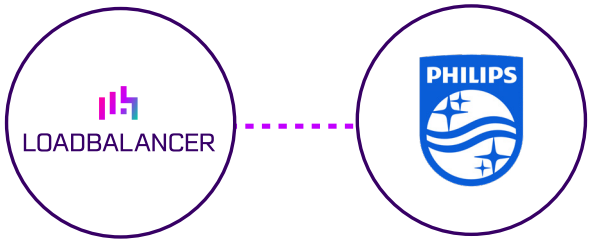
LOADBALANCER

SOLUTION OVERVIEW

Integrating Loadbalancer with Philips Vue PACS for enterprise-grade imaging scalability and workflow efficiencies

Bridging the gap between massive imaging data and seamless clinical access through intelligent load balancing and enterprise-scale PACS integration.



Tackling heavy technical and clinical bottlenecks

Hospitals often store images across different departments (radiology, cardiology, pathology) in incompatible formats, leading to information silos that undermine the diagnostic process.

As imaging technology (like 3D CT or MRI) produces larger files and bigger datasets, traditional systems often struggle with slow loading times and network lag. An issue compounded by radiologists having to switch between multiple applications for viewing, 3D analysis, and reporting — wasting time and leading to 'click fatigue.'

These are not challenges that are easily overcome, especially with the cost of managing millions of images on-premise and difficulties scaling to accommodate massive caseloads.

KEY BENEFITS

Future-proofed scalability

As a hospital's imaging volume grows, dramatic scale-out is needed. This integration allows you to do so by adding new PACS servers to the pool. The load balancer automatically incorporates these new resources without requiring a system-wide reboot or manual reconfiguration of every imaging modality in the hospital.

Intelligent DICOM-aware routing

Loadbalancer's DICOM-aware health checks surpass basic TCP 'on/off' monitoring by using native commands like C-ECHO. By verifying that the application—not just the network—is ready to process images, it ensures a more reliable and responsive diagnostic environment.

Near-zero downtime

In a life-critical environment, a server crash shouldn't stop a diagnosis. The load balancer constantly performs "health checks" on your Philips Vue servers. If one becomes unresponsive, traffic is instantly and seamlessly rerouted to a healthy server. This ensures radiologists have 24/7 uninterrupted access to images, even during failures or emergency maintenance.

Seamless maintenance

IT teams often struggle to find quiet periods to patch medical software. With a load balancer, you can take individual Philips Vue nodes offline for updates by simply rerouting the traffic off to other servers. This allows for rolling updates during peak hours without clinical interruptions.

Optimized remote viewing

Philips Vue PACS uses server-side rendering to stream pixels, not files, using Layer 7 Reverse Proxy. This allows imaging servers to respond directly to the clinician's workstation, bypassing the load balancer for the heavy 'return' data. This ensures images pop up on the screen instantly, even for radiologists working from home.

Why Philips for Vue PACs?

Philips Vue PACS is typically a strategic move favoured by hospitals looking to move away from fragmented, departmental software toward a unified Enterprise Imaging strategy — capable of handling 'big data' challenges across massive hospital networks.

Because it is 'vendor-neutral,' it can act as a single archive for the whole hospital, even for images taken on GE, Siemens, or Canon machines. It is also heavily optimized for AWS Cloud deployment, reducing the physical hardware a hospital needs to maintain on-site.

Why Loadbalancer for Philips?

Loadbalancer's Enterprise load balancer is the preferred choice for healthcare software providers and end users due to their deep experience in the sector and their DICOM-specific health checks. It ensures 24/7 high availability for mission-critical systems like PACS and EHR, effectively eliminating single points of failure.

The solution optimizes clinical workflows by preventing server bottlenecks during peak hours and facilitating easy scalability.

Joint solution capabilities

By integrating the Philips Vue PACS platform with a dedicated Loadbalancer.org appliance, healthcare organizations move beyond basic networking into a specialized, application-aware infrastructure. This sophisticated architecture offers a level of clinical intelligence and traffic management that generic, off-the-shelf network hardware simply cannot replicate.

In the high-pressure world of medical imaging—where diagnostic workflows depend on the rapid transmission of massive, multi-gigabyte DICOM datasets and the requirement for "always-on" system availability—this strategic partnership is essential. By focusing specifically on clinical continuity and accelerated diagnostic throughput, the solution ensures that radiologists never face a spinning loading icon or a system outage during critical patient evaluations, ultimately bridging the gap between complex IT backend stability and rapid, life-saving bedside decisions.

Next steps

Loadbalancer is the engineers' choice for smarter load balancing. Our intuitive ADC is designed to save time and money with a clever, not complex, WebUI, reducing complexity for a difference you can see in just minutes.

Find out how our products can help you to scale your AI workloads, with powerful, user-friendly application delivery solutions from the load balancing experts.

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