

ENGIE Group Digital IT

Org Monitoring (EAGLES v3)
Monitor Salesforce Organization

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September 2022



Agenda

Why OrgMonitoring

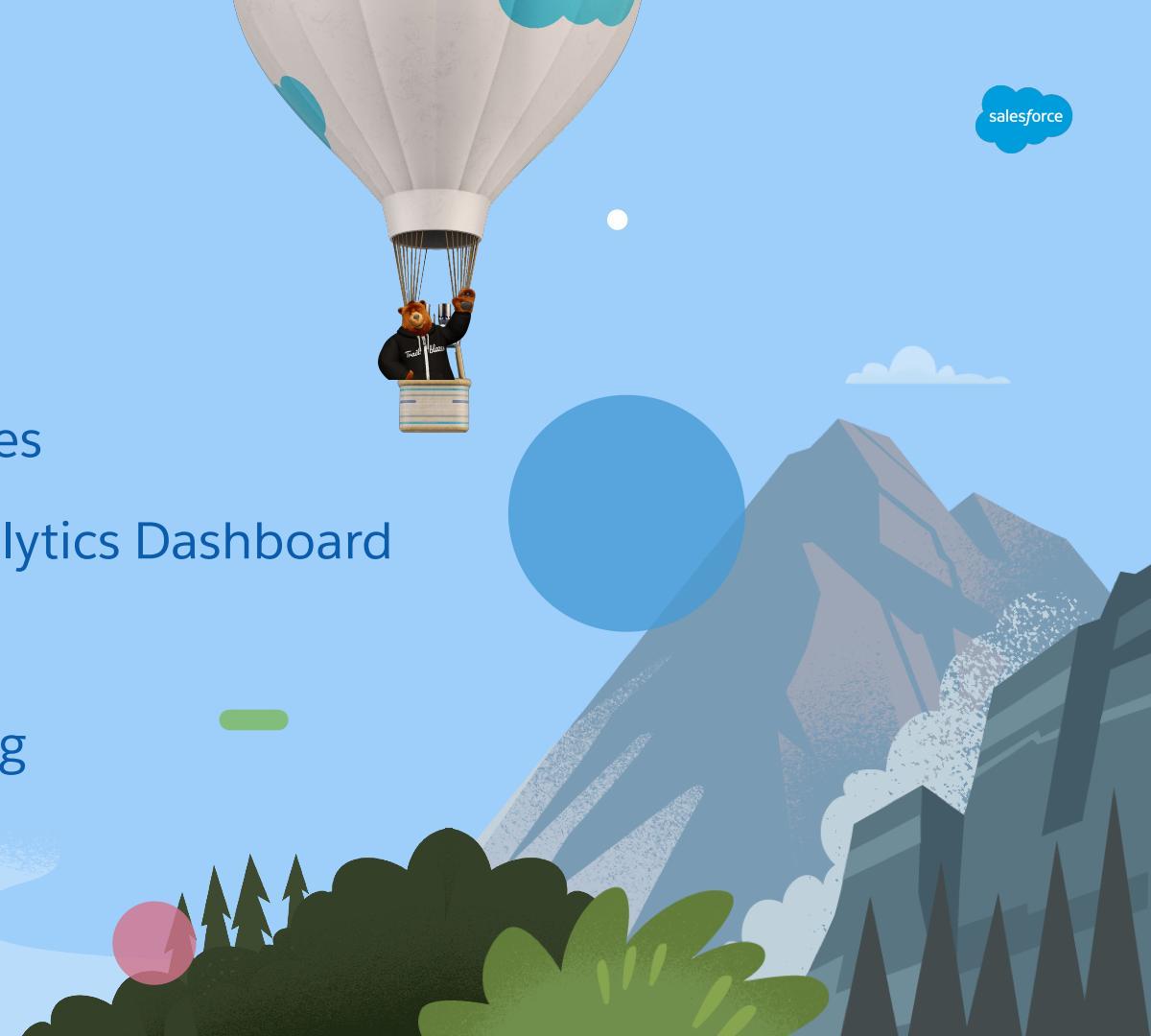
What is OrgMonitoring

How to install the Packages

How to configure the Analytics Dashboard

Schedule Everything

How to use OrgMonitoring



Why OrgMonitoring

Better manage Salesforce licensing usage



Context:

- Engie group has roughly 80 Salesforce implementations through group's entities.
- Engie has a group contract within Salesforce.
 - There are 2 licenses management process in use:
 - One is centralized through a SELA
 - The other one is decentralized.
- A Marketplace mechanism to share unused licenses exist in order to optimize costs

Objective:

- To get a tool allowing the monitoring of all Salesforce implementations in order to better manage licenses usage and a close monitoring on how Salesforce is used at entities.



Agenda

Why Org Monitoring

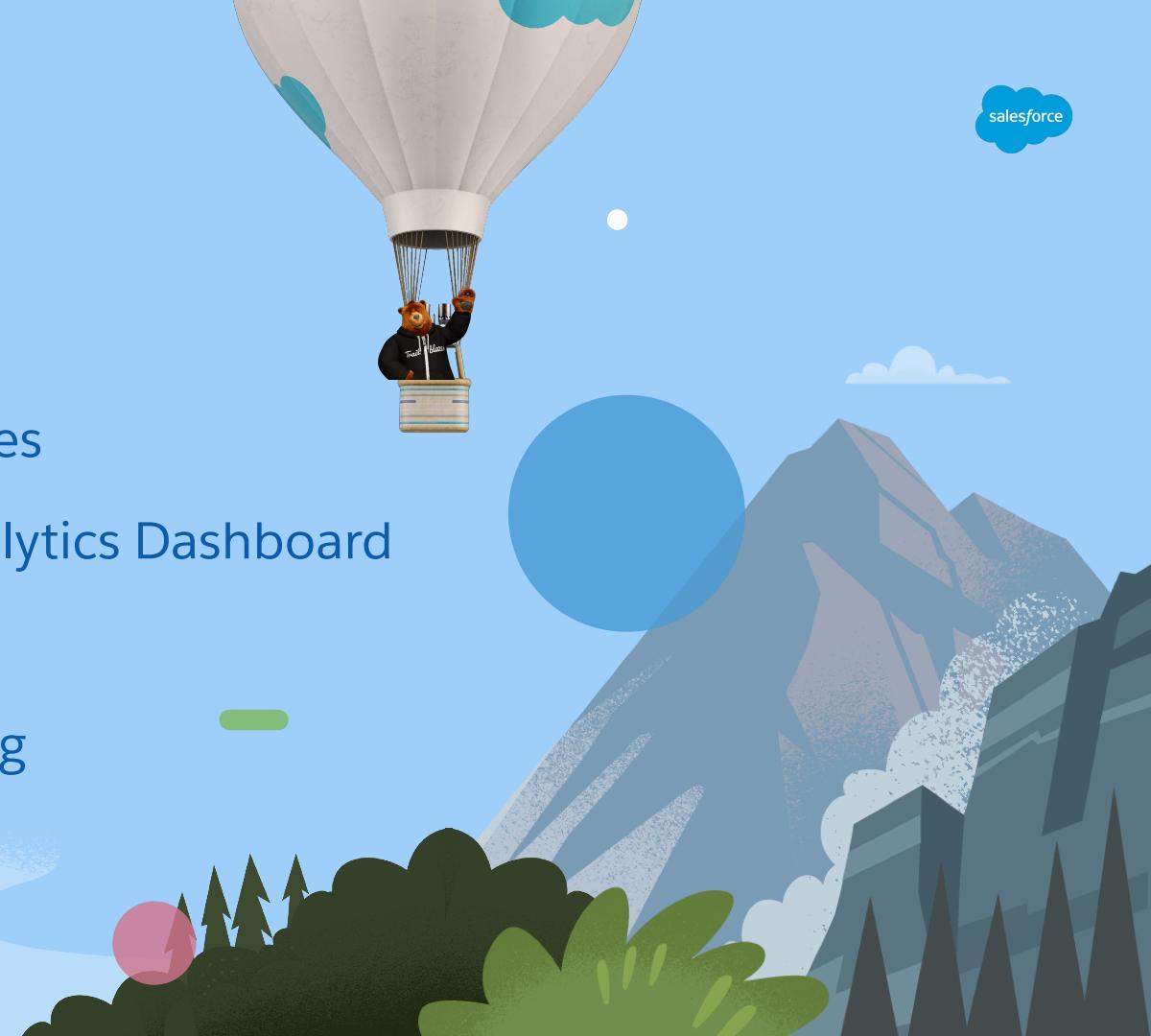
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What is OrgMonitoring

A new improved and lightweight version of **EAGLES**



- ❑ **OrgMonitor** is the new version of EAGLES.
- ❑ As a reminder, EAGLES is a tool developed by the Digital Group IT aimed to get information on Salesforce licenses and usage in order to make the most efficient use of the marketplace managed by Engie IT.
- ❑ With OrgMonitoring you can get information on every configured entity for:
 - ❑ License acquired and License usage
 - ❑ Data Storage and File Storage usage
 - ❑ Packages installation
 - ❑ Control limits
 - ❑ Reveal the number of inactive users (not their username)
 - ❑ Historical & trends

- ❑ OrgMonitoring uses **Salesforce CRM Analytics** to build Dashboards.
- ❑ Every Dashboard can be filtered by **Country, Business Units, Organization, Licence Category and License Name**

