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HelloID Training

Provisioning Application Management

V1.4 / 23-03-2023

Agenda

- Introduction
- HelloID Provisioning
  - Dashboard
  - Source
  - Persons
  - Business
  - Target Systems
  - Notifications
- Admin Dashboard

Introduction

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Audience

- Tools4ever partners
- Tools4ever customers

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Tools4ever

- Dutch origin
- Identity Management
- 7 sites worldwide
- 700 customers in NL
- 5000 customers worldwide
- 140 employees

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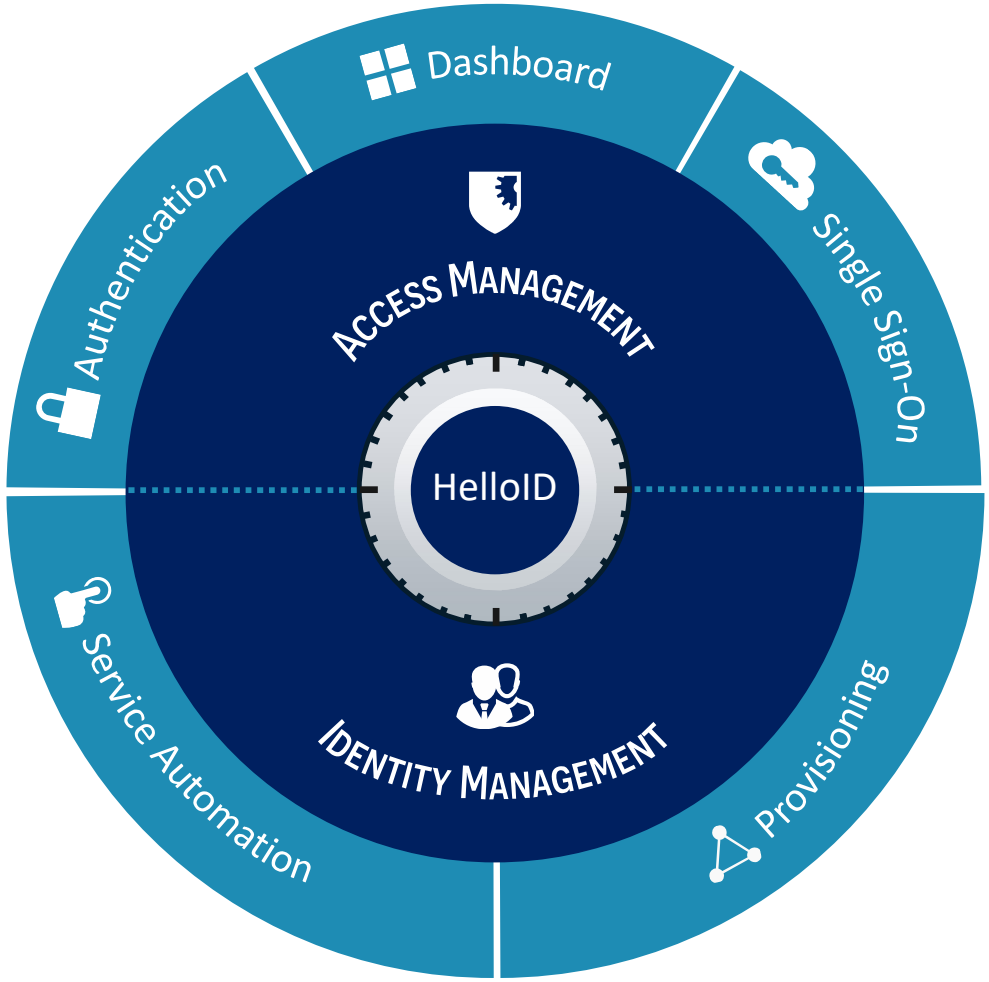
Dashboard
Authentication
Single Sign-On
ACCESS MANAGEMENT
HelloID
IDENTITY MANAGEMENT
Service Automation
Provisioning

