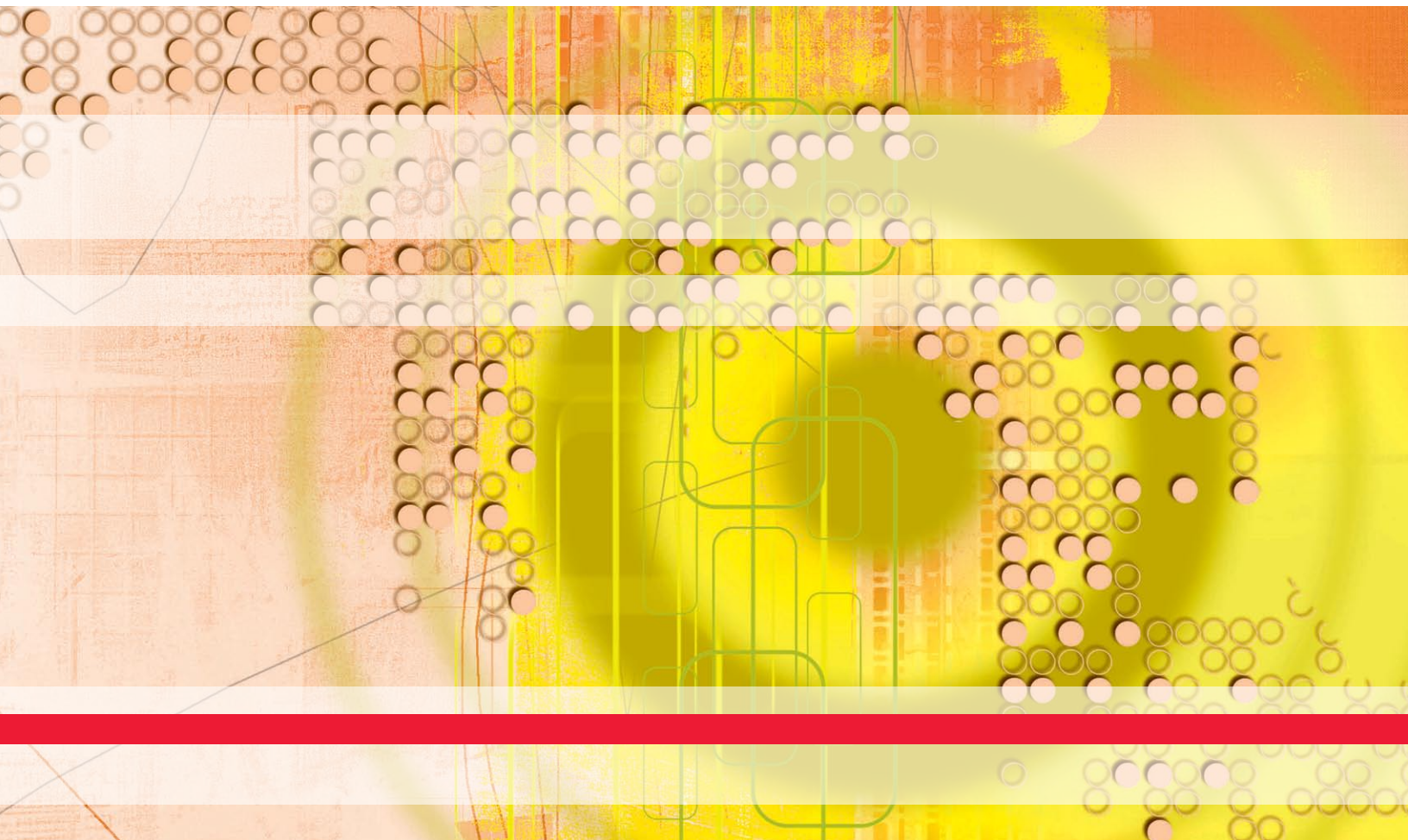



# Hitachi Content Archive Platform

An “Active Archive” Solution



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## An “Active Archive” Solution



As companies strive to better manage information growth, regulatory compliance, and governance they are facing unprecedented demand, not only for secure long-term preservation and retention of digital fixed content, but also for ready access to that content whenever it is needed.

