

# Preservica Enterprise on-Premise v6.5

Preservica Enterprise on-Premise (EoP) is a private and secure on premise digital preservation platform that can be tailored to meet the needs of different size organizations - from a standard single server configuration to a high throughput multi-server, multi-tenant environment. Additional options include a disaster recovery instance, additional test or development instances and multiple storage-type adapters. Synchronization with catalog systems, a secure or public access module and tight integration with other systems are included as standard. Preservica EoP is designed for organizations with in-house IT resources, that want to keep content inside their own firewall, as well as be able to combine this with cloud storage (from multiple providers) to create a highly durable and scalable “hybrid” storage environment. EoP is designed to support operations in regulated industries and the GDPR.

## Overview

Preservica EoP contains all the functions required to deliver advanced Digital Preservation, as specified in the Open Archival Information 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 EoP provides:

- Upload and prepare content directly via web browser (no tool download required):
  - Simple drag and drop interface for individual files up to browser limit (approx. 4GB)
  - Upload larger files via a secure holding area
  - Immediately safeguard content to 99.999999999% durability while you prepare your content for upload into Preservica
  - Easily re-arrange content hierarchy before upload
  - Add, edit and enrich descriptive metadata
  - Restore autosaved temporary projects at any time
- Create and ingest a website snapshot by crawling a user supplied URL
- Package ingest types include:
  - Easily upload content in multiple formats, born digital or from digitization
  - Ability to upload DSpace packages and BagIt Bags
  - Ingest ISO disk images (e.g. images of CD, DVD and Hard Disk Drives)
  - Ingest directly from PastPerfect and CONTENTdm
  - Preserve email and MBOX files 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 (for more see Preservation below)
- 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 required ingest processes
- Ability to detect the ingest of duplicate files
- Configure and automate the capture and ingest of social media accounts using Preservica’s Intelligent Archiving Engine
- Unrestricted ingest size
- Optional automated preservation of OpenText and SharePoint content into Preservica
- Ability to ingest content at scale while viewing ingest status and errors



## Archival Storage

Preservica EoP provides the flexibility to store content within a local drive and network drive provided by the customer, and cloud storage in Amazon S3 (fast storage), Amazon S3 Glacier (slow, lower cost storage), S3 compatible storage and/or Microsoft Azure.

- Two storage adapter types are included with the base license, additional storage adapter types can be added as an option:
  - Simple file system
  - Network Attached Storage/Storage Attached Network
  - Generic S3 storage adapter for widely compatible on-premise and cloud storage interfaces
- Option to have hybrid on-premise and cloud storage. Different information can be stored in different locations (Amazon S3, S3 Glacier etc.)
- 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 EoP 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 FTP server

## Data and Collection Management

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

- Metadata is held in an internal MySQL database. Alternatively use an existing external Oracle, PostgreSQL, MySQL or SQL Server database
- 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 assets
  - Add custom search indexes
- Content management functions provided:
  - Assign one or more metadata fragments to an asset or folder
  - Edit descriptive metadata on any asset post-ingest
  - Make bulk changes to the metadata of multiple assets. Includes replacing, clearing or adding a fragment
  - 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 and create virtual hierarchies

- Synchronize catalog metadata and collection structure from Axiell CALM, Adlib and ArchivesSpace
- Classify personal data information for the GDPR fragment
- Convert images of printed text into searchable data using OCR, during or post-ingest
- Create reference metadata to refer to the same information across multiple assets
- Automated retention and disposition of records
  - Meet regulatory, statutory and compliance requirements for long-term records
  - Create and apply retention policies to single or groups of records
  - Automate disposition with records presented for appraisal or deletion
- Replace incorrect content within an asset without having to re-upload

## Access for Expert Users

Preservica EoP 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 assets of interest
  - Flexible post-ingest collection arrangement with drag-and-drop
  - Easy to create linked content to enable the rapid creation of temporary exhibitions
  - View the files and all metadata (description and audit trail) for any asset
  - View technical metadata for files
  - Thumbnail preview of files (for selected file formats)
  - Download any asset or selected part
  - In-browser rendering to view, listen or play content without having to download the file including images, office formats, emails, social media posts, web pages, captioned videos, and the rendering of 3D assets
  - Download assets and folders in OPEX (Open Preservation Exchange) format for enhanced usability
- Search tools including:
  - Full text search of permitted file formats and metadata
  - Logical search functions (AND OR NOT etc.)
  - Fielded searches incorporating searching over any registered descriptive schema
  - Limit search to within a selected folder
  - Export search results into CSV for custom reporting on metadata
- 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 asset, for example delete or move
- Optional workflow to migrate file formats on access using user defined migration pathways (normalization)
- Ability to control access to content (or content and metadata) through roles and access control lists (see Administration)

## Access for Non-Expert Users

An easy to customize web based portal to provide advanced search and controlled public and internal access to content:

