# CINotifications

October 6, 2016

## Description

This addon provides the functionality to send notifications based on dates that belong to a configuration item. You can either look into the future, the past or define a specific time range.

This addon scans the ConfigItem class definition for Date/DateTime fields and provide that fields as events. The fields for the CI filter are created based on the definition as well.

### USE CASES

The subsequent sections describe a few use cases for this addon.

#### Inform owner about end of license

This use case was the main reason to develop this addon. Owners should be informed when the license is about to expire. So it can help to avoid the situation where the software cannot be used or is used without permission/license.

***Example configuration:*** Licence Key -> Expiration Date: within the next month Mail Frequency: once a month

***Recipient:*** Owner

***Subject:*** "License will expire within the next month"

***Body:*** Dear Owner,
the license key for <OTRS_CI_Name> will expire within the next month.
Please consider to buy new licenses.
http://<OTRS_CONFIG_FQDN>/<OTRS_CONFIG_...>?Action=AgentITSMConfigItemZoom;ConfigItemID=<OTRS_CI_ID>

#### Remind admins about recurrent maintenance work

Sometime monthly maintenance work has to be done for servers. To create a new ticket for each server every month, you can configure a notification like this:

***Example configuration:*** Installation Date: more than 1 day ago

***Recipient:*** Email address: otrs@your.domain.com

***Subject:*** Maintenance work for <OTRS_CI_Name>

***Body:*** Dear Admin, please do some maintenance work:
[ ] check harddrives
[ ] check disk usage
[ ] check logfiles
http://<OTRS_CONFIG_FQDN>/<OTRS_CONFIG_ScriptAlias>/index.pl?Action=AgentITSMConfigIt
ConfigItemID=<OTRS_CI_ConfigItemID>

# Installation

There are two ways to install the CINotifications addon. After installation the admin has to change the cronjobs

## Requirements

#### Framework

- OTRS 3.3.x, OTRS 4.0.x, OTRS 5.0.x

#### Additional OTRS AddOns

- ITSMConfigurationManagement

#### Additional Perl modules

- ./.

## Admin interface

Please use the following URL to install the package utilizing the admin interface
(please note that you need to be in the admin group). *http://localhost/otrs/index.pl?Action=AdminPackageMar*

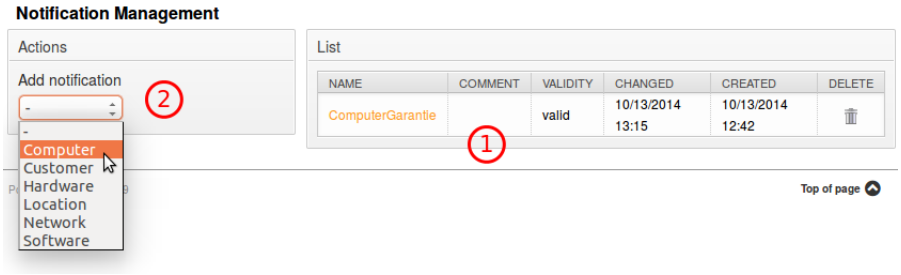
### Terminal / Commandline

If you don't want to use the admin interface, you can use the following OPM command to install the package with "bin/otrs.PackageManager.pl".

```
shell> bin/otrs.PackageManager.pl -a install -p /path/to/CINotifications-3.3.5.op
```

## Create notifications

You can create notifications in the admin area. In the box "Ticket Settings" you'll find the link to "CI Notifications". When you click that link, you'll get a list of all existing notifications (1).




To create a new notification, you have to select the config item class for which the notification is created in the dropdown on the left (2). Currently there is no way to define notifications for several classes in one notification as the definitions are way too flexible.

Define a name for the notification next and define when the notification should be triggered. With "Mail Frequency" you can define how many mails the recipients should get. But you have to keep in mind that the cronjob runs only once a day in the standard configuration. If you need to send notifications more often, you have to change the cronjob.

You can define a CI filter to have more control for which ConfigItems notifications are sent.

In the body of the notification, you can use the standard <OTRS_CONFIG_*> tags (like in the ticket notifications) and you can use the the data that is returned for a config item via ConfigItemGet() method (see http://otrs.perl-services.de/docs/ITSMConfigurationManagement/master/kernel_system_itsmconfigitem.html) with <OTRS_CI_*> tags.

## Configuration

There is no need to configure anything but the cronjob.

Rename *<OTRS_HOME>/var/cron/ci_notification.dist* to *<OTRS_HOME>/var/cron/ci_notification* and run *<OTRS_HOME>/bin/Cron.sh*.

