

# Apparo

Setting up security and security-based features

for

Qlik Sense

Version 3.2



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## 1 Basics

**Apparo is automatically using the security system of Qlik Sense.**

Apparo is using **security groups for organizing security rules** only.

If you want to enter more than one security group, you need to **separate the groups by comma**.

Example: Group\_A, Group\_B, Group\_C.

**You can use placeholders** as \* and & too:

controlling\* is the same like controllingAfrica, controllingEurope

The most security settings are white list based, which means if you enter one or several security groups then the access is restricted to those groups. If you leave it empty, then all users have full access.

**Hint: Security group names are case-sensitive**

## 2 Security user types

There are two different user types:

- **designer users** - creating Business Cases
- **field users** - using Business Cases

### 2.1 Designer user security

The security settings for designer users are restricted to the access and edit rights within the Apparo designer.

### 2.2 Business user security

The security settings for business users are mainly focused on the question:

Who is allowed to see, change or insert data, which means security groups are used to filter data, restrict the access or control features and the behaviour of widgets.

### 3 Designer user security

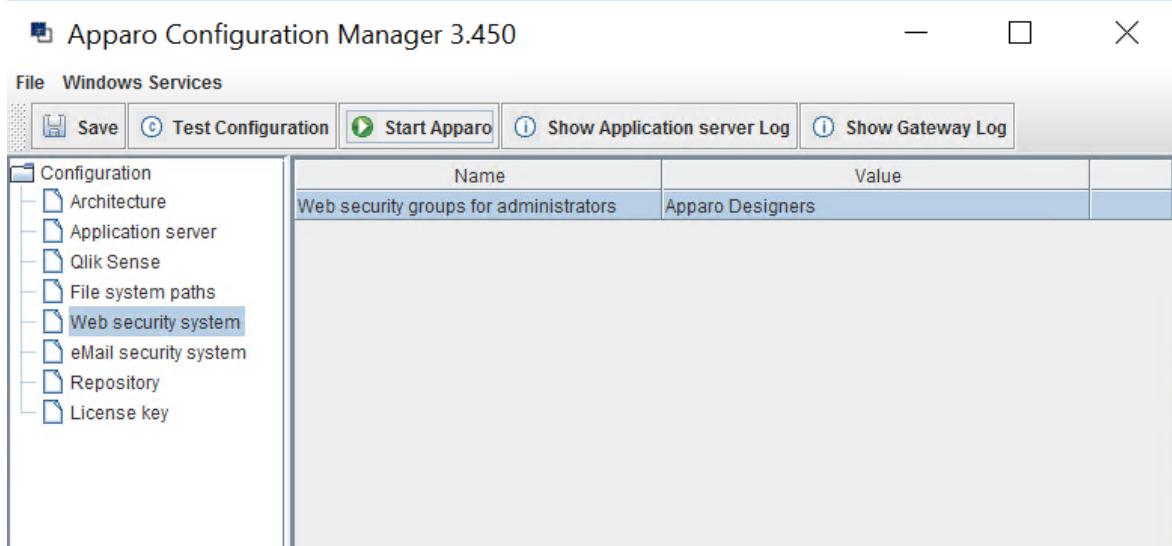
#### 3.1 Security hierarchy

The security is hierarchically organized.

From top to bottom:

- Security settings of the Apparo Configuration Manager
- Security settings on **Client** level
- Security settings on **folder** level
- Security settings on **database connection** level

#### 3.2 Security settings of the Apparo Configuration Manager



The screenshot shows the Apparo Configuration Manager 3.450 application window. The title bar reads "Apparo Configuration Manager 3.450". The menu bar includes "File" and "Windows Services". Below the menu is a toolbar with "Save", "Test Configuration", "Start Apparo", "Show Application server Log", and "Show Gateway Log". On the left is a tree view under "Configuration" with nodes: Architecture, Application server, Qlik Sense, File system paths, Web security system (which is selected), eMail security system, Repository, and License key. To the right is a table with two columns: "Name" and "Value". There is one row: "Web security groups for administrators" with "Apparo Designers" in the Value column.

Name	Value
Web security groups for administrators	Apparo Designers

Members of the entered security groups have full access rights to the Apparo Designer and can create, alter and delete clients.

