

SAP Governance, Risk & Compliance Access Control 5.3

Post-Installation Slide Deck
→ Compliant User Provisioning



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- We belong to the GRC Regional Implementation Group (RIG) located in USA, Germany and India
- As recognized experts, our mission is to **enable others to successfully implement SAP GRC solutions.**
- We are committed to the continuous improvement of GRC products and services, taking the product from validation to customer deployment.
- We ensure
 - Field readiness,
 - high customer satisfaction, and
 - customer references.

- We recommend the following installation methodology
 1. Install SAP Netweaver AS JAVA 7.0 SP12+
 2. Run Pre-Installation Presentation
 3. Deploy Access Control Software (including latest Support Packages)
 4. Run Post-Installation Presentations (also available as Flash Movie)
 - a. Post-Installation Risk Analysis and Remediation
 - b. Post-Installation Superuser Privilege Management
 - c. Post-Installation Compliant User Provisioning
 - d. Post-Installation Enterprise Role Management
 5. Start Customizing Access Control 5.3 according to customer requirements

Post-Installation Activities

- Compliant User Provisioning -



1. Upload UME Roles (→ Refer to Post-Installation Slide Deck for RAR)
2. Upload Initial Configuration Data
3. Create and Test System Connectors
4. Configure User Data Source & User Details Source
5. Optionally Configure Authentication System
6. Configure SMTP Server for Workflow Email Notifications (Optional)
7. Configure Risk Analysis and Mitigation
8. Configure Miscellaneous Settings
9. Define Number Ranges for Request Numbering
10. Create Role Attributes
11. Upload Roles from SAP Backend Systems via Spreadsheet

2 - Upload Initial Data into CUP (1/2)



- Upload two initial data files in xml format. The first file is called *AE_init_clean_and_insert_data.xml*

The screenshot shows the SAP GRC Access Control Compliant User Provisioning interface. The left sidebar contains a navigation tree with categories like Request Configuration, Workflow, Request, Field Mapping, etc. The main area is titled 'Initialize DB' under 'Import Data'. It shows a file input field containing 'C:\51033276JAVA\VRRAEVAE_init_clean_and_...' with a 'Browse...' button. Below it are three radio buttons: 'Insert', 'Append', and 'Clean and Insert', with 'Clean and Insert' selected. A large yellow 'Import' button is below the radio buttons. Under 'Export Data', there is a table with columns 'Name' and 'Description', listing various data types: Initial Data, Connector, Roles, Workflow Configuration, User Defaults, and Hr Triggers. At the bottom is a yellow 'Export' button.

2 - Upload Initial Data into CUP (2/2)



- The second one is *AE_init_append_data.xml*
- There is a third file required when using the SoD or UAR Review features:
AE_init_append_data_ForSODUARReview.xml

SAP GRC Access Control
Compliant User Provisioning

Welcome Admin Access Controls Help | About | Logoff

My Work Informer Configuration

Initialize DB

Import Data

File Name: C:\S1033276\JAVA\IRAEVAE_init_append_da

Insert
 Append
 Clean and Insert

Import

Export Data

| Name | Description |
|------------------------|------------------------|
| Initial Data | Initial Data |
| Connector | Connector |
| Roles | Roles |
| Workflow Configuration | Workflow Configuration |
| User Defaults | User Defaults |
| Hr Triggers | Hr Triggers |
| | |
| | |
| | |
| | |
| | |

Export

Request Configuration
Number Ranges
Risk Analysis
Mitigation
Attributes
Service Level
Password Self-Service
User Registration
Custom Fields
End User Personalization
Support
Workflow
Request
Field Mapping
Approvers
User Review
Change Log
Connectors
Authentication
User Data Source
HR Trigger
Roles
Background Jobs
User Defaults
Attachments
Monitoring
Miscellaneous
Initial System Data
Upgrade

3 – Create and Test System Connectors (1/3)

→ Create Connectors with SLD Integration



- Make sure you have already created a JCo in the Web Dynpro Content Administrator as described in *Post-Installation Slide Deck – SPM* page 17-21
- Click on the magnifying glass.

