
ITSM Configuration Management

Release master

Rother OSS GmbH

Dec 15, 2024

Table of Contents

1	Overview	1
1.1	Summary	1
1.2	Introduction	1
1.3	Common Usecases	1
1.4	Further Reading	2
2	Configuration	3
2.1	Basic Configuration	3
2.1.1	Assign Agent Permissions	3
2.1.2	Import the Ready to Adopt ConfigItem Classes	3
2.1.3	Assign Customer Permissions (Optional)	4
2.1.4	Change common settings for Config Item Classes (Optional)	4
2.1.5	Change advanced settings for Config Item Classes (Optional)	4
2.1.6	Customize attributes shown in Config Item overview (Optional)	5
2.2	Custom Configuration and Advanced Features	5
2.2.1	General Catalog classes of the CMDB	5
2.2.2	Config Item Definitions	6
2.2.3	Config Item Versioning and History	9
2.2.4	Dynamic Field Specifics	9
2.2.5	Config Item Links	10
2.2.6	Import/Export	10
2.2.7	Command-Line Operations	10
2.2.8	Permissions and Access Restrictions	11
2.2.9	Configuration: Web Services	11
2.2.10	Migration from OTOBO 10 / OTRS	27
2.2.11	Ready2Import Class Bundles	28
2.2.12	Relations	28
2.3	Configuration Reference	28
2.3.1	Core::BulkAction	28
2.3.2	Core::DynamicFields::DriverRegistration	28
2.3.3	Core::DynamicFields::ObjectTypeRegistration	28
2.3.4	Core::Elasticsearch::Settings	28
2.3.5	Core::Event::ITSMConfigItem	29
2.3.6	Core::Event::Ticket	30
2.3.7	Core::GeneralCatalog	30
2.3.8	Core::ITSMConfigItem	31

2.3.9	Core::ITSMConfigItem::ACL	32
2.3.10	Core::ImportExport::ObjectBackend::ModuleRegistration	33
2.3.11	Core::LinkObject	34
2.3.12	Core::LinkStatus	34
2.3.13	Core::Stats	34
2.3.14	Daemon::SchedulerCronTaskManager::Task	35
2.3.15	Frontend::Admin	35
2.3.16	Frontend::Admin::ModuleRegistration	35
2.3.17	Frontend::Admin::ModuleRegistration::AdminOverview	35
2.3.18	Frontend::Admin::ModuleRegistration::Loader	35
2.3.19	Frontend::Admin::ModuleRegistration::MainMenu	36
2.3.20	Frontend::Admin::View::ITSMConfigItemDefinition	36
2.3.21	Frontend::Agent::ITSMConfigItem::MenuModule	36
2.3.22	Frontend::Agent::ITSMConfigItem::MenuModulePre	37
2.3.23	Frontend::Agent::ITSMConfigItem::Permission	37
2.3.24	Frontend::Agent::ITSMConfigItemAttachment::Permission	38
2.3.25	Frontend::Agent::ITSMConfigItemOverview	38
2.3.26	Frontend::Agent::LinkObject	38
2.3.27	Frontend::Agent::ModuleRegistration	38
2.3.28	Frontend::Agent::ModuleRegistration::Loader	39
2.3.29	Frontend::Agent::ModuleRegistration::MainMenu	40
2.3.30	Frontend::Agent::ModuleRegistration::MainMenu::Search	40
2.3.31	Frontend::Agent::View::AgentITSMConfigItemBulk	40
2.3.32	Frontend::Agent::View::AgentITSMConfigItemEdit	41
2.3.33	Frontend::Agent::View::AgentITSMConfigItemHistory	41
2.3.34	Frontend::Agent::View::AgentITSMConfigItemZoom	41
2.3.35	Frontend::Agent::View::ConfigItemSearch	41
2.3.36	Frontend::Agent::View::CustomerInformationCenter	43
2.3.37	Frontend::Agent::View::CustomerUserInformationCenter	43
2.3.38	Frontend::Agent::View::ITSMConfigItem	43
2.3.39	Frontend::Agent::View::ITSMConfigItemBulk	44
2.3.40	Frontend::Agent::View::ITSMConfigItemDelete	44
2.3.41	Frontend::Agent::View::ITSMConfigItemEdit	44
2.3.42	Frontend::Agent::View::ITSMConfigItemHistory	44
2.3.43	Frontend::Agent::View::ITSMConfigItemSearch	44
2.3.44	Frontend::Agent::View::Preferences	45
2.3.45	Frontend::Base::DynamicFieldScreens	45
2.3.46	Frontend::Base::Loader	45
2.3.47	Frontend::Base::NavBarModule	45
2.3.48	Frontend::Customer::ITSMConfigItemOverview	46
2.3.49	Frontend::Customer::ModuleRegistration	46
2.3.50	Frontend::Customer::ModuleRegistration::Loader	46
2.3.51	Frontend::Customer::ModuleRegistration::MainMenu	46
2.3.52	Frontend::Customer::View::ConfigItemSearch	47
2.3.53	Frontend::Customer::View::ITSMConfigItem	48
2.3.54	Frontend::Customer::View::ITSMConfigItemOverview	48
2.3.55	Frontend::Customer::View::ITSMConfigItemSearch	49
2.3.56	Frontend::Customer::View::ITSMConfigItemZoom	49
2.3.57	GenericInterface::Invoker	49
2.3.58	GenericInterface::Invoker::ModuleRegistration	49
2.3.59	GenericInterface::Operation::ConfigItemCreate	49
2.3.60	GenericInterface::Operation::ConfigItemDelete	50
2.3.61	GenericInterface::Operation::ConfigItemGet	50
2.3.62	GenericInterface::Operation::ConfigItemSearch	50

2.3.63	GenericInterface::Operation::ConfigItemUpdate	50
2.3.64	GenericInterface::Operation::ModuleRegistration	50
2.4	Glossary	51
3	About	53
3.1	Contact	53
3.2	Version	53
3.3	Terms and Conditions	53
4	Sacrifice to Sphinx	55

CHAPTER 1

Overview

1.1 Summary

This documentation is an overview of the functionality of the OTOBO package “ITSMConfiguration-Management”. We provide a Basic Configuration based on a selection of the most commonly used Configuration Items to get you up and running quickly. If you are interested in configuring your own Configuration Items, you should be able to do so using the Advanced Configuration.

1.2 Introduction

With this package, you can extend the functionality of OTOBO to manage assets and Configuration Items and link them to tickets, Customer Users, and more. This allows you to keep track of these items and have a unified solution for managing both your tickets and assets.

1.3 Common Usecases

- The lifecycle of assets and Configuration Items — such as computers, software, or network devices — can be tracked within OTOBO’s Configuration Management Database (CMDB).
- When a support agent receives an incident ticket, the CMDB enables them to view relevant Configuration Items directly associated with the affected systems or users. They can quickly check for recent changes, dependencies, and known issues.
- When planning a system change, the CMDB integration helps teams analyze potential impacts by displaying dependencies between systems, applications, and infrastructure components.
- For recurring or complex issues, support teams can leverage the CMDB to view historical data and relationships between affected Configuration Items, aiding in identifying root causes.
- For organizations with regulatory or compliance requirements, the CMDB serves as a single source of truth for asset configurations and changes.

1.4 Further Reading

If you are unfamiliar with the concept of a Configuration Management Database, the [article on Wikipedia](#) can provide introductory information.

CHAPTER 2

Configuration

2.1 Basic Configuration

In this section, you will learn all necessary steps to set up a basic but usable CMDB with the most commonly used Configuration Items (CIs).

2.1.1 Assign Agent Permissions

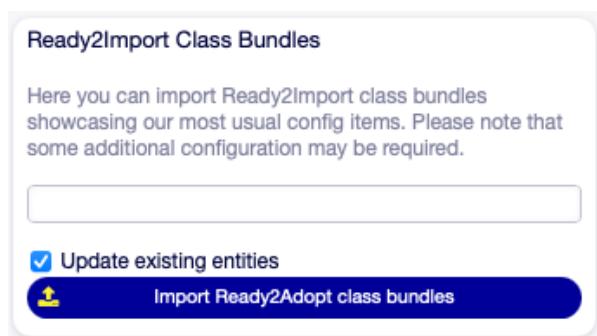
Agents who need access to CIs in the Configuration Management Database (CMDB) must be assigned to the group “itsm-configitem”.

2.1.2 Import the Ready to Adopt ConfigItem Classes

Attention: Importing the Ready2Import classes will create a large number of dynamic fields and is not automatically reversible. If in doubt, consider trying this on a non-productive system first.

OTOBO provides the option to import class bundles that showcase some of the most commonly used Configuration Items (CIs). To get started, perform the following steps:

1. Open the admin view of your OTOBO Web UI.
2. Navigate to **Config Items** in the **CMDB Settings** section.
3. Locate the **Ready2Import Class Bundles** panel on the left side and select the class bundle you want to import.
4. Click the button to import the Ready2Adopt class bundles.



2.1.3 Assign Customer Permissions (Optional)

To provide customer access to CIs, enable the following system configuration settings:

- CustomerFrontend::Module###CustomerITSMConfigItem
- CustomerFrontend::Module###CustomerITSMConfigItemSearch
- CustomerFrontend::Module###CustomerITSMConfigItemZoom
- Customer::ConfigItem::PermissionConditions###01: A basic example permission condition granting customer users access to all CIs

If needed, the permission condition can be customized and expanded in the respective system configuration settings.

2.1.4 Change common settings for Config Item Classes (Optional)

Classes of CIs provide possibilities for customization. To change general attributes of a CI class, perform the following steps:

1. Open the admin view of your OTOBO Web UI.
2. Navigate to **General Catalog** in the **Administration** section.
3. Locate the **Catalog Class** table in the middle and click the entry **ITSM::ConfigItem::Class**.
4. Locate the **Name** table in the middle and click the class name of the class you want to edit.

Among the attributes customizable are for instance the permission groups providing access to CIs of the respective class as well as the categories.

2.1.5 Change advanced settings for Config Item Classes (Optional)

Additionally, appearance and data related to a CI class can be changed in the Admin Config Item screen:

1. Open the admin view of your OTOBO Web UI.
2. Navigate to **Config Items** in the **CMDB Settings** section.
3. Locate the **Actions** panel on the left side and select the class you want to edit.
4. Click the button **Change class definition**.

In the YAML editor on the page you can configure various things, such as dynamic fields used as attributes for the class and the appearance of CIs belonging to the class in the zoom views.

