

Tiger Bridge Plug-in for Philips Image Management System Viewer



One of the main concerns in digital pathology technology is the high cost of adoption, which involves storage infrastructure costs, workflow disruptions, and compliancy issues. A typical pathology hospital may need several petabytes of storage to accommodate daily slide scans plus digitizing 10 to 15-year-old archives without considering the backup of this data. A further priority is the need to augment pathology data through cloud services such as AI/ML.

Goals

- Extend local IMS storage to the cloud for infinite scalability
- Reduce TCO for Philips IMS storage tiers using Azure archive
- Provide off-site protection and data durability for the archived data
- Provide seamless access to Microsoft Azure cognitive services including AI/ML, and collaboration tools

Requirements

- Secure access (AD, NTFS permissions)
- Preserve IMS file format and compliancy
- Preserve existing workflows

Typical Approaches

Philips Image Management System Viewer (IMS) is a leading solution in digital pathology. Clinics and hospitals desire to digitize 10 to 15-year-old archive slides alongside scanning new patient slides. This can result in petabytes of data that need to be stored, archived, and protected.

The typical storage infrastructure in digital pathology includes 2 or 3 tiers of on-premises storage and/or tapes plus a set of incremental or differential backup systems usually requiring 2 to 3 times the available storage resources. In addition, using Microsoft object storage (hot/cool and archive), which provides superior cost and availability, requires a third-party gateway that changes the IMS format and compliancy and requires additional hardware.

Modernizing the workflow of a hospital includes using images for collaboration, clinical trials or using the Microsoft Azure cognitive services for AI/ML. Now more than ever, doctors should be able to access the slides from their home computers or from remote branches of the hospital. Data can also be available to researchers. Microsoft Azure cognitive services provide deep learning tools using artificial intelligence to enhance various workflows.

These factors lead to a high cost of adoption plus security and compliancy concerns. Additionally, there is an increased need for pathology data to be used in more collaborative workflows, in clinical research, or with AI/ML deployments. The high cost of technology adoption makes such deployments impossible without the use of Microsoft Azure services.

Pain points

- The upkeep of multiple petabytes of on-premises storage and infrastructure
- Workflow disruptions
- Vendor lock-in
- Rehydration challenges when using Azure Archive storage
- Preserving Philips IMS file format and compliancy

The Tiger Bridge Solution

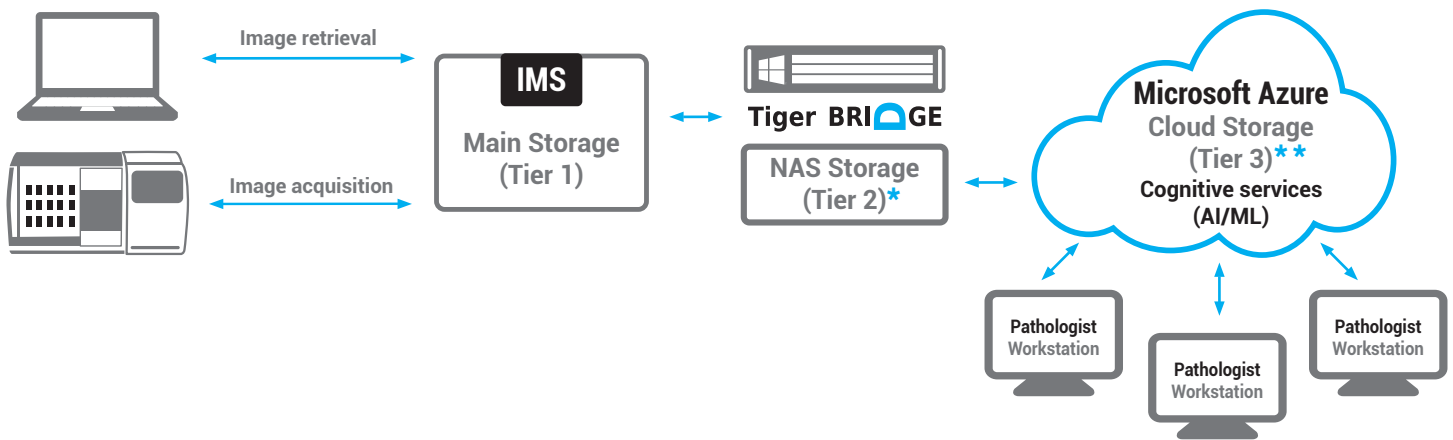
An ideal solution for enhancing Philips IMS workflows should enable nearline or archived data to seamlessly use Microsoft Azure storage services, which offer not only superior TCO and availability, including Azure Hot, Cool or Archive tiers but also Azure cognitive services and AI/ML.

Tiger Bridge is a software-only data management solution fully integrated with Philips IMS and Microsoft Azure services. This unique combination creates a single namespace without any disruptions in workflow. It preserves the IMS file format and meets compliancy & security requirements. When using Azure Archive, data is stored in a WORM format and must be rehydrated before use. At the same time, Tiger Bridge is 100% transparent for the IMS workflow, including search and queries, and does not introduce any changes for doctors using Philips IMS.

Enables off-site archive
Fully integrated with Philips IMS

Significant TCO reduction
Non-proprietary file formats

No additional hardware
No disruption to existing workflows



- * Any Windows machine with minimal storage
- ** Microsoft Azure Blob storage (hot / cool / archive)

Summary

Tiger Bridge is fully integrated with Philips IMS and Microsoft Azure services, providing seamless access to Microsoft Azure blob storage, including hot, cool and archive tiers. This software-only solution does not introduce any disruption to workflows and meets security & compliancy requirements. The data remains fully searchable and queryable. The Tiger Bridge solution also greatly reduces storage and infrastructure costs.

Customers in over 120 countries use Tiger Technology solutions to make their data management and project workflows easier. The company has been developing high-speed NAS/SAN file system sharing, virtual volume set and virtual project workspace management, software-only Windows cloud extension technology, and HSM tiering and synchronization solutions since 2003. Tiger enables organizations of any size and scale to manage their digital assets on-premises, in public cloud, or with a hybrid model. Tiger Technology has been identified by Endeavour as one of the foremost cloud technology providers on the market today.