SAP GRC Access Control
Compliant User Provisioning

Welcome Frank Rambo Help | About | Log Off

My Work Informer Configuration

Request Configuration

- Request Type
- Priority
- Application Configuration
- Employee Type Configuration
- Number Ranges
- Risk Analysis
- Mitigation
- Attributes
- Service Level
- Password Self-Service
- User Registration
- Custom Fields
- End User Personalization
- Support
- ▶ Workflow
- ▶ Request
- ▶ Field Mapping
- ▶ Approvers
- ▶ User Review
- ▶ Change Log
- ▶ Connectors
 - Available Connectors
 - **Create Connectors**
 - Authentication
 - User Data Source
 - ▶ HR Trigger
 - ▶ Roles
 - Background Jobs
 - User Defaults

Name* 

Short Description*

Description

Application*

Application Server Host*

System Number*

Client*

User ID*

Password*

System Language

Message Server Name*

Message Server Group

Message Server Host

SAP Version

HR System*

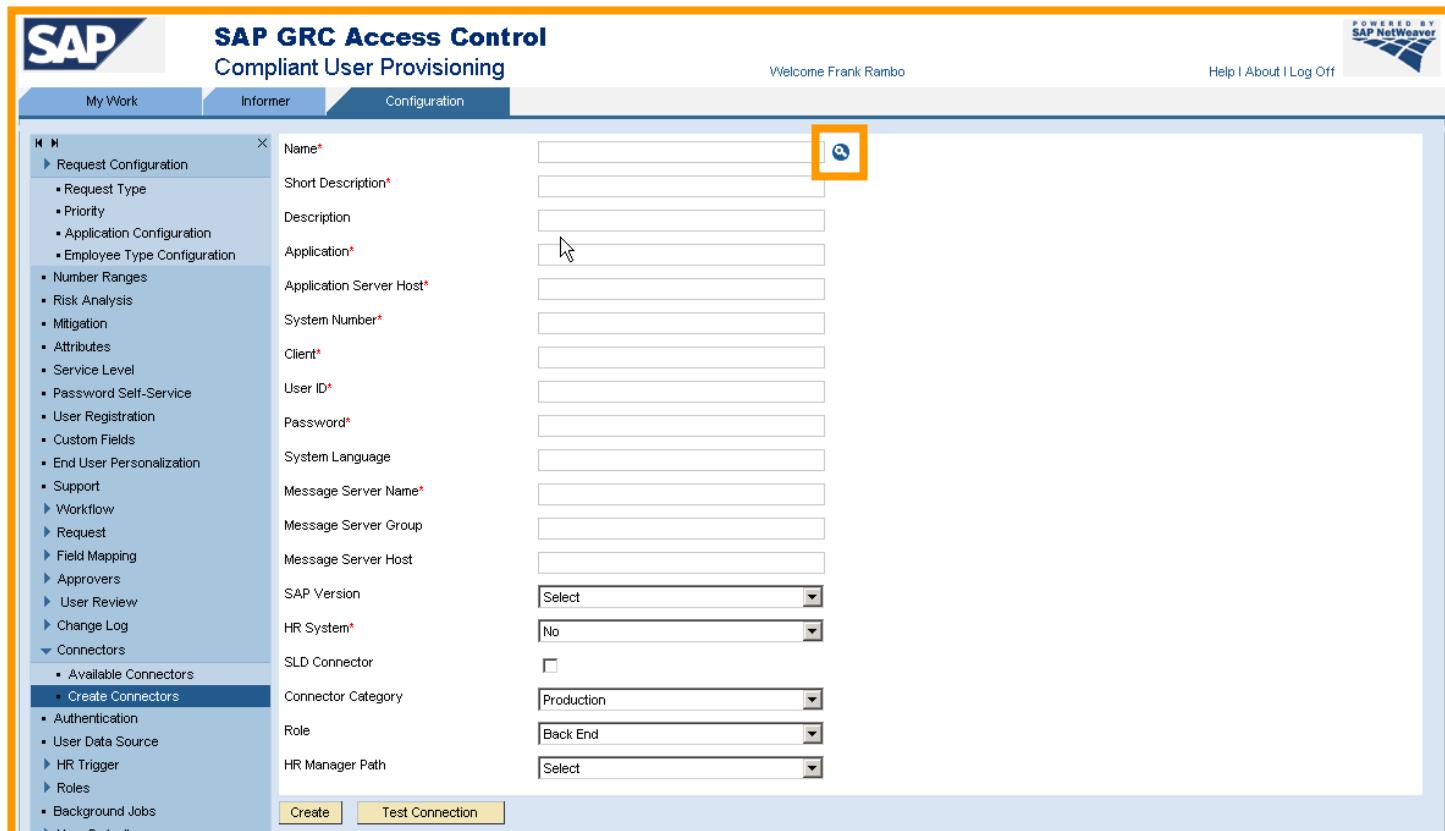
SLD Connector

Connector Category

Role

HR Manager Path

Create **Test Connection**



3 – Create and Test System Connectors (2/3)

→ Select JCo Destination



- Select the JCo destination that corresponds to the RAR system connector pointing to your SAP backend system.

The screenshot shows the SAP GRC Access Control Compliant User Provisioning interface. The main title is "SAP GRC Access Control Compliant User Provisioning". The top navigation bar includes "My Work", "Informer", "Configuration", "Welcome Frank Rambo", "Help | About | Log Off", and a "POWERED BY SAP NetWeaver" logo.

The left sidebar contains a navigation tree with sections like Request Configuration, Available Connectors, Create Connectors, and Authentication. The "Available Connectors" section is currently selected.

The central content area is titled "Connectors" and displays a table titled "Available Connectors". The table has columns for "System", "Client", and "Status". There are three entries:

| System | Client | Status |
|-----------------------|--------|--------|
| AR1 | 001 | ● |
| VIRSAXSR3_01_MODEL | 001 | ● |