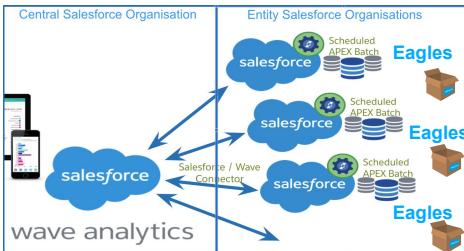


OrgMonitoring compared to EAGLES



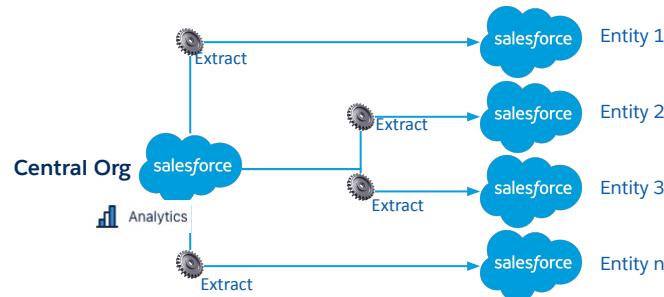
EAGLES architecture

- Each entity must:
 - Install the Eagles package in their production org environment.
 - Configure several metadatas and manage certificate
 - Schedule & Run the extract programs on their org environment
 - Manage custom object used to store extracted data
- Complex to debug, to manage, to evolve
- Each new évolution must be deployed everywhere



OrgMonitoring architecture

- Each entity must only provides credentials to allow Central Salesforce Org to connect via a secured Connected App.
- Any installation is required on entity Salesforce org
- Easy to manage, to evolve



Extract via Metadata REST API based on:

- Authorization Provider
- Named Credential
- Connected App

Agenda

Why Org Monitoring

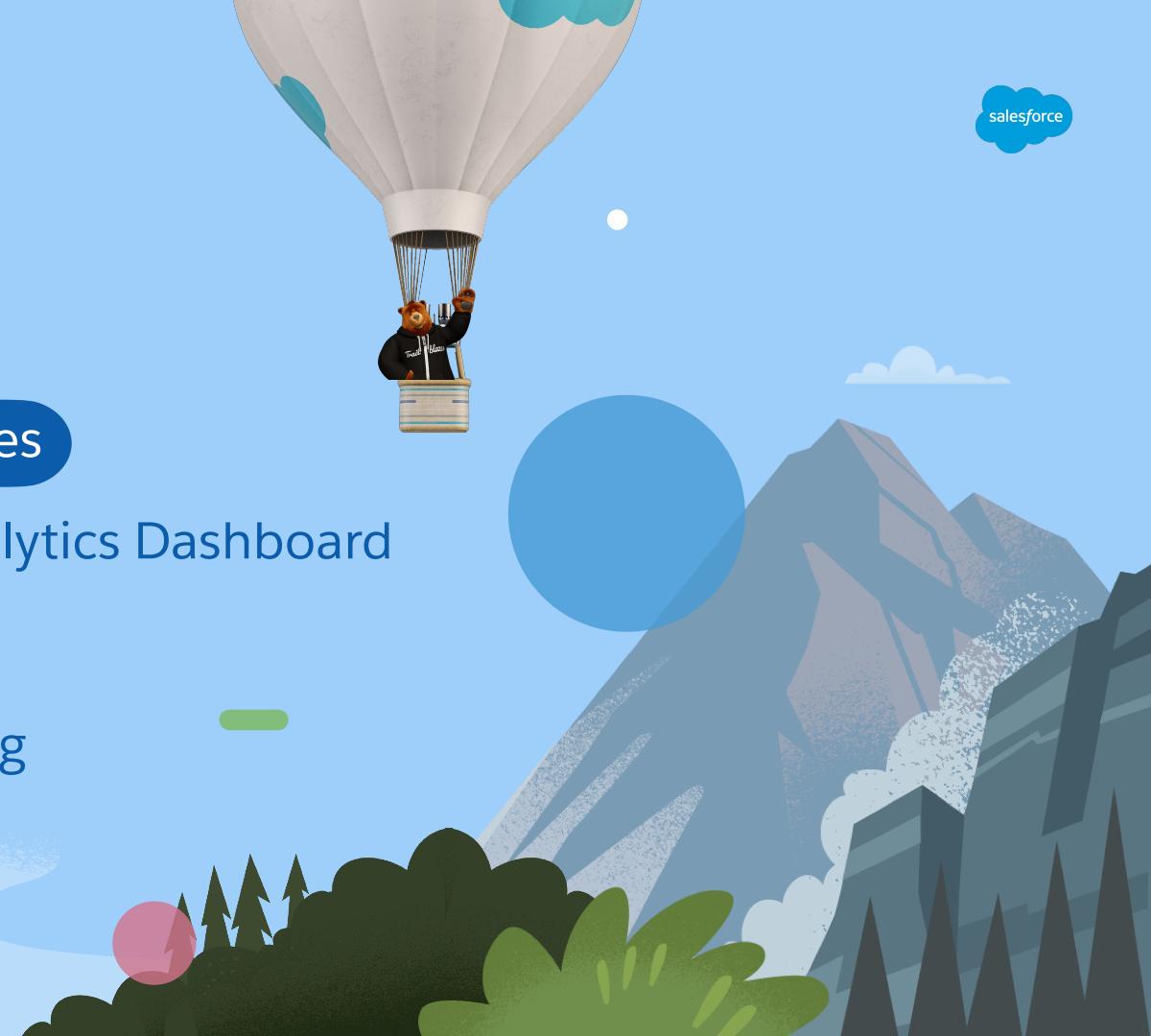
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OrgMonitoring Installation - Prerequisites

How to install OrgMonitoring on your Central Salesforce organization

- ❑ **OrgMonitor** comes with 2 packages.
 - ❑ One is for **Apex automations** to extract metadata from connected organizations
 - ❑ One is for **Dashboards in CRM Analytics**
- ❑ As a **prerequisite** you need a Salesforce Organization with CRM Analytics with as many licenses as users accessing the dashboards.
- ❑ To install the package you need a user with System Administrator profile.



OrgMonitoring Installation - Install Package



Installation of the Apex automation package

- ❑ To install the Apex automation in your Production org run the following url:
 - ❑ <https://login.salesforce.com/packaging/installPackage.apexp?p0=04t7Q000000yC4J>
 - ❑ Connect with your User/Password Administrator the install the package

The screenshot shows the 'Install OrgMonitor' page from the Salesforce AppExchange. At the top, there's a green download icon and the title 'Install OrgMonitor' followed by 'By Salesforce'. Below this is a warning message: 'What if existing component names conflict with ones in this package?' with two radio button options: 'Do not install.' (selected) and 'Rename conflicting components in package.' Below the warning are three installation options: 'Install for Admins Only' (selected), 'Install for All Users', and 'Install for Specific Profiles...'. At the bottom right are 'Install' and 'Cancel' buttons. A table at the very bottom provides details about the app: App Name (OrgMonitor), Publisher (Salesforce), Version Name (OrgMonitor), and Version Number (1.0). There are also 'Additional Details' and 'View Components' links.

App Name	Publisher	Version Name	Version Number
OrgMonitor	Salesforce	OrgMonitor	1.0

Additional Details View Components

OrgMonitoring Installation - Post install verification



Verify Apex automation package installation

Uninstall	OrgMonitor	Salesforce	1.0	N/A	N/A	N/A	N/A	9/5/2022 10:40 AM	<input checked="" type="checkbox"/>
Description This package contains Apex code for Org Monitoring App which aims to monitor multiple Org for licence utilization, adoption, limits, storage etc.									

- ❑ The package comes with following metadata:
 - ❑ Custom Object: 1 - **OrgMonitoring**
 - ❑ Custom Fields: 20
 - ❑ Custom Metadata Type: 2 - **OrgToMonitor, LicenseList**
 - ❑ Custom Metadata Type Fields: OrgToMonitor (8), LicenseList(2)
 - ❑ Custom Metadata Type Content : LicenseList (162)
 - ❑ Pages Layout: 3 ; List Views: 2
 - ❑ Apex Classes: 17 (including Tests Classes)
 - ❑ Named Credential: 1 (Playground as per an example of configuration)
 - ❑ Authorization Provider: 1 (Playground as per an example of configuration)

OrgMonitoring Installation - Post install verification



Verify access right on Custom Object / Fields / Apex class for

- ❑ The user chosen for execute the extract must have :
 - ❑ Access R/W/D on OrgMonitoring__c and all the fields
 - ❑ Access to all Apex Classes
- ❑ The profile of user used to synch data between Salesforce and CRM Analytics (typically this is **Analytics Cloud Integration User**) must have Read access on all OrgMonitoring fields.

OrgMonitoring - Post installation adjustments

Business Unit



- ❑ OrgMonitor comes with 2 default values (B2B & B2C) for **Business Unit**. They are configured in **OrgToMonitor** Custom Metadata Type; you can adjust and/or add new values in this picklist field.

SETUP

Custom Metadata Types

OrgToMonitor Custom Field

Business Unit

Back to OrgToMonitor

Validation Rules

Help for this Page

Custom Field Definition Detail

Object Name: **OrgToMonitor**

Data Type: Picklist

Field Information

Field Label: Business Unit	Field Name: Business_Unit
API Name: Business_Unit_c	Description:
Help Text:	Data Owner:
Field Usage:	Data Sensitivity Level:
Compliance Categorization:	Created By: Salvatore Aversano, 12/05/2022 10:55
Modified By: Salvatore Aversano, 12/05/2022 10:55	

General Options

Required: <input checked="" type="checkbox"/>
Field Manageability: Upgradable
Default Value: <input type="text"/>
Restrict picklist to the values defined in the value set: <input checked="" type="checkbox"/>

Picklist Values Used

Active and inactive picklist values: 2 (1 000 max)

Validation Rules

No validation rules defined.