**They have system wide no limitations.**

These users can run all Business Cases of all clients **without limitations.**

**Hint: If left empty all users accessing the designer have full rights, even in case the following security levels deny this.**

### 3.3 Security on client level

Defines restrictions for accessing secured parts of Apparo designer of a client.

Only members of the listed security groups will be able to access the particular functions.

**If no access rights are defined, the access to function is unrestricted for all designer users.**

**Apparo Client Administrator:** Has unrestricted access to all features of this client

**Apparo Connection Administrator:** Can create, edit and delete database and email server connections

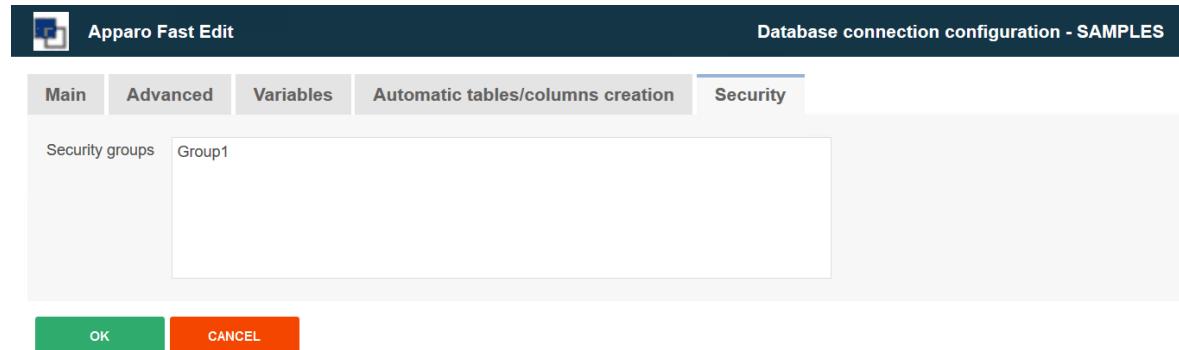
**Apparo Designer:** Manages Business Cases - can create, delete and edit Business Cases and folders

**Apparo Import & Export Administrator:** Can import and export Business Cases and connections

Apparo Client Administrator	Client_Demo_Admins
Apparo Connection Administrator	Client_Demo_Conn_Admins
Apparo Designer	Client_Demo_Designers
Apparo Import & Export Administrator	Client_Demo_ImExport_Admins

### 3.4 Security on database connection level

White list of designer users who are allowed to use this database connection.



If remaining empty then every Designer user can use this database connection.

### 3.5 Folder security

Select the folder and click 'Edit' to open the folder properties:

The screenshot shows a user interface for managing 'Business Case Folders'. At the top, there are two buttons: a green 'New' button with a plus sign and a blue 'Edit' button with a pencil icon. Below these buttons is a dark header bar with the text 'Business Case Folders' and a small upward arrow icon. The main content area displays a hierarchical tree structure. A folder named 'Demo' is expanded, showing its contents: 'Demo page #01', 'Demo page #01 Excel App Replacement', 'Demo page #02', 'Demo page #03 tables & refresh', 'Demo page #04 single BC', 'Demo page #05 scripts & procedures', and 'Demo page #06 Excel'. There are also some collapsed folder icons below.

Depending on the given rights, the user can:

- Create new folders and subfolders
- Delete folder and its contents (subfolders, business cases)
- Change the properties of the folder

#### Folder properties:

The screenshot shows a dialog box titled 'Settings of this Business Case folder Demo page #01'. It contains several input fields and dropdown menus for setting folder properties. The fields include:

- Name of this Business Case folder: 'Demo page #01'
- Description of this Business Case folder: (empty field)
- Necessary security group to see and open this folder: (empty field)
- Necessary security group to edit/delete this folder: (empty field)
- Necessary security group for running the included Business Cases of this folder and subfolders: (empty field)
- Necessary security groups with limited access to Business Cases of this folder and subfolders: (empty field)

At the bottom of the dialog box are two buttons: a green 'OK' button and an orange 'CANCEL' button.

## 4 Business user security

### 4.1 Security hierarchy

The security is hierarchically organized.