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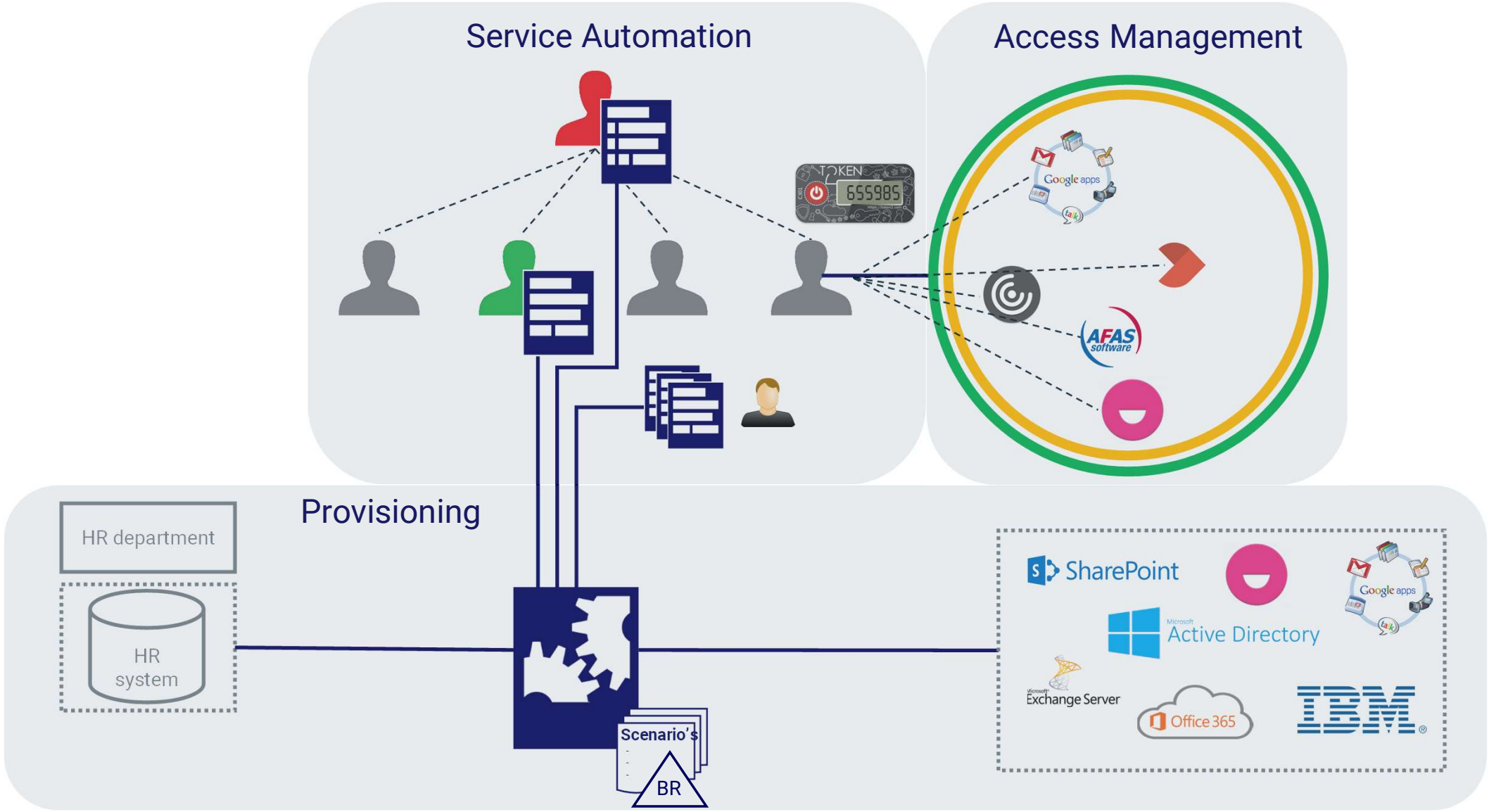
Service Automation
Access Management
TOKEN
655985
Google apps
AFAS software
Provisioning
HR department
HR system
Scenario's
BR
SharePoint
Google apps
Microsoft Active Directory
Exchange Server
Office 365
IBM

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Application Management

Local agent

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HelloID Agent

Agent types

- Directory Agent
- Service Automation Agent
- Provisioning Agent

Provisioning Agent

- Runs as a Windows Service
- Required for on-premise systems
- Communication based on standardized websocket protocol
- Automatically updated when a new release is available

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Lab 1

Installing the local HelloID Agent

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Lab 1

Installing the local HelloID Agent

15 minutes

- Please use the reference article on page 3 of the Labs document.

Dashboard

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Dashboard

- Introduction
- HelloID Provisioning

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Source Systems

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Source Systems

- Introduction
- Configuration
  - RAW data and Mapping
  - Thresholds
  - Required field validation
  - Person aggregation
- Imports
  - Scheduled v.s. manual
  - Timezone configuration and Daylight saving
  - RAW Data v.s. New Snapshot
- Persons
  - History

Introduction

Source system(s) are the starting point of every provisioning process. They are where the process retrieves information about the employees within your organization.

This information is then used to create and manage accounts, access, and permissions.

Configuration → RAW data and Mapping

After a source system is added, you will likely need to make some configuration changes. The configuration affects how data from the source system flows into the HelloID Vault by using the person and contract mapping.