Values

Action	Values	API Name	Default	Chart Colors	Modified By
Edit Del Deactivate	B2B	B2B	<input checked="" type="checkbox"/>	Assigned dynamically	Salvatore Aversano, 12/05/2022 10:55
Edit Del Deactivate	B2C	B2C	<input type="checkbox"/>	Assigned dynamically	Salvatore Aversano, 12/05/2022 10:55

OrgMonitoring - Post installation adjustments

Licence Category



- ❑ OrgMonitor comes with default values for **Licence category**. They are configured in **LicenceList Custom Metadata Type**.
- ❑ You can adjust and/or add new values in this Custom Metadata Type.

The screenshot shows the 'Custom Metadata Types' setup page for the 'LicenceCategory' type. It includes sections for 'Field Information', 'General Options', 'Validation Rules', and a 'Values' table. The 'Values' table lists various licence categories with their assigned Salesforce IDs and descriptions.

Value	API Name	Label	Default	Assigned By
Core License	Core_License	Core License	<input type="checkbox"/>	Assigned dynamically
Experience Cloud	Experience_Cloud	Experience Cloud	<input type="checkbox"/>	Assigned dynamically
Platform	Platform	Platform	<input checked="" type="checkbox"/>	Assigned dynamically
Marketing	Marketing	Marketing	<input type="checkbox"/>	Assigned dynamically
Analytics	Analytics	Analytics	<input type="checkbox"/>	Assigned dynamically
Commerce	Commerce	Commerce	<input type="checkbox"/>	Assigned dynamically
Other	Other	Other	<input type="checkbox"/>	Assigned dynamically
Cloud Services	Cloud_Services	Cloud Services	<input type="checkbox"/>	Assigned dynamically

The screenshot shows the 'Custom Metadata Types' setup page for the 'LicenceList' type. It includes sections for 'LicenseList' and 'New'. The 'New' section lists various licence categories with their assigned Salesforce IDs and descriptions.

Label	LicenseList Name	LicenceCategory	Translated LicenseName
Admin_Portal	Admin_Portal	Other	Admin Portal
Analytics	Analytics	Analytics	Analytics
Analytics_Cloud_Inspector_User	Analytics_Cloud_Inspector_User	Analytics	Analytics Cloud Inspector User
Analytics_Created_By	Analytics_Created_By	Analytics	Analytics Created By
Analytics_Created_App	Analytics_Created_App	Analytics	Analytics Created App
Analytics_Platform	Analytics_Platform	Analytics	Analytics Platform
Analytics_Platform_Administrator	Analytics_Platform_Administrator	Analytics	Analytics Platform Administrator
Architect	Architect	Other	Architect
Administrated_Mobile	Administrated_Mobile	Other	Administrated Mobile
BBB_Basic_Permission_Set_Own_Site	BBB_Basic_Permission_Set_Own_Site	Other	BBB Basic Permission Set Own Site
BBB_Basic_Permission_Set_Own_Site_1	BBB_Basic_Permission_Set_Own_Site_1	Other	BBB Basic Permission Set Own Site 1
BBB_Demand	BBB_Demand	Other	BBB Demand
BBB_Marketing	BBB_Marketing	Marketing	BBB Marketing
BBB_Marketing_Analytics_Plus_App	BBB_Marketing_Analytics_Plus_App	Marketing	BBB Marketing Analytics Plus App
BBB_Marketing_Analytics_Plus_User	BBB_Marketing_Analytics_Plus_User	Marketing	BBB Marketing Analytics Plus User
BBB_Marketing_Plus_App	BBB_Marketing_Plus_App	Marketing	BBB Marketing Plus App
BBB_Marketing_Plus_User	BBB_Marketing_Plus_User	Marketing	BBB Marketing Plus User
BBB_Platform	BBB_Platform	Other	BBB Platform
BBB_Platform_1	BBB_Platform_1	Other	BBB Platform 1
Commerce	Commerce	Commerce	Commerce

The screenshot shows the 'LicenseList Edit' screen for the 'Salesforce_Platform' entry. It includes sections for 'Information' and 'Buttons' (Save, Save & New, Cancel). The 'Information' section displays the current values for Label, LicenseList Name, LicenceCategory, and TranslatedLicenseName.

Label	Salesforce_Platform
LicenseList Name	Salesforce_Platform
LicenceCategory	Other
TranslatedLicenseName	Salesforce Platform

OrgMonitoring Installation - CRM Analytics Package installation



How to install the CRM Analytics package

- ❑ To install the CRM Analytics package you need to use Workbench. Follow the steps:
 - ❑ Username / Password to connect you Org via Workbench
 - ❑ Use migration/Deploy menu
 - ❑ Click “Choose file” and use the “packageAnalytics.zip” file
 - ❑ Select “Rollback on Error”
 - ❑ Click “Next”
 - ❑ Click “Deploy”

OrgMonitoring Installation - CRM Analytics Package installation



How to install the CRM Analytics package

workbench

Environment: Production

API Version: 54.0

I agree to the terms of service

Workbench is free to use, but is not an official salesforce.com product. Workbench has not been officially tested or documented. salesforce.com support is not available for Workbench. Support requests for Workbench should be directed to Stackoverflow at <https://salesforce.stackexchange.com/questions/tagged/workbench>. Source code for Workbench can be found at <https://github.com/forceworkbench/forceworkbench> under separate and different license terms.

Login with Salesforce

Workbench 55.0.0

workbench

Deploy

Choose a ZIP file to deploy and any applicable options:

Choose file packageAnalytics.zip

Allow Missing Files

Auto Update Package

Check Only

Ignore Warnings

Perform Retrieve

Purge On Delete

Rollback On Error

Single Package

Test Level NoTestRun

Run Tests

Next

Requested in 0.003 sec
Workbench 55.0.0

workbench

Select an action to perform:

Jump to:

Object:

Select

Deploy

Requested in 0.229 sec
Workbench 55.0.0

workbench

Deploy

Successfully staged 15 KB zip file packageAnalytics.zip for deployment.

Confirm the following deployment options:

Expand All | Collapse All

allowMissingFiles: false
autoUpdatePackage: false
checkOnly: false
ignoreWarnings: false
performRetrieve: false
purgeOnDelete: false
rollbackOnError: true
singlePackage: false
testLevel: NoTestRun
runTests:

Warning, this deployment will make permanent changes to this organization's metadata and cannot be rolled back. Use the 'Check Only' option to validate this deployment without making changes.

Deploy

Requested in 0.003 sec
Workbench 55.0.0

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OrgMonitoring Installation - CRM Analytics Package installation



Post Installation tasks for CRM Analytics package : New Connection

- ❑ Add the Custom Object OrgMonitoring__c as a Datasource:
 - ❑ Connect to Analytics Studio then Data Manager the **Connections**
 - ❑ Add “New Connection” then choose “Salesforce Connector” ; click Next
 - ❑ Setup Your Connection
 - ❑ Organization Name : **OrgMonitoring**
 - ❑ Developer Name: **OrgMonitoring**
 - ❑ Description: **Connect CRM Analytics to OrgMonitoring__c custom object** ; click Save
 - ❑ Edit objects for SFDC_LOCAL_OrgMonitoring
 - ❑ Choose OrgMonitoring__c then select All Columns (remove “Obsolete Login User List field”)
 - ❑ Save

OrgMonitoring Installation - CRM Analytics Package installation



Post Installation tasks for CRM Analytics package: New Connection

The screenshot shows the OrgMonitoring interface with the 'Connections' tab selected. The main area displays a list of connections, with one named 'SFDC_LOCAL_OrgMonitoring' currently selected. A 'New Connection' button is highlighted with a red circle. Below the main interface, two smaller windows are displayed: 'Select Connector' and 'Set Up Your Connection'.

Connections
All Connections
2 Connections

SFDC_LOCAL
Not Scheduled

New Connection

Search object by name..

Object Filter Columns Connection ... Last Run Status

Select Connector

Connector Type: All

34 Connectors

Salesforce Connector (highlighted)

Redshift Connector

Salesforce External Connector

Salesforce Marketing Cloud OAuth 2.0 Connector

Next

Set Up Your Connection

* Connection Name: OrgMonitoring

* Developer Name: OrgMonitoring

* Description: Connect CRM Analytics to OrgMonitoring__c custom object

Previous Save

OrgMonitoring Installation - CRM Analytics Package installation



Post Installation tasks for CRM Analytics package: New Connection

Edit objects for SFDC_LOCAL_OrgMonitoring

SFDC_LOCAL_OrgMonitoring
1 of 847 Object(s) Selected

Object Name	Status
OrgDeleteRequest	Not Connectable
OrgDeleteRequestS...	Not Connectable
OrgLifecycleNotific...	Not Connected
OrgMetric	Not Connectable
OrgMetricScanResult	Not Connectable
OrgMetricScanSum...	Not Connectable
OrgMonitoring__Ch...	Not Connected
OrgMonitoring__Sh...	Not Connected
<input checked="" type="checkbox"/> OrgMonitoring__c	Not Connected
OrgToMonitor__mdt	Not Connectable
OrgWideEmailAddr...	Not Connectable
Organization	Not Connected

Org Monitoring Object Details

OrgMonitoring__c

Columns Data Preview Data Sync Filter

Search columns...

