



PUBLIC

# Custom Joule Skill & Agent in SAP Build Security Assistant Agent

Configuration & User Guide

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This document contains 2 sections. Each section covers different information about this template content package.

1. **Overview:** In this section, you will get a quick overview of the use case, what are high-level components used and how the template works in a nutshell. The Prerequisite section provides information on different services of SAP Business Technology Platform that are required to use this template.
2. **Configuration Guide** It contain sections which will guide you to setup your (a) SAP Business Technology Platform Account with destination, user roles etc., (b) Links and steps to set up Joule studio and Joule (c) Import and configure the template using SAP Build Process Automation - Joule studio

**Note:**

- This agent and documentation are intended for Business use. The content is designed to support real business scenarios and enterprise integrations.
- This documentation does not provide a full end-to-end setup guide for all SAP Business Technology Platform services. It assumes that the IT administrator responsible for setting up has prior experience with SAP Business Technology Platform and related services. The configuration steps outlined in this document must be followed as described.
- This content is provided to accelerate enterprise solution implementation. Customers are expected to adapt and extend the agent, skills, and configurations based on their specific business requirements. Users should have a basic understanding of SAP Build Process Automation and its capabilities to effectively customize and operate the solution.

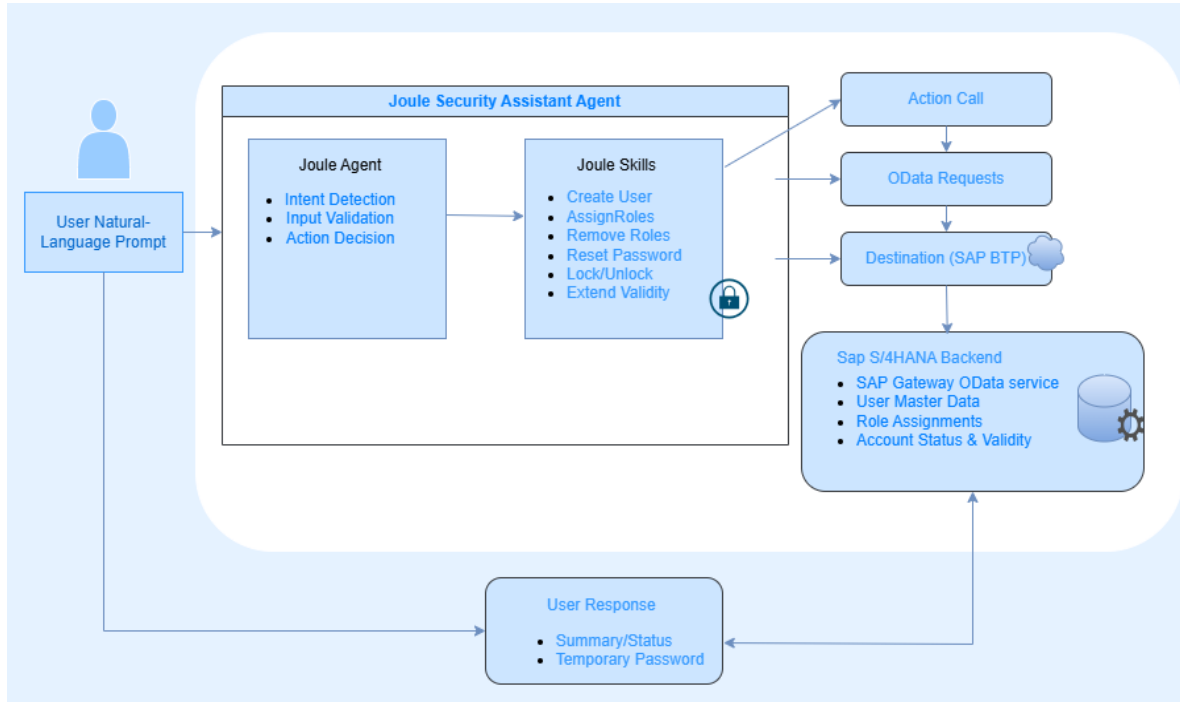
## Overview

- This document provides an overview of the **Security Assistant Agent**, including its use case, high-level architecture, and how the template operates. It also outlines the prerequisites required on SAP Business Technology Platform (SAP BTP) to deploy and run the agent.
- The primary audience for this document includes IT Administrators, Security Administrators, Developers, and Functional Experts who are responsible for configuring and operating SAP security and access management processes.

