ACND Record Review

Version	Date	Author
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Contents

Background

ACND Record Review is a managed bundle (301568) developed during 2019. The need for the tool is derived from the new GDPR legislation that came into force within the European Union in 2018. Customers have expressed an increased need to be able to easily find records in NetSuite based on custom rules and be able to either inactivate, anonymize or permanently delete these records. In order to meet this need, we have developed a tool that facilitates this process.

Process Description

The solution itself is built around several phases and each phase is in turn broken down into different statuses or stages. There are two mandatory phases; **Configuration** and **Analysis**. After the analysis, the customer can themselves decide if they want to proceed with **Inactivation**, **Deletion** or **Updating** of records or, if the analysis needs to be redone, **Resetting** the selection of records.
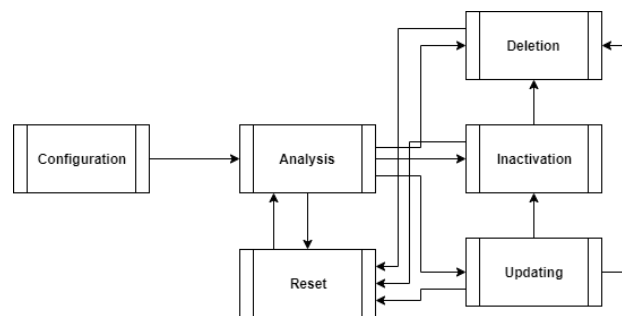
The first phase is called **Configuration**. During this phase, the rule work should be defined and set up in NetSuite. To define the different rules, we use NetSuite saved searches. The user can decide if the returned records in the searches should be kept or processed further. There is no limitation in how many rules that are being added and they can be based on any record type in NetSuite that can be searched. The only requisite is that the searches can reference the internal id of records being reviewed. For example, a saved search on transactions can be used to identify customers that should be inactivated. Since the customer is referenced in its own field on the transaction records, this information can be easily added to the search.

The second phase consists of an **Analysis**. During this phase, a scheduled script will process all the searches one by one and mark the mark the records based on the rules. Depending on the number of rules and records being reviewed this process usually takes many hours. When the analysis is finished the user will receive an email notification.

In the next step the user can decide themselves if they want to proceed with the **Inactivation**, **Deletion**, **Updating** or **Resetting** phase.

The inactivation phase will inactivate (*Inactive* check box set to 'True') for all records marked with the option 'To be handled'. The deletion phase will permanently delete all records marked with the option 'To be handled'. Please note that there is no way to reverse this action. If records have been inactivated, the option to delete is still available in the step after.

The updating phase can be used to for example empty fields and/or anonymize records. Fields can be emptied, be updated with a static value or updated with a dynamic value by referencing another field, e.g. {user.email}. Both inactivation and deletion of records are available also after this phase.

If something went wrong during the analysis or if the rules need to be reconfigured, there is an option to reset the previous analysis. During this phase, all references on the target record to the record review will be emptied. Please note that this reset does not reset any inactivation, updates or deletion. It is only to be able to re-run the analysis.

The next section will describe all of these phases in more detail.

1. Configuration

1.1 Create custom fields

Before starting to set up a new ACND Record Review record, there must exist three specific fields on the target record that will be used during the analysis phase. Without these fields the process cannot do the selection based on the configured rules.

The three fields required are:

Name (Optional)	Field Type	List/Record	Usage
Review Status	List/Record	ACND Record Review Status	Set by script to know how the specific record should be handled in the upcoming phases (marked as either 'Keep' or 'To be handled'). Only the ones marked with the latter will be candidates for further processing (inactivation, deletion or updated).
Review Rule	List/Record	ACND Record Review Rule	Set by script to know which rule that identified the record. The rule also decides which status that should be applied.
Review Job	List/Record	ACND Record Review	Set by script to know which ACND Record Review job that has identified the specific record.

When installing the bundle these required fields have already been created for the *Entity* record type. If you want to configure a process for e.g. Contacts, this first step can therefore be skipped. For all other records types (standard and custom), the steps of manually creating these three fields need to be done before moving on to the next step of the process.