The Hitachi Content Archive Platform establishes an “*active archive*” environment—a single online repository that enables protection, search, and retrieval across numerous content types. Based on a unique SAIN (SAN-attached Array of Independent Nodes) architecture, the Content Archive Platform fully leverages Hitachi storage and archive software capabilities for high availability, performance, and multipetabyte scalability.



## With the Content Archive Platform, Hitachi Data Systems Takes Its Services Oriented Storage Solutions to a New Level

Hitachi Data Systems has defined a new approach to the disk-based “active archive” market that combines industry-leading Hitachi storage with renowned, open standards-based archiving software. The Hitachi Content Archive Platform addresses customers’ needs for long-term authenticated digital content preservation, simplified archive management, and rapid discovery, search, and retrieval of both structured and unstructured data.

The Content Archive Platform is also scalable to multipetabyte capacities and is supported by Hitachi Content Archiver software, which provides robust archiving services in a common archive management environment. In addition, the Content Archive Platform seamlessly integrates with the unique, established portfolio of Services Oriented Storage Solutions that are already available from Hitachi Data Systems.

## Can You Risk Lack of Access to Historical Information and Content?

From rapidly growing midsize businesses to the largest enterprises, IT departments face the challenge of effectively managing and preserving business-critical content, knowledge, and information that is produced and stored digitally. If a business generates significant amounts of structured and unstructured content and/or is working to comply with corporate governance requirements or government regulations, a robust “active archive” can reduce the business disruption (opportunity) costs of audit and legal discovery.

## Consider the Hitachi Content Archive Platform—A Robust “Active Archive” Solution

### A Single Online Repository for All Content Types

The Content Archive Platform is based on well-established records-management and archival-science practices and takes a

policy-based, object-oriented approach to ease the access and retrieval of numerous types of content across multiple applications. Leveraging the robust archive services of Hitachi Content Archiver software, the Content Archive Platform is a single, scalable, online disk-based repository for fixed-content objects and their associated metadata. Archive services include the establishment of retention policies, authentication, replication, encryption, and de-duplication (of redundant data).

This single repository, capable of holding structured, semi-structured, and unstructured data, eliminates the need for separate “islands of archived content.” The Content Archive Platform delivers integrated indexing and search software services to the archived fixed-content data. These services include full-text indexing of file contents—a unique capability still unavailable with traditional content addressable storage (CAS) products.



## Enterprise Strategy Group: 90 Percent Annual Growth Unstructured Data

More than 50 percent of all corporate data involves unstructured or fixed content, such as documents, images, e-mail, and other data. This data, which is experiencing up to 90 percent annual growth in volume according to Enterprise Strategy Group (ESG), must be readily available when needed. To date, ESG has found more than 15,000 laws and regulations in the United States alone, drafted by federal and state legislative bodies, which pertain to the proper treatment of information.

Further, the Content Archive Platform provides all the customer service, audit and e-discovery benefits of a robust “active archive” and is open and standards-based to ensure data retrieval over the long term.

### The Hitachi Content Archive Platform Supports:

**Multi-application Access**—content can be archived by multiple applications simultaneously.

**Archive Object Management**—archived content is managed as objects that include the data file, metadata, and policies.

**Open Standards**—administrators interface with the archive through non-proprietary standard protocols that maintain the familiar file system view and standard file formats.

**Indexing and Searching**—enhanced discovery via simple and advanced searches is enabled through an easy-to-use browser interface.

**Simplified Management**—self-healing and configuring can be completed via automated monitoring and integrity checks.

**Multipetabyte Scalability**—the software scales to meet requirements for increasing content load and storage capacity.

## Built on Robust Hitachi Storage for Best-in-Class Availability, Performance, and Scalability

As the amount of digital content expands, meeting increased archival demand requires a robust platform that offers cost-effective scalability, high availability, and online access performance, for both open systems and mainframe environments.

## Why an “Active Archive”?

A disk-based “active archive” provides for the long-term preservation and protection of authenticated digital content and keeps it available and easily accessible for retrieval in a timely manner whenever needed. Historically, “archives” have been passive repositories of backup and recovery data. The focus was on data protection for recovery from data loss or a disaster, not on rapid retrieval or frequent restores. Thus, tape

and optical systems were adequate storage media. However, ad hoc retrieval of content was slow and manpower intensive.