2.1.6 Customize attributes shown in Config Item overview (Optional)

For configuring the attributes available and viewable in Config Item overviews, the following system configuration settings can be used:

- ITSMConfigItem::Frontend::AgentITSMConfigItem###ClassColumnsAvailable
- ITSMConfigItem::Frontend::AgentITSMConfigItem###ClassColumnsDefault
- ITSMConfigItem::Frontend::CustomerITSMConfigItem###ClassColumnsAvailable
- ITSMConfigItem::Frontend::CustomerITSMConfigItem###ClassColumnsDefault

2.2 Custom Configuration and Advanced Features

2.2.1 General Catalog classes of the CMDB

Classes

Define the ConfigItem (CI) classes (ITSM::ConfigItem::Class) available on the system, and their basic settings. Those

- Access Group: Controls user (agent) access to this class.
- Name Module: No functionality in the standard, allows extensions to automatically set CI names.
- Number Module: Module used to define visible CI Numbers (in contrast to their internal IDs - compare TicketNumber and -ID)
- Version-String Module: Versions can either be incremental (1, 2, 3,...) (default), defined by a Template Toolkit expression from the respectively current attributes of the CI, or (if left empty) be manually defined when adding/editing CIs in the frontend.
- Version-String Expression: Currently only used in combination with the version string module “Template Toolkit”
- Version Trigger: Defines which attribute changes trigger a creation of a new version. (See versioning chapter)
- Categories: Which categories this classes should be listed in, in the agent CMDB list.

Categories

A set of categories (ITSM::ConfigItem::Class::Category) which are used to bundle classes in the agent frontend.

Roles

Roles available on the system (ITSM::ConfigItem::Role). Can be defined and used in Admin->ConfigItem to define common sets of attributes between CI classes in one place.

Deployment States

ITSM::ConfigItem::DeploymentState - coming soon

Incident States

ITSM::Core::IncidentState - coming soon

2.2.2 Config Item Definitions

General Structure

A CI definition defines all pages which are shown on the ConfigItemZoom masks and implicitly define which attributes are part of a class (where each attribute corresponds to a dynamic field of the object type “ConfigItem” which has to exists). Structurally the “Pages” of the definition yml contain a layout on which “Sections” containing bundled sections of information are placed, as well as some additional attributes. The Sections are defined more in detail afterwards, and e.g. contain a list of dynamic fields to be displayed. Sections can also be included as “Roles” and be defined separately in the definition of the respective role. Example class “Domain”:

```
Pages:
  - Name: Domain Information
    Layout:
      Columns: 2
      ColumnWidth: 1fr 1fr
    Interfaces:
      - Agent
      - Customer
    Content:
      - Section: Domain Info::Summary
        RowStart: 1
        ColumnStart: 1
      - Section: Domain Info::Backlinks
        RowStart: 2
        ColumnStart: 1
      - Section: Domain Info::Description
        RowStart: 1
        RowSpan: 2
        ColumnStart: 2
  - Name: Accounting
    Layout:
      Columns: 2
      ColumnWidth: 1fr 1fr
    Interfaces:
      - Agent
    Groups:
      - accounting
    Content:
      - Section: Accounting
Sections:
  Accounting:
    Content:
      - Header: Accounting
      - DF: ITSMAccounting-InventoryNumber
      - Grid:
        Columns: 3
        ColumnWidth: 1fr 1fr 1fr
        Rows:
          -
```

```

        - DF: ITSMAccounting-DateOfInvoice
        - DF: ITSMAccounting-OrderDate
        - DF: ITSMAccounting-WarrantyDate
        -
        - DF: ITSMAccounting-CostUnit
        - DF: ITSMAccounting-InvestmentCosts
        - DF: ITSMAccounting-OperatingCosts
        -
        - DF: ITSMAccounting-OrderNumber
        - DF: ITSMAccounting-InvoiceNumber
        - DF: ITSMAccounting-ReferenceToAccount

# here the latest version of the role "ITSM Domain Information" is included as
↳ "Domain Info"
# and its sections can be used on the pages above
Roles:
  Domain Info:
    Name: ITSM Domain Information

```

Setting Reference

Pages

- **Name** (required): The name of the page.
- **Layout** (required): The layout of the grid on this page.
 - **Columns**: Number of columns. Example: `Columns: 3` displays three columns.
 - **ColumnWidth**: Basic CSS defining the column widths.
- **Interfaces** (optional): An array containing the interfaces on which this page is available (default: `[Agent]`).
- **Groups** (optional): If defined, an array containing groups a user must belong to in order to view this page.
- **Content** (required): The content, i.e., an array of sections and their positions on this page.
 - **Section** (required): The section name.
 - **RowStart** (optional): The starting row in the page grid of this section.
 - **RowSpan** (optional): The number of rows this section should span.
 - **ColumnStart** (optional): The starting column in the page grid of this section.
 - **ColumnSpan** (optional): The number of columns this section should span.

Sections

The **Sections** section of the YAML contains a hash of the sections referenced in the **Pages**. The following keys are valid for each section:

- **Type** (optional): Defines the type of the section. Depending on the type, other attributes may or may not be available. Available types include:
 - **DynamicFields** (default): A standard section containing dynamic fields.
 - **Description**: A rich-text description possibly containing images, which can be defined on CI edit masks.
 - **ConfigItemLinks**: Displays ConfigItems linked via dynamic fields (not used for edit masks).

- **ReferencedSection**: Displays a section of a referenced CI in a reference dynamic field (not used for edit masks).

Type: DynamicFields

An additional key, **Content**, is mandatory. This works like content in ticket masks. Additionally, a header for the section can be provided.

- **Header** (optional): A header for this section.
- **DF**: A dynamic field (the name). - **Mandatory** (optional): Set to 1 if the field is required in edit masks. - **Readonly** (optional): Set to 1 if the field is read-only in edit masks (only for basic field types). - **Label** (optional): Overrides the label of the field in edit masks.
- **Grid**: A multi-column section of dynamic fields. - **Columns**: Number of columns. - **ColumnWidth** (optional): Column widths (e.g., "1fr 40px 2fr"; "%" is not supported). - **Rows**: A matrix of dynamic fields (array of arrays).

Example:

```
Sections:
Info:
Content:
- DF: Computer-OS
- DF: Owner
Mandatory: 1
Label: In front of the monitor
- Grid:
  Columns: 2
  ColumnWidth: 1fr 1fr
  Rows:
    # First row
    -
    - DF: DateBought
      Readonly: 1
    - DF: DateWarranty
    # Second row
    -
    - DF: Computer-Application
    - DF: Computer-LicenseKey
```

Type: Description

No additional settings are available.

Type: ConfigItemLinks

Lists linked Config Items.

- **Header** (optional): A header for this section.
- **LinkedAs** (optional): Source (default), Target, or Both.
- **LinkTypes** (optional): An array of link types.

Type: ReferencedSection

- **ReferenceField** (required): The reference field containing the referenced Config Item.
- **SectionName** (required): The name of the section of the referenced Config Item to display.
- **FieldListPre** (optional): Dynamic fields of this Config Item rendered before the referenced section.
- **FieldListPost** (optional): Dynamic fields rendered after the referenced section.

Type: Module

This type is not yet implemented.

- **Module** (required): A custom module returning HTML to render in this section.

2.2.3 Config Item Versioning and History

Config Items (CIs) have a general history listing all changes made over time in list form. This is the standard reference to find when and who made which changes to a CI. Additionally snapshots of CIs can be stored as (historic) CI versions, which can be selected and viewed. This feature is automatically enabled, if Version Triggers are set in the CI classes in the general catalog.

The following features and settings have important interactions with CI versions:

- Reference dynamic fields can statically link to a CI version instead of dynamically to the latest version of a CI.
- Version view for the customers can be enabled or disabled via the SysConfig in ITSMConfig-Item::Frontend::CustomerITSMSConfigItemZoom
- TODO: please complete

2.2.4 Dynamic Field Specifics

Fields for Configuration Item (CI) classes are defined as Dynamic Fields with the new Object Type **ITSM ConfigItem**. To use these fields, you must define them as Dynamic Fields for the CI Object Type and then reference them in your CI Class Definition.

The following Dynamic Fields may be especially relevant for your Configuration Management Database (CMDB):

- **Reference**
 - **Agent** This field allows you to refer to an Agent in OTOBO. It can be useful for defining the person responsible for a Configuration Item (e.g., the IT administrator who is also an Agent).
 - **ConfigItem** This field allows you to refer to another Configuration Item in OTOBO. It can be useful for linking multiple Configuration Items together or defining a hierarchy, such as Country <-> Subsidiary <-> Building <-> Room.
 - **ConfigItemVersion** This field allows you to refer to a specific version of another Configuration Item in OTOBO.
 - **Customer** This field allows you to refer to a Customer in OTOBO. It can be valuable for defining the company or department associated with a Configuration Item. Additionally, this allows the Configuration Item to appear in the Customer Information Center widget.
 - **Customer User** This field allows you to refer to a Customer User in OTOBO. It can be useful for defining the owner of a Configuration Item, such as an internal Customer User (employee). With this, you can also view the Configuration Item in the Customer User Information Center widget.
- **Dynamic Field Lens** The **Lens** field lets you view specific values from a referenced object (like through a periscope). If you have a reference to a Configuration Item (via a **DF Reference ConfigItem**), you can use the Lens field to view or change values from that referenced Configuration Item. It may be useful to set this field as **Readonly** to prevent changes to these values.

Required settings for the Lens field: - **Referenced DF:** Defines the Dynamic Field where the referenced object is mentioned. This is the Configuration Item whose values you want to display. - **Attribute DF of the referenced object:** This is the (Dynamic) Field within the referenced object from which you want to view the value. - You can make this field **Readonly** by using the **Readonly: 1** option.

Example: You could reference a **Server ConfigItem** and view values like the **IP Address** and **Server Owner** through the Lens fields.

- **General Catalog** The **General Catalog** field is essentially a dropdown field. You define the values for this field in the **Admin > General Catalog** section. The difference between a General Catalog field and a regular **Dropdown** Dynamic Field is that with the General Catalog, you define the values globally, allowing them to be reused across multiple Dynamic Fields.

For example, you could have two fields with the same dropdown values but different names or labels for the Dynamic Field. These fields might appear in different CI classes, but both would pull their options from the same General Catalog.

2.2.5 Config Item Links

Backlinks Tree View

2.2.6 Import/Export

- CSV
- Automation is possible via **CronJob** and the following command: `bin/otobo.Console.pl Admin::ITSM::ImportExport::Import`

2.2.7 Command-Line Operations

The following commands can be executed using `bin/otobo.Console.pl`:

- **Admin::ITSM::Configitem::ClassExport** Export dynamic field classes and their respective dynamic fields.
- **Admin::ITSM::Configitem::ClassImport** Import dynamic field classes and their respective dynamic fields.
- **Admin::ITSM::Configitem::Delete** Delete Configuration Items (CIs) either completely, by class, or by deployment state and number.
- **Admin::ITSM::Configitem::DumpGraph** Export the graph of Configuration Items as an SVG file named `OTODO_ITSM_Config_Items.svg`.
- **Admin::ITSM::Configitem::ListDuplicates** List Configuration Items with non-unique names.
- **Admin::ITSM::Configitem::UpgradeTo11** Upgrade the complete Configuration Management Database (CMDB) from OTODO 10 to OTODO 11. This includes changing all Configuration Item definitions, preparing dynamic fields for each attribute, and migrating the data.
- **Maint::ITSM::Configitem::RebuildLinkTable** Rebuild the database table `configitem_link` based on dynamic fields of type Reference. Only fields linking Configuration Items are affected.