To configure the correct fields used in our mapping we can check the RAW data, we can also use this data to check if there is person and contract data coming from the system and which source field names are used containing the data.

Please check the following article for more information about mappings
https://docs.helloid.com/en/provisioning/source-systems/source-mappings.html

Configuration → Thresholds

Thresholds are very important and can be configured on any source system to prevent incomplete data sets for being imported, they can be configured for the addition of new persons, removal of existing persons and also for blocked persons

The most important one, removal of persons threshold will be enabled by default when a new source system is added.

They can be configured absolute or relative by setting one of their limits, If you set both absolute and relative thresholds, they are evaluated using the OR condition logic.

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Please check the following article for more information about thresholds
https://docs.helloid.com/en/provisioning/imports/source-system-thresholds.html

Configuration → Required field validation

Required field validation can be configured directly from the mapping on person or contract level, by enabling the **“Require this Field”** toggle.

When a required field is detected as invalid, the person will appear inside the blocked persons list and the data for this person will not be imported into HelloID.

When the blocked persons threshold is configured, and the import exceeds the set limit. The entire import will get blocked, in this case manual approval is required.

Please check the following article for more information about required fields
https://docs.helloid.com/en/provisioning/source-systems/source-mappings/map-person-and-or-contract-fields/require-a-field.html

Configuration → Person aggregation

Use the aggregation feature to combine multiple Persons into a single person when employees have multiple records in the same source without having a unique identifier value or exist in more than one source system.

Types of aggregation:

- Manual merge
- Merge suggestion
- Automatic merge

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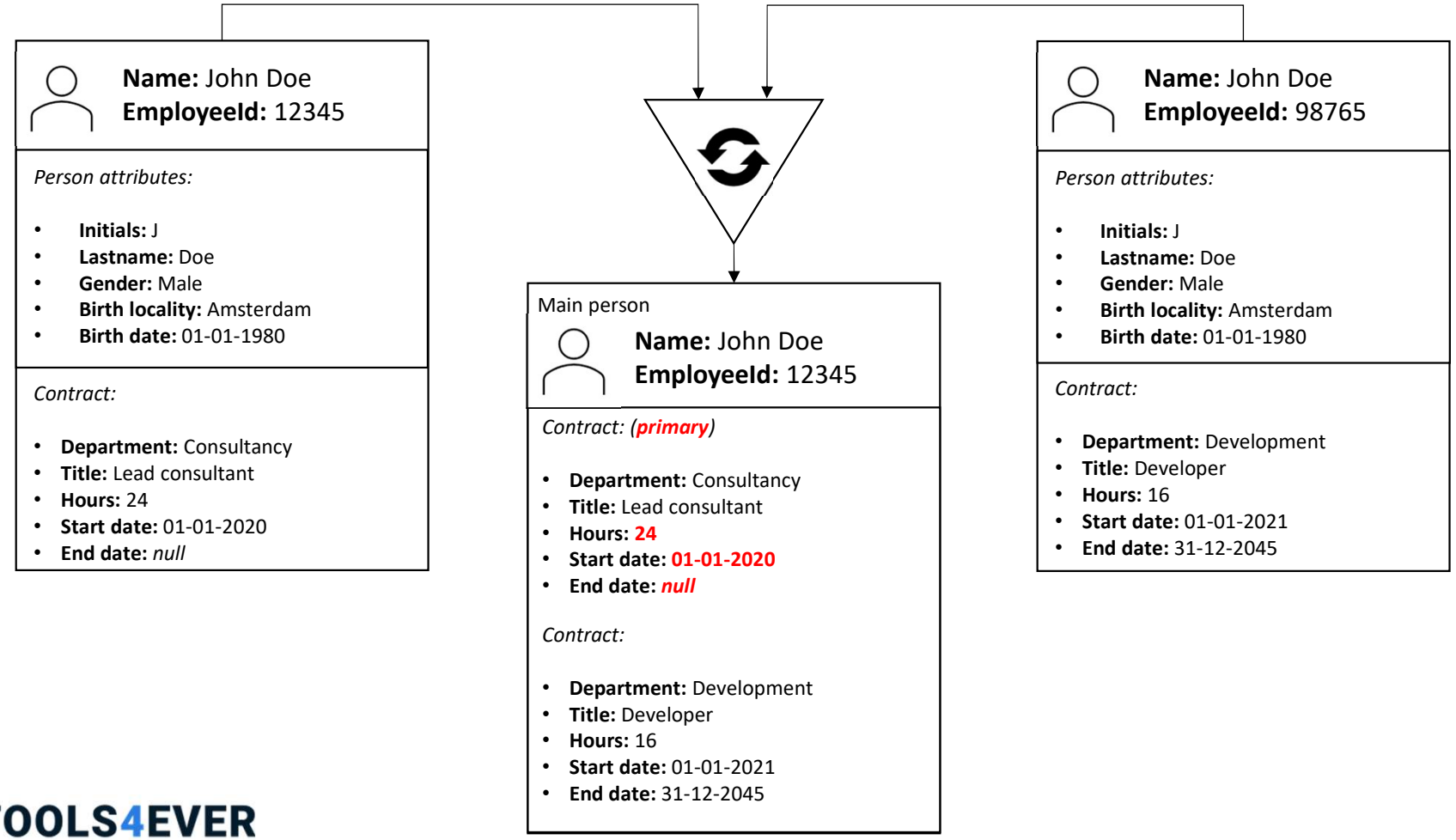
Please check the following article for more information about person aggregation
https://docs.helloid.com/en/provisioning/persons/person-aggregation.html