Times have changed. Companies now recognize that storing archived fixed-content information in online, disk-based “active archive” storage systems offers an alternative to traditional offline (passive) archival storage using tape, microfiche, optical disk, or paper as archival media. An online, disk-based “active archive” can not only improve customer service responsiveness by making infrequently needed data available faster in response to a customer question, but it can also improve online relational database performance by taking the infrequently needed data out of the relational database. An “active archive” can also reduce the disruptive (business and IT) impact of all types of auditing (including Sarbanes-Oxley) and discovery.

The Content Archive Platform scales to support an increasing number of applications, capacity for new content, and the high availability needed to ensure it is accessible when needed. The platform scales horizontally to archive content across a variety of applications and vertically to address the continuing growth of content that must be retained. The Content Archive Platform is available in a variety of configurations that can be scaled cost-effectively without adding servers each time a storage node is added, as is the case with competitive products.

For greater flexibility, the Content Archive Platform is also available in a diskless version to leverage other Hitachi storage platforms. Hitachi Content Archive Platform—Disk-Less can be implemented with all models of the Hitachi Universal Storage Platform™ V, Hitachi Network Storage Controller™, Hitachi Adaptable Modular Storage, and Hitachi Workgroup Modular Storage.

The Hitachi Content Archiver software is available independently to allow organizations to implement on their own servers. Support for these environments is dependant upon listing on the supported Hitachi Content Archive Platform server qualification list.

## Hitachi Data Systems Global Solution Services

The Hitachi Data Systems Global Solution Services (GSS) team can help organizations of all sizes design and implement the optimal Content Archive Platform configuration to meet customer specific business and application requirements.

### Basic Implementation Service

- Provides for the installation and configuration of the Content Archive Platform
- Includes all necessary configuration activities needed to incorporate the Content Archive Platform into the customer’s environment
- Presents the Content Archive Platform solution to the various archive applications
- Tests ingestion of archive data from the applications utilizing the Content Archive Platform

### Cell Capacity Upgrade Service

- Enables the installation and configuration of capacity upgrade cells to an existing Content Archive Platform
- Provides for all activities necessary to implement this upgrade and make it available to the Content Archive Platform

### Search Capacity Upgrade Service

- Enables the installation and configuration of Search upgrade cells to an existing Content Archive Platform
- Provides for all activities necessary to implement this upgrade and make it available to the Content Archive Platform



- Support for Hitachi Universal Storage Platform™ V, Hitachi Universal Storage Platform, Hitachi Network Storage Controller™, Hitachi Adaptable Modular Storage, and Hitachi Workgroup Modular Storage
- Support for Hitachi Device Manager and Hitachi Tuning Manager software for reporting of Content Archive Platform metrics

## Business Benefits

With Hitachi Content Archive Platform, you can:

**Meet regulatory and governance requirements.** Ensure compliance with requirements for content preservation and retention.

**Protect your business.** Reduce risk of fines and penalties for not meeting regulatory compliance mandates or providing timely responses to audit and legal-discovery requests.

**Save time, money.** Reduce cost and complexity via a single “active archive” repository. Expedite content retrieval. Place archived data on lower-cost storage tiers.

**Protect and secure content.** Provide a high-availability environment. Authenticate file integrity and access. Enforce retention rules.

**Simplify searches.** Ease access and retrieval of archived content whenever needed.

**Grow with your business.** Scale horizontally to support multiple applications and content types. Scale vertically to support continued data growth.

## Capabilities

### Governance and Compliance

- Policy-based management to set and adhere to retention periods
- WORM File System for content immutability
- Authenticated content preservation established with a user choice of digital signature or hash algorithms
- Embedded index and search to accurately and quickly retrieve content
- Content protection through multiple copies and RAID-protected storage

## Feature Highlights

- A WORM file system and time-base retention at the object level
- Authenticated content preservation with a user choice of digital signature or hash algorithms
- Embedded full-text index, search, and retrieval for content discovery
- Automated object-level remote replication
- Custom metadata support
- Content privacy (encryption of data at rest)
- Standards-based interfaces, including NFS, CIFS/SMB, HTTP, https, WebDAV, SMTP, NDMP
- Duplicate data elimination

**Structured data** is held within the well-defined constructs of a database. This is critical for organizations that rely upon online transactions and 24/7 access to transaction-related information.