2.2.8 Permissions and Access Restrictions

- ACLs
 - New Object Type: **ITSM ConfigItem**
 - Match settings:
 - * **ConfigItem**
 - * **Frontend**
 - * **User**
 - Change settings:
 - * **ConfigItem**
 - * **Form**

2.2.9 Configuration: Web Services

The ITSMConfigurationManagement package also includes extensions to the existing web service possibilities. For this section, it is assumed that the contents explained in the basic web service documentation, available at [OTOBO 11 Administration Manual: Webservices](#), are known.

Note: For readability, not all combinations of possible setups are shown here, but some basic examples, which serve the purpose to provide a sufficient illustration of possibilities. The presets taken, which may be subject to custom configuration, are the following:

Authentication: BasicAuth method with username and password

Transport: HTTP::REST

Mapping Type: Simple

Attention: Every operation and the invoker listed and described below requires authentication via an agent account as well as permission to perform the respective action on the respective config item(s). Customer user access to these modules is currently not implemented.

Operations

ConfigItemGet

With this operation, it is possible to fetch config item data from an OTOBO system. A simple example web service definition could look as follows:

```
-----
Debugger:
  DebugThreshold: debug
  TestMode: '0'
Description: ''
FrameworkVersion: 11.0.x
Provider:
  Operation:
    ConfigItemGet:
```

```
Description: Get Config Item data.
MappingInbound:
    Type: Simple
MappingOutbound:
    Type: Simple
    Type: ConfigItem::ConfigItemGet
Transport:
Config:
    AdditionalHeaders: ~
    KeepAlive: ''
    MaxLength: '1000000'
    RouteOperationMapping:
        ConfigItemGet:
            Route: /ConfigItemGet/:ConfigItemID
Type: HTTP::REST
RemoteSystem: ''
```

Based on this definition, a request may look like this:

```
curl -X POST --header "Content-Type: application/json"
--data '{
    "UserLogin": "AgentUser",
    "Password": "Password",
    "Attachments": 1
}'
https://YOURSERVER/otobo/nph-genericinterface.pl/Webservice/<WEBSERVICE_NAME>/
    ↳ConfigItemGet/<ConfigItemID>
```

Possible parameters to pass are:

UserLogin either UserLogin and Password or SessionID are required

Password Passwords are passed in plain text

SessionID SessionID may be retrieved by using a SessionCreate web service operation

ConfigItemID required, could be comma separated IDs or an Array

Note: In the above curl example, the ConfigItemID is appended to the URL string. This is possible because the example web service definition contains a route mapping which allows this (Route: /ConfigItemGet/:ConfigItemID).

Attachments optional, 1 as default. If it's set with the value 1, attachments for articles will be included on ConfigItem data

Resulting data may be returned as follows:

```
{
    "ConfigItem": [
        {
            "Attachment": "",
            "ChangeBy": 2,
            "ChangeTime": "2024-11-14 09:06:47",
            "Class": "Building",
            "ConfigItemID": 2,
            "CreateBy": 2,
            "CreateTime": "2024-11-14 09:06:47",
            "CurDeplState": "Production",
```

```

    "CurDeplStateType": "productive",
    "CurInciState": "Operational",
    "CurInciStateType": "operational",
    "DeplState": "Production",
    "DeplStateType": "productive",
    "Description": "Some meaningful Description",
    "DynamicField_Location-ReferenceToSubsidiary": [
        {
            "Name": "Building 01",
            "Number": "1042000001",
            "VersionID": 2,
            "VersionString": "1"
        }
    ]
}

```

ConfigItemSearch

With this operation, it is possible to search for config items based on a wide variety of search query options. A simple example web service definition could look as follows:

```

-----
Debugger:
    DebugThreshold: debug
    TestMode: '0'
Description: ''
FrameworkVersion: 11.0.x
Provider:
    Operation:
        ConfigItemSearch:
            Description: Search for Config Items.
            MappingInbound:
                Type: Simple
            MappingOutbound:
                Type: Simple
                Type: ConfigItem::ConfigItemSearch
Transport:
    Config:
        AdditionalHeaders: ~
        KeepAlive: ''
        MaxLength: '1000000'
        RouteOperationMapping:
            ConfigItemSearch:
                Route: /ConfigItemSearch/
        Type: HTTP::REST
RemoteSystem: ''

```

Based on this definition, a request may look like this:

```

curl -X POST --header "Content-Type: application/json"
--data '{
    "UserLogin": "AgentUser",
    "Password": "Password",
    "Name": "Building*",
}

```

```
"DynamicField_FieldNameA": {
    "Empty": 1
},
"DynamicField_FieldNameB": {
    "Equals": "SomeString"
},
"DynamicField_FieldNameC": {
    "GreaterThanOrEqual": "1970-01-01 00:00:01",
    "LessThan": "1980-12-31 23:59:59"
},
"DynamicField_FieldNameD": {
    "GreaterThanOrEqual": "1970-01-01 00:00:01",
    "LessThan": "1980-12-31 23:59:59"
}
}
https://YOURSERVER/otobo/nph-genericinterface.pl/Webservice/<WEBSERVICE_NAME>/
→ConfigItemSearch
```

Possible parameters to pass are:

UserLogin either UserLogin and Password or SessionID are required

Password Passwords are passed in plain text

SessionID SessionID may be retrieved by using a SessionCreate web service operation

ConfigItemID optional, String or array of Strings. Use ConfigItemSearch as a config item filter on a single config item or a predefined config item list

Number optional, String or array of Strings. SQL placeholders like % are possible

Name optional, String or array of Strings. SQL placeholders like % are possible

Classes optional, array of Strings

ClassIDs optional, array of Strings

DeplStates optional, deployment state names of config items, array of Strings

DeplStateIDs optional, deployment state IDs of config items, array of Strings

CurDeplStates optional, current deployment state names of config items, array of Strings

CurDeplStateIDs optional, current deployment state IDs of config items, array of Strings

InciStates optional, incident state names of config items, array of Strings

InciStateIDs optional, incident state IDs of config items, array of Strings

CuriInciStates optional, current incident state names of config items, array of Strings

CuriInciStateIDs optional, current incident state IDs of config items, array of Strings

Limit optional, maximal number of config items returned, default is 10000

CreateBy optional, agent user ID of agent who created the config item, array of Strings

ChangeBy optional, agent user ID of agent who performed the latest change to the config item, array of Strings

DynamicFields At least one operator must be specified. Operators will be connected with AND, values in an operator with OR. You can also pass more than one argument to an operator: ['value1', 'value2']. Available operators are:

- Empty: will return dynamic fields without a value, set to 0 to search fields with a value present

- Equals
- Like: 'Equals' operator with wild card support
- GreaterThan
- GreaterThanEquals
- SmallerThan
- SmallerThanEquals

Caution: The set of operators available is restricted for some dynamic field types. For example, dynamic fields of type checkbox only support the operators 'Empty' and 'Equals'.

ConfigItemCreateTimeOlderMinutes optional, filter for config items which have been created more than ... minutes ago, number of minutes as String

ConfigItemCreateTimeNewerMinutes optional, filter for config items which have been created less than ... minutes ago, number of minutes as String

ConfigItemCreateTimeNewerDate optional, filter for config items which have been created later than the given time stamp, DateTime-String in format 'YYYY-MM-DD HH:MM:SS'

ConfigItemCreateTimeOlderDate optional, filter for config items which have been created before the given time stamp, DateTime-String in format 'YYYY-MM-DD HH:MM:SS'

ConfigItemLastChangeTimeOlderMinutes optional, filter for config items which have been updated more than ... minutes ago, number of minutes as String

ConfigItemLastChangeTimeNewerMinutes optional, filter for config items which have been updated less than ... minutes ago, number of minutes as String

ConfigItemLastChangeTimeNewerDate optional, filter for config items which have been updated later than the given time stamp, DateTime-String in format 'YYYY-MM-DD HH:MM:SS'

ConfigItemLastChangeTimeOlderDate optional, filter for config items which have been updated before the given time stamp, DateTime-String in format 'YYYY-MM-DD HH:MM:SS'

OrderBy optional, direction to order result in, possible values: 'Down', 'Up'. Also possible as array for sub sorting

SortBy optional, attribute to sort result by, possible values: ConfigItem, Number, Name, DeplState, InciState, CurDeplState, CurInciState, Age, Created, Changed. Also possible as array for sub sorting

Resulting data may be returned as follows:

```
{
  "ConfigItemID": [
    "2",
    "1"
  ]
}
```

ConfigItemUpsert

With this operation, it is possible to add or update one or more config items based on the sent data. A simple example web service definition could look as follows:

Debugger:

```
DebugThreshold: debug
TestMode: '0'
Description: ''
FrameworkVersion: 11.0.x
Provider:
  Operation:
    ConfigItemUpsert:
      Description: Add or update one or more Config Items.
      Identifier41:
        - Number
        [ ... ]
      Identifier74:
        - Number
    MappingInbound:
      Type: Simple
    MappingOutbound:
      Type: Simple
      Type: ConfigItem::ConfigItemUpsert
  Transport:
    Config:
      AdditionalHeaders: ~
      KeepAlive: ''
      MaxLength: '1000000'
      RouteOperationMapping:
        ConfigItemUpsert:
          Route: /ConfigItemUpsert/
      Type: HTTP::REST
  RemoteSystem: ''
```

Based on this definition, a request may look like this:

```
curl -X POST --header "Content-Type: application/json"
--data '{
  "UserLogin": "AgentUser",
  "Password": "Password",
  "ConfigItem": [
    {
      "Attachment": "",
      "ChangeBy": 2,
      "ChangeTime": "2024-11-14 09:06:47",
      "Class": "Building",
      "ConfigItemID": 2,
      "CreateBy": 2,
      "CreateTime": "2024-11-14 09:06:47",
      "CurDeplState": "Production",
      "CurDeplStateType": "productive",
      "CurInciState": "Operational",
      "CurInciStateType": "operational",
      "DeplState": "Production",
      "DeplStateType": "productive",
      "Description": "Some meaningful Description",
      "DynamicField_Location-ReferenceToSubsidiary": [
        1
      ],
      "InciState": "Operational",
      "InciStateType": "operational",
      "LastVersionID": 2,
      "Name": "Building 01",
    }
  ]
}'
```

```

        "Number": "1042000001",
        "VersionID": 2,
        "VersionString": "1"
    }
]
}
}

https://YOURSERVER/otobo/nph-genericinterface.pl/Webservice/<WEBSERVICE_NAME>/
→ConfigItemUpsert

```

Hint: Note that, based on the version trigger configured per class in the admin general catalog interface, a new version may or may not be created based on the data provided via request.

Possible parameters to pass are:

UserLogin either UserLogin and Password or SessionID are required

Password Passwords are passed in plain text

SessionID SessionID may be retrieved by using a SessionCreate web service operation

ConfigItem either a single config item data hash or an array of config item data hashes to add or update

Hint: The system determines whether to perform an insertion or update based on the identifier configured per class in the web service configuration.