## What to do...

### ... to enable notifications for new ConfigItem classes?

When you added a new ConfigItem class in your GeneralCatalog and created the ConfigItem definition, you can add new notifications without the need to configure anything. You can just select the new class in the dropdown...

### ... when we need to check date fields every hour?

Just change the cronjob. By default the cronjob looks like

```
10 0 * * *  $HOME/bin/ps.SendCINotifications.pl >> /dev/null
```

that means that the cronjob runs every day at 00:10am. If you need to run it hourly, just change the cronjob to look like

```
10 * * * *  $HOME/bin/ps.SendCINotifications.pl >> /dev/null
```

### ... when we want to send the notification to an agent that is responsible for a config item?

In stock OTRS, there is only a field type "Customer" for class definitions, but fortunately c.a.p.e IT published a module on OPAR (http://opar.perl-services.de) that can handle "User" as well. -> http://opar.perl-services.de/dist/ITSM-CIAttributeCollection

After you have installed that addon, you can define a field of type "User". In SysConfig, you have to add "User" to the mapping in the config option *CINotifications::RecipientFieldTypes*. The mapping should look like "User" -> "User". The CINotifications addon recognizes the fields of type "User" as a field that stores information about possible notification recipients.

You get those fields listed in the "Recipient groups" listing in the notification form.

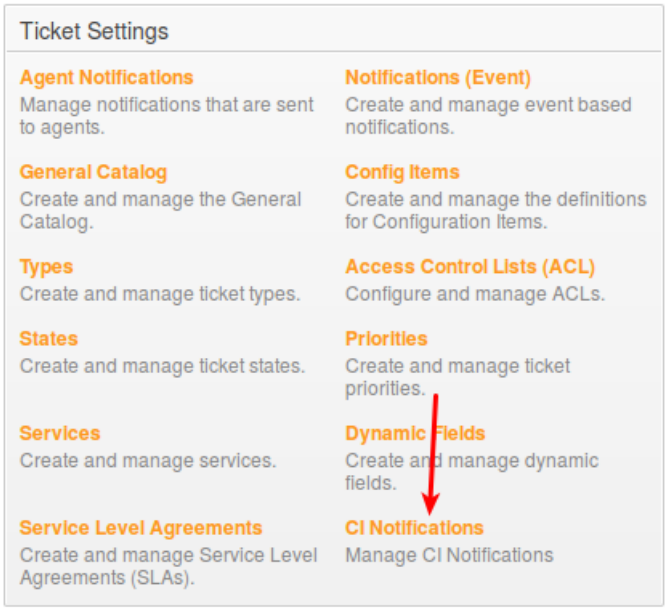
### ... to create a ticket without sending an email?

Define the body and the subject of the notification. It will be the title of the ticket and the body of the first article.. Do not select a recipient except the queue where ticket should be created. That's it!

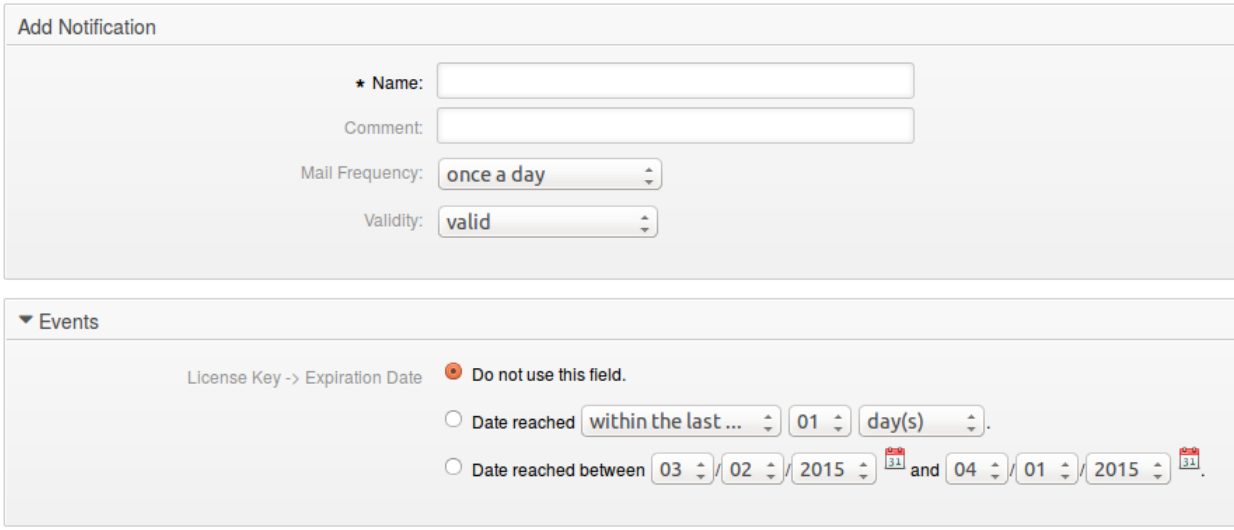
### ... to emit an event without creating an email or a ticket?