DESCRIPTION	FROM BUNDLE	ID	INTERNAL ID	TYPE	LIST	TAB	CUSTOMER	VENDOR	EMPLOYEE	OTHER NAME	CONTACT
ACND Record Review - Review Status	301568	custentity_acnd_rrvw_status	3721	List/Record	ACND Record Review Status		Y	Y	Y		Y
ACND Record Review - Review Rule	301568	custentity_acnd_rrvw_rule	3722	List/Record	ACND Record Review Rule		Y	Y	Y		Y
ACND Record Review - Review Job Link	301568	custentity_acnd_rrvw_record	3723	List/Record	ACND Record Review		Y	Y	Y		Y

1.2 Create ACND Record Review record

The next step of the configuration is to set up a new *ACND Record Review* record. On this record you define the record type that should be handled as well as referencing the three fields created in the previous step. If you only wish to perform the analysis of a part of a record type you are also able to set a Selection.

The *Selection* is a saved search (must be marked as *public*) that should be based on the record type that is being reviewed. An obvious example of how a selection can be defined is to include a

subsidiary criterion when reviewing contacts or customers to only do the analysis and review of the record type within a specific subsidiary.

Configuration fields

Field	Purpose
Record Type	Register the internal id for the record type being reviewed from this record (e.g. contact or customrecord_application). To review more than one record type, one ACND Record Review record and configuration needs to be created for each record type. One specific record type can be reviewed by more than rule set if rules and/or selection differs. E.g. separate records can be configured for customers belonging to different subsidiaries.
Selection	Define the selection / group of records that this review should include. Records not included in this search will be excluded. Please note that this feature should only be used if the review only consists of static rules. If dynamic rules are used, the script will try to empty that search before moving on to the next. If one or several records are included in a dynamic search but are not part of the selection, the script will get stuck and unable to finish.
Target Record: Review Status Field	In order for the script to mark the records that should be kept or to be handled, a custom field (type: List/Record - "ACND Record Review Status") needs to be created for the target record type. Register the field ID for that field (e.g. custentity_acnd_rrvw_status) in this field. This information is used by the script when running the analysis phase.
Target Record: Review Rule Field	In order for the script to be able to update the records with information about which rule they were marked by a custom field (type: List/Record - "ACND Record Review Rule") needs to be created for the target record type. Register the field ID for that field (e.g. custentity_acnd_rrvw_rule) in this field. This information is used by the script when running the analysis phase.
Target Record: Review Job Link	In order for the script to update the records reviewed with a reference to the review job, a custom field (type: List/Record - "ACND Record Review") needs to be created for the target record type. Register the field ID for that field (e.g. custentity_acnd_rrvw_review) in this field. This information is used by the script when running the analysis phase.

When the necessary information has been registered and the ACND Record Review record saved, it is time to add one or several rules. The rules are added as saved searches and *ACND Record Review Rule* records.

1.3 Create ACND Record Review Rule(s)

Before creating the ACND Record Review Rule record a saved search needs to be created. The criteria of the saved search define the rule. If you for example want to create a rule that says "all customers with an invoice created within the last 7 years should be kept", then you could create a saved search based on the *Transaction* record, set *Type* criterion to only include *Invoices* and the *Date* criterion to only include 'On or after 7 years ago'.

On the results tab, the search is only allowed to have two columns and they must follow the format described below. The searches cannot be *grouped* or *summarized*. There is no harm if the same record occurs more than one time within the same rule.

Custom label (column)	Return value type	Function
recordid	Integer	This column should return the internal id of the record that should be marked with either 'Keep' or 'To be handled' by the rule. Do not confuse this internal id with the internal id of the record which the search is based on. E.g. if you create a search based on *Transaction* to review *Customers*, you will get two different internal ids. The internal id for the Customer should be referenced in this column in this example.
datecreated	Date/Time	The date created of the reviewed record, the *customer* in the example above.

If this format is not applied, the analysis will fail. Please also note that both of these columns must have values for all rows in the searches. If the customer field had been blank on a transaction record that is included in the search, the script will fail. Make therefore sure to add the criteria *Customer is not empty* or similar depending on the search and record type being reviewed.

Below is two examples of how the saved search should look like on the *results* tab. Please note the difference between image 1 and 2. In the first image the rule is being based on the same record type

that is being reviewed. In the second example, we are using a Transaction search to review the customer record type.

Example 1 (search based on target record):

Example 2 (search based on related record):

When the search has been created, create a new *ACND Record Review Rule* record and add it to the *Saved search* field.