| VIRSAXSR3_01_METADATA | 001 | ● |

At the bottom of the dialog, there are "Select" and "Cancel" buttons. The "Select" button is highlighted with a yellow background.

3 – Create and Test System Connectors (3/3)

→ Maintain Mandatory Fields with Dummies



- Maintain the highlighted fields with arbitrary dummy entries and enter a *Short Description* and a *Description*. Finally click on *Test Connection* to verify.

The image shows two side-by-side SAP GRC Access Control configuration screens. Both screens have a header with the SAP logo and the title "SAP GRC Access Control Compliant User Provisioning". The left screen is titled "Informer" and the right screen is titled "Configuration".

Left Screen (Informer):

- Left Sidebar:** Request Configuration, Connectors (selected), Available Connectors, Create Connectors, Authentication, User Data Source, HR Trigger, Roles, Background Jobs.
- Form Fields:** Name* (AR1), Short Description* (highlighted with red box), Description, Application* (AR1), Application Server Host* (highlighted with red box), System Number* (highlighted with red box), Client* (001), User ID* (webuser), Password* (highlighted with red box), System Language (EN), Message Server Name* (highlighted with red box), Message Server Group (SPACE), Message Server Host (grc-rig-03), SAP Version (Select), HR System* (No), SLD Connector (checkbox checked), Connector Category (Production), Role (Back End), HR Manager Path (Select).
- Buttons:** Create, Test Connection.

Right Screen (Configuration):

- Form Fields:** Name* (AR1), Short Description* (highlighted with red box), Description, Application* (AR1), Application Server Host* (dummy), System Number* (du), Client* (001), User ID* (webuser), Password* (*****), System Language (EN), Message Server Name* (dum), Message Server Group (SPACE), Message Server Host (grc-rig-03), SAP Version (Select), HR System* (No), SLD Connector (checkbox checked), Connector Category (Production), Role (Back End), HR Manager Path (Select).
- Buttons:** Save, Test Connection.