Configuration → Person aggregation



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Configuration → Person aggregation (Manual merge)

When manual merging persons, you first select a person as the main person and add one or more additional persons as non-main persons to the main person.

When non-main persons are merged into the main person the following things will happen:

- All the non-main persons are removed from the persons list.
- Their entitlements remain in the target system but are removed (unmanaged by) HelloID.
- All their contracts are merged into to the main person.
- The main person's manager record may also be updated according to the manager hierarchy configuration settings.

Configuration → Person aggregation (Merge suggestion)

Using the suggestions feature HelloID algorithmically detect and recommend persons to merge.

The algorithm is based on a character percentage match in a string value for the aggregation attribute a person.

A matching score is required to determine the percentage of characters to match, all persons with an equal or greater percentage will be flagged as possible suggestion.

Configuration → Person aggregation (Merge suggestion)

When suggestions are enabled, a new person could be detected by the matching algorithm and marked as skip for processing until the suggestion is approved or rejected.

A redetermine step is available to recalculate suggestions.

- Manual merges are blocked while a redetermination is running.

Configuration → Person aggregation (Automatic merge)

In addition to merge suggestions, you can also use automatic merges.

Automatic merges bypass the suggestion process entirely, and merge persons during imports.

Automatic merges only occur when there is exactly one other matching person, and the matching person's score is within the configured Automatic Matching Score.

Configuration → Person aggregation (Automatic merge)

If there is more than one matching person, those persons are excluded from enforcement (marked as Skip Processing) and a merge suggestions will be shown on the Suggestions tab.

Automatic merge uses the contracts of both persons to be evaluated, and whichever person has the primary contract (according to the primary contract determinant) becomes the main person.

Imports → Scheduled v.s. Manual

Importing the data into HelloID can be performed automatic on daily scheduled basis, or as a manual process if required.

When a manual import is performed only raw data will flow into HelloID, this process will not initiate the processing and enforcement in target systems.

The automated import in HelloID is based on a randomized time slot, for this reason we are showing the message ***"The import will start between X and Y local time"*** when a schedule is being configured. The automated process is also limited to a maximum of 3 schedules a day, and a 2 hour interval between the schedules is applicable.

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Please check the following article for more information about schedules
https://docs.helloid.com/en/provisioning/schedules.html

Imports → Timezone configuration and Daylight saving

The use of a specific Time Zone is optional by enabling the toggle and choose a time zone in the dropdown to tie the selected time slot to a specific time zone. When leaving this toggle disabled, the selected time slot will be tied to the current time zone setting of your local browser.

Observe Daylight Saving (DST) toggle. When enabled, the schedule will use the DST variant of the chosen time zone during daylight savings (i.e., the schedule will automatically be adjusted +/- 1 hour to continue running at the same clock time).

Enable the Determine Person Lifecycle Events toggle on the schedule configuration for this feature to work.

Please check the following article for more information about timezone settings
https://docs.helloid.com/en/provisioning/schedules/add,-edit,-or-remove-a-schedule.html#add-a-schedule

Imports → RAW Data v.s. New Snapshot

The Raw data lets you see the most recent data that HelloID has retrieved from the source system, without any modifications, filters, or mapping logic being applied. This can be useful when troubleshooting, as you can see the data in an untouched state.

A snapshot is a combination of the most recently fetched dataset from each of your configured source systems, from which the data is imported into the HelloID Vault and configured data mapping is being applied to. The most recent snapshot also determines the current set of Persons, which are used during evaluation and enforcement of the business rule's.

Please check the following article for more information about snapshots
https://docs.helloid.com/en/provisioning/snapshots.html

Lab 2

Adding and configuring Source Systems

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Lab 2

Adding and configuring Source Systems

20 minutes

- Please use the reference article on page 4 of the Labs document.