Resulting data may be returned as follows:

```
{
  "ConfigItem": [
    {
      "ConfigItemID": "1",
      "Name": "Subsidiary 01"
    },
    {
      "ConfigItemID": "3",
      "Name": "Building 02"
    }
  ]
}
```

ConfigItemDelete

With this operation, it is possible to delete an existing config item. A simple example web service definition could look as follows:

```
-----
Debugger:
  DebugThreshold: debug
  TestMode: '0'
Description: ''
FrameworkVersion: 11.0.x
Provider:
  Operation:
    ConfigItemDelete:
      Description: Delete a Config Item.
```

```
MappingInbound:  
    Type: Simple  
MappingOutbound:  
    Type: Simple  
    Type: ConfigItem::ConfigItemDelete  
Transport:  
    Config:  
        AdditionalHeaders: ~  
        KeepAlive: ''  
        MaxLength: '1000000'  
        RouteOperationMapping:  
            ConfigItemDelete:  
                Route: /ConfigItemDelete/:ConfigItemID  
        Type: HTTP::REST  
RemoteSystem: ''
```

Based on this definition, a request may look like this:

```
curl -X POST --header "Content-Type: application/json"  
--data '{  
    "UserLogin": "AgentUser",  
    "Password": "Password",  
}'  
https://YOURSERVER/otobo/nph-genericinterface.pl/Webservice/<WEBSERVICE_NAME>/  
→ConfigItemDelete/<ConfigItemID>
```

Possible parameters to pass are:

UserLogin either UserLogin and Password or SessionID are required

Password Passwords are passed in plain text

SessionID SessionID may be retrieved by using a SessionCreate web service operation

ConfigItemID required, could be comma separated IDs or an Array

Note: In the above curl example, the ConfigItemID is appended to the URL string. This is possible because the example web service definition contains a route mapping which allows this (Route: /ConfigItemGet/:ConfigItemID).

Resulting data may be returned as follows:

```
{  
    "ConfigItemID": [  
        "4"  
    ]  
}
```

Invoker

ConfigItemCreate

Using the ConfigItemCreate invoker, it is possible to send config item data to a remote endpoint. A simple example web service definition could look as follows:

```
---
Debugger:
  DebugThreshold: debug
  TestMode: '0'
Description: ''
FrameworkVersion: 11.0.x
RemoteSystem: ''
Requester:
  Invoker:
    ConfigItemCreate:
      Description: 'Send Config Item data to remote system.'
      Events:
        - Asynchronous: '1'
        Condition:
          Condition:
            '1':
              Fields:
                Number:
                  Match: .+
                  Type: Regexp
                Type: and
            ConditionLinking: and
            Event: ConfigItemCreate
  MappingInbound:
    Type: Simple
  MappingOutbound:
    Type: Simple
    Type: ConfigItem::ConfigItemCreate
Transport:
  Config:
    Authentication:
      AuthType: BasicAuth
      BasicAuthPassword: Password
      BasicAuthUser: AgentUser
    DefaultCommand: GET
    Host: https://YOURSERVER/otobo/nph-genericinterface.pl/Webservice/<WEBSERVICE_
→NAME>
  InvokerControllerMapping:
    ConfigItemCreate:
      Controller: /ConfigItemCreate/
      Timeout: '120'
    Type: HTTP::REST
```

Without any mapping applied, the outgoing config item data will look like the following:

```
{
  "ChangeBy": "2",
  "ChangeTime": "1970-01-01 00:00:01",
  "Class": "Client Software",
  "ClassID": "45",
  "ConfigItemID": "1",
  "CreateBy": "2",
  "CreateTime": "1970-01-01 00:00:01",
  "CurDeplState": "Production",
  "CurDeplStateID": "2",
  "CurDeplStateType": "productive",
  "CurInciState": "Operational",
  "CurInciStateID": "1",
```

```
"CurInciStateType": "operational",
"DefinitionID": "1",
"DeplState": "Production",
"DeplStateID": "2",
"DeplStateType": "productive",
"Description": "Some meaningful description",
"DynamicField_ITSM-LensToLicenseCount": "2",
"DynamicField_ITSM-LensToLicensePeriodFrom": "1970-01-01 00:00:00",
"DynamicField_ITSM-LensToLicensePeriodUntil": "2069-12-31 00:00:00",
"DynamicField_ITSM-LensToLicenseType": "ApacheLizenz",
"DynamicField_ITSM-ReferenceToLicense": "Name of License",
"InciState": "Operational",
"InciStateID": "1",
"InciStateType": "operational",
"LastVersionID": "1",
"Name": "ClientSoftware",
"Number": "1045000002",
"VersionID": "1",
"VersionString": "1"
};
```

Note: Note that values of dynamic fields are transformed. E.g. reference fields will not be included with their value ID, but with a readable value. For reference dynamic fields of type ConfigItem, ConfigItemVersion and Ticket, this value can be configured with the attribute ‘Display value’.

ConfigItemFetch

Using the ConfigItemFetch invoker, it is possible to fetch data from a remote endpoint and add or update one or more config items based on that data. A simple example web service definition could look as follows:

```
---
Debugger:
  DebugThreshold: debug
  TestMode: '0'
Description: ''
FrameworkVersion: 11.0.x
RemoteSystem: ''
Requester:
  Invoker:
    ConfigItemFetch:
      Description: Fetch Config Item data.
      Events:
        - Asynchronous: '1'
          Condition:
            Condition:
              '1':
                Fields:
                  Title:
                    Match: .+
                    Type: Regexp
                  Type: and
                  ConditionLinking: and
                  Event: TicketQueueUpdate
      MappingInbound:
        Type: Simple
```

```

MappingOutbound:
    Type: Simple
    Type: ConfigItem::ConfigItemFetch
Transport:
Config:
    Authentication:
        AuthType: BasicAuth
        BasicAuthPassword: Password
        BasicAuthUser: AgentUser
    DefaultCommand: GET
    Host: https://YOURSERVER/otobo/nph-genericinterface.pl/Webservice/<WEBSERVICE_
↳NAME>
    InvokerControllerMapping:
        ConfigItemFetch:
            Controller: /ConfigItemFetch/
        Timeout: '120'
    Type: HTTP::REST

```

The ConfigItemFetch invoker works slightly similar to the ConfigItemUpsert operation in terms that it adds or updates one or more config items based on the defined identifier attributes. Upon being triggered by the configured events (in the example above TicketQueueUpdate), the remote system is requested and the returned data are processed.

Mapping of incoming data

Response data structures of a remote system may vary, but an example is nonetheless helpful for understanding. Given the following data structure:

```
[
{
    "currency": "EUR",
    "currency_symbol": "€",
    "customer_id": 1,
    "customer_ip_address": "127.0.0.1",
    "customer_note": "",
    "discount_tax": "0.00",
    "discount_total": "0.00",
    "fee_lines": [],
    "id": 200,
    "next_payment_date": "01 January 1970",
    "number": "200",
    "parent_id": 0,
    "parent_order_id": 100,
    "recurring_amount": 42,
    "refunds": [],
    "shipping_lines": [],
    "shipping_tax": "0.00",
    "shipping_total": "0.00",
    "status": "pending",
    "subscription_id": 100,
    "subscriptions_expiry_date": "01 January 1970",
    "tax_lines": [],
    "total": "0.05",
    "total_tax": "0.00",
    "transaction_id": "",
    "user_name": "AgentUser"
},
{

```

```
        "currency": "EUR",
        "currency_symbol": "€",
        "customer_id": 1,
        "customer_ip_address": "127.0.0.1",
        "customer_note": "",
        "discount_tax": "0.00",
        "discount_total": "0.00",
        "fee_lines": [],
        "id": 198,
        "next_payment_date": "01 January 1970",
        "number": "198",
        "parent_id": 0,
        "parent_order_id": 98,
        "recurring_amount": 42,
        "refunds": [],
        "shipping_lines": [],
        "shipping_tax": "0.00",
        "shipping_total": "0.00",
        "status": "processing",
        "subscription_id": 98,
        "subscriptions_expiry_date": "01 January 1970",
        "tax_lines": [],
        "total": "0.00",
        "total_tax": "0.00",
        "transaction_id": "",
        "user_name": "AgentUser"
    }
]
```

The data stems from a WordPress system. A ConfigItemFetch invoker receiving such data needs to also contain a mapping to select and transform it into a data structure for creating or updating a config item. The usable config item attributes are:

Hint: Note that, based on the version trigger configured per class in the admin general catalog interface, a new version may or may not be created based on the data fetched via request.

The data provided by the remote system which is requested by the invoker need to be mapped to the usual config item data, which are the following:

Number optional, Number of config item, will be generated if not given

Name optional if a name module is configured for the class, Name of config item

Class required, name of class for config item to be created in

VersionString optional if a version string module is configured for the class, version identifier of config item

DeploymentState required, name of deployment state of config item

IncidentState required, name of incident state of config item

Description optional, description text if a description is configured for the respective class

DynamicFields optional, data of config item dynamic fields

Hint: The system determines whether to perform an insertion or update based on the identifier config-

ured per class in the web service configuration.

Attention: When implementing the following mapping, the presets listed at the start of the page get overwritten in the following points:

Mapping Type: Simple -> XSLT

This also implies that the above webservice config would need to be adapted.