Red arrows point from the highlighted fields in the left screen to the corresponding fields in the right screen, indicating that the values entered in the left screen are being copied or mapped to the right screen.

4 – Set User Data Source & User Details Sources



- **One User Data Source & Multiple User Details Sources** are supported
- Select from SAP(-HR), UME, LDAP, SAPEP, JDE, Oracle, Peoplesoft
- Make sure you have created the corresponding system connectors.

The screenshot shows the SAP GRC Access Control interface for Compliant User Provisioning. The top navigation bar includes the SAP logo, the title "SAP GRC Access Control Compliant User Provisioning", and a welcome message "Welcome Frank Rambo". The main menu has tabs for "My Work", "Informer", and "Configuration". The "Configuration" tab is active, displaying a sidebar with various configuration options like Request Configuration, Request Type, Priority, Application Configuration, Employee Type Configuration, Number Ranges, Risk Analysis, Mitigation, Attributes, Service Level, Password Self-Service, User Registration, Custom Fields, and End User Personalization. The main content area is divided into two sections: "User Data Source" and "User Details Data Source". Both sections include dropdown menus for "Data Source Type" (set to "SAP UME") and "System Name" (set to "UME"), and a "Save" button.

5 – Optionally Configure Authentication System for Requester Authentication



- If you want the requesters to authenticate first (recommended) before they can create a request in CUP, select your authentication system, for example UME of the AC5.3 server. Make sure you have created the corresponding system connector.

The screenshot shows the SAP GRC Access Control Compliant User Provisioning interface. The left sidebar has a tree view with nodes like Request Configuration, Request, Field Mapping, etc. The 'Authentication' node under Request is selected and highlighted in blue. The main panel title is 'Authentication System'. A success message says 'Requestor Authentication System successfully saved.' Below it, there's a section for 'Access Requestors' with fields for 'Authentication System' (set to 'SAP UME') and 'System Name' (set to 'UME'). A checkbox for 'End User Verification Required' is checked. A yellow box highlights the 'Authentication System' and 'System Name' fields. A 'Save' button is at the bottom left of this section. The top right corner shows 'Welcome Admin Access Controls'.

6 – Configure SMTP Server for Workflow Email Notifications (Optional)



- In case you want to receive emails for workflows you can configure this optionally
- Go to Configuration → Workflow → SMTP Server
- Enter the SMTP server
- Choose an optional sender ID (otherwise a standard one will be used)
- Note: as of AC 5.3 SP6 and higher two additional fields appear
 - Application URL
 - Redirection URL
 - These URLs are used for SPNego redirection and the (application) URL of a Portal in case this applies to your system landscape
 - See also SAP Note 1252589
- See also next slide

6 – Configure SMTP Server for Workflow Email Notifications (Optional)



SAP GRC Access Control
Compliant User Provisioning

Welcome Dominic Yow-Sin-Cheung

My Work Informer Configuration

SMTP Server

Enter Email Server Name

Email Server Name*

Enter Email Notification Sender

System Email ID

Application URL

Application URL
Redirection URL

Save Cancel

Request Configuration
▪ Number Ranges
▪ Risk Analysis
▪ Mitigation
▪ Attributes
▪ Service Level
▪ Self Service
▪ User Registration
▪ Custom Fields
▪ End User Personalization
▪ Support
Workflow
▪ Initiator
▪ Custom Approver Determinants
▪ Stage
▪ Path
▪ Detour/Fork
▪ Email Reminder
▪ Escape Route
▪ Auto Provisioning
▪ CUA System
▪ SMTP Server

7 – Configure Risk Analysis and Mitigation (1/4)

→ Risk Analysis



- Configure Risk Analysis according to your requirements (next slide)

SAP GRC Access Control
Compliant User Provisioning

Welcome Frank Rambo

Help | About | Log Off

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My Work Informer Configuration

Risk Analysis

Request Configuration

- Request Type
- Priority
- Application Configuration
- Employee Type Configuration
- Number Ranges
- Risk Analysis
- Mitigation
- Attributes
- Service Level
- Password Self-Service
- User Registration
- Custom Fields
- End User Personalization
- Support
- ▶ Workflow
- ▶ Request
- ▶ Field Mapping
- ▶ Approvers
- ▶ User Review
- ▶ Change Log
- ▶ Connectors
- Authentication
- User Data Source

Risk Analysis

Successfully saved Risk Analysis Configuration.

