

The logo for Active Archive, featuring the text "ACTIVE Archive" in white on a blue banner with orange and yellow accents.

ACTIVE Archive

SPECIAL REPORT

August 2024

HOW ACTIVE ARCHIVES SUPPORT MODERN AI STRATEGIES

The **Active Archive Alliance** serves as a vendor-neutral, trusted source for providing end users with technical expertise and guidance to design and implement modern active archive strategies that solve data growth challenges through intelligent data management.

FOREWORD

We would like to welcome our readers to the 2024 Active Archive Alliance's special report entitled *How Active Archives Support Modern AI Strategies* and say thank you to our members for their valuable and continued insights and contributions.

We are pleased to welcome the newest members of the Active Archive Alliance who are bringing innovative new products and services to market. These new members are joining at an exciting time when the value and volume of data are increasing exponentially.

The focus of our special report is on the impact of AI/ML and how best to plan for effective data management and governance. While much of the focus of AI adopters has been on the front end of data processing and analytics, the sustainability of AI workflows must now address the long-term retention and protection of what will be massive and persistent volumes of data.

It is safe to say that the rising tide of AI will increase demand for all aspects of IT facilities including floor space, power, cooling, and infrastructure related to compute, networking, and storage. With the IT industry already under pressure for cost controls, energy consumption, and the reduction of the carbon footprint, careful planning will be required at all stages of the AI workflow. Investments in active archiving must move from a data project mindset to a data program initiative with sustainability planning across all industries and verticals.

When it comes to storage, we believe a modern strategy is needed to manage the growth and volume of data, and this can be provided by a sensible active archive implementation. For today's data-driven and AI-based organizations, intelligent data management and the many benefits of active archiving will be an imperative go-forward strategy.

We invite you to collaborate with our members and to leverage their expertise and the innovative products and services they offer. Together, we can create a new and sustainable methodology through active archiving to support optimal data storage, making it available and useful for advanced AI workflow.

Foreword by:



Rich Gadomski,

Head of Tape Evangelism, FUJIFILM North America Corp., Data Storage Solutions,
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INTRODUCTION TO ACTIVE ARCHIVE FOR AI/ML

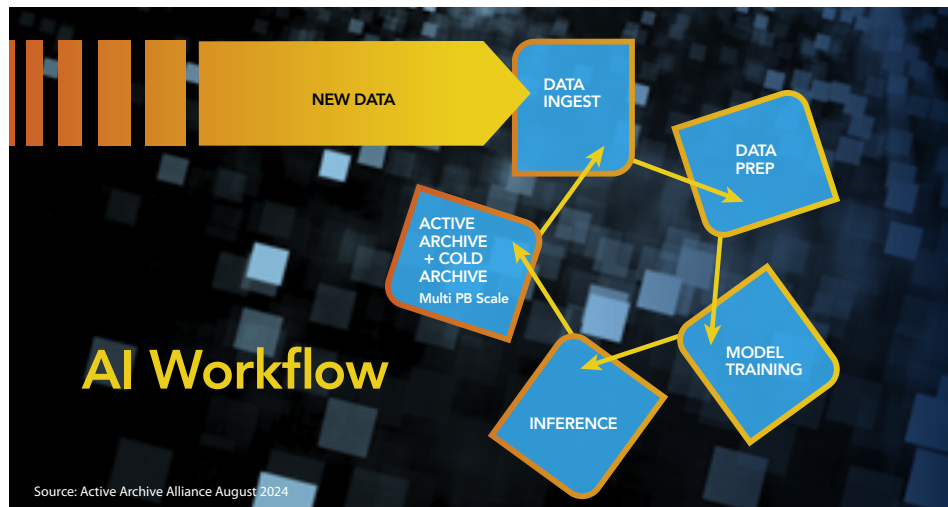
Artificial Intelligence (AI) and Machine Learning (ML) are changing just about everything in the IT world today. From the size of the models, the quantity of data subjected to analysis, the density of data center racks, and the sheer amount of power consumed, AI/ML demands a complete rethink of IT infrastructure.