ACND Record Review Rule fields

Field	Purpose
Saved Search	The saved search used to define this rule. See section above that describes how these searches need to be constructed.
Dynamic Search	If the search used for this rule is dynamic (meaning that a record will be excluded from the search criteria when updated by the script) then this check box should be ticked. If not ticked, the search is treated as a static search.

|	
	The rule should be marked as "Dynamic" if the result (number of hits) from the search in the rule will change by the Analysis run (for example the search is based on the Review status that will be changed by the Analysis). The reason for this setting is that the analysis script (for performance reasons) picks the 1000 records first, then the next 1000 records and so on, and if the analysis changes the search hits in-between the script will run in to error.
	The search in a rule marked as Dynamic should give an empty result after the analysis run, and a search in a rule not marked as Dynamic should remain the same after the analysis run.
Sorting Order	Set the sorting order for in which order the rules should be run.
Action	Choose if the record should be kept or be marked for (inactivation/deletion/update). Which option to use is decided after the analysis phase.
Inactive	If you do not want to use a rule but you do not want to delete it, you can use the option to inactivate the rule. Inactivated rules will be skipped by the script when running the analysis.

Below image shows on example with two different searches added. The first one defines records that should be kept and is based on the *customer* record type. The second rule defines records that should be handled in the upcoming phases. This record is based on the *transaction* record type.

When all the rules have been added and the configuration is completed, click on the 'Configuration Finished' button. Please note that you can still make adjustments to the rules and configuration after having finalized this phase.
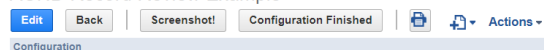
2. Analysis

To initiate the analysis phase, click on the button called 'Analyse'. This button is only available when the *ACND Record Review* record is marked as either Confi*guration - Finished* or *Resetting - Finished*.

During this phase, a scheduled script will start to process the rules one by one in the order set by the field *Sorting order*. The *action* on the rule decides if the record should be marked with 'Keep' or 'To be handled'.

Since the same record can occur in several searches, the following rule is used:

- If the field for *Review status* on the target record is empty, both 'Keep' and 'To be handled' are allowed values.
- If the field for *Review Status* on the target record is 'To be handled', it can be changed to 'Keep' or remain unchanged.
- If the field for *Review Status* on the target record is 'Keep' it can only remain unchanged. It is not allowed to change the status from 'Keep' to 'To be handled'.

Here the basic rule is that if any search says that a record should be kept (regardless of how many rules that says that it should be removed) it should be kept.

When this phase is finished you will receive an email notification. The results of the analysis can be viewed in the two searches displayed in the fields *View result: Keep* and *View result: Selected - To be handled'*

Review Status	
RUNNING PHASE Analysisis	VIEW RESULT: KEEP View results
RUNNING STATUS Finished	VIEW RESULT: SELECTED - TO BE HANDLED View results

Before moving on to the next phases make sure to review the results, especially the ones included in the second search since those records will be the only ones affected by what you do next.

3. Resetting

If you wish to re-run the analysis for some reason (script error, added or adjusted saved searches etc.) you have the option to *reset* the job. Click on the button 'Reset'. A scheduled script will empty the three fields on the target records. When the phase is completed, you will receive an email notification and a new analysis can be started.

Make sure not to do any changes while the reset phase is running. If any changes need to be made, do them after the reset is done and before you start the analysis phase again.

ACND Record Review
ACND Record Review Example

Edit | Back | Screenshot! | Reset | Inactivate | Delete | Update Fields | | Actions ▾

4. Inactivation

After having successfully performed the analysis phase, you have the option to Inactive (*Inactive* check box will be set to 'True') targeted records. To start this phase, click on the button 'Inactivate'. Please note that all records included in the search 'Selected - To be handled' will be inactivated by this phase.

The option to delete is still available after this phase.

5. Deletion

After having successfully performed the analysis-, updating- or inactivation phase, you have the option to delete (*permanently* delete records from NetSuite) targeted records. To start this phase, click on the button 'Delete. Please note that all records included in the search 'Selected - To be handled' will be deleted by this phase. Also, there is no way to reverse this action. Delete means delete in that sense.

Please note, just like when deleting records manually, that the script cannot handle *dependencies* with other related records. If there are any dependencies, those need to be handled *before* initiating this phase.

ACND Record Review
ACND Record Review Example

Edit | Back | Screenshot! | Reset | Inactivate | Delete | Update Fields | | Actions ▾

6. Updating

This phase differs a little bit from the inactivation and deletion phases since it requires some additional configuration. The configuration can be done after the analysis phase but needs to be done before initiating this phase.

