

CManage Registry Technical Manual

Welcome to CManage Registry

CManage Registry is a tool for identity enrollment and lifecycle management of people associated with your organization. Suitable for small collaborations with tens of people or large universities with hundreds of thousands, Registry allows you to organize complex identity data from multiple sources to create a single view of a person. This resource contains the technical manual and documentation for CManage Registry.

CManage Registry

- [Installation](#) (using [containers](#))
 - [Upgrading](#)
 - [CManage Registry Security Advisories](#)
 - [PHP](#)
 - [Web Server](#)
 - [Configuring the Shibboleth Embedded Discovery Service Plugin](#)
 - [Download and Install Source](#)
 - [Organizational Identity Pooling](#)
 - [Database](#)
 - [Email](#)
 - [Registry Setup Script](#)
 - [Cron](#)
 - [Registry Job Shell](#)
 - [Testing](#)
 - [Setting Up Your First CO](#)
 - [QA and Production Tiers](#)
 - [Bulk Initial Data Loading](#)
 - [High availability \(HA\) considerations](#)
 - [Considerations for Large Deployments](#)
 - [Installing and Enabling Registry Plugins](#)
- [Background](#)
 - [Understanding Registry Objects](#)
 - [Understanding Registry People Types](#)
- [Configuring the Platform and COs](#)
 - [Special Characteristics of the CManage CO](#)
 - [Registry Administrators](#)
 - [Registry Permissions](#)
 - [Self Service Permissions](#)
 - [Representing Organizational Hierarchy Through COUs and Departments](#)
 - [Managing Email Addresses and Identifiers](#)
 - [Expectations For Identifiers](#)
 - [Assigning Identifiers](#)
 - [CO Unique Identifier For Applications](#)
 - [Namespace Identifier Assigner Plugin](#)
 - [Identifier Validation](#)
 - [Dictionary Identifier Validator Plugin](#)
 - [LDAP Identifier Validator Plugin](#)
 - [Regex Identifier Validator Plugin](#)
 - [Recommendations For Email Addresses](#)
 - [Email Address Verification](#)
 - [Managing Enrollment](#)
 - [Understanding Registry Enrollment and Linking](#)
 - [Default Registry Enrollment](#)
 - [Setting up Enrollment Flows](#)
 - [Enrollment Sources](#)
 - [Consuming External Attributes via Web Server Environment Variables](#)
 - [Avoiding Duplicate Enrollments](#)
 - [Integrating With ID Match](#)
 - [Resolving Enrollment Issues](#)
 - [Manual Linking Operations](#)
 - [Why Can't Org Identity Pooling Be Changed?](#)
 - [More About Enrollment](#)
 - [Registry Enrollment \(Rev 1, Registry 0.9.3 and earlier\)](#)
 - [Registry Enrollment \(Rev 2, Registry 0.9.4 and later\)](#)
 - [Registry Enrollment Flow Diagram](#)
 - [Registry Enrollment Authentication and Authorization](#)
 - [Enrollment Flow Plugins](#)
 - [DuplicateCheckEnroller Plugin](#)
 - [IdentifierEnroller Plugin](#)
 - [MeemEnroller Plugin](#)
 - [NationalityEnroller Plugin](#)
 - [ServiceEligibilityEnroller Plugin](#)
 - [Expiration Policies](#)
 - [Registry Offboarding](#)

- Managing Operational Records
 - Searching and Filtering
 - CO Groups and Group Memberships
 - Requiring Terms and Conditions
 - Sponsors and Managers
 - Sponsor Manager Plugin
 - Registry Validity Dates
 - CO Person and Person Role Status
 - ORCID Integration
 - Identity Documents
 - Person Vetting
 - Dictionary Vetter
 - Visual Compliance Vetter
 - Collecting NSF Demographics
 - CO Email Lists
 - Discarding Records
 - Deleting Registry Records
 - Deleting or Suspending a CO
 - Registry Garbage Collection
- Organizational Identity Sources
 - API Source
 - Env Source
 - File Source
 - LDAP Source
 - netFORUM Source
 - Novi Source
 - ORCID Source
 - Salesforce Source
 - SQL Source
- Registry Pipelines
- Provisioning From Registry
 - API Provisioning Plugin
 - Changelog Provisioning Plugin
 - Crowd Provisioning Plugin
 - GitHub Provisioning Plugin
 - Grouper Provisioning Plugin
 - Homedir Provisioning Plugin (experimental)
 - Jira Provisioning Plugin
 - LDAP Provisioning Plugin
 - Mailman Provisioning Plugin (experimental)
 - MediaWiki Provisioning Plugin (experimental)
 - MidPoint Provisioning Plugin (experimental)
 - Salesforce Provisioning Plugin
 - SQL Provisioning Plugin
 - Provisioning From Registry (draft model)
- Registry Services
 - ServiceEligibilityEnroller Plugin
 - Service Tokens (Application Specific Passwords)
- Registry Notifications
 - Notification Message Substitutions
- Authenticators
 - Certificate Authenticator Plugin
 - Password Authenticator Plugin
 - Privacy IDEA Authenticator Plugin
 - SSH Key Authenticator Plugin
- Clusters
 - Unix Cluster Plugin
- Registry Jobs
 - Core Job Plugin
 - Identifier Assignment Job Plugin (deprecated)
 - Provisioner Job Plugin (deprecated)
- Customizing Data Elements
 - Ad Hoc Attributes, Extended Attributes, and Extended Types
 - Dictionaries
 - Localization
 - Normalizing Data
 - Attribute Enumerations
 - Email Message Templates
 - Data Filters
 - Data Scrubber Filter Plugin
 - Elector Data Filter Plugin
 - Group Filter Plugin
 - Group Name Filter Plugin
- Managing the User Interface
 - Theming CManage Registry
 - Publishing Mostly Static Public Content
 - Configuring Navigation Links
 - Configuring Required and Permitted Subattributes
 - Registry Dashboards

- Announcements Dashboard Widget
 - Email Address Dashboard Widget
 - Notifications Dashboard Widget
 - Recovery Dashboard Widget
 - Services Dashboard Widget
 - URL Dashboard Widget
- InCommon IAP Support
- Registry Data Model
 - Registry ERD
 - Extending the Registry Data Model
 - Ad Hoc Attributes
 - Extended Attributes
 - Extended Types
 - Understanding Registry Timezones
- REST API
 - Core API (Registry v4.0.0+)
 - REST API v1
- Understanding Registry Deletion
- Registry History and Changelogs
 - Authentication Events
 - Registry Job History
- Writing Registry Plugins
 - Authenticator Plugins
 - Cluster Plugins
 - Dashboard Widget Plugins
 - Data Filter Plugins
 - Enrollment Flow Plugins
 - Identifier Assignment Plugins
 - Identifier Validation Plugins
 - Invitation Confirmer Plugins
 - Job Plugins
 - LDAP Schema Plugins
 - Normalization Plugins
 - Organizational Identity Source Plugins
 - Provisioner Plugins
 - Vetter Plugins
- COnmanage Community Contributed Plugins
- Design Documents
 - IdP of Last Resort
 - IdP of Last Resort Enrollment Integration
 - Registry Reporting (proposed)

COnmanage is the set of products that provide the Identity Management facilities for the COnmanage platform. Deployers of a COnmanage instance can select and customize only those products that make sense for their environment. This technical manual is targeted towards the administrators of a COnmanage instance as well as application developers.