The rapid rise of AI has accentuated the need for new solutions for energy usage, data management, and information aggregation. AI applications need access to as much data as possible to arrive at accurate conclusions and provide the insights the modern enterprise needs. However, existing approaches to data management and storage have already led to data centers being jammed row after row with high-performance networking and storage hardware.

In some verticals, much of this data may not be accessed after a few weeks. However, in other verticals, such as healthcare, medical professionals often need prolonged and rapid access to patient records, including historical data of past treatments, surgeries, and test results. It makes sense to arrange multiple tiers of storage based on access frequency, latency, and cost rather than retain it all on expensive, energy-intensive primary storage. Such architectures must support data management issues that naturally crop up when a diversity of service levels are required.

Organizations use active archiving to solve many of these challenges. It also enables them to exploit the full power of large AI datasets. Active archive intelligent data management software allows data to be stored in numerous locations and spread across multiple storage devices and tiers while keeping that data readily accessible whenever needed to support user needs including AI workflows (see figure 1).

figure 1 The AI Workflow



According to the analyst firm Furthur Market Research,¹ the active installed storage capacity reached one zettabyte (ZB) in 2016, 4.8 ZB in 2022, and may surpass 50 ZB by 2035. In the face of this massive growth in data volumes now being further exacerbated by AI, active archiving provides organizations with:

- An intelligent data management layer to move data where it belongs based on activity, cost, and performance
- Adaptability to any storage architecture, media, or protocol
- Applicability across the entire data lifecycle, from data creation through archiving and eventual end-of-life
- Cyber security and protection features that safeguard data from threats and risks
- The ideal way to support AI initiatives and massive quantities of associated data

“In 2024, AI will accelerate demand for active archive storage. Archived data will have more value than ever before and will therefore need to be stored for a long time and actively accessed during its life.”

Mark Pastor

Director, Platform Product Management,
Western Digital Corporation

THE RISE OF AI AND THE PROBLEMS IT CREATES

AI is almost everywhere, especially generative AI (GenAI). ChatGPT took less than a week to reach a million users. It now boasts around 200 million users globally.² (Half of these users access it weekly, including 92% of the Fortune 500.) AI startups have amassed almost half a trillion dollars in investment over the past ten years.³

AI and Resource Consumption

As AI deployments multiply, it becomes clear that this game-changing technology consumes vast compute, networking, and storage resources, not to mention energy. A single query into a large language model (LLM) such as ChatGPT generates one hundred times more carbon than a Google search⁴. Additionally, LLMs require training, which entails up to 10 gigawatt-hour (GWh) for a single model.⁵ It is not just Google, Azure and AWS creating LLMs. Many companies, governments, and organizations are working on their own models.⁶

According to a report from Pure Storage,⁷ 88% of those adopting AI experienced a dramatic rise in the compute power they needed. 47% saw compute power double or more since adopting AI. 74% noted that AI necessitated major upgrades or a complete overhaul of IT infrastructure, with networking, security, storage, and data management at the top of the list.

AI and Latency

Latency is another problem. Cloud-based GenAI resources may meet the needs of consumer services such as ChatGPT, but these resources are not always the best option for enterprise-based AI workloads. Organizations seeking to serve AI and HPC workloads over the cloud may lose control over where their storage resources are located. As a result, many organizations have decided to develop LLMs internally. LLMs need access to vast quantities of nearby data storage resources to deliver the performance necessary, typically on-premises or private cloud resources.

Some organizations initially tried to use high performance storage to host all their AI data. That can quickly become expensive regarding CAPEX, electricity usage, and cooling requirements. So, how can organizations cost effectively and sustainably provide AI and GenAI applications with access to large quantities of data that may span years or even decades? An active archive solution solves the storage capacity, data management and sustainability challenges posed by enterprise AI.