From top to bottom:

- Security setting on Configuration Manager level (= System Administrator)
- Security settings on client level
- Security settings on folder level
- Security settings on Business Case and Qlik Sense level
- Security settings on feature level
- Security settings on Widget level

### 4.2 Security settings on client level

The security groups here are used to assign users and to check the authorization.

**Authorization:**

Apart from administrators are only users who are member of the entered security groups, entitled to run the Business Cases of this client.

**Assignment:**

When you open a Business Case without client ID, e.g. from a BI report or an e-mail, the security group of clients will be used to assign the appropriate Business Case.

Without security group or if the user is member of more than one client, the allocation of Business Cases with the same ID, existing in different clients, is based on the order of the clients in the list from top to bottom.

Client head	General	Languages	Default numeric & datetime formats	Access rights
Colours of designer	Business case standard style			
Client identifier	Demo			
Client name	Demo			
Client security groups (comma separated list)	Group1			
Client internal description	Demo Client for BI Systems like <a href="#">Qlik Sense</a>			
<input type="button" value="OK"/> <input type="button" value="CANCEL"/>				

Contains a list of assigned user groups

#### 4.3 Security settings on folder level

Settings of this Business Case folder Demo page #01

Name of this Business Case folder	Demo page #01
Description of this Business Case folder	
Necessary security group to see and open this folder	
Necessary security group to edit/delete this folder	
Necessary security group for running the included Business Cases of this folder and subfolders	
Necessary security groups with limited access to Business Cases of this folder and subfolders	

OK CANCEL

The following security properties are mapped to **business users** security settings:

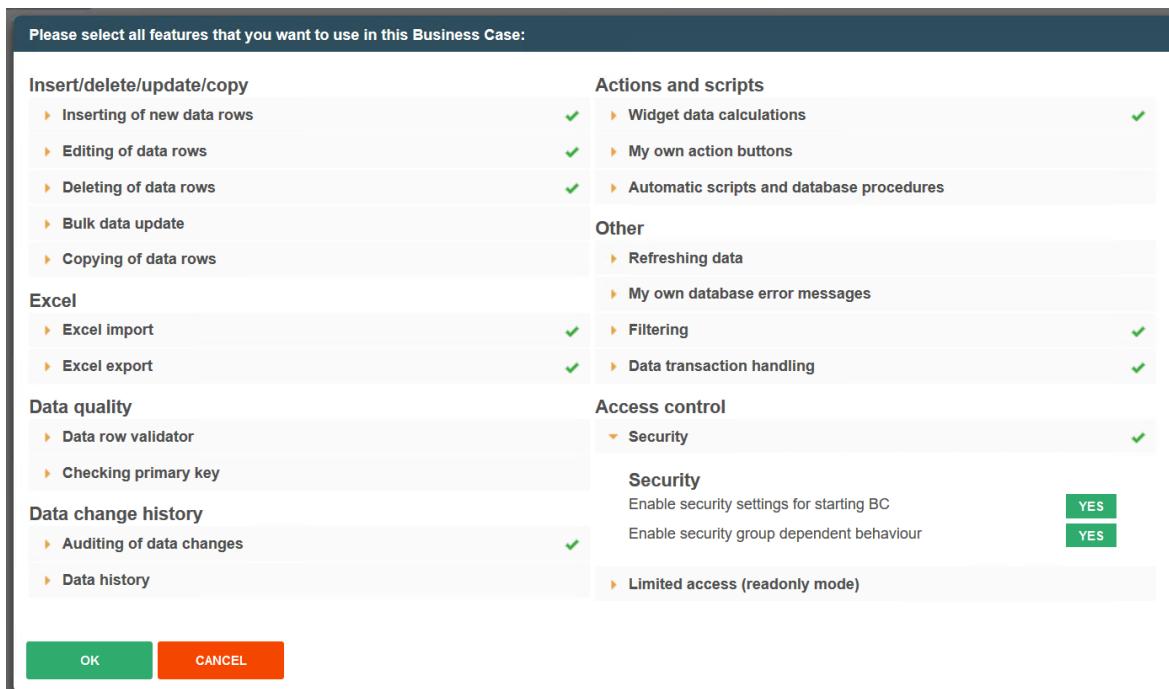
- The necessary security group for running included Business Cases of this folder & subfolders
- The necessary security with limited access to Business Cases of this folder & subfolder

Limited access means, for members of the entered user groups the Business Case starts in Read-only mode. Data changing, entering, import, auto scripts and data changing buttons are disabled.