Select Options

Default Analysis Type: Permission Level

Consider Mitigation Controls:

Save

Select Risk Analysis and Remediation Version

Version: 5.3 Web Service

URI: http://grc-rig-03.pal.sap.corp:50100/VirsaCCRis

User Name: ac_admin

Password: *****

Perform Org. Rule Analysis:

Save

Risk Analysis On Request Submission

Perform Risk Analysis on Request: No

Save

7 – Configure Risk Analysis and Mitigation (2/4)

→ Risk Analysis Configuration



- Configuration → Risk Analysis → Options:
 - Risk Analysis Type: Select *Permission Level*
 - Consider Mitigation Control: To start leave unchecked and revise later
- Configuration → Risk Analysis → Select Risk Analysis and Remediation Version:
 - Version: 5.3 Web Services
 - URI: `http://<server>:<port>/VirsaCCRiskAnalysisService/Config1?wsdl&style=document`
 - User Name: <admin user id with UME role VIRSA_CC_ADMINISTRATOR
 - Password: <admin password>
 - Perform Org. Rule Analysis: To start leave unchecked and revise later
- Configuration → Risk Analysis → Risk Analysis On Request Submission:
 - Perform Risk Analysis On Request: No

7 – Configure Risk Analysis and Mitigation (3/4)

→ Mitigation



- Configure Mitigation according to your requirements (next slide)
- The flag „Allow Approvers ...“ allows approvers to approve requests containing risks. If it is unflagged all risks must be remediated or mitigated before approval.

The screenshot shows the SAP GRC Access Control interface. The top navigation bar includes the SAP logo, the title "SAP GRC Access Control Compliant User Provisioning", and a welcome message "Welcome Admin Access Controls". The main menu has tabs for "My Work", "Informer", and "Configuration", with "Configuration" being the active tab. A sidebar on the left lists various configuration items, with "Mitigation" currently selected. The main content area is titled "Mitigation" and displays a success message: "Successfully saved Mitigation Configuration." Below this, there is a section titled "Select Options" with several configuration fields:

- "Allow Approvers to Approve Access Despite any Conflicts": A checkbox that is currently unchecked.
- "Default Duration (Days) for the Mitigation Control": A text input field containing the value "365".
- "Mitigation URI": A text input field containing the value "CCMitigation5_0Service/Config1?style=document".
- "Risk Search URI": A text input field containing the value "VirsaCCRisk5_0Service/Config1?style=document".
- "Org. Rule Search URI": A text input field containing the value "COrgRules5_3Service/Config1?style=document".
- "Function Search URI": A text input field containing the value "CCFunction5_0Service/Config1?style=document".

A yellow "Save" button is located at the bottom of the configuration panel.

7 – Configure Risk Analysis and Mitigation (4/4)

→ Mitigation Configuration



- Configuration → Mitigation
 - Allow approvers to approve access despite any conflicts: Checked, revise later
 - Default Duration (in days) for Mitigation Control: 30
 - Mitigation URI:
`http://<server>:<port>/VirsaCCMitigation5_0Service/Config1?wsdl&style=document`
 - Risk Analysis URI:
`http://<server>:<port>/VirsaCCRisk5_0Service/Config1?wsdl&style=document`
 - Org. Rule Search URI:
`http://<server>:<port>/VirsaCCOrgRules5_3Service/Config1?wsdl&style=document`
 - Function Search URI:
`http://<server>:<port>/VirsaCCFunction5_0Service/Config1?wsdl&style=document`

8 – Configure Miscellaneous Settings (1/2)