On the *ACND Record Review* record there is a tab called *Update Fields Setup*. ACND Record Review Update Field is a child record and is used to define which fields to update during this phase on all the records included in the search *Selected - To be handled*.

Three different types of updates are allowed:

1. Fields can be emptied
2. Fields can be updated with static values
3. Fields can be updated with dynamic values

Empty fields

To empty a field, simply add the internal field id and leave the *Value* field blank. Please note that you are now allowed to empty fields that are mandatory.

Update fields - Static

If you want to update a field with a static value, add the internal field id in the field *Field ID* and enter your static value in the *Value* field.

Update fields - Dynamic

The third option is to update a field based on a value in another field that you reference in the *Value* field. For example you can put your own email address by referencing your own employee card as shown in below image. You can also use a field on the target record you wish to update. For example you might want to replace the customers first name with the internal id of the record.

ACND Record Review Update Field

Save ▼ | Cancel | Reset | Screenshot!

PARENT
ACND Record Review Example
FIELD ID *
email
VALUE
{user.email}

After making necessary configurations, you can initiate this phase by clicking on the 'Update' button.

ACND Record Review

ACND Record Review Example

Edit | Back | Screenshot! | Reset | Inactivate | Delete | Update Fields | | Actions ▾

Please note that you can still run inactivate or delete after this phase.

Appendix

The solution is composed of below custom records, scripts, workflows and entity fields.

Custom records

Name	Internal ID	Purpose
ACND Record Review	customrecord_acnd_rrvw	Main configuration record used to control the entire process. Each unique set of rules need to have its own ACND Record Review record.
ACND Record Review Rule	customrecord_acnd_rrvw_rule	Child record of ACND Record Review. Used to connect rules (saved searches) to the process as well as deciding if the records in the specific rule should be kept or further processed (deleted, updated or inactivated).
ACND Record Review Update Field	customrecord_acnd_rrvw_update	Child record of ACND Record Review. This record is only needed if the phase of Updating records are being used. These record gives the script instructions of what fields to update and with what values.

Scripts

Name	Internal ID	Type	Purpose
ACND Record Review C	customscript_acnd_rrvw_c	Client	UI. Displays messages etc.
ACND Record Review UE	customscript_acnd_rrvw_ue	User Event	UI. Displays buttons etc.
ACND Record Review Backend SU	customscript_acnd_rrvw_bak_su	Suitelet	Backend script controlling solution and processes.
ACND Record Review Analyse SS	customscript_acnd_rrvw_analyse_ss	Scheduled	Initiated by 'Analyse' button'. Performs the review based on the rules.
ACND Record Review Reset SS	customscript_acnd_rrvw_reset_ss	Scheduled	Initiated by 'Reset' button. Removes all references to previous review on the target records.
ACND Record Review Inactive SS	customscript_acnd_rrvw_inactive_ss	Scheduled	Initiated by 'Inactive' button. Ticks the check box 'Inactive' for all records marked with 'To be handled'.
ACND Record Review Delete SS	customscript_acnd_rrvw_delete_ss	Scheduled	Initiated by 'Delete' button. Permanently deletes all records marked with 'To be handled'.
ACND Record Review Update Fields SS	customscript_acnd_rrvw_updatefields_ss	Scheduled	Initiated by 'Update' button. Updates fields based on configuration on all records marked with 'To be handled'.

Workflows

Name	Internal ID	Purpose
ACND Record Review - Control	customworkflow_acnd_rrvw_control	Used on ACND Record Review record to control form in UI (set field display type etc.)
ACND Record Review - Send Notification	customworkflow_acnd_rrvw_notification	Sends an email notification from the ACND Record Review record when any phases has changed to status 'Finished' or 'Error'.
ACND Record Review Rule - Control	customworkflow_acnd_rrvw_rule_control	Used on ACND Record Review Rule record to control form in UI (set field display type, name of record etc.)

Entity fields

Name	Internal ID	Purpose
ACND Record Review - Review Status	custentity_acnd_rrvw_status	Updated by Analyse and Reset phases. If record should be kept or be handled.
ACND Record Review - Review Rule	custentity_acnd_rrvw_rule	Updated by Analyse and Reset phases. Reference to the rule that updated record.
ACND Record Review - Review Job Link	custentity_acnd_rrvw_record	Updated by Analyse and Reset phases. Reference to the job that updated record.