#### 4.4 Security settings on Business Case and Qlik Sense level

The security on Business Case level must be enabled first.

Click the 'Features' button in the top right corner of the Business Case edit view.  
The security settings can be enabled in the chapter 'Access Control' in the tab 'Security'

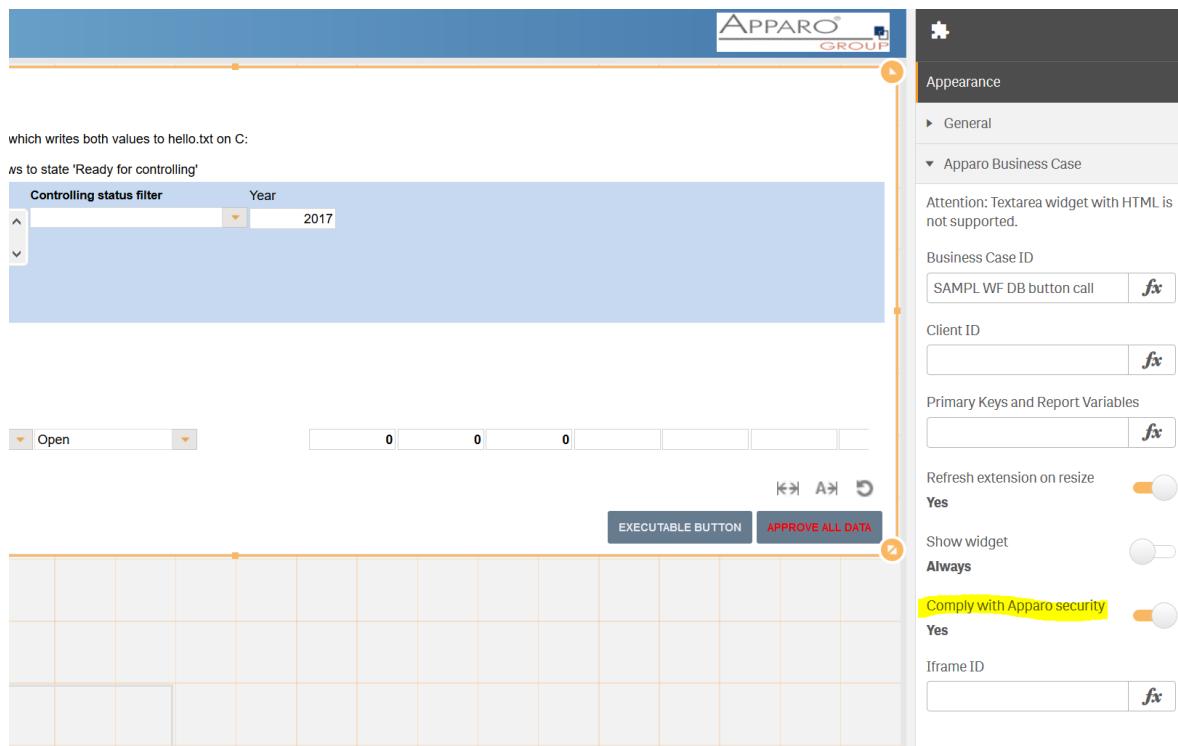


Enabling security settings **for starting BC** will add the 'Security' to the left menu, while enabling security group dependent behavior will enable all security settings on widget and feature level.

##### 4.4.1 Menu 'Security'

Allows to enter security groups separated by commas. It limits the general access to the business case (whitelist).

This setting is used for the Apparo Qlik Extensions too:



which writes both values to hello.txt on C:  
ws to state 'Ready for controlling'

**Controlling status filter** Year  
 ▲ Open ▼ 2017

0 0 0

EXECUTABLE BUTTON APPROVE ALL DATA

**Appearance**

- General
- Apparo Business Case

Attention: Textarea widget with HTML is not supported.

Business Case ID: SAMPL WF DB button call

Client ID:

Primary Keys and Report Variables:

Refresh extension on resize: Yes

Show widget: Always

Comply with Apparo security: Yes

Iframe ID:

That means if the current Qlik Sense user is NOT member of the security group then the whole Business Case will be NOT shown.