ID and at least one more column required to be selected for SFDC object.

Unselect All 29 of 29 Column(s) Selected

Column Name	API Name
A_a Record ID	Id
A_a Owner ID	OwnerId
A_a Deleted	IsDeleted
A_a Snapshot Number	Name
A_a Created Date	CreatedDate
A_a Created By ID	CreatedBy

OrgMonitoring Object Details

OrgMonitoring__c

Columns Data Preview Data Sync Filter

Search columns...

ID and at least one more column required to be selected for SFDC object.

Select All / Unselect All 28 of 29 Column(s) Selected

Column Name	API Name
A_a Latest	Latest__c
A_a LicenseCategory	LicenseCategory__c
A_a Name	Name__c
<input type="checkbox"/> A_a Obsolete Login User List	ObsoleteLoginUserList__c
<input checked="" type="checkbox"/> OrgCreatedDate	OrgCreatedDate__c
<input checked="" type="checkbox"/> A_a OrgDomainName	OrgDomainName__c
A_a Org ID	OrgID__c

Cancel Save

OrgMonitoring Installation - CRM Analytics Package installation



Post Installation tasks for CRM Analytics package : Modify Recipe

- ❑ Modify the existing Recipe : **OrgMonitoring**
 - ❑ Connect to Analytics Studio then Data Manager then choose **Recipe**
 - ❑ Verify the configuration as the following image

The screenshot shows the Salesforce Data Manager Recipe interface. At the top, there's a navigation bar with tabs for Recipe, OrgMonitoring, and a search bar. Below the navigation is a toolbar with various icons for file operations like New, Open, Save, and Run. The main workspace shows a flow diagram with an 'INPUT' node labeled 'OrgMonitoring__c' connected to an 'Output 0' node. On the left, there's a sidebar with sections for Data, API Name, Object Type, Connected Dataset, Location, and Data Preview Sampling. The 'Data' section is highlighted with a red box and contains a table with columns: Record ID, Owner ID, Deleted, Snapshot Number, Created Date, Created By ID, and Last Modified Date. The table lists several rows of data. The 'Connected Dataset' section is also highlighted with a red box and shows 'SFDC_LOCAL_OrgMonitoring'.

Tips : You may need to make an additional save the Recipe to be functional. In this case click on the node Orgmonitoring__c and then on "Change columns" then deselect/reselect a column. Then save.

OrgMonitoring Installation - CRM Analytics Package installation



Post Installation tasks for CRM Analytics package : Modify Dashboard

- ❑ Go to Analytics Studio / Dashboards and Edit **OrgMonitoring**
 - ❑ Insert an image as your logo
 - ❑ Repeat for each page (Inactive Users, Packages, Limits, etc.)

Dashboard Designer

OrgMonitoring DB

Preview Save

Default + License M... Inactive U... Packages Limits Storage Historical

Salesforce Org Monitoring

Licenses Inactive Users Packages Storage Limits

A screenshot of the Salesforce Dashboard Designer interface. The top navigation bar shows 'Dashboard Designer' and 'OrgMonitoring DB'. On the right, there are 'Preview' and 'Save' buttons. Below the navigation, there are several filter buttons: 'Default', 'License M...', 'Inactive U...', 'Packages', 'Limits', 'Storage', and 'Historical'. In the main workspace, there is a card titled 'Salesforce Org Monitoring' featuring a heart rate monitor icon. This card is circled in red. At the bottom of the workspace, there are tabs for 'Licenses', 'Inactive Users', 'Packages', 'Storage', and 'Limits', with 'Licenses' being the active tab. The background of the slide features a stylized landscape with green hills and a road.

OrgMonitoring Installation - CRM Analytics Package installation



Post Installation tasks for CRM Analytics package : Modify Dashboard

- ❑ Go to Analytics Studio / Dashboards and Edit **OrgMonitoring**
 - ❑ Insert the historique logo as your image and move the Link widget (its background is Transparent) on the new logo.
 - ❑ Steps 1 : Click on the empty space just after “Limits” ; Move the Transparent link widget on the right
 - ❑ Step 2: Click again now on the empty space just after “Limits” ;
 - ❑ Step 3: Download the History.png image delivered with de CRM Analytics package
 - ❑ Step 4: Move the Transparent link widget on the left side just stacked on the History image
- ❑ Repeat for every page
- ❑ Save all of yours modifications

A screenshot of the top navigation bar of a Salesforce Org Monitoring dashboard. On the far left is a black square icon with a green ECG-like line. To its right is the text "Salesforce Org Monitoring". To the right of that are several menu items: "Licenses", "Inactive Users", "Packag", "Storage", and "Limits". The "Limits" item is circled in red at the bottom right corner of the bar.

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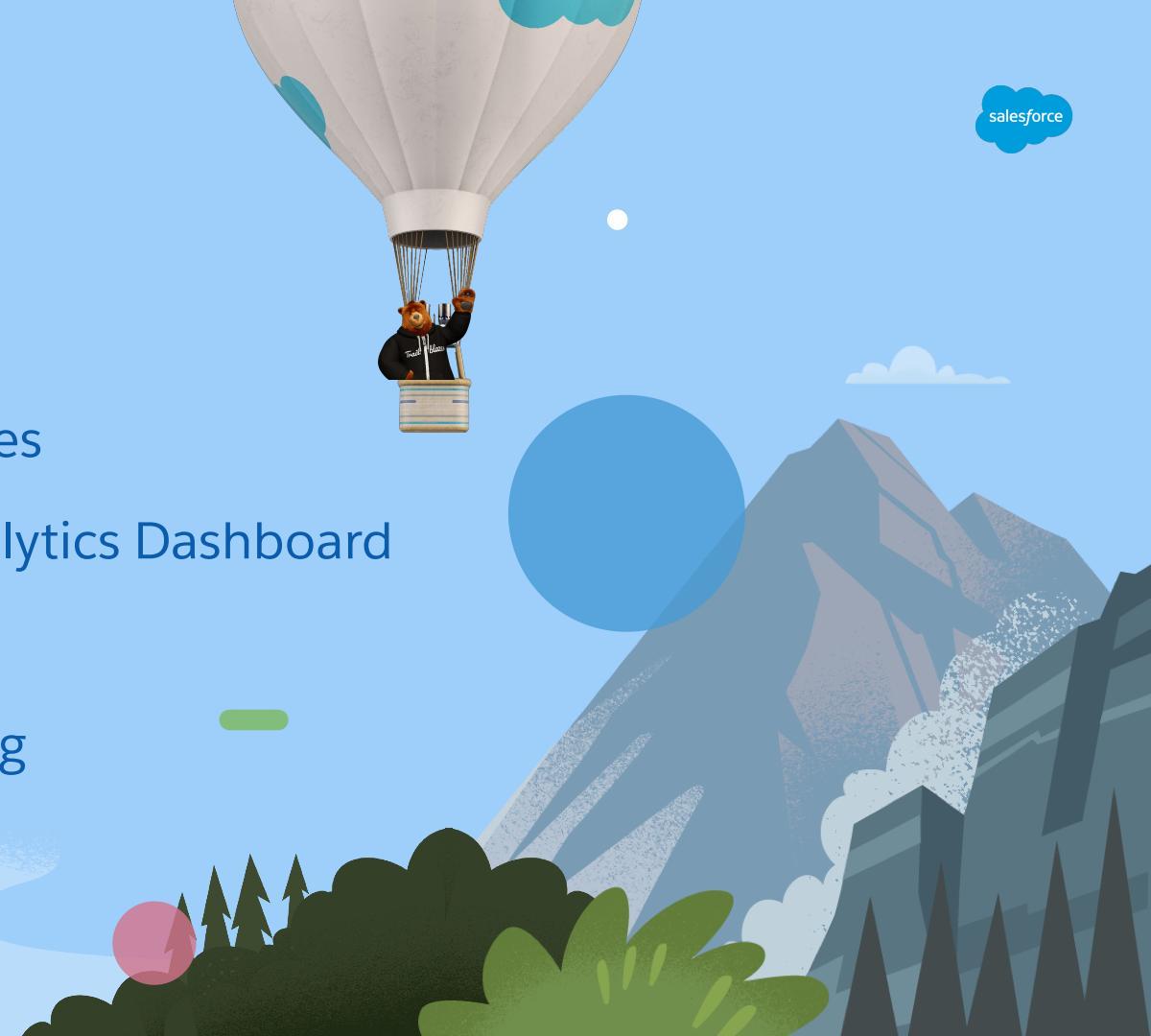
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OrgMonitoring Automation



Schedule extract data execution

- ❑ You can automatically schedule every part of the process to gather data from connected Salesforce Organization and update dataset in CRM Analytics.
- ❑ **Schedule extraction:**
 - ❑ Connect to your Centralized Salesforce organization then Setup
 - ❑ Choose Apex ; Click on “Schedule Apex” button
 - ❑ Name the job: **OrgMonitoring**
 - ❑ Apex Class: **OrgMonitoringSchedule**
 - ❑ Choose the execution recurrence



The screenshot shows the 'Apex Classes' section of the Salesforce Setup. Under 'Schedule Apex Execution', the 'Job Name' is set to 'OrgMonitoring' and the 'Apex Class' is set to 'OrgMonitoringSchedule'. The 'Frequency' is selected as 'Weekly', and the days chosen are Monday through Friday. The 'Start' date is set to '05/09/2022' and the 'End' date is set to '05/10/2022'. The 'Preferred Start Time' is set to '00:00'. A note at the bottom states: 'Exact start time will depend on job queue activity.'