“Active archives will act as a rich reservoir of labeled data indispensable for training AI and deep learning models. This use case marks a departure from data repositories of the past, transforming active archives into dynamic, intelligent platforms that actively contribute to advancing AI research and application. These advances will revolutionize the way organizations interact with their data, providing them with the tools to harness the full spectrum of their information’s value while maintaining cost efficiency.”

Jason Lohrey
Founder and CEO of Arcitecta

AI DATA CONSIDERED AS COLD DATA TYPICALLY INCLUDE:

Historical data:

Data collected for past projects or analyses that are no longer actively used or trained on. These could include previous data versions that newer or updated data have superseded.

Long-term compliance data:

Data stored for reference or compliance purposes but not actively accessed for ongoing AI tasks. These could include data collected for regulatory compliance, legal requirements, or long-term analysis.

Experimentation data:

Data used for experimental purposes or preliminary investigations that are not part of the primary workflow. These data sets may be kept for reference but are not regularly accessed once the experimentation phase is complete.

Unused or rejected data:

Data that was collected but never used in AI models or analyses due to changes in project requirements, data quality issues, or other reasons.

Synthetic data:

Generated data used for testing, benchmarking, or research purposes that are not part of the production workflow.

These types of data may be considered cold as they are infrequently accessed or used compared to active data sets that are regularly updated and utilized in ongoing AI workflows. Efficient management of cold data within an active archive is essential to optimize storage resources and ensure that valuable insights can still be extracted when needed.

WHAT IS AN ACTIVE ARCHIVE?

Active archives solve the drawbacks of traditional physical and digital archives. Information in an active archive is always online and easily accessible, allowing for fast retrieval and analysis. Active archives also feature intelligent data management and storage tiering.⁸ An active archive can be more user-friendly than traditional archives.

AI's Impact on Archives and the Need for Active Archive

Archives were once considered repositories of data that would only be accessed occasionally, if at all, yet may one day have value. The advent of modern AI has changed the equation. Almost all enterprise data could be valuable if made available to an AI engine. Hence, many enterprises are turning to archiving to gather organizational data in one place and make it available for AI and GenAI tools to access. Massive data archives can be stored in an active archive at a cost-efficient price and low energy consumption levels, all while keeping that data readily available on the network. Decades of archived data can then be analyzed as part of an LLM or other ML (machine learning) or DL (deep learning) algorithm.

“More organizations will embrace a multi-tier data storage strategy with cost-efficient tape libraries as their archive tier in highly automated tape-NAS-cloud pipelines. One can predict newer tape formats will see continued growth and demand, especially among regulated industries where data accessibility for e-discovery and regulatory demands across decades remains business-critical.”

Dean Felicetti

Director of Data Risk and Remediation, S2|DATA

Intelligent Data Management Layer

An intelligent data management software layer is the foundation of an active archive. This software layer plays a vital role in automatically moving data according to user-defined policies to where it belongs for cost, performance, and workload priorities. High-value data that is often accessed can be retained in memory. Other data can reside on SSD, lower tiers of disk and within a tape or cloud-based active archive. Thus, AI applications can mine all of that data without being subjected to delays due to content being stored offsite or having to be transferred to where AI can process it. (See figure 2)

Using technologies such as metadata and global namespaces, the data management layer of an active archive makes data accessible, searchable, and retrievable on whatever storage platform or media it may reside in. Intelligent data management software operates in the background without affecting end user accessibility.

“Data management is paramount to business success, both in terms of financial responsibility and economic value of data. Active archive requirements will not shrink, so businesses must align data management to monetize outcomes while being fiscally responsible.”