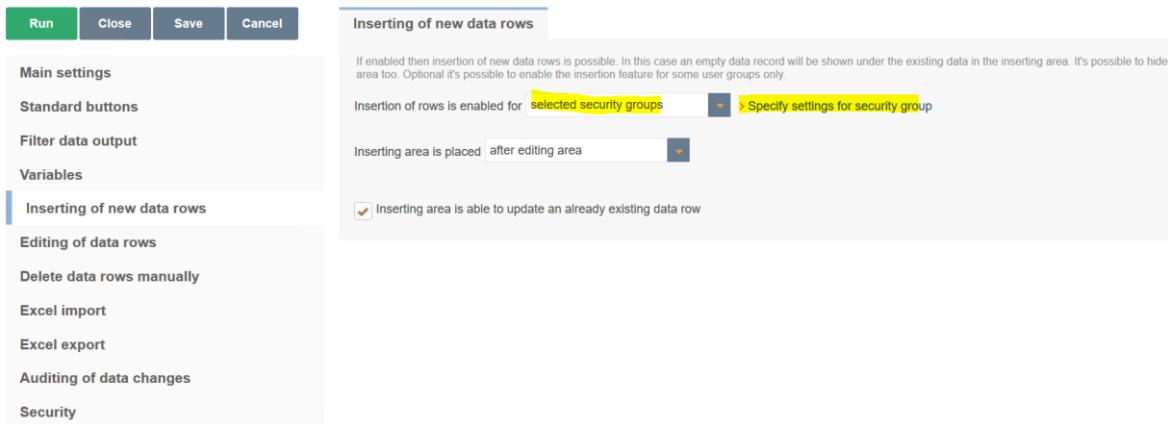
#### 4.5 Security settings on feature level

These settings belong to security group dependent behavior settings and need to be enabled in 'Features' first.

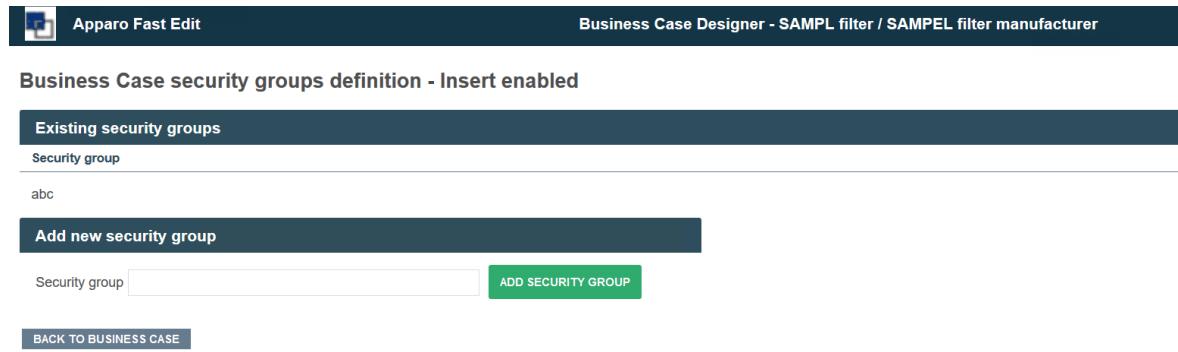
Many features can be enabled for entered security groups only:

- Inserting, Editing, Deleting of data rows
- Excel export
- Automatic scripts and db procedures
- Filter

In the most cases you need to specify the security groups that are allowed to use the feature in a separate window.



When clicking the link the following window appears:



Here you can add the security groups that are allowed to use this feature.