Persons

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Persons

- Introduction
- Person List
- Details
  - Information
  - Contracts
  - Rules
  - Entitlements
  - Accounts
  - Audit Logs
- Person lifecycle (pre on/off board notifications)

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Introduction

Person records in HelloID are used to house information about individuals within an organization. The records are retrieved from source systems.

One person record corresponds to one real-world human being. Within that record is basic demographic information, extended employment information, and possibly more depending on your provisioning needs.

The information within the record is used to drive the provisioning processes that create and manage accounts, accesses, and permissions.

Person List

This is an alphabetical list of all person records within HelloID. You may use the search bar to look for a particular record by any value in their display name.

The list of persons is also exportable, which can be very useful for data validation purposes. It will contain the persons display name and also the object state indicating when a person is blocked.

Details

Within this pane, you can see a myriad of information about the selected person. Several tabs along the top of the pane break the person's information out into sections.

- Information
- Contracts
- Rules
- Entitlements
- Accounts
- Audit Logs
- History

Details → Information

This tab gives you general demographic, person custom fields and primary contact information about the selected Person.

To manually exclude a person, you can use the built-in exclusion screen located under the business section. It's also possible to automate the exclusions from the person mapping by using the "Excluded" field.

If you exclude a person who already has entitlements (e.g., accounts and memberships) issued to them by HelloID, those entitlements will be left alone while the person is excluded from processing.

Please check the following article for more information about person information
https://docs.helloid.com/en/provisioning/persons.html

Details → Contracts

The Contracts tab displays all of the employment contracts that are tied to a person from their source record. Here, you can see their start and end dates, department information, manager, and more.

For each contract there is a colorized indicator available, which indicates the current state of a contract (active, future, past).

Please check the following article for more information about contracts
https://docs.helloid.com/en/provisioning/persons/contracts/view-a-person-s-contracts.html

Details → Rules

The Business Rule tab shows all Business Rules where the Person is in scope.

The entitlement icon show which type of entitlement is granted within that Business Rule.

Please check the following article for more information about rules
https://docs.helloid.com/en/provisioning/persons/view-a-person-s-business-rules.html

Details → Entitlements

This screen can not only be used to identify the (granted) entitlements for a person, but also to manage the entitlement state inside the Vault, or even to force an update or retry the grant process in case of an error for a specific entitlement.

With the force update, all the granted entitlements for a specific person will be triggered to execute an update process for these entitlements.

From this screen its also possible to identify which business rule(s) are in scope and will grant a specific entitlement to a person.

Please check the following article for more information about entitlements
https://docs.helloid.com/en/provisioning/persons/view-a-person-s-entitlements.html

Details → History

To view a person's history this screen can be extremely helpful, it will let you easily identify all the related changes of source data for a specific person in detail.

This can also be used for analyzing process behavior within HelloID, in case of a person name change or department for example.

Please check the following article for more information about person history
https://docs.helloid.com/en/provisioning/persons/view-a-person-s-history.html

Person lifecycle (pre on/off board notifications)

Use the person lifecycle feature to trigger pre-onboarding and pre-offboarding notification events. These events let you send pre-onboarding and pre-offboarding email notifications that are separate from entitlement actions in target systems.

HelloID calculates onboarding/offboarding dates using contract data as follows:

Onboarding: The earliest **StartDate** among all of a person's contracts

Offboarding: The latest **EndDate** among all of a person's contracts

In this way, pre-onboarding and pre-offboarding notification events trigger email notifications **X** days before onboarding (where **X** = the configured **Days Before** Onboarding value), and **Y** days before offboarding (where **Y** = the configured **Days Before** Offboarding value).

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Please check the following article for more information about person lifecycle
https://docs.helloid.com/en/provisioning/persons/person-lifecycle--pre-onboarding-pre-offboarding-notifications-.html

Lab 3

Change the HelloID general DisplayName Configuration

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Lab 3

10 minutes

Change the HelloID general DisplayName Configuration

- Please use the reference article on page 5 of the Labs document.

Lab 4

Change the primary contract determination

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Lab 4

Change the primary contract determination

10 minutes

- Please use the reference article on page 6 of the Labs document.

Target Systems

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Target Systems

- Introduction
- Configuration
  - Mapping
  - Store field in person account data
    - Introduction of account dependencies
  - Thresholds
  - Correlation
- Audit logs

Target Systems → Introduction

In order for HelloID to provisioning to do anything, it must be connected to a target system. It is within that target system that HelloID will create and manage accounts, accesses, and permissions.