OrgMonitoring Automation

Schedule Purge

- ❑ Every execution of the extract Apex program generate records into OrgMonitoring custom object.
- ❑ Although the OrgMonitoring dashboard have an "historical" view of data usage, it is recommended to purge the object on a regular basis.
- ❑ By default the purge program deletes all records older than 6 months. You can schedule the execution of the purge program every 3 or 6 months at your convenience based on you available data storage usage.
- ❑ The Apex Class for Scheduling is named: **OrgMonitoringPurge**

OrgMonitoring Automation



Schedule CRM Analytics Dataset génération

- ❑ OrgMonitoring Dashboard relies on Dataset generated each time Recipe is executed.
- ❑ Recipe relies on OrgMonitoring custom object who is updated every day thanks to Apex Scheduled jobs.
- ❑ The best practice is to Schedule the synchronization of the SFDC_LOCAL_OrgMonitoring Connexion and the synchronization of the Recipe as soon as the connexion synchro is finished (Event-based)

The screenshot displays the Salesforce OrgMonitoring interface with two main panels:

Left Panel (Connections):

- Jobs Monitor
- Data Assets
- Recipes
- Usage
- Connections** (selected)
- Analytics Studio

All Connections section:

- SFDC_LOCAL**: Not Scheduled
- SFDC_LOC...**: Next Job 05/...
- Ma Dev Org**: Run Now
- Org Monito...**: Not Schedule
- Customer...**: Not Schedule

Schedule for "SFDC_L"

Schedule by: Week (selected)

Start at: 22:00 Europe/Paris

Run on: Sun, Mon, Tue, Wed, Thu, Fri, Sat

Right Panel (Recipes):

All Items section:

- 1 Item
- Name: Schedule for "OrgMonitoring"
- Schedule mode: Event-based (selected)
- Run Schedule After:
 - The Salesforce local connection syncs.
 - The selected recipes or dataflows run.
 - The Salesforce local connection syncs and the selected recipes or dataflows run.
- NOTE: Only the local connection sync determines if this run will occur. External connections don't trigger the run.

Buttons: Cancel, Save

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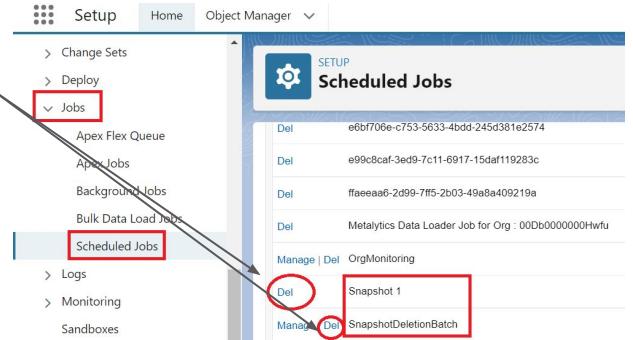
How to use OrgMonitoring



In order to uninstall the former version of the Eagles package

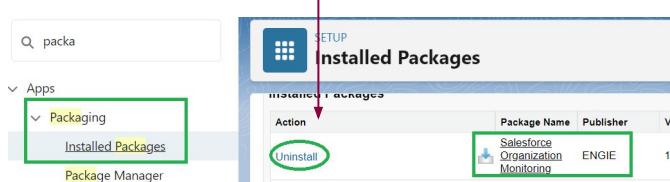
- Delete scheduled jobs snapshot1 and SnapshotDeletionBatch

In the setup, go to « scheduled jobs », look for « snapshot1 » and « SnapshotDeletionBatch », click delete

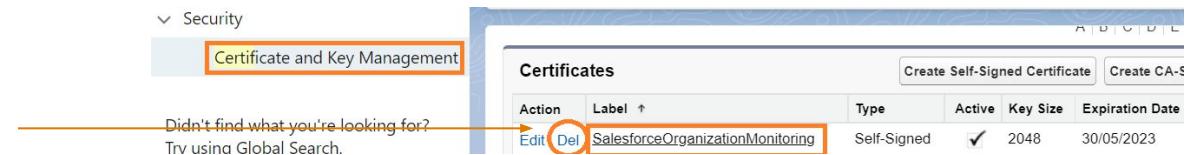


- Uninstall the package
- Delete the certificate

In the setup, go to « installed packages », search for « Salesforce Organization Monitoring », click on « uninstall »



In the setup, go to « Certificate and Keys Management », look for « SalesforceOrganizationMonitoring », click on del



OrgMonitoring Usage - Technical User creation



Configure the target Org: Create a technical user

- ❑ In order to connect your ORG with the central ENGIE IT, you must create a technical user (with a Salesforce license) with Administrator rights. This license is already provisioned by the Corp for free. It is included in your org.
 - ❑ If you already have this type of user, you can reuse it.

OrgMonitoring Usage

Configure your Org:

In the setup, go to “Connected App”

SETUP
Manage Connected Apps

Connected App Name
Opale

To publish an app, you need to be using a Developer Edition organization with a namespace prefix chosen.

Basic Information

Connected App Name: **Opale**
API Name: **Opale**
Contact Email: **vincent.lamiot@engie.com**
Contact Phone:
Logo Image URL: **Upload logo image or Choose one of our sample logos**
Icon URL: **Choose one of our sample logos**
Info URL:
Description:
Save Cancel

API (Enable OAuth Settings)

Enable OAuth Settings
Enable for Device Flow
Callback URL: **https://opale-engieit.my.salesforce.com/services/authcallback/Opale**
Use digital signatures

Available OAuth Scopes

Access Analytics REST API Charts Geodata resources (eclair_api)
Access Analytics REST API resources (wave_api)

Selected OAuth Scopes

Manage user data via APIs (api)
Perform requests at any time (refresh_token, offline_access)

Edit Policies

Connected App: OrgMonitoring ~ Salesforce - Developer Edition

System Info

Installed By: Salvatore Aversano
Last Modified By: Salvatore Aversano

Installed Date: 23/08/2022 04:25
Last Modified Date: 26/08/2022 05:14

Basic Information

Info URL
Start URL
Mobile Start URL

OAuth Policies

Permitted Users: All users may self-authorize
Usage: View OAuth Usage
Single Logout: Single Logout disabled
Application Permissions: Perform requests at any time
Manage user data via APIs

Pay extra attention to the Callback URL field:

- Typically this value is
“<https://opale-engieit.my.salesforce.com/services/authcallback/> <> my Domain value>>

SETUP
My Domain

My Domain Settings

Don't find what you're looking for? Try using Global search.

My Domain Details

Current My Domain ID: **My Domain Name**
Information does not yet pertain to user with enhanced domains.
Information does not yet pertain to user with enhanced domains.
Standard 7 (my enhanced name)
Domain suffix: Use enhanced domain

Version 1
Description

Help for this Page

Start URL
Mobile Start URL

IP Relaxation: Enforce IP restrictions
Refresh Token Policy: Refresh token is valid until revoked

OrgMonitoring Usage - Share following information with ENGIE IT



Configure the organization to monitor : **Your Org.**

- ❑ Share following values with Salesforce Central Org
 - ❑ The Callback URL configured in your Connected App
 - ❑ Consumer Key and the Consumer Secret of your Connected App (can be found via App Manager → View the new connected app created)
 - ❑ Share the username and password of the API user created
 - ❑ Share the Organization ID
 - ❑ Share Org Created Date
 - ❑ Share Domain Name





OrgMonitoring Usage

Configure the Salesforce Central Org: **Create Auth. Provider**

- ❑ Configure a new Auth. Provider as follow:
 - ❑ Provider Type : Salesforce
 - ❑ **Name:** The name of the target org to monitor
 - ❑ **Consumer Key:** The Consumer Key related to Connected App on target org
 - ❑ **Consumer Secret:** The Consumer Secret related to Connected App on target org
 - ❑ **Authorize Endpoint URL:**
https://<<Target_Org_My_Domain>>/services/oauth2/authorize
 - ❑ **Token Endpoint URL:** *https://<<Target_Org_My_Domain>>/services/oauth2/token*
 - ❑ **Default Scopes:** refresh_token api
 - ❑ **Registration Handler:** Automatically create a registration handler template

OrgMonitoring Usage



Configure the Salesforce Central Org: Create Auth. Provider

Auth. Provider Edit

Save Save & New Cancel

Provider Type	Salesforce
Name	Playground
URL Suffix	Playground
Consumer Key	3MVG9T46ZAw5GTfXJ
Consumer Secret	75DD1F7056A57A2F6E
Authorize Endpoint URL	https://curious-badger-naoyzb-dev-ed.my.salesforce.com/services/oauth2/authorize
Token Endpoint URL	https://curious-badger-naoyzb-dev-ed.my.salesforce.com/services/oauth2/token
Default Scopes	refresh_token api
Include Consumer Secret in API Responses	<input checked="" type="checkbox"/>
Custom Error URL	
Custom Logout URL	
Registration Handler	Registration handler template will be automatically created on save - Undo
Execute Registration As	Salvatore Aversano
Portal	--None--
Icon URL	Choose one of our sample icons

Save Save & New Cancel

OrgMonitoring Usage

Configure the Central Org: Named Credential

- ❑ Configure a new Named Credential as follow:
 - ❑ **Label:** Same value of the Auth. Provider created previously
 - ❑ **Name:** Same value of the Auth. Provider created previously
 - ❑ **URL:** `https://<<Target_Org_My_Domain>>`
 - ❑ **Identity Type:** Per User
 - ❑ **Authentication Protocol:** OAuth2.0
 - ❑ **Authentication Provider:** The Auth. Provider created previously
 - ❑ **Scope:** refresh_Token api
 - ❑ **Generate Authorization Header:** Checked
 - ❑ **Start Authentication Flow on Save:** Checked

OrgMonitoring Usage

Configure the Central Org: Named Credential



Named Credential: Playground

Specify the callout endpoint's URL and the authentication settings that are required for Salesforce to make callouts to the remote system.