- Note that the required workflow settings depend which of the integration scenarios you want to use:
 - Integration with RAR: Approval for creation/changes to risks, mitigation control objects and assignment of mitigation controls to users
 - Integration with ERM: Role Approval
 - Specific CUP features that require configuration: SOD and UAR Review, Role Reaffirm

Miscellaneous Configuration

Parameters

| | | |
|--|---------|------------------------------------|
| Language* | English | |
| Log Level* | ERROR | |
| Cache Job Time Interval in Seconds* | 5 | [Note: Need to Restart the Server] |
| Background Job Time Interval In Minutes* | 1 | [Note: Need to Restart the Server] |

Workflow Types

| Name | Description | Short Description | Exit URI | User Name | Password | Active |
|------------|--|-------------------------------|---------------------------------|-----------|----------|-------------------------------------|
| AE | Compliant User Provisioning | CUP | | | ***** | <input checked="" type="checkbox"/> |
| MITICTRL | This is a workflow type for creating Mitigation Control | Mitigation Control | http://hwdemo2450.wdf.sap.corp: | ac_admin | ***** | <input checked="" type="checkbox"/> |
| MITIOBJ | This is a workflow type for creating Mitigation Control Assignment | Mitigation Control Assignment | http://hwdemo2450.wdf.sap.corp: | ac_admin | ***** | <input checked="" type="checkbox"/> |
| RE | Enterprise Role Management | ERM | http://hwdemo2450.wdf.sap.corp: | ac_admin | ***** | <input checked="" type="checkbox"/> |
| RISK | This is a workflow type for creating Risks | Risk | http://hwdemo2450.wdf.sap.corp: | ac_admin | ***** | <input checked="" type="checkbox"/> |
| ROLE_RFMR | Role Reaffirm | Role Reaffirm | | | | <input checked="" type="checkbox"/> |
| SOD_REVIEW | SOD Review | SOD Review | | | | <input checked="" type="checkbox"/> |
| UAR_REVIEW | User Access Review | User Access Review | | | | <input checked="" type="checkbox"/> |

Save

- Configuration → Miscellaneous

- Parameters

- Language: English (for example)
- Log Level: Error (change, if needed for troubleshooting)
- Cache Job Time interval in seconds: 5
- Background Job Time Intervals in Minutes: 1

- Workflow Types

- AE: Checked
- MITICTRL URL `http://<server>:<port>/VirsaCCWFExitService5_2Service/Config1?wsdl&style=document`, Checked¹
- MITIOBJ URL `http://<server>:<port>/VirsaCCWFExitService5_2Service/Config1?wsdl&style=document`, Checked¹
- RE `http://<server>:<port>/AEWFExitServiceWS_5_2/Config1?wsdl&style=document`, Checked
- RISK URL `http://<server>:<port>/VirsaCCWFExitService5_2Service/Config1?wsdl&style=document`, Checked¹
- ROLE_RFQ: Checked
- SOD REVIEW: Checked
- UAR REVIEW: Checked

- Configuration → Attachments

- Only needed, if you want to allow for attachments sent with requests.
- Folder: <Folder name on server to store attachments>

¹ These workflow types appear only after import of AE_init_append_data_CC.xml (refer to post-installation slide deck RAR page 44).

9 – Define Number Ranges for Request Numbering



- Without Number Ranges, no request can be submitted!
 - You need to define a number range and activate it.

- Before importing roles we recommend creating role attributes.
- Maintain Role Attributes in Configuration → Roles → Attributes

| Role Attribute | |
|---|------------------------------------|
|  | Company |
|  | Functional Area |
|  | Application Area |
|  | Business Process |
|  | Business Sub-Process |
|  | Functional Area and Company |

10 – Create Role Attributes (2/3)

→ Company, Funct. Area, Application Area



➤ Company

| Role Attribute | | | |
|--------------------------|-------------|--------------------|-------------|
| Company | | | |
| <input type="checkbox"/> | Company ID* | Short Description* | Description |
| <input type="checkbox"/> | SAP | SAP | SAP |
| | | | |

