WFM Adapter

Configuration Guide

Contact center: Salesforce

WFM: Verint

Publish date: June 10, 2025

CX Optimized

Contents

1 About WFM Adapter

The WFM Adapter compiles relevant call center information from your Salesforce environment to provide you with reports on agent and queue activities (historical feed) and near real-time agent status updates (RTA feed) to support WFM system forecasting and intra-day management processes. Options are available to customize which data is collected, how often, and how it is delivered.

Important:

- The roles selected during installation are assigned the *WFM Adapter User* permission, thereby licensing the users and defining what data the WFM Adapter can access via the installed Salesforce package.
- The WFM Adapter package has a limit of 5,000 licensed users.
- Monitored public groups and queues must only contain licensed users.
- Salesforce users that *do not* have the *WFM Adapter User* permission are considered unlicensed and will not appear on agent related reports or the RTA feed.

1.1 Setup overview

The WFM Adapter has the below items to configure:

1. **Salesforce AppExchange package**

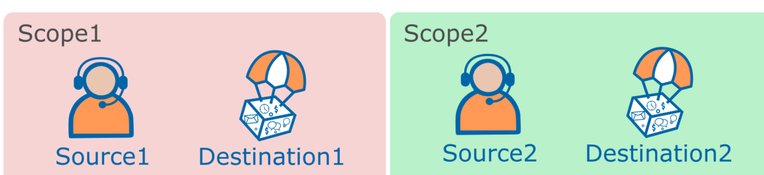
   The Salesforce package provides the permissions and console utility to allow the WFM Adapter to capture the desired interactions from your contact center.

2. **WFM Adapter**

   The WFM Adapter is comprised of a browser-based user interface to configure reporting needs and an additional reporting client application installed locally to communicate with the WFM system.

   Note: Not all WFM systems require the WFM reporting client to be installed locally.

   Scope: This is a container for the Source and Destination settings for each Salesforce environment. You can add additional scopes to manage multiple organizations, such as production and lab environments, or Canada and US environments.



   - **Source**: This generates the credentials required to configure the Salesforce package. This connection determines what data comes across from your Salesforce environment.

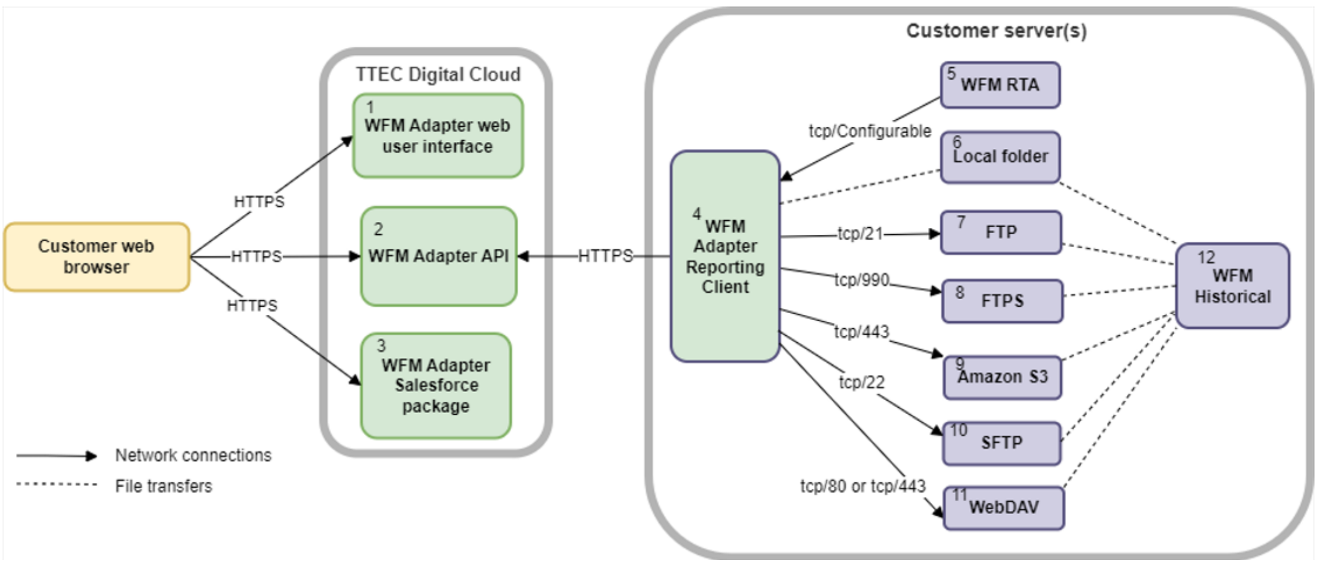
- **Destination**: This contains all the configuration for your reporting needs. The destination sends reports and real-time data to your workforce management system. Multiple destinations may be configured within the same scope to send data to multiple WFM systems, if required.

3. **WFM System**: Configuration is required in your WFM system to connect the RTA feed.

1.2 Network configuration

Setup of the adapter is dependent on the WFM system in use. Follow the provided architecture diagram for your environment to identify the components that require firewall access. Refer to *WFM Adapter URLs to allow* and *Reporting client server ports* for additional detail.