Kiyoshi Urabe

Business Line Executive,
IBM DRI Tape Solutions

It adds value for IT operations by:

- Automating the tiering of data to lower cost, eco-friendly long-term storage or back to performance storage as needed
- Automating data management processes such as:
 - › Applying data protection and security policies
 - › Data cleansing
 - › Alerting for anomalous conditions
- Surveying and analyzing the enterprise data landscape
- Discovering data that IT administrators are unaware of
- Presenting visual representations of an organization's data through charts, graphs, and dashboards for better decision-making
- Simplifying the skill set needed to oversee and manage large, growing volumes of data
- Enabling access to vast amounts of data for AI applications

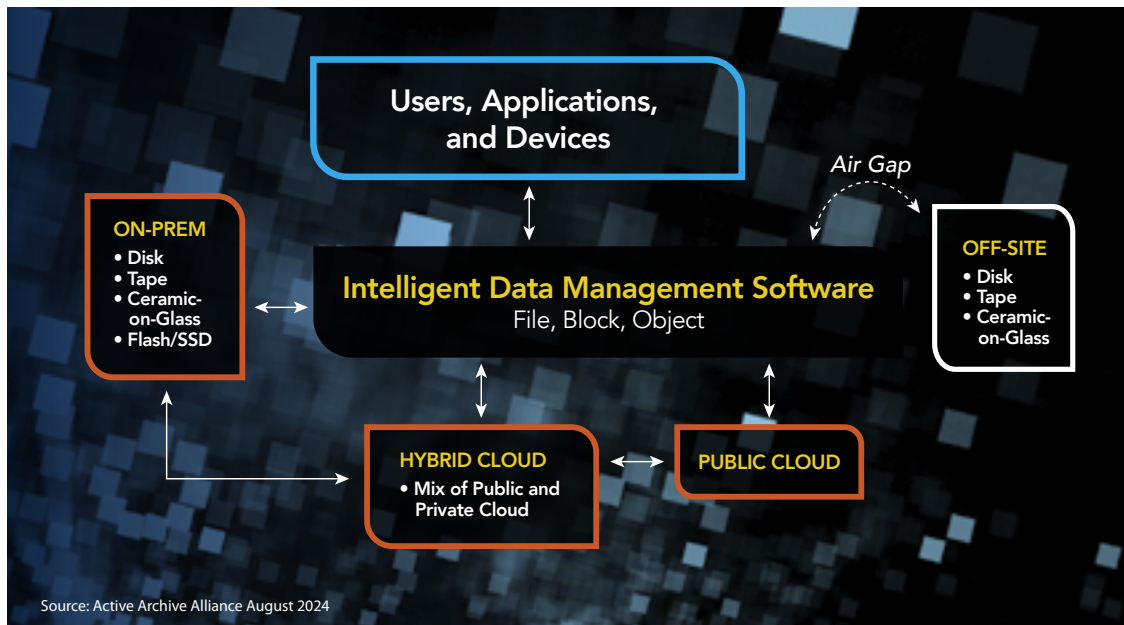


figure 2 The Active Archive Topology

The active archive model is agnostic to the organization’s storage protocols, media, or architecture. In contrast to a single-vendor solution, the active archive model comprises an integrated system of products and services from different vendors using different technologies.

THE BENEFITS OF AN ACTIVE ARCHIVE

Fast Access to Massive Quantities of Data

AI applications need rapid access to data. Consumer-based applications process billions of data points from across the internet in response to queries and in providing fresh content. However, this process can be subject to errors and will occasionally arrive at answers that have a limited basis in fact. Hence, enterprises typically prefer addressing their AI applications to more focused data sets located on-premises or in a private cloud. For example, if a company has accumulated PBs of documents, PDFs, and videos over many years, it may wish to keep more recent data immediately available to an AI app and have the rest rapidly accessible within an active archive.

Access to an active archive benefits an organization through the following:

- **AI and Business Intelligence:** organizations can analyze fresh and legacy data for insights into trends and patterns. Deriving value from the data becomes the ultimate objective of transforming storage costs into a competitive advantage.
- **Legal requirements:** continuous access ensures legal teams can search and retrieve data from active archive storage in response to litigation.
- **Offloading IT resources:** providing online access to inactive data so users can retrieve these files without IT intervention. Self-service access saves valuable resources.

“Organizations need to balance the need to efficiently manage and store data cost-effectively with the ability to keep it accessible and useful. This quandary is forcing a change in thinking about data lifecycle management and the need for an active archive strategy.”