Define a simple subject and a simple body (e.g. ".") and leave all the recipient settings blank. Set the event name in the metadata and create an event module that listens for that event.

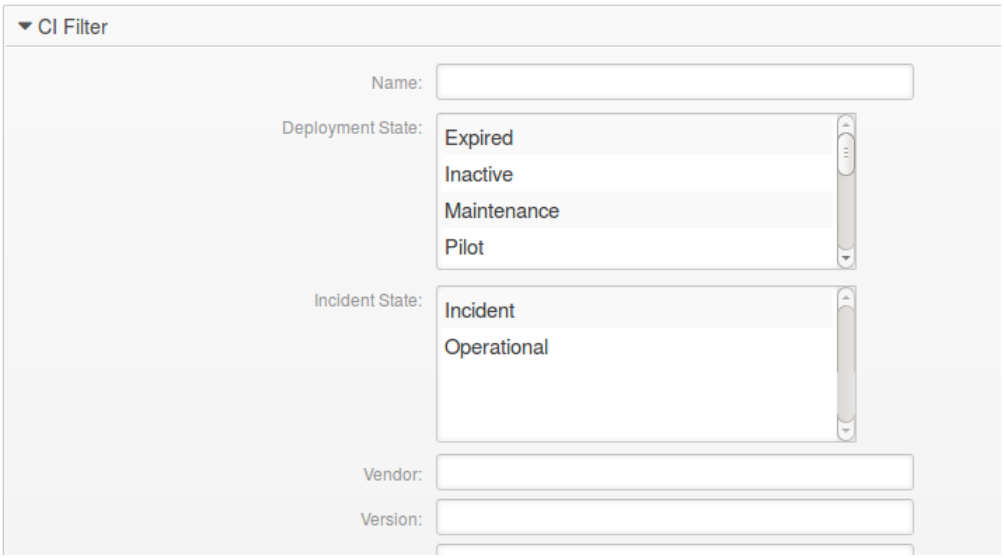
## Screenshots



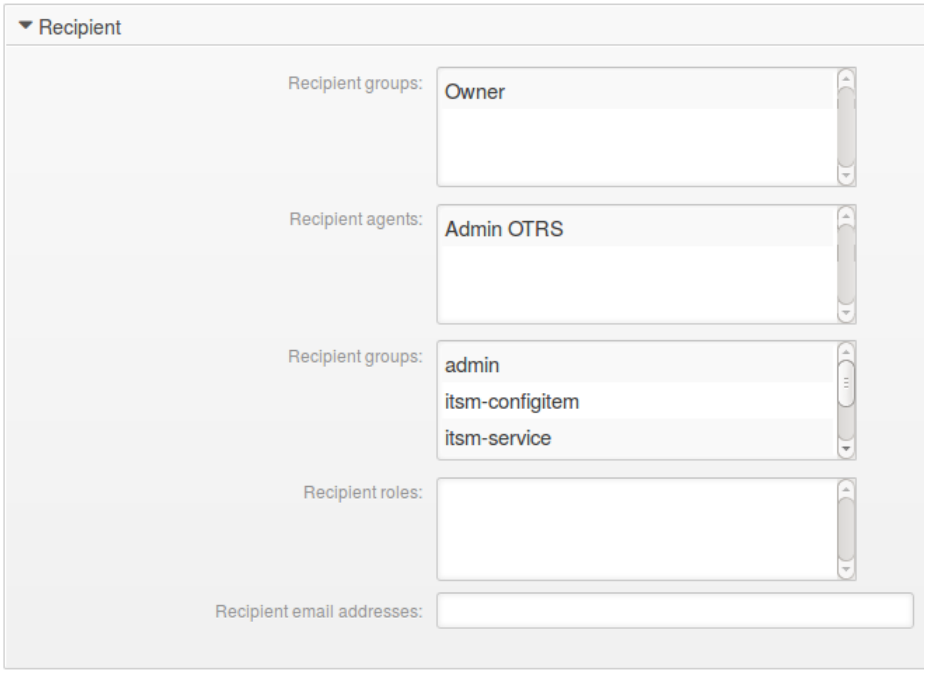

CI Notifications can be managed in the admin area.