[« Back to Named Credentials](#)

		Edit	Delete
Label	Playground		
Name	Playground		
URL	https://curious-badger-naoyzb-dev-ed.my.salesforce.com		
▼ Authentication			
Certificate			
Identity Type	<input checked="" type="radio"/> Per User		
Authentication Protocol	<input checked="" type="radio"/> OAuth 2.0		
Authentication Provider	Playground		
Scope	refresh_token api		
Administration Authentication Status	Authenticated as saversano@curious-badger-naoyzb.com		
▼ Callout Options			
Generate Authorization Header <input checked="" type="checkbox"/>			
Allow Merge Fields in HTTP Header <input type="checkbox"/>			
Allow Merge Fields in HTTP Body <input type="checkbox"/>			
Outbound Network Connection <input type="checkbox"/>			
External Data User Authentications			
No records to display			

OrgMonitoring Usage

Configure the Central Org: Insert a new record into **OrgToMonitor** Custom Metadata Type

- ❑ Go to Setup/ Custom Metadata Types
- ❑ Click on “Manage Records” on OrgToMonitor Label then click New
 - ❑ **Label:** Must have strictly the same name as corresponding Named Credential
 - ❑ **OrgToMonitor Name:** Same name of Label
 - ❑ **Ord ID :** The Org ID of target org
 - ❑ **Domaine Name:** The Domain Name of target org
 - ❑ **Country:** Country where target org is located
 - ❑ **DisplayObsoleteLoginUser :** Gather the UserId records for Obsolete Login User during extraction
 - ❑ **ObsoleteUserDelay:** The number of days since the last login of a user
 - ❑ **Version API:** the API version of Salesforce target org (typically the latest version)
 - ❑ **Business Unit:** The business unit of target org
 - ❑ **OrgCreatedDate:** The creation date when the target org has been created

OrgMonitoring Usage



Configure the Central Org: Insert a new record into OrgToMonitor Custom Metadata Type

SETUP

Named Credentials

Named Credential: Playground

Specify the callout endpoint's URL and the authentication settings that are required for Salesforce to make callouts to the remote system.

[« Back to Named Credentials](#)

		Edit	Delete
Label	Playground		
Name	Playground		
URL	https://curious-badger-naoyzb-dev-ed.my.salesforce.com		
Authentication			
Certificate			
Identity Type	Per User		
Authentication Protocol	OAuth 2.0		
Authentication Provider	Playground		
Scope	refresh_token api		
Administration Authentication Status	Authenticated as saversano@curious-badger-naoyzb.com		
Callout Options			
Generate Authorization Header	<input checked="" type="checkbox"/>		
Allow Merge Fields in HTTP Header	<input type="checkbox"/>		
Allow Merge Fields in HTTP Body	<input type="checkbox"/>		
Outbound Network Connection			
External Data User Authentications			
Action	User	Username	Authentication Protocol
Edit Del	Salvatore Aversano		OAuth 2.0



OrgMonitoring Usage

Configure the Central Org: Create an External Data User Authentication

- ❑ Click on your image avatar the Setup/ Authentication Settings for External Systems then click New.
 - ❑ **External System Definition:** Named Credential
 - ❑ **Named Credential:** The Named Credential value you create previously
 - ❑ **User:** The user used on to run Apex Extraction programs
 - ❑ **Authentication Protocol:** Oauth 2.0
 - ❑ **Start Authentication Status:** Checked
- ❑ Once you complete this configuration you must see the External Data User Authentication on the corresponding Named Credential

OrgMonitoring Usage

Configure the Central Org: Create an External Data User Authentication



Setup Home Object Manager

Quick Find

My Personal Information

Advanced User Details

Approver Settings

Authentication Settings for External Systems

Change My Password

Connections

Grant Account Login Access

Language & Time Zone

Login History

Personal Information

Reset My Security Token

Security Central

> Display & Layout

> Email

> Chatter

Authentication Settings for External Systems

Authentication Settings for External Systems

Set up user authentication for third-party systems or other Salesforce orgs.

Save Cancel

Authentication

External System Definition: Named Credential (dropdown menu)

Named Credential: Playground (dropdown menu)

User:

Authentication Protocol: OAuth 2.0 (dropdown menu)

Authentication Provider: Playground

Scope: refresh_token api

Authentication Status: Pending

Start Authentication Flow on Save:

Save Cancel

SETUP Named Credentials

Named Credential: Playground

Specify the callout endpoint's URL and the authentication settings that are required for Salesforce to make callouts to the remote system.

Back to Named Credentials

Label: Playground

Name: Playground

URL: https://curious-badger-naoyzb-dev-ed.my.salesforce.com

Save Delete

Authentication

Certificate:

Identity Type: Per User (radio button)

Authentication Protocol: OAuth 2.0 (radio button)

Authentication Provider: Playground

Scope: refresh_token api

Administration Authentication Status: Authenticated as saversano@curious-badger-naoyzb.com

Callout Options

Generate Authorization Header:

Allow Merge Fields in HTTP Header:

Allow Merge Fields in HTTP Body:

Outbound Network Connection:

External Data User Authentications

Action	User	Username	Authentication Protocol
Edit Del	Salvatore Aversano		OAuth 2.0

Troubleshooting



Troubleshooting

Apex Classes



Here after the list of all Apex classes used by OrgMonitoring. When needed you can uncomment part (or add comment) in which you need debug information.

SETUP Apex Classes

Percent of Apex Used: 0,65%
You are currently using 38 968 characters of Apex Code (excluding comments and @isTest annotated classes) in your organization, out of an allowed limit of 6 000 000 characters. Note that the amount in use includes both Apex Classes and Triggers defined in your organization.

Estimate your organization's code coverage ⓘ
Compile all classes ⓘ
View: All Create New View

Action	Name	Namespace Prefix	Api Version	Status	Size Without Comments	Last Modified By	Has Trace Flags
Edit Del Security	OrgMonitoringExtractLicenses		54,0	Active	10 306	Salvatore Aversano, 23/08/2022 16:31	<input type="checkbox"/>
Edit Del	OrgMonitoringExtractLicenses_Test		54,0	Active	820	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del Security	OrgMonitoringExtractLimits		54,0	Active	4 566	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del	OrgMonitoringExtractLimits_Test		54,0	Active	814	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del Security	OrgMonitoringExtractObsoleteUsers		54,0	Active	3 999	Salvatore Aversano, 23/08/2022 15:24	<input type="checkbox"/>
Edit Del	OrgMonitoringExtractObsoleteUsers_Test		54,0	Active	815	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del Security	OrgMonitoringExtractPackages		54,0	Active	3 539	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del	OrgMonitoringExtractPackages_Test		54,0	Active	820	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del Security	OrgMonitoringPurge		55,0	Active	1 143	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del	OrgMonitoringPurge_Test		55,0	Active	247	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del Security	OrgMonitoringQueueable		54,0	Active	2 421	Salvatore Aversano, 23/08/2022 14:55	<input type="checkbox"/>
Edit Del Security	OrgMonitoringQueueableRun		54,0	Active	1 327	Salvatore Aversano, 23/08/2022 15:23	<input type="checkbox"/>
Edit Del Security	OrgMonitoringQueueableRunner		54,0	Active	951	Salvatore Aversano, 23/08/2022 15:22	<input type="checkbox"/>
Edit Del	OrgMonitoringQueueableRunner_Test		54,0	Active	265	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>
Edit Del	OrgMonitoringQueueable_Test		54,0	Active	1 078	Salvatore Aversano, 23/08/2022 16:31	<input type="checkbox"/>
Edit Del Security	OrgMonitoringSchedule		54,0	Active	180	Salvatore Aversano, 22/08/2022 18:41	<input type="checkbox"/>

Show me fewer ▲ records per list page

Troubleshooting

Manually execute the extract

For All Orgs: ID jobID = System.enqueueJob(new OrgMonitoringQueueableRunner());

For one (or more) specific orgs:

```
List<String> orgs = new List<String>{'DevCoe'};
List<OrgToMonitor__mdt> lorgs = new List<OrgToMonitor__mdt>([SELECT DeveloperName, Org_Id__c, Label, Org_Name__c,
OrgCreatedDate__c, Country__c, Business_Unit__c, ObsoleteUserDelay__c, DisplayObsoleteLoginUsers__c, apiVersion__c FROM
OrgToMonitor__mdt WHERE DEVELOPERNAME IN :orgs]);
OrgMonitoringQueueableRun.oldRecords(orgs);
OrgMonitoringQueueable esync = new OrgMonitoringQueueable(lorgs);
System.enqueueJob(esync);
```

Execution Log		
Timestamp	Event	Details
10:09:20:011	USER_DEBUG	[52] DEBUG #### Processing Org: Playground
10:09:20:226	USER_DEBUG	[111] DEBUG #### There are 1 Obsolete Users on Playground ####
10:09:20:232	USER_DEBUG	[101] DEBUG #### Processing Licenses from User License ####
10:09:20:330	USER_DEBUG	[185] DEBUG #### Processing Licenses from Permission Set Licenses ####
10:09:20:471	USER_DEBUG	[32] DEBUG #### Processing Packages ####
10:09:20:564	USER_DEBUG	[23] DEBUG #### Processing Limits ####