Paul Luppino
 Director, Global Digital Solutions Data Management, Iron Mountain

Lower Storage TCO

By design, organizations use AI applications to process as many data points as possible. Some LLMs require hundreds of billions or even trillions of parameters. GPT-4, for example, can assess 1.8 trillion data points. Storing all that in the cloud or on performance storage can be expensive. Active archives provide a way to greatly reduce costs in terms of:

- Lowered cloud or primary storage capacity needs
- Lowered bandwidth expense
- Lowered energy costs

Active archive solutions are needed more than ever in this era of explosive, AI-driven data growth. Most of this growth comes from unstructured data represented by video, audio, images, presentations, email, and documents. In many cases, the likelihood of users accessing this data 30 days after its creation drops considerably; after 100 days, it falls below 1%.⁹ Retaining inactive data on primary performance storage can be inefficient and cost-prohibitive.

Through intelligent data management software, an active archive moves inactive data to lower-cost storage. In some cases, colder data will be moved back onto warmer storage such as HDDs or SSDs. In other cases, policies may dictate that when data has cooled sufficiently, files can move to more cost-effective storage such as economy disk, tape, or new emerging technologies such as long-term ceramic-on-glass as offered by Cerabyte. Some organizations may benefit by moving data immediately to archival-type storage or low-cost cloud resources. An example might be healthcare, where a medical image is archived immediately, but a cached copy remains in local storage for at least 30 days.

By moving inactive data off primary storage, the IT architecture benefits by freeing up high-performance storage space to support the most active data sets. Regularly freeing up space on primary storage can deter the need for additional hardware purchases. Data consolidation, too, opens cost-saving possibilities through reduced labor costs, licensing fees, and energy costs. Backup costs for primary storage also benefit as it takes less time and energy to complete backups.

Analytics provided through data management software can help IT decision-makers understand how and why the organization uses data. This understanding, in turn, shapes how administrators optimize their data for cost savings. Through trend analysis, data intelligence helps IT leaders plan and budget for storage growth.

“We have seen many customers move their content from the cloud to an on-premises archive that combines a data tape library, disk cache, and management software. For secure remote access, an S3 interface has been easily added, creating a private cloud. We expect these trends to continue. Larger active archives will continue to migrate from cloud to on-premises systems due to increasing cloud storage costs.”

Philip Storey
CEO, XenData

“In addition to high transaction, storage, and egress costs, there are also technical and strategic reasons to reconsider data storage with a cloud provider. Active Archive solutions offer S3 compatibility and, like cloud providers, can also support multiple storage classes based on flash/disk and tape.”

Thomas Thalmann
CEO, PoINT Software & Systems

Legal Benefits

Legal teams leverage active archives to save money in numerous ways. Most corporations must comply with regulatory requirements to keep and store data in a specific way for a particular time. Companies use an active archive to comply with these data security requirements and avoid legal costs due to non-compliance. Additionally, with AI applications sometimes generating questionable or even false information, there is a legal need to preserve data over the long term to respond to subpoenas that may be served many years into the future.

Enhanced Data Security

The threat of a cyberattack is a constant worry for most organizations around the world. Over the last several years, ransomware has remained the number one security concern.¹⁰ A successful ransomware attack can result in data loss, business interruption, revenue loss, fines, goodwill impairment and legal fees. Added up, the average total expense for business recovery from a ransomware attack is \$4.55 million.¹¹

An active archive can supply a wide range of security features and cyber resiliency capabilities to secure and protect data from the cyber threats facing today's businesses and institutions.

Examples include:

- Encryption
- Multi-factor authentication
- Access Controls Lists (ACLs)
- Role Based Access Controls (RBACs)
- Zero-trust security models

Because archival data is typically static and unchanging, administrators can use WORM (Write–Once, Read–Many) or view-only mode features to prevent data from being deleted or overwritten, and to safeguard data integrity, availability, and confidentiality.