Given the incoming data and the needed config item data structure, a mapping may look like this:

```
<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:output method="xml" indent="yes"/>

    <!-- Main template for transformation -->
    <xsl:template match="/RootElement">
        <data>
            <xsl:for-each select="data">
                <ConfigItems>

                    <!-- Straight date conversion for next_payment_date -->
                    <DynamicField_SUBSC-NextPaymentDate>
                        <xsl:variable name="inputDate" select="next_payment_date"/>
                        <xsl:variable name="day" select="format-number(substring-
                            before($inputDate, ' '), '00')"/>
                        <xsl:variable name="monthName" select="substring-
                            before(substring-after($inputDate, ' '), ' ')"/>
                        <xsl:variable name="year" select="substring-after(substring-
                            after($inputDate, ' '), ' ')"/>

                        <!-- Conversion of month name into two-digit number -->
                        <xsl:variable name="month">
                            <xsl:choose>
                                <xsl:when test="$monthName = 'January'">01</xsl:when>
                                <xsl:when test="$monthName = 'February'">02</xsl:when>
                                <xsl:when test="$monthName = 'March'">03</xsl:when>
                                <xsl:when test="$monthName = 'April'">04</xsl:when>
                                <xsl:when test="$monthName = 'May'">05</xsl:when>
                                <xsl:when test="$monthName = 'June'">06</xsl:when>
                                <xsl:when test="$monthName = 'July'">07</xsl:when>
                                <xsl:when test="$monthName = 'August'">08</xsl:when>
                                <xsl:when test="$monthName = 'September'">09</
                            <xsl:when>
                                <xsl:when test="$monthName = 'October'">10</xsl:when>
                                <xsl:when test="$monthName = 'November'">11</xsl:when>
                                <xsl:when test="$monthName = 'December'">12</xsl:when>
                            </xsl:choose>
                        </xsl:variable>

                        <!-- Composing the date in format YYYY-MM-DD HH:MM:SS -->
                        <xsl:value-of select="concat($year, '-', $month, '-', $day, ' ',
                            '00:00:00')"/>
                    </DynamicField_SUBSC-NextPaymentDate>

                    <!-- Conditional printing and date conversion for subscriptions_
                        _expiry_date -->
                </ConfigItems>
            </xsl:for-each>
        </data>
    </xsl:template>
```

```

        <xsl:variable name="expiryDate" select="subscriptions_expiry_date"
        >/>
        <!-- !-->
        <xsl:if test="normalize-space($expiryDate) != '' and $expiryDate !=
        <DynamicField_SUBSC-SubscriptionsExpiryDate>
            <!-- Conversion of expiryDate in preferred format -->
            <xsl:variable name="expiryDay" select="format-
        <number(substring-before($expiryDate, ' '), '00')"/>
            <xsl:variable name="expiryMonthName" select="substring-
        <before(substring-after($expiryDate, ' '), ' ')"/>
            <xsl:variable name="expiryYear" select="substring-
        <after(substring-after($expiryDate, ' '), ' ')"/>
            <xsl:variable name="expiryMonth">
                <xsl:choose>
                    <xsl:when test="$expiryMonthName = 'January'">01</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'February'">02</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'March'">03</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'April'">04</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'May'">05</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'June'">06</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'July'">07</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'August'">08</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'September'">09</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'October'">10</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'November'">11</
        <xsl:when>
                    <xsl:when test="$expiryMonthName = 'December'">12</
        </xsl:when>
                </xsl:choose>
            </xsl:variable>
            <!-- Printing the formatted date -->
            <xsl:value-of select="concat($expiryYear, '-',
        <$expiryMonth, '-', $expiryDay, ' 00:00:00')"/>
        </DynamicField_SUBSC-SubscriptionsExpiryDate>
    </xsl:if>
    <!-- Printing other fields without conversion -->
    <Class>Subscription</Class>
    <DeploymentState>Production</DeploymentState>
    <IncidentState>Operational</IncidentState>
    <Name><xsl:value-of select="parent_order_id"/></Name>
    <DynamicField_SUBSC-OrderID><xsl:value-of select="parent_order_id
    >/></DynamicField_SUBSC-OrderID>
        <DynamicField_SUBSC-RecurringAmount><xsl:value-of select=
    <"recurring_amount"/></DynamicField_SUBSC-RecurringAmount>
        <DynamicField_SUBSC-SubscStatus><xsl:value-of select="status"/></
    <DynamicField_SUBSC-SubscStatus>

```

```

<DynamicField_SUBSC-SubscriptionID><xsl:value-of select=
←"subscription_id"/></DynamicField_SUBSC-SubscriptionID>
    <DynamicField_SUBSC-UserName><xsl:value-of select="user_name"/></
→DynamicField_SUBSC-UserName>
    </ConfigItems>
    </xsl:for-each>
</data>
</xsl:template>
</xsl:stylesheet>

```

The combination of the incoming data and the mapping above will result in the following data for config item creation or update, respectively:

```

[
  {
    "Class": "Subscription",
    "DeploymentState": "Production",
    "DynamicField_SUBSC-NextPaymentDate": "1970-01-01 00:00:00",
    "DynamicField_SUBSC-OrderID": "100",
    "DynamicField_SUBSC-RecurringAmount": "42",
    "DynamicField_SUBSC-SubscStatus": "pending",
    "DynamicField_SUBSC-SubscriptionID": "100",
    "DynamicField_SUBSC-SubscriptionsExpiryDate": "1970-01-01 00:00:00",
    "DynamicField_SUBSC-UserName": "AgentUser",
    "IncidentState": "Operational",
    "Name": "100"
  },
  {
    "Class": "Subscription",
    "DeploymentState": "Production",
    "DynamicField_SUBSC-NextPaymentDate": "1970-01-01 00:00:00",
    "DynamicField_SUBSC-OrderID": "98",
    "DynamicField_SUBSC-RecurringAmount": "42",
    "DynamicField_SUBSC-SubscStatus": "pending",
    "DynamicField_SUBSC-SubscriptionID": "98",
    "DynamicField_SUBSC-SubscriptionsExpiryDate": "1970-01-01 00:00:00",
    "DynamicField_SUBSC-UserName": "AgentUser",
    "IncidentState": "Operational",
    "Name": "100"
  }
]

```

ConfigItemUpdate

Using the ConfigItemUpdate invoker, it is possible to send config item data to a remote endpoint. A simple example web service definition could look as follows:

```

---
Debugger:
  DebugThreshold: debug
  TestMode: '0'
Description: ''
FrameworkVersion: 11.0.x
RemoteSystem: ''
Requester:
  Invoker:
    ConfigItemUpdate:
      Description: 'Send Config Item data to remote system.'

```

```

Events:
- Asynchronous: '1'
  Condition:
    Condition:
      '1':
        Fields:
          Number:
            Match: .+
            Type: Regexp
          Type: and
        ConditionLinking: and
      Event: VersionCreate
    MappingInbound:
      Type: Simple
    MappingOutbound:
      Type: Simple
      Type: ConfigItem::ConfigItemUpdate
  Transport:
    Config:
      Authentication:
        AuthType: BasicAuth
        BasicAuthPassword: Password
        BasicAuthUser: AgentUser
      DefaultCommand: GET
      Host: https://YOURSERVER/otobo/nph-genericinterface.pl/Webservice/<WEBSERVICE_
 ↵NAME>
    InvokerControllerMapping:
      ConfigItemUpdate:
        Controller: /ConfigItemUpdate/
      Timeout: '120'
    Type: HTTP::REST

```

Without any mapping applied, the outgoing config item data will look like the following:

```
{
  "ChangeBy": "2",
  "ChangeTime": "1970-01-01 00:00:01",
  "Class": "Client Software",
  "ClassID": "45",
  "ConfigItemID": "1",
  "CreateBy": "2",
  "CreateTime": "1970-01-01 00:00:01",
  "CurDeplState": "Production",
  "CurDeplStateID": "2",
  "CurDeplStateType": "productive",
  "CurInciState": "Operational",
  "CurInciStateID": "1",
  "CurInciStateType": "operational",
  "DefinitionID": "1",
  "DeplState": "Production",
  "DeplStateID": "2",
  "DeplStateType": "productive",
  "Description": "Some meaningful description",
  "DynamicField_ITSM-LensToLicenseCount": "2",
  "DynamicField_ITSM-LensToLicensePeriodFrom": "1970-01-01 00:00:00",
  "DynamicField_ITSM-LensToLicensePeriodUntil": "2069-12-31 00:00:00",
  "DynamicField_ITSM-LensToLicenseType": "ApacheLizenz",
  "DynamicField_ITSM-ReferenceToLicense": "Name of License",
}
```

```

    "InciState": "Operational",
    "InciStateID": "1",
    "InciStateType": "operational",
    "LastVersionID": "1",
    "Name": "ClientSoftware",
    "Number": "1045000002",
    "VersionID": "1",
    "VersionString": "1"
};


```

Note: Note that values of dynamic fields are transformed. E.g. reference fields will not be included with their value ID, but with a readable value. For reference dynamic fields of type ConfigItem, ConfigItemVersion and Ticket, this value can be configured with the attribute ‘Display value’.

It is also possible to trigger a ConfigItemFetch invoker manually via console command:

```
bin/otobo.Console.pl Maint::WebService::TriggerConfigItemFetch <WEBSERVICE_NAME>
  ↪<INVOKER_NAME>
```

2.2.10 Migration from OTOBO 10 / OTRS

bin/otobo.Console.pl Admin::ITSM::Configitem::UpgradeTo11 Upgrade the complete Configuration Management Database (CMDB) from OTOBO 10 to OTOBO 11. All Configuration Item definitions will be changed, a dynamic field will be prepared for each Configuration Item attribute, and the data will be migrated.

The migration is executed in several steps, to allow for customization. This behavior can be disabled via the flag `--use-defaults`, which is only recommended for test systems, however. If you intend to use attributes globally, i.e. share them between several config item classes, you can use the flag `--no-namespace` to not end up with one separate dynamic field per class (this is useful, e.g. for an “Owner” or a “Customer”, which are not specific to just one class). More detailed intervention can be done during the migration, too, in any case. The customization options which follow the first and the second step are:

1. In a first step all existing classes are evaluated and attribute maps from the previous attributes to Dynamic Fields which are to be created are prepared and written to the working directory. You can look at the map for each class, and change dynamic field names including their namespaces (the part before the “-”) freely (within usual DF naming restrictions, including uniqueness, also shared between object types, e.g. ticket DFs), and as such e.g. set dynamic fields to be common between classes, here, too.
2. The definitions are prepared, this includes the class definitions as well as the dynamic field definitions. Per default just one page and one section containing all dynamic fields in a long list are created per CI class. On a productive system where you aim to use the migrated data, it is suggested to put some time into structuring the dynamic fields into different sections, and possibly even pages to receive nicer results. It might be worth to have a look at the ready to adopt classes for some inspiration. Since all legacy versions are to be migrated and versions can differ quite a bit, possibly a lot of files are generated here and you have to make the decision on whether you just want to improve the latest definition of each class, or all of them.

2.2.11 Ready2Import Class Bundles

- IT-Servicemanagement

2.2.12 Relations

Coming soon

2.3 Configuration Reference

2.3.1 Core::BulkAction

ITSMConfigItem::Frontend::BulkFeature

Enables configuration item bulk action feature for the agent frontend to work on more than one configuration item at a time.

ITSMConfigItem::Frontend::BulkFeatureGroup

Enables configuration item bulk action feature only for the listed groups.

2.3.2 Core::DynamicFields::DriverRegistration

DynamicFields::Driver###ConfigItem

DynamicField backend registration.

DynamicFields::Driver###ConfigItemVersion

DynamicField backend registration.

2.3.3 Core::DynamicFields::ObjectTypeRegistration

DynamicFields::ObjectType###ITSMConfigItem

DynamicField object registration.

2.3.4 Core::Elasticsearch::Settings

Elasticsearch::ExcludedCIClasses

ConfigItems of the following classes will not be stored on the Elasticsearch server. To apply this to existing CIs, the CI migration has to be run via console, after changing this option.

Elasticsearch::ExcludedCIDeploymentStates

ConfigItems with the following deployment states will not be stored on the Elasticsearch server. To apply this to existing CIs, the CI migration has to be run via console, after changing this option.

Elasticsearch::ConfigItemStoreFields

Fields stored in the configuration item index which are used for other things besides fulltext searches. For the complete functionality all fields are mandatory.

Elasticsearch::ConfigItemSearchFields

Fields of the configuration item index, used for the fulltext search. Fields are also stored, but are not mandatory for the overall functionality. Inclusion of attachments can be disabled by setting the entry to 0 or deleting it.

