

# Registry Enrollment (Rev 2, Registry 0.9.4 and later)

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This document describes the Registry Enrollment mechanism introduced as part of CManage Registry v0.9.4. For Registry Enrollment in older versions, see [Registry Enrollment \(Rev 1, Registry 0.9.3 and earlier\)](#).

## About Registry Enrollment

By default, CManage Registry uses an [invitation based workflow](#).

CManage Registry can also use customized *Enrollment Flows* to onboard new people into each organization. Enrollment Flows consists of a series of pre-defined steps, the execution of which is managed by Registry in accordance with the [configuration of each specific Flow](#).

## Enrollment Flow Steps

See also: [Registry Enrollment Flow Diagram](#)

A step may be considered *Required*, *Optional*, or *Not Permitted*, in accordance with the configuration. A Required step will execute both the core Registry functionality, as well as any Plugins. An Optional step will only execute Plugins, the core functionality will be skipped. Not Permitted means neither core nor Plugin functionality will be executed.

The order steps execute in may vary according to flow configuration.

Some "internal" steps are not documented here.

Step	Description	Core Step Executes If	Plugins Run If Core Doesn't? (Optional)	Petition Status Following Step	Since
<b>start</b>	Initial step of an enrollment flow. The Petition artifact is created following successful completion (including any Plugins) of this step.	<i>Introduction Text</i> is defined	Yes	Created	v0.9.4
<b>selectEnrollee</b>	Select an existing identity (CO Person or Org Identity) for this enrollment.	<i>Identity Matching</i> is set to <i>Self</i> or <i>Select</i>	No	Created	v0.9.4
<b>selectOrgIdentity</b>	Select an Org Identity via an Org Identity Source for this enrollment.	One or more Enrollment Sources is attached in <i>Search</i> mode, and the petitioner is an admin	No	Created	v2.0.0
<b>petitionerAttributes</b>	Collect attributes from the Petitioner.	<i>Any Enrollment Attributes</i> are defined	Yes	Created*	v0.9.4
<b>duplicateCheck</b>	Call out to an external <a href="#">Identity Match</a> server	<i>Match Policy</i> is <i>External</i>	Yes	Created	v4.1.0
<b>tandcPetitioner</b>	Require agreement to <a href="#">Registry Terms and Conditions</a> .	<i>Terms and Conditions Mode</i> is set to <i>Explicit Consent</i> or <i>Implied Consent</i> , and at least one T&C is Active, and <i>Petitioner Enrollment Authorization</i> is <i>None</i> or <i>Authenticated User</i> .	Yes (if Mode is <i>Explicit Consent</i> or <i>Implied Consent</i> )	Created	v4.1.0
<b>sendConfirmation</b>	Send an email to confirm deliverability of Enrollee email address.	<i>Require Confirmation of Email</i> is set	No	Pending Confirmation	v0.9.4
<b>processConfirmation</b>	Process the response to the email sent in the <i>sendConfirmation</i> step.	<i>Require Confirmation of Email</i> is set	No	Confirmed or Declined	v0.9.4
<b>collectIdentifier</b>	The identifier used by the enrollee to authenticate (eg: \$REMOTE_USER) is attached to the Org Identity created by the Petition.  <a href="#">Automatic linking</a> for existing identifiers is handled in this step.	<i>Require Confirmation of Email</i> and <i>Require Authentication</i> are set	No	Confirmed	v0.9.4

<b>checkEligibility</b>	Determine if the Enrollee is allowed to enroll, by querying an <a href="#">Organizational Identity Source</a> for eligibility.	One or more Enrollment Sources is attached is attached in <i>Search</i> or <i>Search, Required</i> mode, and the petitioner is not an admin	No	Confirmed or Denied	v2.0.0
<b>standAgreement</b>	Require agreement to <a href="#">Registry Terms and Conditions</a> .	<i>Terms and Conditions Mode</i> is set to <i>Explicit Consent</i> or <i>Implied Consent</i> , and at least one T&C is Active, and (as of Registry v4.1.0) <i>Petitioner Enrollment Authorization</i> is not <i>None</i> or <i>Authenticated User</i> .	Yes (if Mode is <i>Explicit Consent</i> or <i>Implied Consent</i> )	Confirmed	v4.0.0
<b>establishAuthenticators</b>	Allow the Enrollee to set up <a href="#">Authenticators</a> .	<i>Establish Authenticators</i> is set	No	Confirmed	v3.3.0
<b>requestVetting</b>	Request <a href="#">Vetting</a> for the Enrollee.	<i>Request Vetting</i> is set	No	Pending Vetting	v4.1.0
<b>sendApproverNotification</b>	Notify the approvers configured for the Enrollment Flow that the Petition is read for review and approval.	<i>Require Approval For Enrollment</i> is set	No	Pending Approval	v0.9.4
<b>approve</b>	Process Petition approval.	<i>Require Approval For Enrollment</i> is set	No	Approved	v0.9.4
<b>deny</b>	Process Petition denial.	<i>Require Approval For Enrollment</i> is set	No	Denied	v0.9.4
<b>sendApprovalNotification</b>	Notify the enrollee that their Petition has been approved.	<i>Require Approval For Enrollment</i> is set	No	Approved	v0.9.4
<b>finalize</b>	If the Petition is not denied, assign identifiers and set person status to Active.		No	Finalized or Denied	v0.9.4
<b>provision</b>	If the Petition is finalized, provision services.		No	Finalized	v1.0.1

\* New Person/Role status set to *Pending*

## Plugin Execution

Enrollment Flows support Plugins as a way of customizing beyond what is supported out of the box. See [Writing Registry Plugins](#) for more details.

Plugins are executed after the core step has completed, or if the step is considered Optional. When a Plugin is executed, handoff is via a URL. More details about this are in the [Plugin Documentation](#). Because Plugins must be run one at a time, a specific ordering is defined in order to ensure predictability. For Registry v3.3.x and earlier, Plugins are executed alphabetically. For Registry v4.0.0 and later, Plugins are executed in the order defined in the [Enrollment Flow Wedge](#) configuration for the relevant Enrollment Flow. Once all Plugins have been run, the next step will be initiated.

Plugins are only executed for the steps documented here. "Internal" steps are not accessible to Plugins.



### Firefox Limitation

Firefox has a "[feature](#)" that limits the number of redirects that may be issued, to 20 by default. This is to work around potential looping situations, but unlike other browsers that perform actual loop detection, Firefox simply maintains a counter and stops when the limit is reached. Since enrollment flows are redirect based, this cause a problem when large numbers of steps execute without user intervention. The problem is made linearly worse when Enroller plugins are configured.

As a workaround ([CO-1224](#)), Registry will introduce a "splash page" with a [meta refresh tag](#) at the beginning of each step in order to reset the count. While this solves the problem in most instances, if you install a sufficient number of Enroller plugins (around 20 or so), you may see issues with Firefox interrupting the flow.