Robust Data Protection/Backup

As data management software enables organizations to move inactive data onto active archive media, the surface area decreases for malware infection of primary storage. Media technologies, such as tape, feature easy-to-deploy air-gap defenses where IT personnel can establish a literal separation from any online path to prevent unauthorized electronic access.

Storage administrators often leverage 3-2-1-1-0 best practices for their active archive data, and is also a best practice for backup storage:

- Maintain at least three (3) copies of data - where the primary archive file counts as one of these copies
- Store two (2) of the copies on different media (e.g., tape or HDD)
- Ensure at least one (1) of the copies is stored offsite
- Store at least one (1) of the copies offline
- Verify the copies have zero (0) errors or virus infections
- Periodically test for restoration

While organizations should depend on cybersecurity software as a first line of defense against malware, they should assume that a successful attack could occur at any time. As massive data growth expands the attack surface, these capabilities and practices ensure an organization's data assets remain secure, protected, and recoverable.

AI Security Challenges

AI, too, poses specific security challenges. Cloud-based AI solutions could expose corporate data to cyber criminals. Some of the content generated by GenAI may plagiarize existing content or intellectual property (IP). GenAI responses can occasionally turn out to be misleading or false. Furthermore, organizational data and systems could be open to attack if hackers compromise an AI engine. Hence, in-house LLMs are growing in adoption as they offer a way to contain threats and prevent the usage of inaccurate data. If a copy of that data is stored offline, the organization significantly lowers the possibility of data loss.

“With today's emerging AI workflows, a data tsunami is on the horizon. Active archives that deliver accessible, long-term data storage will be vital to meet data centers' forthcoming scalability, economic, and sustainability demands and ensure the future of data preservation.”

Christian Pflaum
CEO of Cerabyte

“In 2024, the trend is toward immutable storage that cannot be encrypted, a greater focus on air-gapped storage that cannot be reached by electronic viruses, practicing recovery events, and maintaining an accessible and current archive for all data. The accessibility offered by active archives, such as S3 interfaces and object storage on all mediums, make an “active” archive possible and indispensable to such an approach.”

Tony Mendoza
Vice President of IT, Spectra Logic



AI AND ACTIVE ARCHIVE IN THE HEALTHCARE INDUSTRY

Healthcare leaders recognize that Active archive solutions play a crucial role in the industry by balancing the need for rapid data access with the requirements for long-term data retention, compliance, cost-effectiveness, and resilience against potential disruptions. As data volumes continue to grow in healthcare, the adoption of active archive strategies will likely increase to meet these evolving needs.

In addition to active archives, organizations are using AI technology to profoundly impact the healthcare industry in several ways:

Data Management and Clinical Decision Support:

Valuable insights from structured data can be used to improve patient care, identify disease processes sooner, and provide insights into past and future treatment paths. An organization's ability to efficiently manage and analyze vast amounts of medical data within the electronic health records (EHRs) and the archive provides an overall picture of a patient while providing continuity of care. By extracting valuable insights from structured data (like lab results and vital signs) and unstructured data (like physician notes and imaging reports), healthcare providers can make better care decisions using a data-driven approach. The analysis of patient data using algorithms can provide clinical decision support by analyzing patient data against best practices and medical guidelines. Healthcare professionals can then make more accurate diagnoses, select more appropriate treatments, and see improvements in predicting patient outcomes.

Natural Language Processing (NLP):

The ability to use all data, both structured and unstructured, gives a much better overall picture of patient status and needs than structured alone. Organizations are using new NLP tools to extract information from unstructured text in medical records. This capability improves the accuracy and efficiency of coding, billing, clinical documentation processes, and research efforts.

“As cloud expenses increase, more organizations will likely pull back, choose alternative storage methods, or find other ways to reduce costs, especially as the volume of data increases. Healthcare organizations will invest in cyber security technology and focus on active archives to reduce overall costs and the IT footprint.”