Elasticsearch::QuickSearchShow###ConfigItem

Objects to search for, how many entries and which attributes to show. ConfigItem attributes have to explicitly be stored via Elasticsearch.

2.3.5 Core::Event::ITSMConfigItem

ITSMConfigItem::EventModulePost###100-History

Config item event module that enables logging to history in the agent interface.

ITSMConfigItem::EventModulePost###300-DefinitionConfigItemUpdate

Config item event module that updates config items to their current definition.

ITSMConfigItem::EventModulePost###400-LinkSync

Config item event module that updates the table configitem_link.

ITSMConfigItem::EventModulePost###500-RecalcCurInciState

Config item event module updates the current incident state.

ITSMConfigItem::EventModulePost###4000-ScriptDynamicFields

Evaluate all script fields.

DynamicField::EventModulePost###200-DynamicFieldSync

Dynamic field event module that marks config item definitions as out of sync, if containing dynamic fields change.

ITSMConfigItem::EventModulePost###1000-GenericInterface

Performs the configured action for each event (as an Invoker) for each configured Webservice.

2.3.6 Core::Event::Ticket

ITSMConfigItem::EventModulePost###042-ITSMConfigItemTicketStatusLink

Event module to set configitem-status on ticket-configitem-link.

Ticket::EventModulePost###042-ITSMConfigItemTicketStatusLink

Event module to set configitem-status on ticket-configitem-link.

2.3.7 Core::GeneralCatalog

GeneralCatalogPreferences###DeploymentStates

Parameters for the deployment states in the preferences view of the agent interface.

GeneralCatalogPreferences###DeploymentStatesColors

Parameters for the deployment states color in the preferences view of the agent interface.

GeneralCatalogPreferences###NameModule

Parameters for the name module for config item classes in the preferences view of the agent interface.

GeneralCatalogPreferences###NumberModule

Parameters for the number module for config item classes in the preferences view of the agent interface.

GeneralCatalogPreferences###VersionStringModule

Parameters for the version string module for config item classes in the preferences view of the agent interface.

GeneralCatalogPreferences###VersionStringExpression

Parameters for the version string template toolkit module for config item classes in the preferences view of the agent interface.

GeneralCatalogPreferences###VersionTrigger

Parameters for the version trigger for config item classes in the preferences view of the agent interface.

GeneralCatalogPreferences###Categories

Parameters for the categories for config item classes in the preferences view of the agent interface.

GeneralCatalogPreferences###Permissions

Parameters for the example permission groups of the general catalog attributes.

2.3.8 Core::ITSMConfigItem

ITSMConfigItem::CINameRegex

Defines regular expressions individually for each ConfigItem class to check the ConfigItem name and to show corresponding error messages.

ITSMConfigItem::Permission::Class###010-ClassGroupCheck

Module to check the group responsible for a class.

ITSMConfigItem::Permission::Item###010-ItemClassGroupCheck

Module to check the group responsible for a configuration item.

ITSMConfigItem::Hook

The identifier for a configuration item, e.g. ConfigItem#, MyConfigItem#. The default is ConfigItem#.

UniqueCIName::EnableUniquenessCheck

Enables/disables the functionality to check ITSM configuration items for unique names. Before enabling this option you should check your system for already existing config items with duplicate names. You can do this with the console command Admin::ITSM::Configitem::ListDuplicates.

UniqueCIName::UniquenessCheckScope

Check for a unique name only within the same ConfigItem class ('class') or globally ('global'), which means every existing ConfigItem is taken into account when looking for duplicates.

Customer::ConfigItem::PermissionConditions###01

Define a set of conditions under which a customer is allowed to see a config item. Conditions can optionally be restricted to certain customer groups. Name is the only mandatory attribute. If no other options are given, all config items will be visible under that category.

Customer::ConfigItem::PermissionConditions####02

Define a set of conditions under which a customer is allowed to see a config item. Conditions can optionally be restricted to certain customer groups. Name is the only mandatory attribute. If no other options are given, all config items will be visible under that category.

Customer::ConfigItem::PermissionConditions####03

Define a set of conditions under which a customer is allowed to see a config item. Conditions can optionally be restricted to certain customer groups. Name is the only mandatory attribute. If no other options are given, all config items will be visible under that category.

Customer::ConfigItem::PermissionConditions####04

Define a set of conditions under which a customer is allowed to see a config item. Conditions can optionally be restricted to certain customer groups. Name is the only mandatory attribute. If no other options are given, all config items will be visible under that category.

Customer::ConfigItem::PermissionConditions####05

Define a set of conditions under which a customer is allowed to see a config item. Conditions can optionally be restricted to certain customer groups. Name is the only mandatory attribute. If no other options are given, all config items will be visible under that category.

Customer::ConfigItem::PermissionConditionColumns###Default

Customer::ConfigItem::PermissionConditionColumns####01

Customer::ConfigItem::PermissionConditionColumns####02

Customer::ConfigItem::PermissionConditionColumns####03

Customer::ConfigItem::PermissionConditionColumns####04

Customer::ConfigItem::PermissionConditionColumns####05

CMDBTreeView::DefaultDepth

Defines the default relations depth to be shown.

CMDBTreeView::ShowLinkLabels

Defines if the link type labels must be shown in the node connections.

2.3.9 Core::ITSMConfigItem::ACL

ITSMConfigItemACLKeysLevel1Match

Defines which items are available in first level of the ITSM Config Item ACL structure.

ITSMConfigItemACLKeysLevel1Change

Defines which items are available in first level of the ITSM Config Item ACL structure.

ITSMConfigItemACLKeysLevel2::Possible

Defines which items are available in second level of the ITSM Config Item ACL structure.

ITSMConfigItemACLKeysLevel2::PossibleAdd

Defines which items are available in second level of the ITSM Config Item ACL structure.

ITSMConfigItemACLKeysLevel2::PossibleNot

Defines which items are available in second level of the ITSM Config Item ACL structure.

ITSMConfigItemACLKeysLevel2::Properties

Defines which items are available in second level of the ITSM Config Item ACL structure.

ITSMConfigItemACLKeysLevel2::PropertiesDatabase

Defines which items are available in second level of the ITSM Config Item ACL structure.

ITSMConfigItemACLKeysLevel3::Actions###100-Default

Defines which items are available for ‘Action’ in third level of the ITSM Config Item ACL structure.

ConfigItemACL::ACLPreenforcement

Whether the execution of ConfigItemACL can be avoided by checking cached field dependencies. This can improve loading times of formulars, but has to be disabled, if ACLModules are to be used for ITSMConfigItem- and Form-ReturnTypes.

ConfigItemACL::Autoselect

Whether fields should be automatically filled (1), and in that case also be hidden from ticket formulars (2).

2.3.10 Core::ImportExport::ObjectBackend::ModuleRegistration

ImportExport::ObjectBackendRegistration###ITSMConfigItem

Object backend module registration for the import/export module.

2.3.11 Core::LinkObject

LinkObject::DefaultSubObject###ITSMConfigItem

Defines the default subobject of the class 'ITSMConfigItem'.

LinkObject::ITSMConfigItem::ShowColumns

Defines the shown columns of CIs in the link table complex view for all CI classes. If there is no entry, then the default columns are shown.

LinkObject::ITSMConfigItem::ShowColumnsByClass

Defines the shown columns of CIs in the link table complex view, depending on the CI class. Each entry must be prefixed with the class name and double colons (i.e. Computer::). There are a few CI-Attributes that common to all CIs (example for the class Computer: Computer::Name, Computer::CurDeplState, Computer::CreateTime). To show individual CI-Attributes as defined in the CI-Definition, the following scheme must be used (example for the class Computer): Computer::HardDisk::1, Computer::HardDisk::1::Capacity::1, Computer::HardDisk::2, Computer::HardDisk::2::Capacity::1. If there is no entry for a CI class, then the default columns are shown.

2.3.12 Core::LinkStatus

ITSMConfigItem::SetIncidentStateOnLink

Set the incident state of a CI automatically when a Ticket is Linked to a CI.

ITSMConfigItem::LinkStatus::TicketTypes

Defines which type of ticket can affect the status of a linked CI.

ITSMConfigItem::LinkStatus::DeploymentStates

Defines the relevant deployment states where linked tickets can affect the status of a CI.

ITSMConfigItem::LinkStatus::IncidentStates

Defines the order of incident states from high (e.g. critical) to low (e.g. functional).

ITSMConfigItem::LinkStatus::LinkTypes

Defines which type of link (named from the ticket perspective) can affect the status of a linked CI.

2.3.13 Core::Stats

Stats::DynamicObjectRegistration###ITSMConfigItem

Module to generate ITSM config item statistics.

2.3.14 Daemon::SchedulerCronTaskManager::Task

Daemon::SchedulerCronTaskManager::Task###TriggerConfigItemFetch-01

Triggers ConfigItemFetch invoker automatically.

Daemon::SchedulerCronTaskManager::Task###TriggerConfigItemFetch-02

Triggers ConfigItemFetch invoker automatically.

Daemon::SchedulerCronTaskManager::Task###TriggerConfigItemFetch-03

Triggers ConfigItemFetch invoker automatically.

2.3.15 Frontend::Admin

Events###ITSMConfigItem

List of all Package events to be displayed in the GUI.

2.3.16 Frontend::Admin::ModuleRegistration

Frontend::Module###AdminITSMConfigItem

Frontend module registration for the agent interface.

Frontend::Module###AdminGenericInterfaceInvokerConfigItem

Frontend module registration for the agent interface.

2.3.17 Frontend::Admin::ModuleRegistration::AdminOverview

Frontend::NavigationModule###AdminITSMConfigItem

Admin area navigation for the agent interface.

2.3.18 Frontend::Admin::ModuleRegistration::Loader

Loader::Module::AdminITSMConfigItem###002-ITSMConfigItem

Loader module registration for the agent interface.

Loader::Module::AdminGenericInterfaceInvokerConfigItem###007-ITSMConfigurationManagement

Loader module registration for the agent interface.

2.3.19 Frontend::Admin::ModuleRegistration::MainMenu

ITSMConfigItem::Frontend::AdminITSMConfigItem###003-ITSMConfigItem

Main menu item registration.

2.3.20 Frontend::Admin::View::ITSMConfigItemDefinition

ITSMConfigItem::Frontend::AdminITSMConfigItem###EditorRows

Defines the number of rows for the CI definition editor in the admin interface.

2.3.21 Frontend::Agent::ITSMConfigItem::MenuModule

ITSMConfigItem::Frontend::MenuModule###000-Back

Shows a link in the menu to go back in the configuration item zoom view of the agent interface.

ITSMConfigItem::Frontend::MenuModule###200-History

Shows a link in the menu to access the history of a configuration item in the its zoom view of the agent interface.

ITSMConfigItem::Frontend::MenuModule###300-Edit

Shows a link in the menu to edit a configuration item in the its zoom view of the agent interface.

ITSMConfigItem::Frontend::MenuModule###400-Print

Shows a link in the menu to print a configuration item in the its zoom view of the agent interface.

