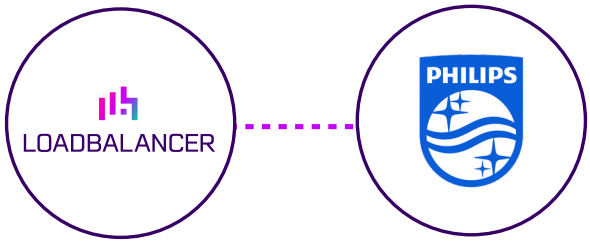
LOADBALANCER

SOLUTION OVERVIEW

# Integrating Loadbalancer with Philips RIS/WIM for reduced physician burnout and accelerated patient care

*In today's high-volume radiology environments, every second counts. To deliver elite patient care, clinicians need more than just advanced software—they need unbreakable, high-performance infrastructure that ensures critical diagnostic tools are always available.*




## Navigating the challenge of data fragmentation and workflow inefficiencies

Radiologists face severe pressure from data fragmentation and workforce shortages. Scattered patient records across EMRs and PACS force clinicians to waste time toggling between screens and manually hunting for history. This administrative burden, coupled with rising imaging volumes, directly reduces time spent on diagnostic interpretation and fuels physician burnout.

Workflows remain rigid and linear, creating bottlenecks from registration to results. This inefficiency leads to idle equipment and extended patient wait times. Furthermore, poor communication between radiologists and referring physicians often delays care; critical findings can be lost in long lists, while collaboration requires disruptive manual outreach. Ultimately, these systemic hurdles stall clinical decision-making and compromise the quality and speed of patient care.

## KEY BENEFITS

### High availability and resilience

Loadbalancer integration eliminates the single point of failure and ensures the constant monitoring of all Philips application servers. If one fails, traffic is automatically and seamlessly rerouted to healthy nodes. This ensures radiologists and clinicians have uninterrupted access to critical patient data and images.

### Zero-maintenance downtime

With a load balancer in place, IT teams can perform essential server upgrades, security patches, or hardware maintenance during regular hours. By temporarily draining traffic from a specific server, maintenance can be completed without taking the entire RIS/WIM platform offline, ensuring that clinical workflows remain active.

### Optimized system performance

Medical imaging data and high-volume reporting can overwhelm a single server. Load balancing intelligently distributes network requests (such as image retrieval or scheduling) across the server pool. This prevents bottlenecks and ensures requests are handled by the server with the least load, leading to faster response times and reduced report turnaround times.

### Seamless scalability

Load balancing allows for horizontal scaling, meaning you can add new physical or virtual servers to the pool without reconfiguring the entire network. The load balancer automatically incorporates these new resources into its distribution logic to handle increased traffic.

### Healthcare-specific traffic management

Unlike generic load balancers, a specialized Loadbalancer.org solution can be configured with advanced healthcare-aware health checks (such as DICOM Echo or HL7 monitoring).

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## Why Philips for RIS/WIM?

Philips' RIS/WIM solution unifies fragmented data into a single workspace, eliminating screen-toggling. It uses intelligent orchestration to automate worklists, cutting burnout and boosting reading time by 34% through a centralized 'single source of truth.'

The solution also removes operational bottlenecks by streamlining scheduling and reporting. Native collaboration tools and portals bridge communication gaps, enabling real-time consultation and cutting report turnaround times by up to 40%.

## 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

A Philips RIS/WIM solution, integrated with a Loadbalancer.org Enterprise appliance creates an 'unbreakable' infrastructure for radiology workflows.

By unifying disparate Philips archives and clinical systems into a high-availability cluster, the solution ensures that radiologists have uninterrupted access to critical patient data and images, even during server failure or maintenance.

The use of Layer 4 Direct Routing (DR) for high-speed imaging throughput and Layer 7 Reverse Proxy for application-aware routing of RIS services.

Built-in healthcare-specific health checks such as DICOM and HL7 monitoring proactively detect and isolate non-responsive servers before they impact clinical care.

The solution also supports enterprise growth by allowing new nodes to be added seamlessly, capable of handling over 4 million imaging studies per year without performance degradation.

# 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.

LOADBALANCER

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