Kel Pults, DHA, MSN, RN-BC, NREMT

Chief Clinical Officer and
VP Government Strategy, MediQuant

Personalized Medicine:

Identifying patterns and being able to predict a patient's responses to treatments is changing how providers provide care and make care decisions. Providers using AI can analyze patient data to identify patterns and predict individual patient responses to treatments. This capability facilitates personalized medicine approaches tailored to patients' unique characteristics and medical history.

Image and Diagnostics Interpretation:

AI algorithms are increasingly used by providers and healthcare organizations due to proficiency in interpreting medical images (e.g., X-rays, MRIs, pathology slides) with more accuracy comparable to or exceeding that of human experts. This ability aids radiologists and pathologists in diagnosing conditions earlier and more accurately, meaning patients can be treated sooner and with better treatment.

Health Monitoring and Predictive Analytics:

Health organizations are utilizing AI to monitor patient data in real-time from wearable devices and other sources, detecting trends or anomalies that may indicate health issues. This information is becoming more prevalent as telehealth grows, allowing providers to use predictive analytics to better forecast disease progression or identify patients at risk of specific conditions.

Administrative Efficiency:

Organizations are using AI to help streamline administrative tasks related to medical records, such as scheduling appointments, adding automation to workflows, and managing patient data more securely. Providers can now focus more on patient care instead of spending time on various administrative burdens.

Research and Drug Discovery:

Researchers can now use AI to accelerate biomedical research by analyzing vast datasets. The ability to identify potential drug targets, predict drug interactions, and optimize clinical trials helps to advance understanding and identify disease markers earlier, develop new therapies, and improve best practices for treatments.

As organizations continue to utilize evolving AI technologies with active archiving of large datasets, healthcare providers can further improve patient outcomes and operational effectiveness in the medical field.

STORAGE SUSTAINABILITY

In response to the AI boom, data centers are becoming larger, denser, and more power intensive. Research from Omdia puts the average data center size at 137,000 square feet and the average for cloud service providers at 205,000¹² square feet. In parallel, rack density has risen from 7 kW per rack in 2021 to 12 kW today, according to AFCOM's State of the Data Center 2024 report.¹³ 25% of data centers report racks in excess of 20 kW, with some more than 50 kW. As a result, the industry already accounts for almost 2% of total electricity usage in the U.S.¹⁴ These trends are likely to accelerate as more graphics processing units (GPUs) are added to serve the needs of high-performance computing (HPC), GenAI and other demanding applications. The AI engine's seemingly insatiable appetite for power has become a serious problem and environmental concern.

The storage of cold and infrequently accessed data within an active archive makes a considerable difference in both power usage and CO₂e emissions. According to Brad Johns Consulting, in a study where 100 PBs of data are to be maintained over ten years, keeping 40% of that data on HDD systems while moving 60% to an automated data tape library system results in a 58% reduction in CO₂e emissions while e-waste is reduced by 53%.¹⁵

"The data storage landscape will undergo a transformative shift, with active archive solutions gaining even more prominence. Organizations will adopt a tiered storage approach, seamlessly balancing performance, sustainability, and cost-efficiency."

Natalie Kremer

Global Product and Channel Marketing
Manager, Overland-Tandberg



AI AND ACTIVE ARCHIVE IN VIDEO SURVEILLANCE

Active archives are being deployed in the field of video surveillance for the collection, retention and access of large volumes of recorded video. AI is also being implemented within large video surveillance data sets to speed facial recognition, spot trends, flag dangers, and trigger alarms. An active archive serves as the most practical video surveillance storage solution for organizations applying AI to long-term video retention or where the number of surveillance cameras is too difficult for human eyes to monitor.

Management: An active archive's intelligent data management features allow operators to tier video files based on the most appropriate storage tier (HDD or LTO tape) while keeping everything online and available for AI applications.

Costs: A low-cost secondary storage tier addresses the scalability problem faced by organizations trying to retain large quantities of video surveillance footage for long periods of time while consuming far less energy than primary storage.

Security: An active archive can automatically apply security policies through its data management software to ensure regulatory compliance and protection.