Target systems can be added from the HelloID catalog, or you may add a custom PowerShell system that you can configure on your own. The latter option makes HelloID provisioning an extremely powerful and flexible solution for any organization.

HelloID will only revoke entitlements which are granted by HelloID before.

Please check the following article for more information about target systems
https://docs.helloid.com/en/provisioning/target-systems.html

Target Systems → Configuration

When you want to be able to use the generated data from a Target System into another Target System, we need to expose the data to the Person object. Here for we can set the switch “Store this field in person account data”. The value for this generated field can then be used in other Target Systems.

When you want to use this saved data in another system, you need to configure this by the “Use account data from system” configuration.

Please check the following article for more information about store person field in account data
https://docs.helloid.com/en/provisioning/target-systems/share-account-fields-between-target-systems.html

Target Systems → Thresholds

Thresholds can be set on the Target System to prevent accounts, account access or permissions being mass granted or revoked accidentally. This can occur if, for example, a condition cannot be met in the business rules.

These thresholds can be configured in the same way we did before on our source system as absolute or relative thresholds.

Since the HelloID release (2021.01) we enable the default thresholds when a new target system is added.

Please check the following article for more information about thresholds
https://docs.helloid.com/en/provisioning/enforcement/target-system-thresholds.html

Target Systems → Audit logs

Audit logs vary between applications, devices, systems, and operating systems but are similar in that they capture events which can show “who” did “what” activity and “how” the system behaved.

Often, accounts for some people within your organization already exist in a target system. To avoid creating new (duplicate) accounts, you may configure the target system's correlation options.

When correlation is enabled, HelloID looks for existing accounts in the target system that match with Persons records generated from the source system(s). It does this by matching the correlation fields as defined in the correlation config.

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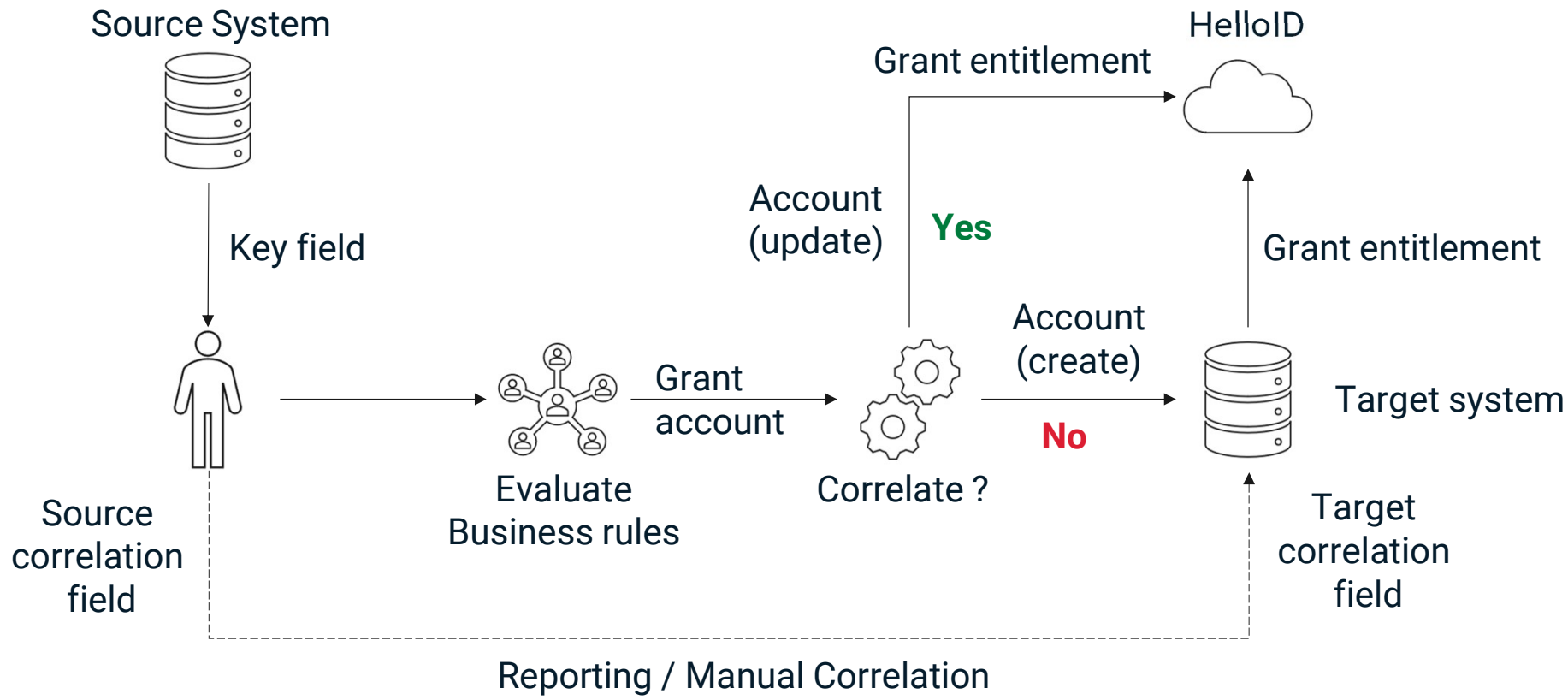
Please check the following article for more information about audit logs
https://docs.helloid.com/en/provisioning/target-systems/audit-logs--target-systems-.html