➤ Functional Area

| Role Attribute | | | |
|--------------------------|-------|--------------------|-------------|
| Functional Area | | | |
| <input type="checkbox"/> | Name* | Short Description* | Description |
| <input type="checkbox"/> | FI | Financial | Financial |
| <input type="checkbox"/> | PR | Purchasing | Purchasing |
| | | | |

➤ Application Area

| Role Attribute | | | |
|--------------------------|-------|--------------------|-------------|
| Application Area | | | |
| <input type="checkbox"/> | Name* | Short Description* | Description |
| <input type="checkbox"/> | ERP | ERP ECC 6.0 | ERP ECC 6.0 |
| | | | DCX |
| | | | |

10 – Create Role Attributes (3/3)

→ Business Process, Business Sub-Process



- Business Process
- Note: if you plan to integrate with Risk Analysis and Remediation (RAR) you should choose two-character values for the name like in RAR

| Role Attribute | | | | | |
|------------------|-----------------------------|--------------------|----------------|------------------|--------------------|
| Business Process | | | | | |
| | Name* | Short Description* | Description | Owner / Approver | Alternate Approver |
| 1 | <input type="checkbox"/> PR | Procure to Pay | Procure to Pay | GRC_ADMIN | D043805 |
| | <input type="checkbox"/> SD | Order to Cash | Order to Cash | GRC_ADMIN | D043805 |

- Business Sub-Process

| Role Attribute | | | |
|----------------------|-------------------------------|-----------------------------|-----------------------------|
| Business Sub-Process | | | |
| | Name* | Short Description* | Description |
| | <input type="checkbox"/> PR01 | Vendor Master Maintenance | Vendor Master Maintenance |
| | <input type="checkbox"/> PR02 | Production Order Processing | Production Order Processing |
| | <input type="checkbox"/> PR03 | Service Master Maintenance | Service Master Maintenance |
| | <input type="checkbox"/> PR04 | PO Approval | PO Approval |
| | <input type="checkbox"/> SD01 | Customer Master Data | Customer Master Data |
| | <input type="checkbox"/> SD02 | Delivery Processing | Delivery Processing |
| | <input type="checkbox"/> SD03 | Sales Rabates | Sales Rabates |
| | <input type="checkbox"/> SD04 | Sales Document Release | Sales Document Release |

- Functional Area and Company is optional

11 – Upload Roles from SAP Backend Systems via Spreadsheet (1/2)



- We recommend to upload roles from your backend systems via spreadsheet
- This way you upload only the roles you need within CUP and can maintain role attributes more conveniently in the spreadsheet rather than maintaining each role after role import in CUP manually.
- The role attribute used in the spreadsheet must be created prior to upload

11 - Upload Roles from SAP Backend Systems via Spreadsheet (2/2)



- Upload roles in Configuration → Roles → Import

SAP GRC Access Control
Compliant User Provisioning

Welcome Admin Access Controls

Help | About | Logoff

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My Work Informer Configuration

Import Roles

Import Roles

System: ERP-DCX

Role Source: Back End

Last Synch Date: 05/02/2008

All Roles

All Roles Except SAP Predefined Roles

Selected Roles

Role Name:

From File:

Overwrite Existing Roles

Request Configuration

- Request Type
- Priority
- Application Configuration
- Employee Type Configuration
- Number Ranges
- Risk Analysis
- Mitigation
- Attributes
- Service Level
- Password Self-Service
- User Registration
- Custom Fields
- End User Personalization
- Support
- ▶ Workflow
- ▶ Request
- ▶ Field Mapping
- ▶ Approvers
- ▶ User Review
- ▶ Change Log
- ▶ Connectors
- Authentication
- User Data Source
- ▶ HR Trigger
- ▶ Roles
 - Import Roles
 - Create Role
 - Search Role

- Now you are ready to create workflows in Compliant User Provisioning
- Before you do this in the system, we advice designing them first as flow charts on paper and involving all stakeholders in this phase.
- Also cater for exceptions like „no approver defined“, or „auto-provisioning failed“ to handle error situations. Include „Detour“ and „Escape Routes“ to handle error situations in your workflows!

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