ITSMConfigItem::Frontend::MenuModule###500-Link

Shows a link in the menu that allows linking a configuration item with another object in the config item zoom view of the agent interface.

ITSMConfigItem::Frontend::MenuModule###550-TreeView

Shows a link in the menu to display the configuration item links as a Tree View.

ITSMConfigItem::Frontend::MenuModule###600-Duplicate

Shows a link in the menu to duplicate a configuration item in the its zoom view of the agent interface.

ITSMConfigItem::Frontend::MenuModule###700-ConfigItemDelete

Shows a link in the menu to delete a configuration item in its zoom view of the agent interface.

2.3.22 Frontend::Agent::ITSMConfigItem::MenuModulePre

ITSMConfigItem::Frontend::PreMenuModule###100-Zoom

Shows a link in the menu to zoom into a configuration item in the configuration item overview of the agent interface.

ITSMConfigItem::Frontend::PreMenuModule###200-History

Shows a link in the menu to access the history of a configuration item in the configuration item overview of the agent interface.

ITSMConfigItem::Frontend::PreMenuModule###300-Duplicate

Shows a link in the menu to duplicate a configuration item in the configuration item overview of the agent interface.

2.3.23 Frontend::Agent::ITSMConfigItem::Permission

ITSMConfigItem::Frontend::AgentITSMConfigItem###Permission

Required permissions to use the ITSM configuration item screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemEdit###Permission

Required permissions to use the edit ITSM configuration item screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemAdd###Permission

Required permissions to use the add ITSM configuration item screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemHistory###Permission

Required permissions to use the history ITSM configuration item screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemPrint###Permission

Required permissions to use the print ITSM configuration item screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemZoom###Permission

Required permissions to use the ITSM configuration item zoom screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Permission

Required permissions to use the ITSM configuration item search screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemTreeView###Permission

Required permissions to use the ITSM configuration item tree view screen in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemBulk###Permission

Required permissions to use the bulk ITSM configuration item screen in the agent interface.

2.3.24 Frontend::Agent::ITSMConfigItemAttachment::Permission

ITSMConfigItem::Frontend::AgentITSMConfigItemAttachment###Permission

Required permissions to use the ITSM configuration item attachment action in the agent interface.

2.3.25 Frontend::Agent::ITSMConfigItemOverview

ITSMConfigItem::Frontend::Overview###Small

Defines an overview module to show the small view of a configuration item list.

2.3.26 Frontend::Agent::LinkObject

LinkObject::ComplexTable::SettingsVisibility###ITSMConfigItem

Define Actions where a settings button is available in the linked objects widget (LinkObject::ViewMode = “complex”). Please note that these Actions must have registered the following JS and CSS files: Core.AllocationList.css, Core.UI.AllocationList.js, Core.UI.Table.Sort.js, Core.Agent.TableFilters.js and Core.Agent.LinkObject.js.

2.3.27 Frontend::Agent::ModuleRegistration

Frontend::Module###AgentITSMConfigItem

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemZoom

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemEdit

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemPrint

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemDelete

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemTreeView

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemAdd

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemSearch

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemHistory

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemBulk

Frontend module registration for the agent interface.

Frontend::Module###AgentITSMConfigItemAttachment

Frontend module registration for the agent interface.

2.3.28 Frontend::Agent::ModuleRegistration::Loader

Loader::Module::AgentITSMConfigItem###003-ITSMConfigItem

Loader module registration for the agent interface.

Loader::Module::AgentITSMConfigItemZoom###003-ITSMConfigItem

Loader module registration for the agent interface.

Loader::Module::AgentITSMConfigItemEdit###003-ITSMConfigItem

Loader module registration for the agent interface.

Loader::Module::AgentITSMConfigItemTreeView###003-ITSMConfigItem

Loader module registration for the agent interface.

Loader::Module::AgentITSMConfigItemAdd###003-ITSMConfigItem

Loader module registration for the agent interface.

Loader::Module::AgentITSMConfigItemSearch###003-ITSMConfigItem

Loader module registration for the agent interface.

Loader::Module::AgentITSMConfigItemHistory###003-ITSMConfigItem

Loader module registration for the agent interface.

2.3.29 Frontend::Agent::ModuleRegistration::MainMenu

Frontend::Navigation###AgentITSMConfigItem###003-ITSMConfigItem

Main menu item registration.

Frontend::Navigation###AgentITSMConfigItemAdd###003-ITSMConfigItem

Main menu item registration.

Frontend::Navigation###AgentITSMConfigItemSearch###003-ITSMConfigItem

Main menu item registration.

Frontend::Navigation###AgentITSMConfigItemBulk###003-ITSMConfigItem

Main menu item registration.

2.3.30 Frontend::Agent::ModuleRegistration::MainMenu::Search

Frontend::Search###ConfigItem

Configuration item search backend router of the agent interface.

Frontend::Search::JavaScript###ConfigItem

JavaScript function for the search frontend.

2.3.31 Frontend::Agent::View::AgentITSMConfigItemBulk

ITSMConfigItem::Frontend::AgentITSMConfigItemBulk###DynamicField

Dynamic fields shown in the additional ITSM field screen of the agent interface.

2.3.32 Frontend::Agent::View::AgentITSMConfigItemEdit

ITSMConfigItem::Frontend::AgentITSMConfigItemEdit###DynamicField

Dynamic fields shown in the additional ITSM field screen of the agent interface.

2.3.33 Frontend::Agent::View::AgentITSMConfigItemHistory

ITSMConfigItem::Frontend::AgentITSMConfigItemPrint###DynamicField

Dynamic fields shown in the additional ITSM field screen of the agent interface.

2.3.34 Frontend::Agent::View::AgentITSMConfigItemZoom

ITSMConfigItem::Frontend::AgentITSMConfigItemZoom###DynamicField

Dynamic fields shown in the additional ITSM field screen of the agent interface.

2.3.35 Frontend::Agent::View::ConfigItemSearch

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###ExtendedSearchCondition

Allows extended search conditions in config item search of the agent interface. With this feature you can search e. g. config item name with this kind of conditions like “(key1*&&*key2)” or “(key1*||*key2)”.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###SearchPageShown

Number of config items to be displayed in each page of a search result in the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###SortBy::Default

Defines the default config item attribute for config item sorting of the config item search result of the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Order::Default

Defines the default config item order in the config item search result of the agent interface. Up: oldest on top. Down: latest on top.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###Number

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###Name

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###DeploymentStateIDs

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###IncidentStateIDs

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###CustomerID

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###CustomerUserLogin

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###ITSMConfigItemCreateTimePoint

Default data to use on attribute for config item search screen. Example: “ITSMConfigItemCreateTime-PointFormat=year;ITSMConfigItemCreateTimePointStart=Last;ITSMConfigItemCreateTimePoint=2;”.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###ITSMConfigItemCreateTimeSlot

Default data to use on attribute for config item search screen. Example: “ITSMConfigItemCreateTimeStartYear=2010;ITSMConfigItemCreateTimeStartMonth=10;ITSMConfigItemCreateTimeStartDay=4;ITSMConfigItemCreate

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###ITSMConfigItemChangeTimePoint

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###ITSMConfigItemChangeTimeSlot

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###DynamicField

Defines the default shown config item search attribute for config item search screen. Example: “Key” must have the name of the Dynamic Field in this case ‘X’, “Content” must have the value of the Dynamic Field depending on the Dynamic Field type, Text: ‘a text’, Dropdown: ‘1’, Date/Time: ‘Search_DynamicField_XTimeSlotStartYear=1974; Search_DynamicField_XTimeSlotStartMonth=01; Search_DynamicField_XTimeSlotStartDay=26; Search_DynamicField_XTimeSlotStartHour=00; Search_DynamicField_XTimeSlotStartMinute=00; Search_DynamicField_XTimeSlotStartSecond=00; Search_DynamicField_XTimeSlotStopYear=2013; Search_DynamicField_XTimeSlotStopMonth=01; Search_DynamicField_XTimeSlotStopDay=26; Search_DynamicField_XTimeSlotStopHour=23; Search_DynamicField_XTimeSlotStopMinute=59; Search_DynamicField_XTimeSlotStopSecond=59’; and or ‘Search_DynamicField_XTimePointFormat=week; Search_DynamicField_XTimePointStart=Before; Search_DynamicField_XTimePointValue=7’;

2.3.36 Frontend::Agent::View::CustomerInformationCenter

AgentCustomerInformationCenter::Backend###0060-CIC-ITSMConfigItemCustomerCompany

Parameters for the dashboard backend of the customer company config item overview of the agent interface . “Limit” is the number of entries shown by default. “Group” is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). “Default” determines if the plugin is enabled by default or if the user needs to enable it manually. “CacheTTLLocal” is the cache time in minutes for the plugin.

2.3.37 Frontend::Agent::View::CustomerUserInformationCenter

AgentCustomerUserInformationCenter::Backend###0060-CUIC-ITSMConfigItemCustomerUser

Parameters for the dashboard backend of the customer company config item overview of the agent interface . “Limit” is the number of entries shown by default. “Group” is used to restrict the access to the plugin (e. g. Group: admin;group1;group2;). “Default” determines if the plugin is enabled by default or if the user needs to enable it manually. “CacheTTLLocal” is the cache time in minutes for the plugin.

2.3.38 Frontend::Agent::View::ITSMConfigItem

ITSMConfigItem::Frontend::AgentITSMConfigItem###DefaultColumns

Columns that can be filtered in the config item overview of the agent interface. Note: Only Config Item attributes and Dynamic Fields (DynamicField_NameX) are allowed.

ITSMConfigItem::Frontend::AgentITSMConfigItem###SearchLimit

Defines the search limit for the AgentITSMConfigItem screen.

ITSMConfigItem::Frontend::AgentITSMConfigItem###DefaultCategory

The default category which is shown, if none is selected.

ITSMConfigItem::Frontend::AgentITSMConfigItem###ClassColumnsAvailable

Defines the available columns of CIs in the config item overview depending on the CI class. Each entry must consist of a class name and an array of available fields for the corresponding class. Dynamic field entries have to honor the scheme DynamicField_FieldName.

ITSMConfigItem::Frontend::AgentITSMConfigItem###ClassColumnsDefault

Defines the default displayed columns of CIs in the config item overview depending on the CI class. Each entry must consist of a class name and an array of available fields for the corresponding class. Dynamic field entries have to honor the scheme DynamicField_FieldName.

2.3.39 Frontend::Agent::View::ITSMConfigItemBulk

ITSMConfigItem::Frontend::AgentITSMConfigItemBulk###DeplState

Sets the deployment state in the configuration item bulk screen of the agent interface.

ITSMConfigItem::Frontend::AgentITSMConfigItemBulk###InciState

Sets the incident state in the configuration item bulk screen of the agent interface.

2.3.40 Frontend::Agent::View::ITSMConfigItemDelete

ITSMConfigItem::Frontend::AgentITSMConfigItemDelete###Permission

Required privileges to delete config items.