Target Systems → Correlation



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Please check the following article for more information about correlation
https://docs.helloid.com/en/provisioning/target-systems/active-directory-target-systems/correlation.html

Lab 5

Adding and configuring Target Systems

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Lab 5

Adding and configuring Target Systems

30 minutes

- Please use the reference article on page 7 of the Labs document.

Business

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Business

- Introduction
- Rules
- Evaluations
- Entitlements
- Exclusions
- Person lifecycle
- Custom events

Business → Introduction

Business rules or rules are what tell HelloID's provisioning processes what to do and when.

Whether you want to grant accounts to new employees five days before they arrive, assign group memberships, or terminate accounts when employees leave, business rules are how you go about it.

Business → Rules

Business rules are what tell HelloID's provisioning processes what to do, and for who.

They are how you define, for example, how employees get their accounts created five days prior to their official start date.

Or how users in a certain department get specific group memberships.

Please check the following article for more information about rules
https://docs.helloid.com/en/provisioning/business-rules.html

Business → Evaluations

As stated previously, business rules tell HelloID provisioning what actions it needs to perform on users with your organization.

But how do you know precisely what HelloID will do? And once you know that, how can you manually tell HelloID to take those actions?

The answer to those questions is *evaluation* and *enforcement*.

Please check the following article for more information about evaluations
https://docs.helloid.com/en/provisioning/evaluation.html

Business → Entitlements

Without entitlements, business rules won't do anything.

During the enforcement process, entitlements are what business rules give out or take away from an end user. These can be accounts, group memberships, or account access.

Please check the following article for more information about entitlements
https://docs.helloid.com/en/provisioning/entitlements.html

Business → Exclusions

Within organizations, there is a need to prevent automated processes from touching a particular person's account. This may be the account of the CEO, principal, or someone who needs their account data to adhere to different standards.

HelloID helps you accommodate these exclusions on both a manual or automated basis.

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Please check the following article for more information about exclusions
https://docs.helloid.com/en/provisioning/business-rules/exclusions.html

Business → Person lifecycle

The person lifecycle feature is designed to trigger Pre-onboarding and Pre-offboarding Notification events.

These events let you email notifications that are independent of entitlement actions in target systems.

In other words, the pre-onboarding & pre-offboarding notification events operate at the level of Persons, whereas Account Create and Account Delete notification events operate at the level of individual entitlements (i.e., Account entitlement Grant and Revoke).

Please check the following article for more information about person lifecycle
https://docs.helloid.com/en/provisioning/persons/person-lifecycle--pre-onboarding-pre-offboarding-notifications-.html

Lab 6

Create and configure Business Rules

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Lab 6
Create and configure Business Rules

20 minutes

- Please use the reference article on page 9 of the Labs document.

Notifications

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Notifications

- Type of notifications (event based v.s. summary)
- Variables
- Manager reference
- Custom date format
- Customer specific email domain

Notifications → Summary

User notifications are being triggered based on events, where the following account events are supported Create, Enable, Update, Disable.

The summary notification is not tied to a particular target system. Rather, it's triggered whenever HelloID runs a business rule evaluation (e.g., after a scheduled import).

The **{{SummaryHtml}}** variable will be replaced by a tabulated summary of entitlements that will be granted or revoked during business rule enforcement.

Whether or not the notification is enabled, disabled notifications are not sent out.

Notifications → Variables

Variable person fields can be added to the message by using the complete HelloID Person model. (e.g. **{{Person.ExternalID}}**)

Variable Account fields can also be used inside the message body by using the Account object. (e.g. **{{Account.AdditionalFields.UserPrincipalName}}**), please note the Account object is only available during the account create event.

There is a Fallback available to be used in the mail body when an variable can not be resolved. Herefor you can add a default value in the variable notation delimited by ||. (e.g. **{{Account.title||"Unknown"}}**)

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Please check the following article for more information about notification variables
https://docs.helloid.com/en/provisioning/notifications/notifications-variable-reference.html

Notifications → Manager reference

Resolve related manager account data

This option lets you pull account data for the current Person's manager from a different target system. This is useful if you want to reference properties of the Person's manager (e.g., name or email address) which weren't available in the user's source.

