



# LIFECYCLE FIXED CONTENT MANAGER™

## SOFTWARE

### Key benefits

#### Compliance

Lifecycle Fixed Content Manager software copes with the strictest regulatory archive requirements. With its support of non-rewritable and non-erasable records, the system helps you securely protect your data from deletion until the expiration date is reached.

#### Open, standards-based architecture

Standard NFS and CIFS interfaces allow easy application integration and flexible deployment with off-the-shelf and custom e-mail archiving and content management applications.

#### Data coalescence

Lifecycle Fixed Content Manager software provides for data coalescence where only a single instance of a file or part of a file is stored in the repository. Data coalescence optimizes storage capacity and reduces storage costs by eliminating data redundancy.

#### Self-managing and self-healing

Easy addition and removal of servers, automatic data protection and automatic data migration minimize system administration and provide fault tolerance.

#### Data integrity checking

The system verifies that data is stored accurately as blocks are deposited. It continually scrubs the data with a background process that identifies and rectifies bad blocks.

#### Replication

Lifecycle Fixed Content Manager software supports asynchronous remote replication for disaster recovery as well as for regulatory compliance purposes.

### Data volumes are growing

Organizations across multiple industries are groaning under the weight of massive data volume increases. In addition, increasing industry and government regulations are driving more complexity into the storage environment. This explosive growth in data is driven by increasing volumes of multiple data types (e-mails, instant messages, audio and video files) and business documents that need to be reliably and cost-effectively archived. With regulations becoming more prescriptive about the types of data to be retained and the mechanisms for retaining them, regulators are reaching right down into the data center.

Formalized compliance initiatives are emerging that cut across organizational boundaries. Indeed, many organizations are creating a compliance office that reports to the executive level. Successful compliance initiatives within any organization will take into account not only the business impact of applicable regulations, but also ways to use technology to meet the regulatory compliance challenges.

The introduction of legislation and regulations affecting how long different kinds of records must be saved, such as the Sarbanes-Oxley Act of 2002 (Sox), the Health Insurance Portability and Accountability Act (HIPAA) and the SEC 17A-4 regulations have significantly increased the importance of integrating, accessing, analyzing and storing information. In addition, a wide-range of international regulations are beginning to have a similar impact.

The regulatory environment is evolving rapidly, and international corporations need to deal with regulations at both a local and global level. Any technology solutions implemented need to be flexible and scalable so regulatory changes will be simple to implement at the technology level right across the organization.

#### A way to manage this data

Lifecycle Fixed Content Manager software is a storage solution that transforms magnetic, disk-based hardware into a repository for the secure, long-term retention of fixed content data. It provides reliable, cost-effective storage and retrieval of fixed content data, while eliminating the storage of redundant electronic business records.

This software provides an enterprise-wide fixed content storage solution, rather than a point solution to a particular storage pain point. The solution can span multiple facilities, as well as multiple tiers of storage hardware. Electronic communication (e-mails and instant messages), audio and video files and business documents can be reliably stored and protected against accidental corruption, media degradation or tampering. Data integrity is provided for through the use of cryptographic hashes and proactive integrity verification.

#### How it works

Lifecycle Fixed Content Manager software assigns each block of data a unique content address based on its actual content. The system uses content addresses to distribute data evenly across storage servers in the system, providing load balancing for optimal use of resources. The system combines the benefits of content-addressed storage with widely used NFS and CIFS file system interfaces to provide, scalable and cost-effective magnetic, disk-based WORM storage for regulated and enterprise environments.

## Advanced record retention

The Lifecycle Fixed Content Manager architecture supports record-level retention management by enforcing application-set retention policies for individual records. Protected records cannot be changed or deleted until their expiration date. If policy dictates, an expiration date can be extended (but not shortened). For example, a record can be put on hold for legal or regulatory review.

## Grows as needed

StorageTek's Lifecycle Fixed Content Manager software is built to grow, and is designed to support large data volumes. Capacity can be rapidly added to the system as data volumes grow.

## Let's get started

To learn how StorageTek® can help you solve your fixed content archive problems, please contact your nearest StorageTek representative.

The table below illustrates how Lifecycle Fixed Content Manager meets the widely recognized SEC 17a-4, mandated by the U.S. Securities and Exchange Commission.

# Lifecycle Fixed Content Manager™ software

## SEC 17a-4 electronic media requirements

17 a-4 (f) (ii) (A)

Preservation of records exclusively in a non-rewriteable, non-erasable form

## Lifecycle Fixed Content Manager software capability

- Non-rewriteable, non-erasable volumes are defined and retention periods are set on each record in the volume.
- Records cannot be erased or changed during the required retention periods.

17 a-4 (f) (ii) (B)

Automatic verification of recording process (accuracy and quality)

- Content addresses verify that records are stored accurately.
- Continuous proactive verification beginning with recording process.
- Comprehensive audit log.
- Content certificates prove that records have not been changed.

17 a-4 (f) (ii) (C)

Version control, time stamps and retention policies

- Unique volume identifiers are created for each non-rewriteable, non-erasable volume.
- Each record has a serial number (NFS path and file name) and time stamp that are unchangeable during the retention period.
- The volume identifier and serial number are communicated to the application for verification and tracking.

17 a-4 (f) (ii) (D)

Downloadable index and records

- The records and indexes preserved in the software can be readily downloaded to any acceptable media.

## SEC 17a-4 procedural requirements

Real-time record and index availability to enable reviews

- The online, high-availability nature of Lifecycle Fixed Content Manager software delivers fast access to record archives.

Disaster recovery — duplicate copies of all records

- Duplicate copies of all records are immediately stored in Lifecycle Fixed Content Manager software at the point of creation.

Audit system

- Lifecycle Fixed Content Manager software keeps an audit log of all activity to verify the integrity of archived objects.
- All activity may be viewed using real-time and historical reports.

## ABOUT STORAGETEK®

Storage Technology Corporation (NYSE: STK) is a \$2 billion global company that enables businesses, through its information lifecycle management strategy, to align the cost of storage with the value of information. The company's innovative storage solutions manage the complexity and growth of information, lower costs, improve efficiency and protect investments. For more information, visit [www.storageitek.com](http://www.storageitek.com), or call 1.800.275.4785 or 01.303.673.2800.

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