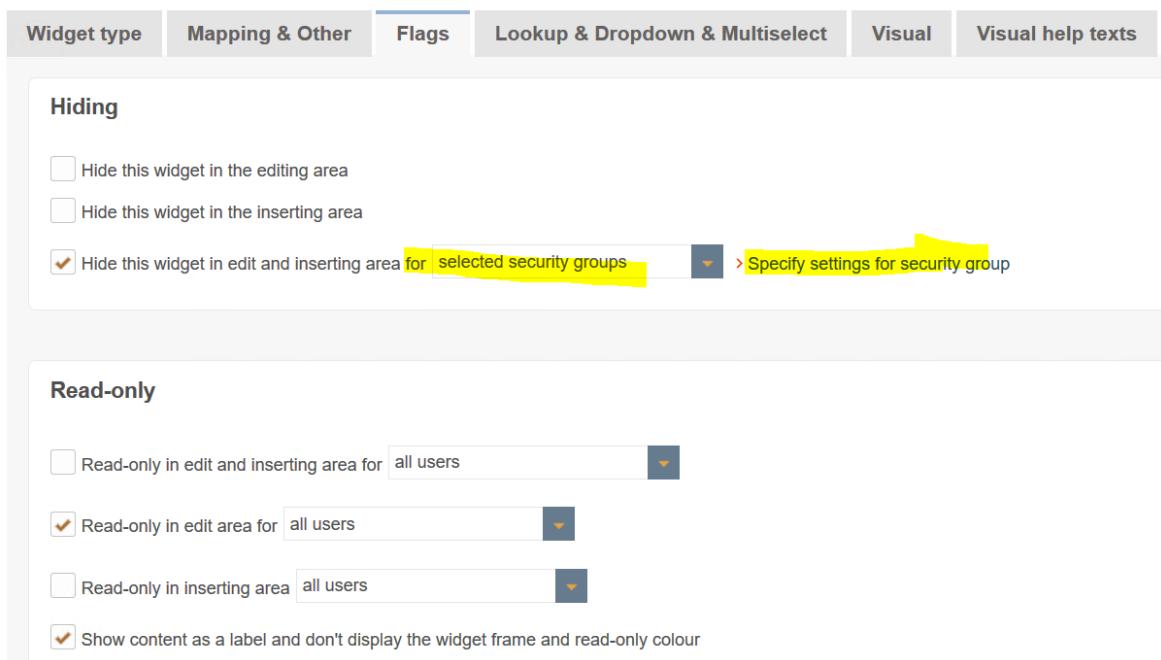
The filter security settings are different and will be explained in the chapter:  
Different settings for different security groups

#### 4.6 Security settings on Widget level

Security settings on Widget level are mainly:

- Settings for hiding or making a Widget read-only
- Default or constant values for different security groups
- Filters on Widget level (when using Lookup or Multiselect Widgets)

#### Widget settings of database column PRODUCT\_LINE\_ID



**Widget type**   **Mapping & Other**   **Flags**   **Lookup & Dropdown & Multiselect**   **Visual**   **Visual help texts**

**Hiding**

Hide this widget in the editing area  
 Hide this widget in the inserting area  
 Hide this widget in edit and inserting area for **[selected security groups]**   **Specify settings for security group**

**Read-only**

Read-only in edit and inserting area for **[all users]**   
 Read-only in edit area for **[all users]**   
 Read-only in inserting area **[all users]**   
 Show content as a label and don't display the widget frame and read-only colour

## 4.7 Different settings for different security groups

Some settings allow to enter different values for different user groups:

- Filters
- Default and constant values

### 4.7.1 Default and constant values

**Widget security groups definition - Default value**

Existing security groups		
Security group	Default value	Action
UserGroupABC	<%DynamicValueABC%>	X
Admins	test123	X
UserGroupXYZ	<%DynamicValueXYZ%>	X

**Add new security group**

Security group	Default value	<b>ADD SECURITY GROUP</b>
----------------	---------------	---------------------------

**BACK TO WIDGET EDITOR**

You can enter different value for each used security group, variables are allowed.

### 4.7.2 Filters

You can enter different filters for each security group.

ID = <%ID%>

▼

+
-
\*
/
&
|
^
||
=
>
<
>=
<=
(
)
\*

► Security group based filtering

Entered filters for security groups will not replace but extend the main filter. This can be controlled by the Logical group (AND or OR).

### Widget SQL condition security groups definition

**Existing conditions**

Security group	SQL where condition	Logical group	Actions
UserGroupABC	Usergroup = ABC	AND	 

---

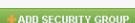
**Create new condition**

Security group

SQL where condition

Logical group 





In this example the filter will be ID=<%ID%> AND Usergroup = ABC for the group 'UserGroupABC' and just ID=<%ID%> for all others.