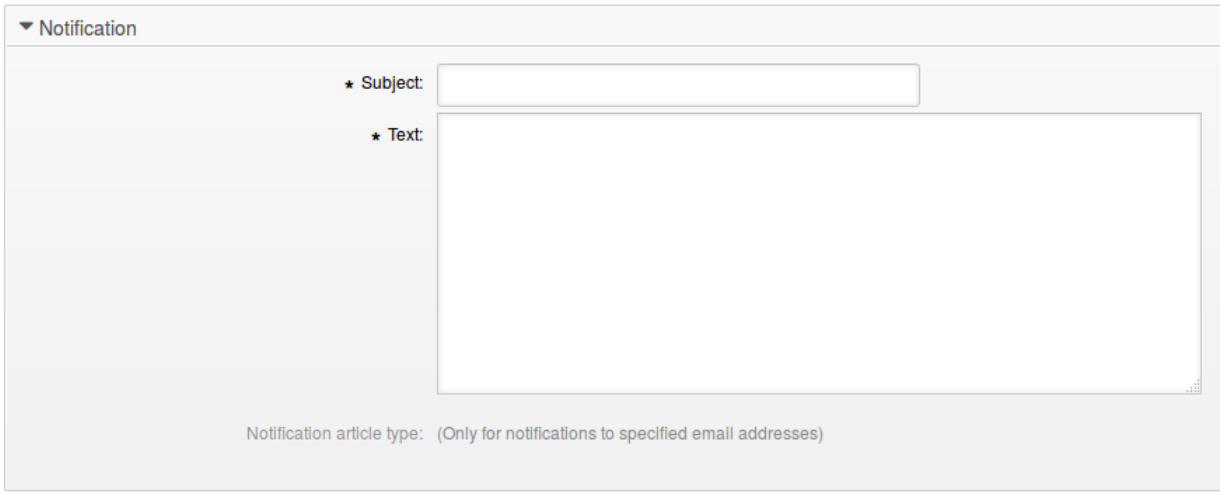

Some general information about the notification. The name has to be unique, the comment can be used to give more details about the purpose of the notification. In the Events list all date/datetime fields of the class can be found.




The CI Filter can be used to be more specific about the CIs that should trigger a notification.




There are many options to define the recipient(s) of the notification.




And finally the notification itself is defined.

## Placeholder

You can use different placeholders in the notification body:

### General information about the config item:

<OTRS_CI_*>
Like
`<OTRS_CI_Number>` for the ConfigItemNumber
`<OTRS_CI_Class>` for the class
You can use any attribut that is returned by VersionGet. See *http://otrs.perl-services.de/docs/ITSMConfigurationManagement/master/kernel_system_itsmconfigitem_version.html*

### Class specific information

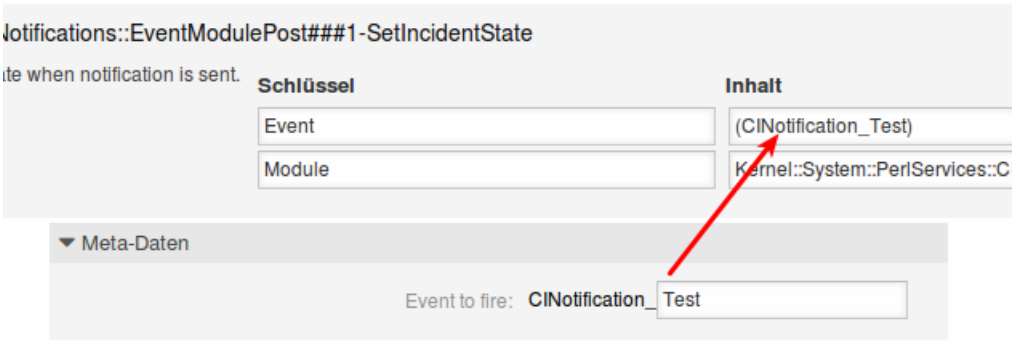
Information from class specific attributes that are defined in the class definition can be used with
<OTRS_CI_XML_*>
Given there is an attribute called "ExpirationDate" on the first level, you can use
`<OTRS_CI_XML_ExpirationDate.[1]>`
If "ExpirationDate" is a subattribute of "Warranty", you can use
`<OTRS_CI_XML_Warranty.[1].ExpirationDate.[1]>`
If "Warranty" can be used several times and you want to show the ExpirationDate of the second Warranty entry, you have to use
`<OTRS_CI_XML_Warranty.[2].ExpirationDate.[1]>`
This syntax has to be used due to the way OTRS stores the config item data in the database.