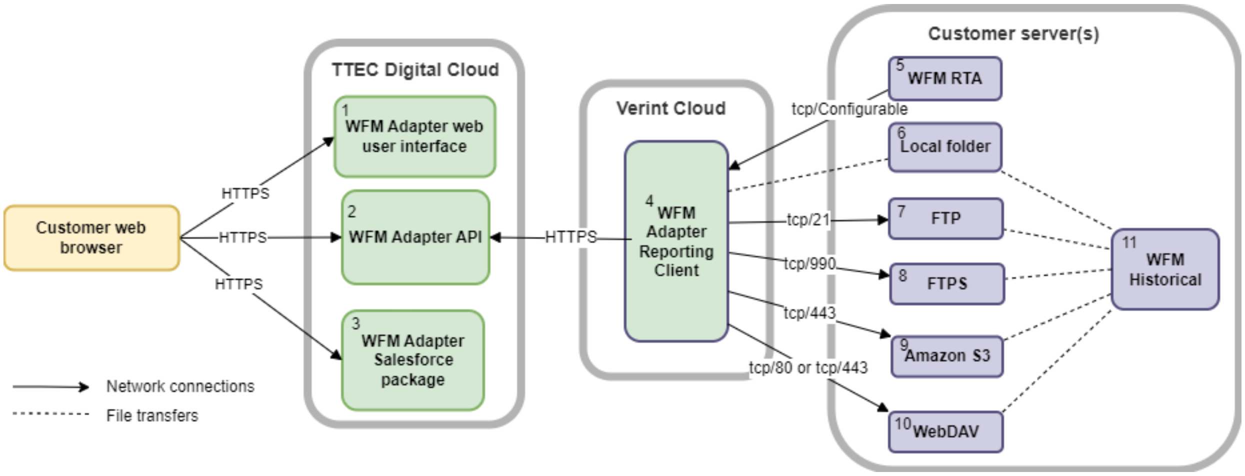
1.2.1 Verint premise



Item	Component	Description
1	WFM Adapter web user interface	Accesses the WFM Adapter web resource files to configure adapter settings.
2	WFM Adapter API	Collects information from Salesforce and sends RTA and historical feeds to the Reporting Client.
3	WFM Adapter Salesforce package	The package sends data from Salesforce to the WFM Adapter API.
4	WFM Adapter Reporting client	Sends RTA status to the WFM RTA. Sends historical reports to one or more locations specified by the customer (items 6 - 10).
5	WFM RTA	Receives and processes RTA states.
6	Local folder	(Optional) Reports can be sent to a folder local to the installed Reporting client.
7	FTP	(Optional) Historical Reports can be sent to an FTP server.
8	FTPS	(Optional) Historical Reports can be sent to an FTPS server.
9	Amazon S3	(Optional) Historical Reports can be sent to an Amazon S3 bucket.

Item	Component	Description
10	SFTP	(Optional) Historical Reports can be sent to an SFTP server.
11	WebDAV	(Optional) Historical Reports can be sent to a WebDAV server.
12	WFM Historical	Configured as required to retrieve reports from the available outputs.

1.2.2 Verint cloud



Item	Component	Description
1	WFM Adapter web user interface	Accesses the WFM Adapter web resource files to configure adapter settings.
2	WFM Adapter API	Collects information from Salesforce and sends RTA and historical feeds to the Reporting Client.
3	WFM Adapter Salesforce package	The package sends data from Salesforce to the WFM Adapter API.
4	WFM Adapter Reporting client	Sends RTA status to the WFM RTA. Sends historical reports to one or more locations specified by the customer (items 6 - 10).
5	WFM RTA	Receives and processes RTA states.
6	Local folder	(Optional) Reports can be sent to a folder local to the installed Reporting client.
7	FTP	(Optional) Historical Reports can be sent to an SFTP server.
8	FTPS	(Optional) Historical Reports can be sent to an FTPS server.
9	Amazon S3	(Optional) Historical Reports can be sent to an Amazon S3 bucket.
10	WebDAV	(Optional) Historical Reports can be sent to a WebDAV server.
11	WFM Historical	Configured as required to retrieve reports from the available outputs.

1.3 WFM Adapter URLs to allow

The following URLs are used to send and receive data from the WFM Adapter. To avoid firewall barriers, add the URLs to the network allowlist.

Region	Description	URL
Asia Pacific	WFM Adapter User Interface	https://wfm-ap.ariacec.com
	WFM Adapter API	https://wfm-api-ap.ariacec.com
	Amazon Cognito Identity Provider	https://cognito-idp.ap-southeast-2.amazonaws.com
	WFM Adapter Authentication	https://wfm-auth-ap.ariacec.com
Canada	WFM Adapter User Interface	https://wfm-ca.ariacec.com
	WFM Adapter API	https://wfm-api-ca.ariacec.com
	Amazon Cognito Identity Provider	https://cognito-idp.ca-central-1.amazonaws.com
	WFM Adapter Authentication	https://wfm-auth-ca.ariacec.com
Europe	WFM Adapter User Interface	https://wfm-eu.ariacec.com
	WFM Adapter API	https://wfm-api-eu.ariacec.com
	Amazon Cognito Identity Provider	https://cognito-idp.eu-west-1.amazonaws.com
	WFM Adapter Authentication	https://wfm-auth-eu.ariacec.com
North America	WFM Adapter User Interface	https://wfm-na.ariacec.com
	WFM Adapter API	https://wfm-api-na.ariacec.com
	Amazon Cognito Identity Provider	https://cognito-idp.us-east-1.amazonaws.com
	WFM Adapter Authentication	https://wfm-auth-na.ariacec.com

1.4 WFM Adapter IPs to allow

If required, add the regional IP to your network allowlist.

