastructure gap and redefine how imaging is delivered and supported.

It's the first storage model designed specifically for enterprise imaging, with per-study pricing, built-in SLAs, and predictable performance that scales with demand. It aligns storage costs with care delivery, eliminates infrastructure tradeoffs, and gives teams the confidence to plan for what's next.

Explore how Evergreen//One for Medical Imaging simplifies planning, protects performance, and moves imaging forward.



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1: Harvey L. Neiman Health Policy Institute, [Imaging's Share of Aggregate Healthcare Spending has Declined Since 2010](#), March 2024.
2: Sectra Medical, [How much is uptime in enterprise imaging worth?](#), March 2019.
3: Christensen EW, Drake AR, Parikh JR, Rubin EM, Rula EY., [Projected US Imaging Utilization, 2025 to 2055](#), February 2025.
4: Kiryati, N., & Landau Y., [Dataset Growth in Medical Image Analysis Research](#), July 2021.
5: Jeong J, Kim S, Pan L, Hwang D, Kim D, Choi J, Kwon Y, Yi P, Jeong J, Yoo SJ. [Reducing the workload of medical diagnosis through artificial intelligence: A narrative review](#), February 2025.