#### Config settings

Config settings can be used with <OTRS_CONFIG_*>
E.g.
<OTRS_CONFIG_HttpType> or <OTRS_CONFIG_FQDN>

## Event modules

In the notification settings you can define custom event names. When the filter matches and a notification is sent, this custom event is emitted.
You can use the shipped event module as a template...

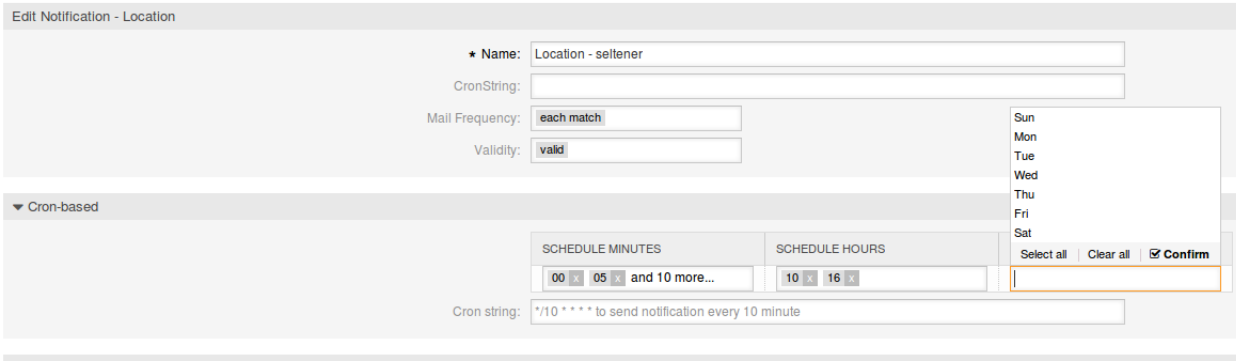



## Sending notifications regularly

If you want to send notifications you can do it in two ways: Either based on classes or based on CI specific settings. Be aware that a delay can happen. The script that checks the settings are run by cron itself. When this script runs every 10 minutes and you define notifications that should be sent every five minute, it doesn't work.

### Send notifications based on classes

If notifications should be sent for each Config Item of a class, you can define the time settings in the notification. Create a new notification as shown above, then expand the "Cron-" widget and define when the notifications should be sent. You can do it by selecting the minutes, the hours and the days in the select boxes. Or you can define the string in crontab syntax (see http://www.unixgeeks.org/security/newbie/unix/cron-1.html).




You can use the CI-filter as in any other notification to filter the config items the notifications are sent for.

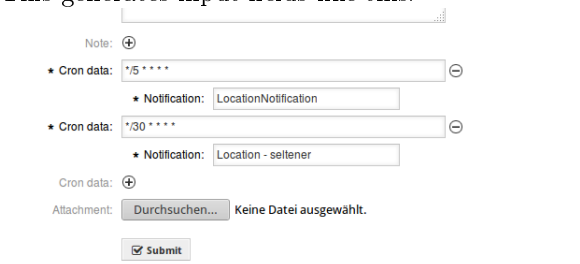
## Send notifications based on CI settings

You can define the cron settings in each CI. That way, you can define different time settings for each Config Item. This is useful if the config items are very different. To send notifications based on CI settings, you have to add an extra attribute to the class definition:

```
{
    Key          => 'CronData',
    Name         => 'Cron data',
    Searchable => 1,
    Input        => {
        Type       => 'Text',
        Size       => 50,
        MaxLength => 50,
        Required   => 0,
    },
    CountMin     => 1,
    CountMax     => 5,
    CountDefault => 0,
    Sub          => [
        {
            Key    => 'NotificationName',
            Name   => 'Notification',
            Input => {
                Type       => 'Text',
                Size       => 50,
                MaxLength => 50,
                Required   => 0,
            },
            CountMin      => 1,
```

```
            CountMax        => 1,
            CountDefault    => 1,
        },
    ],
},
```

This generates input fields like this:




Configuration Item Version Details

| PROPERTY | VALUE |
|---|---|
| Name: | TestLoc |
| Deployment State: | Production |
| Incident State: | Operational |
| Type: | Other |
| Phone 1: | |
| Phone 2: | |
| Fax: | |
| E-Mail: | |
| Address: | |
| Cron data: | */5 * * * * |
| Notification: | LocationNotification |
| Cron data: | */30 * * * * |
| Notification: | Location - seltener |

In the "Cron data" field, you have to insert the crontab entry and in the Notification field you have to insert the name of the notification.

When you copy that attribute definition, you can add up to five cron settings per Config Item. This way you can create "escalations", e.g. every day a short visit in the data center, every month an audit, every year an inventory.

# Contact

If you have any further questions, please contact the support team (*otrs_support@perl-services.de*).