**Semi-structured data** includes e-mail messages and unstructured documents structured by e-mail metadata, such as who sent the message under what subject with what attachments to whom and when.

**Unstructured data** includes documents, spreadsheets, graphics, still and moving images, and other data formats stored in file systems.

## Preservation and Retention

- Archives any type of content, such as e-mail, documents, spreadsheets, still images, scanned images, database records, etc.
- Allows archived data to be used for customer service and/or business analytics
- Prevents deletion prior to the expiration of a retention date
- Keeps data safe; ensures high reliability with file authentication, retention, protection, and logging

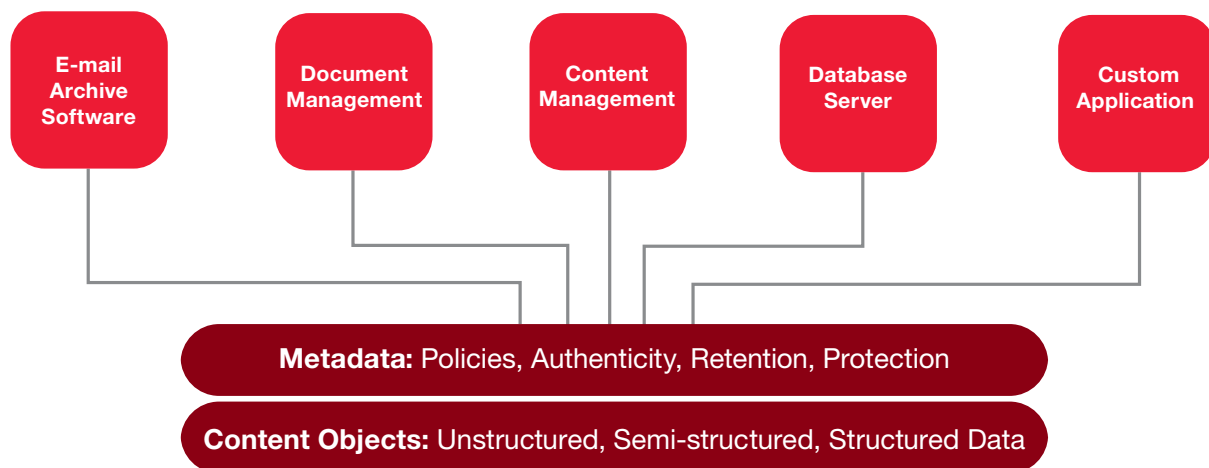
## Optimized Performance and Availability

- Highly available RAID storage and cluster architecture to ensure access to data and reduce recovery and rebuild time
- Optimal performance and maximized storage utilization through even distribution of data to balance load and storage
- Multiple file transfer sessions handled in parallel for superior throughput to nearline and tape-based solutions
- Simplified management and administration through self-managing cluster design
- Standards-based interfaces (NFS, CIFS/SMB, HTTP, https, WebDAV, SMTP, NDMP)

## Complementary Solutions

Complementary hardware solutions for Hitachi Content Archive Platform include Hitachi Workgroup Modular Storage, Hitachi Adaptable Modular Storage, Hitachi Universal Storage Platform™ V, Hitachi Universal Storage Platform, and Hitachi Network Storage Controller™. Complementary software solutions include Hitachi Content Archiver, Hitachi Device Manager, and Hitachi Tiered Storage Manager software, as well as Hitachi Data Migrator and Hitachi Data Archiver software, both powered by CommVault®.

Hitachi Data Systems has created an ecosystem of application partners to deliver complete solutions for content management and archiving. Application categories defined by specific content types/applications include email, file systems, ECM, analytics and compliance, database, mainframe, and applications, such as PACS for medical imaging. Some of our valued partners include: CA, Symantec, Princeton SofTech, OpenText, and Bustech.



*The Content Archive Platform is based on well-established records-management and archival-science practices and takes a policy-based, object-oriented approach to ensure the ease the access and retrieval of numerous content types across multiple applications.*

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