Access: Integrated tiering into video management software (VMS) systems makes it easy for a video operator or security technician to search and playback all recorded video from any tier of video storage.

Analytics: The capabilities of AI combined with active archive technology can unleash far more value from video surveillance content. AI tools can search through video data within active archives stretching back months or even years, if desired. Levels of insight can be gleaned that were once regarded as nearly impossible.

“High-performance computing, hyperscalers, and video surveillance markets are forcing active archive vendors to consider how they can help these industries scale into the exabyte world. They now offer massively scalable tape libraries with hundreds of tape drives and tens of thousands of media slots, and interfaces that offer fast performance, using multiple tape drives in parallel, and high availability with built-in fault tolerance throughout.”

David Thomson
SVP Sales and Marketing,
QStar Technologies Inc.

“For the exponential growth of video surveillance content, active archive solutions are emerging that combine high-speed HDD storage with efficient LTO tape storage to create a 2-tier environment that balances cost, speed, and long-term retention needs.”

Rich Gadomski
Head of Tape Evangelism,
FUJIFILM North America Corp.,
Data Storage Solutions



IN SUMMARY: THE ACTIVE ARCHIVE SOLUTION FOR AI

The demand for enterprise storage capacity will undoubtedly accelerate in the years ahead. Massive AI-fueled growth has highlighted the need for effective data management from the edge to the core data center and the cloud.

Efficient data management of huge quantities of data lies at the heart of AI success. If AI initiatives are to realize their potential for productive and beneficial outcomes, they must be able to process, analyze, correlate, and reach conclusions based on vast amounts of information. Once data volumes exceed a few PBs, an active archive can provide AI applications with the right mix of access, performance, energy efficiency, and affordability.

The infrastructure for AI must be laid on a foundation of well-planned data storage and workflows. Otherwise, poorly planned data management negatively impacts costs, data security, cyber resiliency, legal compliance, customer experiences, decision-making, energy consumption, and even brand reputation.

In this AI era, effective data management is a necessary part of the core competencies that organizations must achieve for effective digital transformation. And this is where the active archive solution benefits the modern AI-based enterprise.

“Active archives ensure that long-term data is accessible, secure, and preserved in an economical manner. With increasing data growth, accessibility, and retention requirements – and AI/ML applications significantly upping the ante, active archives are essential for organizations to manage their digital assets through every stage of the data lifecycle.”

Rick Bump

Chief Revenue and Operations Officer at Rimage

ANALYST FIRM CONFIRMS THE VALUE OF ACTIVE ARCHIVES IN SUPPORTING AI

Enterprise Strategy Group (ESG) conducted a survey of U.S. IT managers in late 2023 on the subject of archiving and AI:

- 72% of respondents named AI/ML-related analytics as their primary use case for an active archive.
- 82% of respondents reported that AI/ML has driven demand for more data to be retained over time.
- 88% agreed that long-term storage was critical to the success of their AI/ML initiatives.
- 82% of respondents believe more scalable and energy-efficient data storage will be critical to the success of AI/ML initiatives.
- Active archives are growing at an average rate of 30% per year.
- The average length of time that data is retained in an active archive is 11 years.

“Almost all respondents recognized that active archives have improved retrieval times, with a vast majority (71%) recognizing significant improvements,” said the ESG report.¹⁶

For more information on the **ACTIVE ARCHIVE ALLIANCE** or to learn more about an industry-specific active archive solution to meet your needs, visit:

activearchive.com



THE ACTIVE ARCHIVE ALLIANCE

The Active Archive Alliance is a vendor-neutral, trusted source for providing end users with technical expertise and guidance to design and implement modern active archive strategies that solve data growth challenges through intelligent data management. Active archives enable reliable, online, and cost-effective access to data throughout its life and are compatible with flash, disk, tape, cloud, and new emerging technologies as well as file, block or object storage systems. They help move data to the appropriate storage tiers to minimize cost while maintaining ease of user accessibility.

Active Archive Alliance Members & Sponsors



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