## Agent Functionality

- The **Security Assistant Agent** is a Joule-based AI agent built using SAP Build Process Automation – Joule Studio. It enables users to perform SAP security and identity access management (IAM) tasks through natural-language interactions.
- The agent supports key security operations, including:
  - SAP user creation
  - Role and authorization assignment or removal
  - Password resets and account lock or unlock
  - User validity extension and access review
- The agent integrates with SAP S/4HANA backend systems using Joule Skills, which internally invoke SAP Build Actions and SAP S/4HANA OData APIs to execute the requested actions.
- The agent consolidates responses from the invoked Joule skills and presents the outcome to the requester in a structured, human-readable format, clearly indicating whether the requested security action was successful or failed.
- This template serves as a practical, ready-to-use reference for teams exploring how AI agents can enhance and streamline SAP security and IAM workflows.

## Solution flow (example given below) :



The following steps describe the highlevel solution flow of the Security assistant agent:

1. The requester (for example, a Security Administrator) submits a natural language request to the Security assistant agent, such as creating a user, assigning roles, or resetting a password.
2. The Security assistant agent interprets the request and identifies the appropriate Joule Skills configured as tools, based on the instructions defined in the agent design.

### a. User and Role Management Skill Invocation

- The agent invokes Joule skills designed to manage SAP users and roles.
- These skills use SAP Build Actions connected to SAP S/4HANA OData services for user and authorization management.

### b. Security Operation Execution

- For actions such as password reset, account lock/unlock, or validity extension, the agent invokes the corresponding Joule skills.
- Each skill performs a controlled backend operation using SAP S/4HANA APIs.

## Business Value & Benefits

- Reduces manual effort in SAP user and access administration
- Improves response time for security and IAM requests
- Minimizes errors caused by manual SAP GUI operations
- Ensures governed and auditable execution of security actions
- Enables natural language interaction for SAP security operations
- Enhances productivity of security and IT administrators

## Prerequisites

**For this template to run successfully, the following prerequisites are required:**

- SAP S/4HANA system (OnPremise) accessible from SAP BTP
- SAP Build Process Automation with Joule Studio enabled

Follow the setup guide based on your tenant configuration.

### **NOTE:**

If you need additional help with these prerequisites (for example, setting up SAP Build Process Automation or SAP Build Work Zone), you can run the Discovery Center mission: Setup Joule Studio for a BTP Enterprise Account

- SAP Business Technology Platform subaccount with:
  - Destination configuration permissions
  - SAP Build and Joule entitlements
- SAP S/4HANA system with required user and role management APIs exposed
- Appropriate authorizations for SAP user and security administration

## Configuration Guide

### **Setup Business Technology Platform Cockpit**

- Ensure required entitlements are assigned to the subaccount
- Assign relevant role collections for SAP Build, Joule, and Actions
- Verify trust and identity configuration (IAS / Identity Provider), if applicable

### Configure SAP S/4HANA Destination

- To access the process automation capability of SAP Build, create the following destination in the SAP BTP cockpit:



<b>Destination Property</b>	<b>Value</b>
Name	<Destination Name>
Type	HTTP
URL	https://{host}:{port}/sap/opu/odata4/sap/ ZVP_PC_K_ABAP_DUMP_SRV
Proxy Type Internet	OnPremise
Authentication	BasicAuthentication

- Additional Property Table

<b>Additional Property</b>	<b>Value</b>
HTML5.DynamicDestination	true
WebIDEEEnabled	false
HTML5.Timeout	6000
sap.applicationdevelopment.actions.enabled	true
sap.processautomation.enabled	true

## SAP Cloud Connector Details

- Cloud Connector Required: Yes
- Reason: The backend (E4H) is onpremise, and the destination uses Proxy Type "on Premise". Therefore, SAP Cloud Connector with the specified Location ID is required

## User Roles Configuration

To access this template, users must be assigned the required SAP Build, Joule, and Action execution role collections as applicable to the scenario.