#### 4.8 Retrieving the current users security groups in a variable

For debug and other purposes it can be useful to know all user groups of the current user. The variable can be output, for example in the header, or further processed for other purposes, e.g. in variables or in filters.

**Query the security groups in a Script variable:**

```
var groups = afe.getGroupsByRegex('.*');
var result = 'Security groups of the current user: ';
for(var i = 0; i < groups.length; i++) {
    var group = groups[i];
    result = result + group + ',';
}
// returning the calculated result from script
result;
```

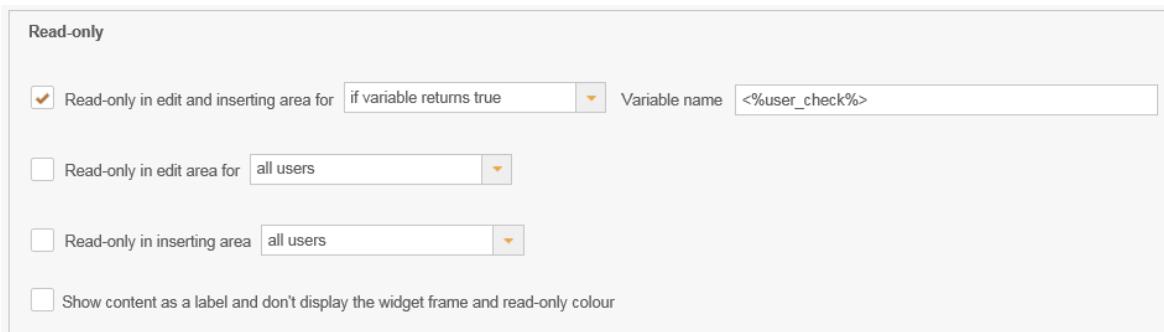
#### 4.9 User based security without groups

To maintain a user based security without groups you will need a user rights table and SQL- & Script variables.

The user rights table contains the user login, the Business Case ID and the rights (read, write, ...)

Example:

We set a widget to read-only for all users if a variable returns 'true'.



Now we need a script variable that returns always true, except for those who have edit rights.

Script body:

```
var x='true';
var check=afe.executeSql('select count(*) from MySecurityTable
where user_login = <%USER_LOGIN%> and bc_id = <%CURRENT_BC_ID%> and right="EDIT"';
if (check > 0)
{x='false';}
x;
```

Script body

Script language : javascript

```
1 var x='true';
2 var check=afe.executeSql('select count(*) from MySecurityTable
3 where user_login = <%USER_LOGIN%> and bc_id =<%CURRENT_BC_ID%> and right="EDIT");
4
5 if ( check > 0 )
6
7 { x='false';}
8
9 x;
10
11
12
13
14
15
16
17
18
19
20
```

?

SYNTAX CHECK Business Case variables

Verification OK

The used SQL statement returns a number > 0 and the used script variable is not longer 'true' and becomes editable.

## 5 E-Mail import security (EIBC)

The import of e-mail attachments is using its own security system and settings.

It can't use the security system of Qlik Sense because at this time no user is logged in the Qlik Sense system.

### 5.1 eMail security system

The screenshot shows the 'eMail security system' configuration in the Apparo Configuration Manager. The left sidebar lists various configuration categories. The main panel displays a table with the following data:

Name	Value
eMail security system	MS Active Directory
Active Directory host name	12.12.44.11
Use SSL	no
Active Directory port	389
Base Distinguished Name (DN)	-retrieve automatic-
Bind user login	administrator
Password	***

Below the table is a button labeled 'Test eMail Security System Connection'. A note below the button states: 'Security settings for verifying security groups used by eMail Import Business Cases. If there is a web security system specified, it will be used for the eMail security. That means all Excel Import Business Cases (EIBC) can use this security system only. All other Business Case types are using not the security system that is defined here.'

This only applies when using the feature 'Excel import via E-Mail' (EIBC), this feature is not using the authentication system of the underlying BI system and users do not require a BI user license.

### 5.2 Security settings of e-mail connections

When setting up the e-mail address that receives the e-mails for the import of attachments, you can enter here a comma separated white list of trusted e-mail servers.