Troubleshooting

Test the Connection to Target Org in Developer Console

```
HttpRequest req = new HttpRequest();
HttpResponse res = new HttpResponse();
req.setEndpoint('callout:Playground/services/data/v53.0/limits');
req.setMethod('GET');
req.setTimeout(120000);
system.debug('req.getEndpoint -----> ' + req.getEndpoint());
system.debug('req.getHeader -----> ' + req.getHeader('Authorization'));
system.debug('HTTP REQUEST BODY -----> ' + req.getBody());
Http http = new Http();
res = http.send(req);
system.debug('HTTP RESPONSE BODY -----> ' + res.getBody());
```

Execution Log

Timestamp	Event	Details
10:07:24:001	USER_INFO	[EXTERNAL] 00509000006s0Ux saversano@saversano-20210608.demo (GMT+02:00) Central European Summer Time (Europe/Paris) GMT+02:00
10:07:24:001	EXECUTION_ST...	
10:07:24:001	CODE_UNIT_ST...	[EXTERNAL] execute_anonymous_apex
10:07:24:002	USER_DEBUG	[8] DEBUG req.getEndpoint -----> callout:Playground/services/data/v53.0/limits
10:07:24:002	USER_DEBUG	[9] DEBUG req.getHeader -----> null
10:07:24:002	USER_DEBUG	[10] DEBUG HTTP REQUEST BODY ----->
10:07:25:031	USER_DEBUG	[14] DEBUG HTTP RESPONSE BODY -----> {"ActiveScratchOrgs":{"Max":3,"Remaining":3},"AnalyticsExternalDataSizeMB":{"Max":40960,"Remaining":40960}, "BOZ":}
10:07:25:038	CODE_UNIT_FI...	execute_anonymous_apex
10:07:25:039	EXECUTION_FI...	

Troubleshooting



Query the object OrgMonitoring__c

Select createddate, country__c, BusinessUnit__c, LicenseCategory__c, Type__c, Units__c, Name__c, OrgId__c, OrgName__c, Total__c, Used__c, Remaining__c, PercentUsed__c from OrgMonitoring__c where Latest__c = true order by createddate desc

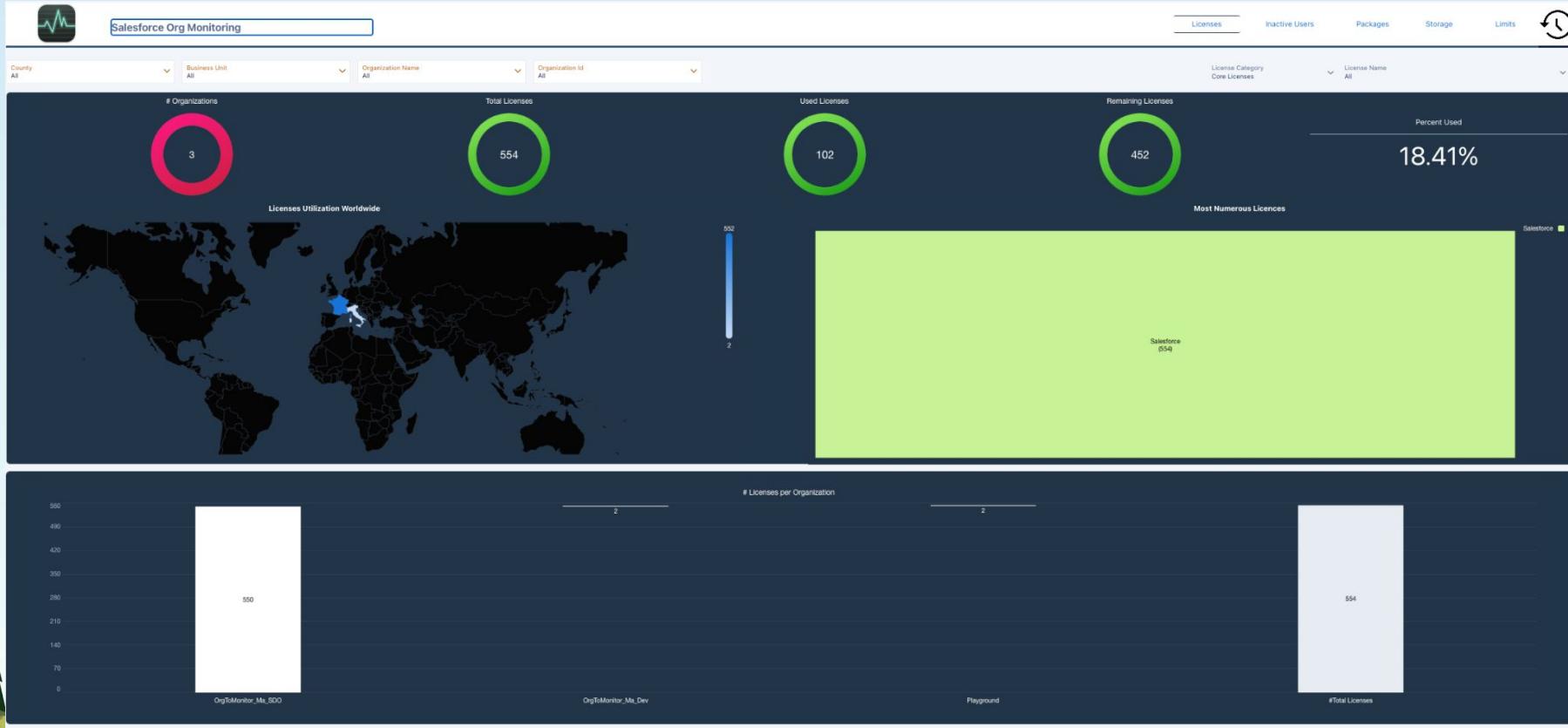
Select createddate, country_c, BusinessUnit_c, LicenseCategory_c, Type_c, Units_c, Name_c, OrgId_c, OrgName_c, Total_c, Used_c, Remaining_c, PercentUsed_c from OrgMonitoring_c where Latest_c = true order by createddate desc

Query Results - Total Rows: 497												
CreatedDate	Country__c	BusinessUnit__c	LicenseCategory__c	Type__c	Units__c	Name__c	OrgID__c	OrgName__c	Total__c	Used__c	Remaining__c	PercentUsed__c
2023-01-20T12:5...	Uruguay	B2B	Slack	License	PsetLicense	Slack Service User	00Dxxxxxxxxx	DevCoe	2855	0	2855	0
2023-01-20T12:5...	Uruguay	B2B	Other	License	PsetLicense	Enablement Sites ...	00Dxxxxxxxxx	DevCoe	170	0	170	0
2023-01-20T12:5...	Uruguay	B2B		Package	Unit	Knowledge Dashb...	00Dxxxxxxxxx	DevCoe	0	0	0	0
2023-01-20T12:5...	Uruguay	B2B		Subscription	Unit	Cloud Migration	00Dxxxxxxxxx	DevCoe	0	0	0	0