- Range of intuitive, customizable themes
- Open access for public information 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 (excluding optional animated theme)
- Display most popular assets and allow users to compile favorites
- Enable restricted or unrestricted downloading of assets

## Preservation Planning and Action

An easy to customize web based portal to provide advanced search and controlled public and internal access to content:

- Organization and Planning:
  - Uses File Format Registry based on the UK National Archives' PRONOM database
  - Ability to perform preservation planning based on simple selection of formats, including the ability to select preservation and presentation actions and to select migration pathways
  - Growing list of file formats recognized (more than 1700) and migration pathways
- Edit the Format Registry to add custom formats, migration pathways and tools
- Characterizing the collection:
  - Ability to perform file-level characterization including format identification, format validation and property extraction
  - Ability to perform component identification and measurement of component-level essential characteristics
- Migration:
  - Ability to perform migrations including postmigration 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
  - Migrate files to Microsoft Office Open XML documents (.docx), in line with the NARA Policy recommendation
  - Ability to migrate multi-part assets such as multi-page TIFF to multiple JPEGs and PDF to multiple JPEGs. This allows all pages to be rendered in the multi-image gallery renderer and enhances the viewing experience
- 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 v94, JHOVE 1.20 (JPEG, PDF, HTML, JPEG2000, AIFF, XML, TIFF, GIF, PNG), Native XML (validation only), Media Info (for audio and video formats), FiWalk (for disk images), ExifTool (for MS Office OLE formats and other image formats e.g. Canon RAW), Apache POI (for MS Office OpenXML formats validation only), Native Java (for OpenDocument formats and MS Office OpenXML formats property extraction only)
  - Migration: Libre Office (various office formats to OpenDocument formats, PDF, PDF/A and various vector graphics formats to SVG and PDF), Imagemagick (most image formats), FFMPEG (various AV formats), Handbrake (for video)
  - Implementation of all Preservation Actions via the standard workflow engine allowing more complex pathways or actions to be automated
- Ability to migrate individual image and video files in a multi-part asset, such as a social media record, to new formats over time to ensure the record can always be read in full

## Security & 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
  - Comprehensive security model for assets:
    - Define tags saying which actions can be performed by which user roles
    - Assign tags to assets and folders allowing fine grained user access control to information objects
  - Test new schemas, structures or provide training to new users in an optional test tenant
- Preservica EoP features an enhanced security package as standard which includes:
- Enterprise active directory authentication integration (see Operations section for more detail)
  - Support for IP whitelisting
  - Transparent audit trails and alerts on unauthorized access



## Support

### Operations

- Preservica EoP is installed and configured on client hardware, on either Linux or Windows operating systems, by Preservica staff
- Configured to use a client's Open LDAP, Active Directory, or SAML provider (e.g. Azure AD) for access control
- Configured to use a client's database. MySQL, Microsoft SQL Server, PostgreSQL, or Oracle are supported
- Dedicated training is included for users and managers of the system

### Standard Support

Preservica provides a full ongoing support service including a dedicated support portal, user group forum, email support, new feature releases and bug fixes.

### Accelerated Success

Preservica EoP customers receive access to Accelerated Success, which provides users with an enhanced and proactive consultancy service delivered by trusted digital preservation experts. Our Customer Experience team will provide a tailored service to support your digital preservation projects.

- EoP includes 10 days of consultancy for each year of the contract (non-cumulative). The 10 customer success days included within the subscription price are not intended for: custom coding, sponsoring product features, bug fixes or managing/fixing the Client's own IT infrastructure
- Consultancy days include advice and recommendations on best practices for on-premise deployment. For organizations looking for managed services to support maintenance and upgrade activities and provide infrastructure and hardware support, Preservica can introduce one of our accredited partners
- EoP customers have the option to purchase additional blocks of consultancy for larger projects

### Integration

Preservica EoP includes extensions for use and integration:

- Synchronization 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 EoP is under active development with major and minor releases made throughout the year. All development is performed under our ISO 9001 Quality Management System.

### System Requirements

Preservica supports access through the following browsers:

- Browser access:
  - Google Chrome v77+
  - Internet Explorer v11
  - Mozilla Firefox v69+
- Client platforms:
  - SIP Creator: Windows 10 (32 or 64-bit) or Linux desktops (32 or 64 bit)
- Storage:
  - See section on Archival Storage
- Database Platforms
  - MySQL 5.7
  - Microsoft SQL Server 2014 onwards
  - PostgreSQL 9.5, 9.6
  - Oracle 11gR2, 12c, 18c
- Preservica EoP Operating Systems (all 64-bit)
  - Windows Server 2012 R2 onwards
  - Red hat Linux v7
  - CentOS Linux v7
- Characterization & migration tools (open source)
  - MedialInfo
  - Libre Office
  - iCat
  - ImageMagick
  - DCRaw
  - Ghostscript
  - wkhtmltopdf
  - HandbrakeCLI