Preservica Enterprise Private Cloud v5.10

Preservica Enterprise Private Cloud and Enterprise Private Cloud Perform (EPC) is a comprehensive and scalable enterprise grade digital preservation and access solution, with dedicated hosting and operations maintained for you by Preservica in your own,highly-secure, private cloud environment. EPC combines a rich set of OAIS compliant preservation workflows,privacy, security and consistency of performance all integrated into your organization's authorisation environment and providing easy-to-manage scalability for increased volumes of information or user demands. EPC is designed to support operations in regulated industries and the GDPR.

Overview

Preservica EPC contains all the functions required to deliver advanced Digital Preservation, as specified in the Open ArchivesInformation System (OAIS) reference architecture (ISO14721:2012): Ingest, Archival Storage, Data Management, Administration, Access, Preservation Planning and Preservation Action.

Content Upload

Ingest allows users to load information into the archive in a managed and efficient manner. Preservica EPC provides:

- Upload content directly via browser (no tool download required)
  - up to 4GB according to browser limit
- Locally installable "Upload Wizard"
  - Simple four step upload
  - Aimed at records producers and content creators
- Locally installable "SIP Creator" to:
  - Build submission packages from locally held files
  - Assign descriptive metadata from fragments created
  - elsewhere or by using a GUI
  - Select where in the hierarchy to place the submission
  - Submit content securely to Preservica
- Locally installable "Transfer Agent"
  - Upload large numbers of submission packages, up to 100 GB
  - per package, to the Cloud
  - Deploy locally or centrally as a shared service
  - Efficient background upload
- An optional CE Bulk Upload Service enables uploads of up to 80TB at a time quickly and easily, working in conjunction with AWS Import/Export Snowball

- Create and ingest a website snapshot by crawling a user supplied URL
- Package ingest types include:
  - Easily uploadable content, in multiple formats, resulting from digitization projects
  - Ability to upload DSpace packages and BagIt Bags
  - Ingest ISO disk images (e.g. images of CD, DVD and Hard Disk Drives)
  - Ingest packages from Microsoft SharePoint, PastPerfect and CONTENTdm
  - Preserve email & attachments from Microsoft Outlook (MSG, PST), Gmail and Lotus Notes
  - Compressed & uncompressed folders containing common formats for documents, AV files and more
- Workflow steps to perform quality assurance including:
  - Virus checking
  - Checksum verification
  - Checking permitted file formats
  - Checking metadata is well formed
- Built in technical metadata extraction required for preservation
- Workflow to migrate file formats on ingest using user defined migration pathway (normalization)
- Automated storage processes:
  - Index selected metadata and content
  - Coordinate storage passing the material into the archival database and cloud storage
- Manual and automated workflows to perform all the ingest processes required
- Ability to detect the ingest of duplicate files

Archival Storage

Preservica EPC stores its content within Amazon Web Services (AWS) storage systems. This provides the following functions:

- Use of AWS Simple Storage Service (S3) to hold digital assets (files) for fast, frequent access

- Save files to multiple servers in multiple data centres within a given geography (usually within a 10km radius)

- Ability to split collection between Amazon S3 (fast storage) and Amazon Glacier (slow, lower cost storage)

- Optionally encrypt content stored in AWS

- Optional isolation of content in S3 and Glacier with multiple tenants which store the content for individual teams, divisions or usage requirements

- Integrity checking of all objects held in storage

- Checksums calculated on storage for each copy

- Checksum re-calculated on access or at regular timed intervals on files at rest

- Confirmation by Preservica EPC that when a file is accessed, it is the same as the file loaded in ingest using its own checksum (choose from MD5, SHA-1, SHA-256, SHAR-512)

- Ability to save selected portions of the collection to an external secure SFTP server

- Optionally maintain additional backup copies of files and metadata in a second supported cloud storage location [customer account]

Data Management

Preservica EPC contains a range of capabilities to allow users to manage the metadata that describes the content:

- Descriptive metadata can select from one or more standard metadata schemas provided (display and edit templates included)
  - Encoded Archival Descriptor (EAD) 2002
  - MODS 3.4
  - Dublin Core 1.1

- Alternately, descriptive metadata can make use of user provided descriptive metadata schemas
  - Add XML schema definition
  - Add transforms to present and edit the schema (XSLT)
  - Add templates to allow metadata with default values to be quickly added to information objects
  - Add custom search indexes

- Content management functions provided:
  - Assign one or more metadata fragments to an information object (file, record /deliverable unit, collection)
  - Edit descriptive metadata on any information object
  - Make bulk changes to the metadata of multiple information objects. Includes replacing, clearing or adding a fragment

- Delete information controls with approval steps, editable retention period, alerts and optional time limited recovery

- View the audit trail of information and digital objects

- Unlimited information hierarchy, with digital objects held at any level

- Drag and drop to organize and reorganize content or create virtual hierarchies

- Synchronize catalog metadata and collection structure from Axiell CALM, Adlib and ArchivesSpace

- Classify personal data information for the GDPR

Access for Expert Users

Preservica EPC provides a Web based "Explorer" to allow the browsing, searching, viewing and downloading of all metadata and content:

- Interactive features:
  - Explore the collection hierarchy, drilling down to information objects of interest
  - Flexible post ingest collection arrangement with drag-and-drop
  - Easy to build Virtual Collections to enable the rapid creation of temporary exhibitions
  - View the files and all metadata (description and audit trail) for any information object
  - View technical metadata for files
  - Thumbnail preview of files (for selected file formats)
  - Download any manifestation (representation) of an entire information object or selected file
  - In-browser rendering to view, listen or play content without having to download the file

- Search tools including:
  - Full text search of permitted file formats and metadata
  - Logical search functions (AND OR NOT etc.)
  - Filtered searches incorporating searching over any registered descriptive schema
  - Limit search to within a selected collection or deliverable unit

- Workflows
  - Launch Access workflows, for example creating a Dissemination Information Package (DIP) for download or delivery, transforming metadata for download into preferred schema either using the provided METS transform or a user provided transform, and sending notifications by e-mail and/or text when the DIP is ready for download
  - Launch Data Management workflows for a specific information object, for example delete or move
  - Optional workflow to migrate file formats on access using user defined migration pathway (normalization)

- Ability to control access to content (or content and metadata) through roles and access control lists (see Administration)

Access for Non-Expert Users

A brandable Web based portal to provide advanced search and easy public and internal access to collection content

- Open access for public content or user authentication for more secure content.

- Fast playback of Audio/Visual content

- Integration with content management systems via CMIS interface (read only)

- Accessibility WCAG 2.0 AA

Preservation Planning and Action

- Organization and Planning:
  - Uses File Format Registry based on the UK National Archives PRONOM database
  - Ability to perform preservation planning by simple selection of formats. Includes the ability to select preservation and presentation actions and to select migration pathways
  - Growing list of file formats recognized (more than 1600) and migration pathways (more than 660)

- Characterizing the collection:
  - Ability to perform file-level characterization including format identification, format validation and property extraction using best available tool
  - Ability to perform component identification and measurement of component-level essential characteristics (e.g. Web pages)

- Migration
  - Ability to perform migrations including post-migration verification of component-level essential characteristics
  - Ability to create new "Digital Master" preservation copies
  - Ability to create lower quality presentation copies used for dissemination
  - Ability to see and compare pre- and post- migration component information

- Support for Long Term Non-Permanent Records
  - Automatically classify and set access permissions during ingest
  - Automate future actions (e.g. appraise, delete) based on policy rules
  - Search by classification

- Standard tools provided including:
  - Identification / Characterization: DROID 6.3 and signature file v93, JHOVE 1.20 (JPEG, PDF, HTML, JPEG2000, AIFF, XML, TIFF, GIF, PNG), Java Image IO (for image formats), Apache POI (for MS Office), Entagged Library (for audio formats), FiWalk (for disk images)

  - Migration: Native Java Image library (most image formats), FFMPEG (various AV formats), Libre Office (various office formats to PDF and PDF/A), ImageMagick (most image formats), iCat, Handbrake (for web friendly video)

- Ability to perform embedded object extraction and iterative filelevel characterization within container formats (e.g. ZIP, GZIP, TAR, MS Office)

- Implementation of all Preservation Actions via the standard workflow engine allowing more complex pathways or actions to be automated

Administration

Includes a set of standard reports produced in PDF, XML or CSV formats:

- Ingest Reports

- Access Reports

- Data Management Reports

- Preservation Reports

- Administration Reports

- Proof and authenticity reports

- Storage & file type reports

- Information with GDPR personal data classification reports.

- Administration
  - Maintain Transfer Agreements with content suppliers
  - Manage schemas used for content description
  - Fast file existence check

- User Management & Authentication
  - Create and suspend users
  - Create roles and assign to users
  - Users requested new password
  - Option to enable two factor authentication, compatible with common authentication applications

- Create and upload custom reports

- Comprehensive security model for information objects
  - Define tags saying which actions can be performed by which user roles
  - Assign tags to collections and records (deliverable units) allowing fine grain user access control to information objects

- Test new schemas, structures or provide training to new users in an optional test tenant

Support

Operations

- Preservica EPC is operated by a professional operations team sustaining system uptime, maintenance, upgrades, backups, performance and restores

- The hardware and private cloud platform is provided by Amazon Web Services in US (N. Virginia), Canada (Montreal) or EU (Dublin) locations

- Optionally configured to use a client's Open LDAP, Active Directory, or SAML provider (e.g. Azure AD) for access control (supported configurations within Product Documentation)

- Operations executed under ISO 27001 (Information Security Management System) accredited processes

- There is no system administration requirement for the customer with EPC

- Dedicated organization training course included for users and managers of the system

Professional Support

Preservica provides a full ongoing support service including a dedicated support portal, email support, guidance, and bug fixing.

Integration

Preservica EPC includes extensions for use and integration

- Synchronized data with supported catalogs (See Data Management section)

- OAI-PMH API for providing metadata harvesting information

- REST API for content read and write actions

Development Program

Preservica EPC is under active development with major and minor releases made throughout the year. All development is performed under an ISO 9001 Quality Management System.

System Requirements

Access to Preservica is provided through the following supported browsers

- Chrome v40+

- Internet Explorer v11

- Firefox v40+

Platforms for installable software clients

- Upload Wizard & Transfer Agent: Windows desktops

- SIP Creator: Windows (7, 10, 32 or 64 bit) or Linux desktops (32 or 64 bit)

Open connection to internet required for Preservica EPC

Ability to download and locally install client application software for use UL Wizard, SIP Creator and Transfer Agent tools.

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