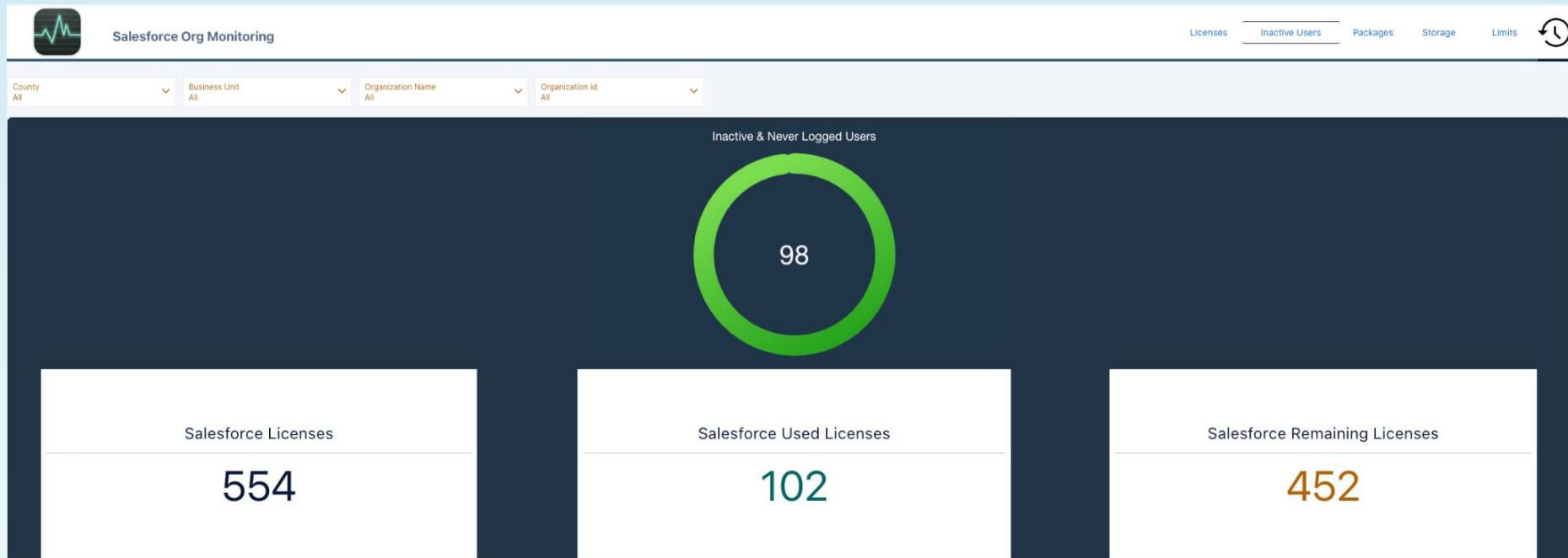
Appendix



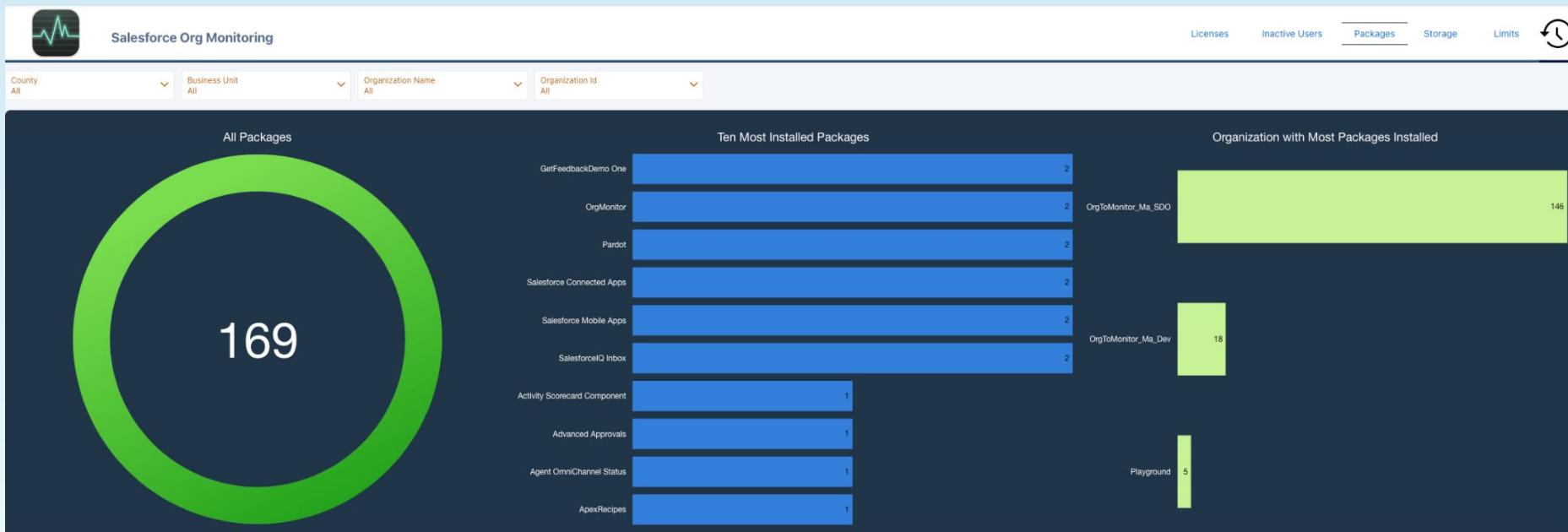
OrgMonitoring - Licenses



OrgMonitoring - Unused or inactives licences



OrgMonitoring - Packages licences



OrgMonitoring - Storage



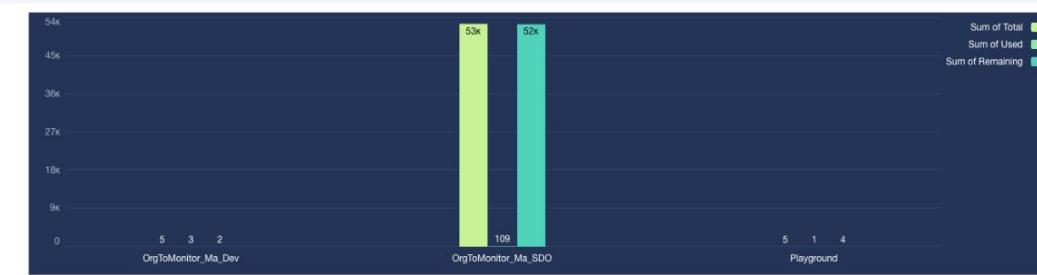
Salesforce Org Monitoring

County All Business Unit All Organization Name All Organization Id All

Licenses Inactive Users Packages Storage Limits



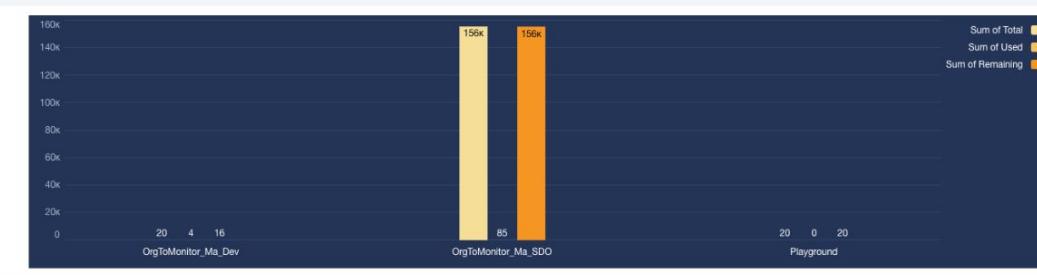
Data Storage (Mb)	
Total	52,600
Used	113
Remaining	52,487
Percent Used	0



Category	Sum of Total	Sum of Used	Sum of Remaining
OrgToMonitor_Ma_Dev	53k	109	52k
Playground	5	1	4

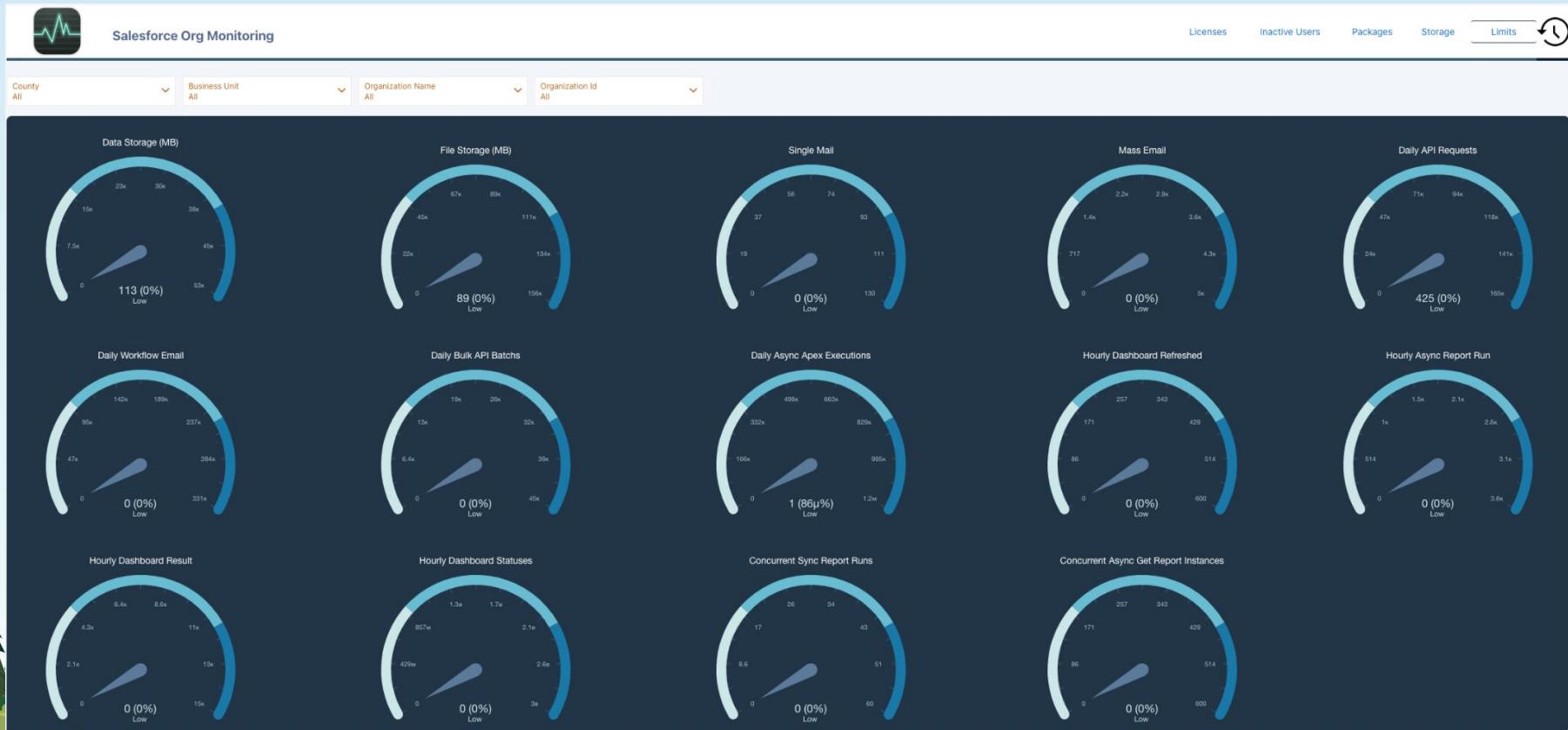


File Storage (Mb)	
Total	155,838
Used	89
Remaining	155,749
Percent Used	0



Category	Sum of Total	Sum of Used	Sum of Remaining
OrgToMonitor_Ma_Dev	156k	85	156k
Playground	20	0	20

OrgMonitoring - Limits



OrgMonitoring - Historical