{{reference.manager.**<key>**.**<variablename>**}}

(uses data from person account data)

Active Directory email address example:

<key> **<variablename>**

| |

{{*reference.manager*.**ActiveDirectory**.**mail**}}

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Please check the following article for more information about manager reference
https://docs.helloid.com/en/provisioning/notifications/access-shared-manager-account-fields.html

Notifications → Date format

The option to customize the print format for date/time variables used in notifications, by default the string format uses the Microsoft C# standard for custom date & time format strings.

Example default format: MM/dd/yy H:mm:ss zzz
Start date: 12/31/23 0:00:00 +00:00

Example custom format: dd-MM-yyyy
Start date: 31/12/2023

Caution: Date/time print formatting does not apply to any custom fields that you've added to the persons or contracts schema. Custom fields are of string type rather than datetime.

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Please check the following article for more information about date format in notifications
https://docs.helloid.com/en/provisioning/notifications/set-the-date-time-print-format-in-notifications.html

Notifications → Customer specific email domain

By default the notification from field will only accept any email address using the helloid.com domain without additional configuration.

For custom domains the following procedure is required.

- HelloID will send you an email with instructions to change your domain's DNS / SPF records. If you select the single email address option, we will send a verification email to that address.
- This part can be configured from the general config of your HelloID company settings.

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Please check the following article for more information about custom email domain
https://docs.helloid.com/en/getting-started.html#configure-a-custom--from--address-for-emails

Lab 7

Create Notification

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Lab 7
Create Notification

15 minutes

- Please use the reference article on page 11 of the Labs document.

Admin Dashboard

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Admin Dashboard

The HelloID Admin Dashboard provides basic information about your HelloID environment, in which the widgets on this page cannot be changed.

Each module's tile displays a ratio, which is the number of active users or Persons compared to the total number allowed by your current HelloID subscription.

Please check the following article for more information about the admin dashboard
https://docs.helloid.com/en/admin-dashboard.html

Admin Dashboard → Licenses

Active (licensed) persons for provisioning are calculated as follows, The number of Persons who have at least one entitlement assigned count as one license.

This data is updated once per day, and if your subscription includes additional module features, they are displayed below the user counts (e.g., proxy support or 24/7 technical support).

Please check the following article for more information about licensing
https://docs.helloid.com/en/requirements,-licensing,-policies/licensing.html

Admin Dashboard → Incidents

The Incidents pane shows high-priority errors and events which need your attention. They are tagged according to which HelloID module generated them.

From the incident Details button more information about a particular incident can be found. Where the dropdown menu can be used to view Closed (past) incidents.

When an incident occurs, you can receive an email notification or trigger a webhook to notify an external system.

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Please check the following article for more information about incidents
https://docs.helloid.com/en/logs,-reports,-incidents/incidents.html

Admin Dashboard → Incidents

Global (incidents)

- An event has been reported on Statuspage.io
- Your usage has exceeded your subscription's limits

Provisioning (incidents)

- An Agent service has been unresponsive for longer than five minutes
- A manual or scheduled source system import failed*
  - A separate incident is created per blocked import
- A source system snapshot failed*
- A source system snapshot was blocked*
- A target system entitlement action failed
  - If more than one entitlement action failed during the same enforcement, an incident is only shown for the most recent failed action
- A target system entitlement action was blocked
  - A single incident is created per system, per enforcement, and persists until all blocked entitlement actions reported in the incident have been resolved

** These incidents are automatically closed when the next successful event of the same type occurs.*

Please check the following article for more information about incidents
https://docs.helloid.com/en/logs,-reports,-incidents/incidents.html

Quick reference guide

- https://docs.helloid.com/
  - Manuals
  - Changelog
  - API docs
- https://feedback.helloid.com/
  - Feature request
- https://roadmap.helloid.com/
  - Roadmap overview
- https://github.com/Tools4everBV
  - Connector / Forms repositories
- https://forum.helloid.com
  - Community page
- https://helloid.statuspage.io/

Badges

- **Tools4ever uses Badges to track certifications**
  - Badges are issued via the Acclaim platform
  - Each participant will receive an email from Acclaim to accept their Badge
  - An Acclaim account is needed to accept the Badges
  - Badges can be added to social media (e.g. LinkedIn) to allow earners to store and share their certification
  - Follow Acclaim instructions on how to share and select the right issuing organization (Tools4ever B.V.)

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