2.3.41 Frontend::Agent::View::ITSMConfigItemEdit

ITSMConfigItem::Frontend::AgentITSMConfigItemEdit###RichTextWidth

Defines the width for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

ITSMConfigItem::Frontend::AgentITSMConfigItemEdit###RichTextHeight

Defines the height for the rich text editor component for this screen. Enter number (pixels) or percent value (relative).

2.3.42 Frontend::Agent::View::ITSMConfigItemHistory

ITSMConfigItem::Frontend::HistoryOrder

Shows the config item history (reverse ordered) in the agent interface.

2.3.43 Frontend::Agent::View::ITSMConfigItemSearch

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###SearchCSVData

Data used to export the search result in CSV format.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###SearchCSVDynamicField

Dynamic Fields used to export the search result in CSV format.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###Defaults###SearchPreviousVersions

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###SearchLimit

Defines the search limit for the AgentITSMConfigItemSearch screen.

ITSMConfigItem::Frontend::AgentITSMConfigItemSearch###DynamicField

Dynamic fields shown in the config item search screen of the agent interface.

2.3.44 Frontend::Agent::View::Preferences

PreferencesGroups###ConfigItemOverviewSmallPageShown

Parameters for the pages (in which the configuration items are shown).

PreferencesGroups###ConfigItemOverviewFilterSettings

Parameters for the column filters of the small config item overview. Please note: setting ‘Active’ to 0 will only prevent agents from editing settings of this group in their personal preferences, but will still allow administrators to edit the settings of another user’s behalf. Use ‘PreferenceGroup’ to control in which area these settings should be shown in the user interface.

2.3.45 Frontend::Base::DynamicFieldScreens

DynamicFieldScreens###ITSMConfigurationManagement

This configuration defines all possible screens to enable or disable dynamic fields.

DefaultColumnsScreens###ITSMConfigurationManagement

This configuration defines all possible screens to enable or disable default columns.

2.3.46 Frontend::Base::Loader

Loader::Agent::CommonJS###100-ConfigurationManagement

List of JS files to always be loaded for the agent interface.

2.3.47 Frontend::Base::NavBarModule

Frontend::AdminModuleGroups###200-ITSMConfigurationManagement

Defines available groups for the admin overview screen.

2.3.48 Frontend::Customer::ITSMConfigItemOverview

ITSMConfigItem::Frontend::CustomerOverview###Small

Defines an overview module to show the small view of a configuration item list.

2.3.49 Frontend::Customer::ModuleRegistration

CustomerFrontend::Module###CustomerITSMConfigItem

Frontend module registration for the customer interface.

CustomerFrontend::Module###CustomerITSMConfigItemSearch

Frontend module registration for the customer interface.

CustomerFrontend::Module###CustomerITSMConfigItemZoom

Frontend module registration for the customer interface.

CustomerFrontend::Module###CustomerITSMConfigItemAttachment

Frontend module registration for the customer interface.

2.3.50 Frontend::Customer::ModuleRegistration::Loader

Loader::Module::CustomerITSMConfigItem###003-ITSMConfigItem

Loader module registration for the customer interface.

Loader::Module::CustomerITSMConfigItemSearch###003-ITSMConfigItem

Loader module registration for the customer interface.

Loader::Module::CustomerITSMConfigItemZoom###003-ITSMConfigItem

Loader module registration for the customer interface.

2.3.51 Frontend::Customer::ModuleRegistration::MainMenu

CustomerFrontend::Navigation###CustomerITSMConfigItem###003-ITSMConfigItem

Main menu item registration.

2.3.52 Frontend::Customer::View::ConfigItemSearch

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###Permission

Required permissions to use the ITSM configuration item search screen in the customer interface.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###DeploymentState

Includes deployment states in the config item search of the customer interface.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###IncidentState

Includes incident states in the config item search of the customer interface.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###ExtendedSearchCondition

Allows extended search conditions in config item search of the customer interface. With this feature you can search e. g. config item name with this kind of conditions like “(key1*&&*key2)” or “(key1*||*key2)”.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###SearchPageShown

Number of config items to be displayed in each page of a search result in the customer interface.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###SortBy::Default

Defines the default config item attribute for config item sorting of the config item search result of the customer interface.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###Order::Default

Defines the default config item order in the config item search result of the customer interface. Up: oldest on top. Down: latest on top.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###Defaults###Number

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###Defaults###Name

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###Defaults###DeploymentStateIDs

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###Defaults###IncidentStateIDs

Defines the default shown config item search attribute for config item search screen.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###Defaults###DynamicField

Defines the default shown config item search attribute for config item search screen. Example: “Key” must have the name of the Dynamic Field in this case ‘X’, “Content” must have the value of the Dynamic Field depending on the Dynamic Field type, Text: ‘a text’, Dropdown: ‘1’, Date/Time: ‘Search_DynamicField_XTimeSlotStartYear=1974; Search_DynamicField_XTimeSlotStartMonth=01; Search_DynamicField_XTimeSlotStartDay=26; Search_DynamicField_XTimeSlotStartHour=00; Search_DynamicField_XTimeSlotStartMinute=00; Search_DynamicField_XTimeSlotStartSecond=00; Search_DynamicField_XTimeSlotStopYear=2013; Search_DynamicField_XTimeSlotStopMonth=01; Search_DynamicField_XTimeSlotStopDay=26; Search_DynamicField_XTimeSlotStopHour=23; Search_DynamicField_XTimeSlotStopMinute=59; Search_DynamicField_XTimeSlotStopSecond=59;’ and or ‘Search_DynamicField_XTimePointFormat=week; Search_DynamicField_XTimePointStart=Before; Search_DynamicField_XTimePointValue=7’;

2.3.53 Frontend::Customer::View::ITSMConfigItem

ITSMConfigItem::Frontend::CustomerITSMConfigItem###DefaultColumns

Columns that can be filtered in the config item overview of the customer interface. Note: Only Config Item attributes and Dynamic Fields (DynamicField_NameX) are allowed.

ITSMConfigItem::Frontend::CustomerITSMConfigItem###SearchLimit

Defines the search limit for the CustomerITSMConfigItem screen.

ITSMConfigItem::Frontend::CustomerITSMConfigItem###ClassColumnsAvailable

Defines the available columns of CIs in the config item overview depending on the CI class. Each entry must consist of a class name and an array of available fields for the corresponding class. Dynamic field entries have to honor the scheme DynamicField_FieldName.

ITSMConfigItem::Frontend::CustomerITSMConfigItem###ClassColumnsDefault

Defines the default displayed columns of CIs in the config item overview depending on the CI class. Each entry must consist of a class name and an array of available fields for the corresponding class. Dynamic field entries have to honor the scheme DynamicField_FieldName.

2.3.54 Frontend::Customer::View::ITSMConfigItemOverview

ITSMConfigItem::Frontend::CustomerITSMConfigItem###DynamicField

Dynamic fields shown in the config item overview screen of the customer interface.

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###DynamicField

Dynamic fields shown in the config item overview screen of the customer interface.

2.3.55 Frontend::Customer::View::ITSMConfigItemSearch

ITSMConfigItem::Frontend::CustomerITSMConfigItemSearch###SearchLimit

Defines the search limit for the CustomerITSMConfigItemSearch screen.

2.3.56 Frontend::Customer::View::ITSMConfigItemZoom

ITSMConfigItem::Frontend::CustomerITSMConfigItemZoom###VersionsEnabled

Customers can see historic CI versions.

ITSMConfigItem::Frontend::CustomerITSMConfigItemZoom###VersionsSelectable

Customers have the possibility to manually switch between historic CI versions.

ITSMConfigItem::Frontend::CustomerITSMConfigItemZoom###GeneralInfo

Which general information is shown in the header.

2.3.57 GenericInterface::Invoker

GenericInterface::Invoker::ConfigItemFetch::Classes

For every webservice (key) an array of classes (value) can be defined on which the import is restricted. For all chosen classes, or all existing classes the identifying attributes will have to be chosen in the invoker config.

2.3.58 GenericInterface::Invoker::ModuleRegistration

GenericInterface::Invoker::Module###Elasticsearch::ConfigItemManagement

GenericInterface module registration for the invoker layer.

GenericInterface::Invoker::Module###ConfigItem::ConfigItemFetch

GenericInterface module registration for the ConfigItemFetch invoker layer.

2.3.59 GenericInterface::Operation::ConfigItemCreate

GenericInterface::Operation::ConfigItemCreate###Permission

Defines Required permissions to create ITSM configuration items using the Generic Interface.

2.3.60 GenericInterface::Operation::ConfigItemDelete

GenericInterface::Operation::ConfigItemDelete###Permission

Defines Required permissions to delete ITSM configuration items using the Generic Interface.

2.3.61 GenericInterface::Operation::ConfigItemGet

GenericInterface::Operation::ConfigItemGet###Permission

Defines Required permissions to get ITSM configuration items using the Generic Interface.

2.3.62 GenericInterface::Operation::ConfigItemSearch

GenericInterface::Operation::ConfigItemSearch###Permission

Defines Required permissions to search ITSM configuration items using the Generic Interface.

GenericInterface::Operation::ConfigItemSearch###SearchLimit

Maximum number of config items to be displayed in the result of this operation.

GenericInterface::Operation::ConfigItemSearch###SortBy::Default

Defines the default config item attribute for config item sorting of the config item search result of this operation.

GenericInterface::Operation::ConfigItemSearch###Order::Default

Defines the default config item order in the config item search result of the this operation. Up: oldest on top. Down: latest on top.

2.3.63 GenericInterface::Operation::ConfigItemUpdate

GenericInterface::Operation::ConfigItemUpdate###Permission

Defines Required permissions to update ITSM configuration items using the Generic Interface.

2.3.64 GenericInterface::Operation::ModuleRegistration

GenericInterface::Operation::Module###ConfigItem::ConfigItemCreate

GenericInterface module registration for the operation layer.

GenericInterface::Operation::Module###ConfigItem::ConfigItemGet

GenericInterface module registration for the operation layer.

GenericInterface::Operation::Module###ConfigItem::ConfigItemUpdate

GenericInterface module registration for the operation layer.

GenericInterface::Operation::Module###ConfigItem::ConfigItemSearch

GenericInterface module registration for the operation layer.

GenericInterface::Operation::Module###ConfigItem::ConfigItemDelete

GenericInterface module registration for the operation layer.

2.4 Glossary

CMDB Configuration Management Database

CI Configuration Item

CHAPTER 3

About

3.1 Contact

Rother OSS GmbH
Email: hello@otobo.io
Web: <https://otobo.io>

3.2 Version

Author: Rother OSS GmbH / Version: master / Date of release: 2024-12-15

3.3 Terms and Conditions

Permission is granted to copy, distribute and/or modify this document under the terms of the GNU Free Documentation License, Version 1.3 or any later version published by the Free Software Foundation; with no Invariant Sections, no Front-Cover Texts, and no Back-Cover Texts. A copy of the license is included in the section entitled “COPYING”.

Published by: Rother OSS GmbH, (<https://otobo.io>), Oberwalting 31, 94339 Leiblfing, Germany.

CHAPTER 4

Sacrifice to Sphinx