## Services used:

The following **Action Projects** are used in this template:

Action Project Name	Service Used	Purpose
Security Assistant Agent	/ZVP_PC_K_ABAP_DUMP_SRV	Manage SAP user lifecycle by ensuring secure, role access

## Artifacts in the Agent:

Type	Name	Description
Joule Skill	Create SAP User	Create a new SAP user
Joule Skill	Assign / Remove Roles	Manages SAP role assignments
Joule Skill	Reset Password	Resets SAP user password
Joule Skill	Lock / Unlock User	Controls SAP user account status
Joule Agent	Security assistant agent	Orchestrates security actions using natural language

## Setup Content Package

Import Custom Joule Agent

This template can be downloaded from the SAP Build Store:

- Navigate to the Store option in your SAP Build Lobby.
- Select the Project Type filter as “Joule Agent and Skill”
- In the Search bar type “Security Assistant Agent”
- Select the “Create from Template” button to add the template into your lobby.
- Once the creation is complete, navigate to the Lobby to find the “Security assistant agent” project is available for use.

## Configuration & Modification

- Once the Joule Skill and Agent project is added to the Lobby, it can be run without any modification.
- Optional modifications include:
- Updating agent instructions



- Adding or modifying Joule Skills
- Extending security validation logic
- Customizing response formats

## Release and Deploy the Project

Once the agent is verified by the user / modified based on user need, it has to be released and deployed into a shared environment.

- Refer to the link below to create/Share an Environment:  
[Environments | SAP Help Portal](#)
- Refer to the link below to release a project:  
[Release a Project | SAP Help Portal](#)
- Refer to the link below to deploy a project:  
[Deploy a Project | SAP Help Portal](#)

## Test the Joule Skills And Agent in SAP Build

1. To access your projects, navigate to **Control Tower ->Tenant Configuration->Environments**.
2. Select your environment.
3. After deploying the project, the project should be seen in the Shared Environment. Click on the Tab, '**Joule**'
4. Click on the button '**Launch**'

This will open the Joule launchpad where you can key in the below prompts to test the agent.

Prompt	Expected Result
Create a new SAP user with the following details: Employee ID <EMP_ID>, First Name <FIRST_NAME>, Email <EMAIL>, Last Name <LAST_NAME>  Example: Create a new SAP user with the following details: Employee ID KALNEEDI26, First Name JYOTHSNA, EMAIL AS JYO@GMAIL.COM ,LASTNAME AS KALNEEDI26	SAP user KALNEEDI26 is created successfully with the provided details
Lock the SAP user <USER_ID>	SAP user INFKARTHICK2 is successfully locked

Example: Lock the SAP user INFKARTHICK2	
Unlock the SAP user <USER_ID> Example: Unlock the SAP user INFJYOTHSRI9	SAP user INFJYOTHSRI9 is successfully unlocked
Reset the password for the SAP user <USER_ID> Example: Reset the password for the SAP user INFJYOTHSRI9	Password for SAP user INFJYOTHSRI9 is reset successfully
Extend the validity of the SAP user <USER_ID> Example: Extend the validity of the SAP user INFJYOTHSRI9	Validity period for SAP user INFJYOTHSRI9 is extended successfully
Remove the role <ROLE_NAME> from the SAP user <USER_ID> Example: Remove the role ZIBA_ROLE from the SAP user INFJYOTHSRI9	Role ZIBA_ROLE is removed successfully from the user
Assign the role <ROLE_NAME> to the SAP user <USER_ID> Example: Assign the role ZIBA_ROLE to the SAP user INFJYOTHSRI9	Role ZIBA_ROLE is assigned successfully to the user

**NOTE:**

1: Currently the Agent will be only deployed in the SAP Build environment, and hence testing can also be done only in the Build Lobby. If you want to **activate the Joule in other systems**

Eg: SAP S/4HANA or SAP Work zone, then click on the **settings** in 'Control Tower->Environments-><Your Shared Environment that was created>->Joule'

Here you must switch the toggle on for '**Share Environment Capabilities**'.

Control Tower / Environments / Build Demos

Last Updated: Author: Members: Identifier: Description: Edit Share Delete

Projects Triggers Automation Launchers Agent Management Alert Handlers Variables API Keys Visibility Scenarios Processes and Workflows **Joule**

**Joule Digital Assistant** Shared Launch ↻ ⚙️

Environment Capabilities Version

**Joule Settings**

Selecting this option deploys the environment's capabilities to Joule shared assistant, making them available to users who have "Execute" or "Administrator" rights for this environment.

Share Environment Capabilities

Apply Cancel

## Support

If you experience any issues or support related to Security Assistant Agent, please contact

**SAP\_BTP\_AI\_AUTO@infosys.com**