

ENTERPRISE STORAGE SUITE

KEY FEATURES AND BENEFITS

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- WORM support
- Integrity protection
- Partition balancing

KEY BENEFITS

- Enhances Universal Content and Records Management systems
- Ensures privacy and prevent manipulation of records
- Utilizes file system partitions more effectively

Bezzotech's Enterprise Storage Suite is a solution which works in conjunction with Oracle's Universal Content Management or Universal Records Management systems, along with an enterprise storage environment supporting WORM (write once read many) technology, such as Oracle's SAM-QFS or Netapp Filer. The integration is compatible with any WORM solution that uses standard POSIX metadata operations to WORM-enable files. It adds the following additional functionality:

- WORM file system support to ensure privacy (HIPAA) and prevent manipulation of records (SEC Rule 17)
- Integrity Protection using Message Digest and Metadata storage on file system
- FileStoreProvider Partition Balancing

WORM technology: Write Once, Read Many (alternatively Write One, Read Multiple or WORM) refers to computer data storage systems, data storage devices, and data storage media that can be written to once, but read from multiple times.

Message digest: a hash function is performed on the content or record, which returns a fixed-size bit string (the hash value), such that when the content is changed accidentally or intentionally, it will change the hash value. This can be used to validate that the original content was not altered.

Metadata storage on file system: this will ensure that a copy of the metadata, usually stored in a database, is stored in WORM state on the file system (even though the database is not on a WORM drive). It is configurable which metadata fields are written.

FileStoreProvider Partition balancing: Even though this is not strictly related to WORM technology, it is included on the solution for Enterprise Storage Suite. By default, the UCM server uses a round-robin algorithm so all file systems fill up at an even rate. The new alternate Load Balancing algorithm for UCM's File Storage Provider allows for less-full file system partitions to fill up with a faster rate.

Implemented as a UCM Component, Enterprise Storage Suite can easily be installed and configured using standard UCM/URM administration tools.



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EXPAND YOUR CONTENT MANAGEMENT CAPABILITIES

RELATED PRODUCTS AND SERVICES

Bezzotech is a Minneapolis-based software consulting firm, specializing in the Oracle Universal Content Management product suite (formerly Stellent Content Server).

Our goal is to ensure that you maximize the value of all of your existing content: whether it resides in a database, email archives, or business reports.

Oracle Content Server stores contributed content in a "vault" repository, which can be either a file system or in the database. A system administrator with direct access to the vault can maliciously or accidentally modify these original files, resulting in an undocumented change. In order to avoid this risk, you will need special software and hardware to explicitly lock-down important files. These are commonly called WORM devices.

Once WORM-enabled, a file cannot be altered until after the retention date has passed. You are able to read the document, but not change the file, or any file system metadata.

In addition to the content, a user can also WORM the metadata for a content item. The Enterprise Storage component will create a manifest file of the metadata for the item, and store it alongside the document in a WORM-enabled file system. Administrators control which metadata fields to be stored and protected.

In some cases, a user will want to track unauthorized changes, but does not want to WORM-enable a document. To support this, Enterprise Storage creates a fingerprint of the document (called a "hash") and stores it with the document metadata. If the document changes, the hash will be different, and the user will know it's been altered.

To enable the management of very large repositories, the Enterprise Storage Suite includes **FileStoreProvider Partition Balancing**. This is an advanced algorithm for load balancing to enable administrators to easily add new partitions to their repository. Newer repositories fill up at a faster rate, which ensures all partitions are equally utilized, and you never need to "shut down" older partitions.

The Enterprise Storage Suite can be configured with any custom metadata fields to drive WORM rules for retention policies. It is also fully compatible with Universal Records Management and Retention Manager. These add-on applications allow administrators to create document retention policies based on legal and privacy concerns. These policies set the retention time for documents, archival rules, storage policies, access policies, and encryption policies. Administrators can configure the Enterprise Storage Suite to drive WORM rules with these retention policies. In the event of a legal hold (URM "freeze") a document will be automatically WORM-enabled until all holds are lifted (URM "un-freeze").

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