The screenshot shows the 'Email connection configuration - afe3client-email' interface. At the top, it says 'QA for AFE3'. The main section is titled 'Basic settings' and contains the following fields:

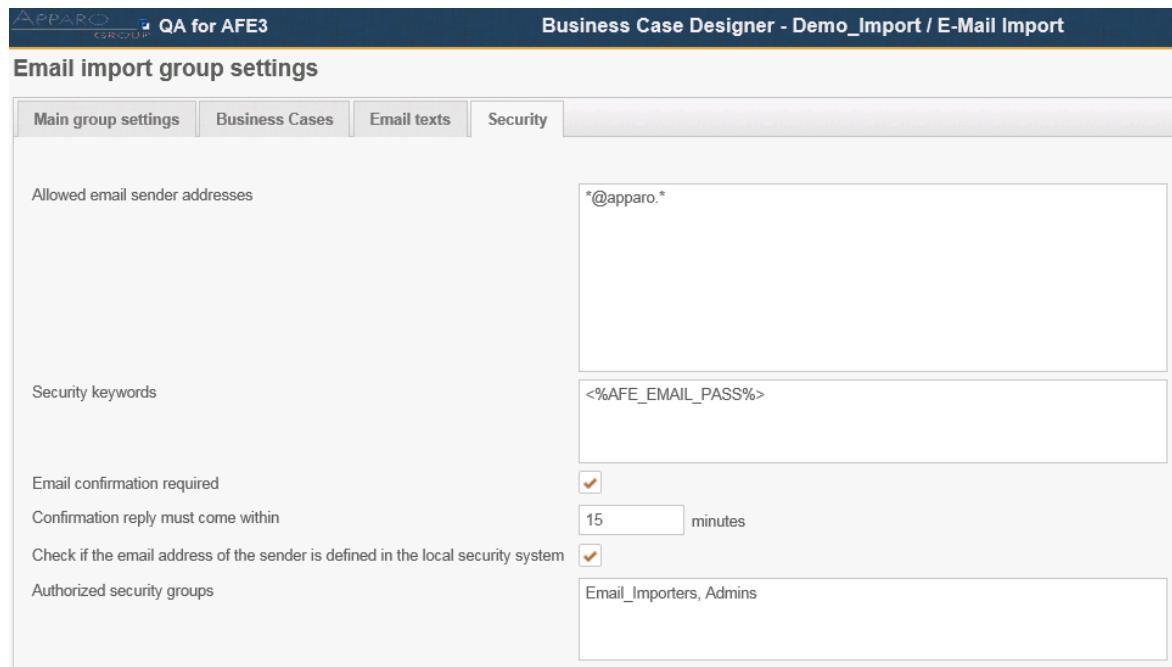
- Connection name: afe3client-email \*
- Email address: afe3client@apparo.info \*
- Trusted email servers: smtp.apparo.solutions, 192.168.0.199

E-Mails received from others sources will be ignored. If left empty, all e-mails are trusted.

### 5.3 Email import group security settings

E-Mail import Business Cases are containing all settings for the import of email attachments, each can have different email import groups.

Each group contains the settings to import one or several attachments.



Main group settings	Business Cases	Email texts	Security
Allowed email sender addresses	*@apparo.*		
Security keywords	<%AFE_EMAIL_PASS%>		
Email confirmation required	<input checked="" type="checkbox"/>		
Confirmation reply must come within	15	minutes	<input checked="" type="checkbox"/>
Check if the email address of the sender is defined in the local security system	<input checked="" type="checkbox"/>		
Authorized security groups	Email_Importers, Admins		

#### Allowed email sender addresses

Comma separated white list of allowed sender addresses. Placeholders (\*,?) are allowed.  
[\\*@apparo.\\*](#) means all senders from apparo.AnyTopLevelDomain is accepted.

#### Security keywords

A list of comma-separated words that every email has to contain in the subject or body. If any of them is missing, the email will be rejected. Leave it empty if you don't want to use this feature.  
Variables are not allowed

#### Email confirmation required

Sends a confirmation e-mail to the sender of an e-mail to ensure the origin.

#### Confirmation reply must come within minutes

Timeframe within the confirmation e-mail must be replied, otherwise the import will be rejected.

#### Check if the email address of the sender is defined in the local security system

Rejects the email if the sender is not defined

#### Authorized security groups

Contains a list of security groups that are allowed to use this import group