Region	IP
Asia Pacific	52.65.184.190
Canada	3.96.111.104
Europe	52.212.134.244
North America	18.213.73.46

1.5 Reporting client server ports

The following features require firewall access through the identified ports for the WFM Adapter Reporting client application to operate successfully:

Direction	To/From	Port
Outgoing	WFM Adapter API URL	tcp/443
	FTP	tcp/21 (default; also configurable)
	FTPS	tcp/990 (default; also configurable)
	Amazon S3	tcp/443
	SFTP	tcp/22 (default; also configurable)
	WebDAV	tcp/80 or tcp/443 **Note:** tcp/80 is not secure
Incoming	Verint RTA	Configurable

2 Accessing WFM Adapter

2.1 Request user account

Contact TTEC Digital Support team to request a new user account.

- If the user account is for an organization that uses single sign-on, include the organization name.
- If first time requesting an account for a single sign-on organization, see *Configure SSO providers* for more information.

Note: The temporary password provided is active for 30 days. If you do not log in and change your password within the 30 days, you can submit a password change request through TTEC Digital Support team. Temporary passwords are not authorized to install the reporting client.

Tip: Passwords must contain at least 12 characters, a number, a symbol, and both upper and lowercase letters.

2.2 Access WFM Adapter directly

To access WFM Adapter directly in your browser, use the direct URL for your region.

WFM Adapter Region	URL
Asia Pacific	https://wfm-ap.ariacec.com
Canada	https://wfm-ca.ariacec.com
Europe	https://wfm-eu.ariacec.com
North America	https://wfm-na.ariacec.com

2.3 Sign in to WFM Adapter

Follow the below steps to Sign in to WFM Adapter:

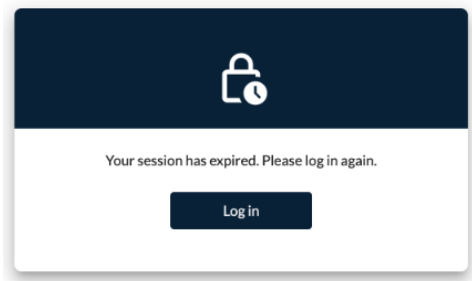
1. Enter your Username. Click **Continue**.

   Notes:

   - If applicable, SSO users are presented with their provider's login screen.
   - Non- SSO users are presented with the Sign-in screen.

2. Enter username and password. Click **Sign in**.

Note: Login sessions expire after 24 hours of inactivity. Upon expiry, a message is displayed with the login button to sign in.

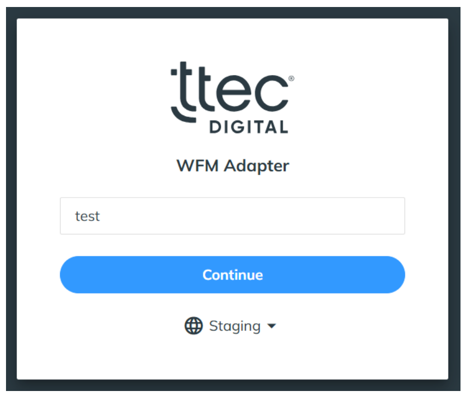


2.3.1 Forgot password

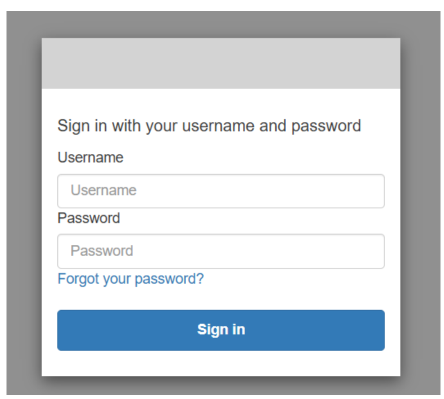
Important: The password reset process is managed by your identity provider and may vary depending on the authentication service in use. To reset your password, contact your internal administrator or IT support team.

Below is the example for non-SSO users:

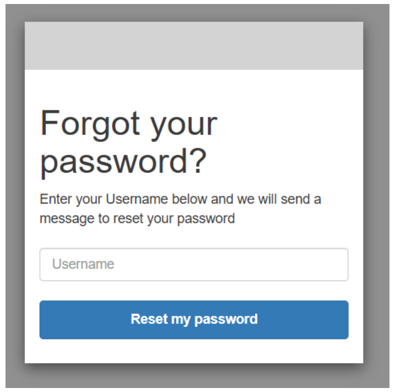
1. Enter your Username, and click **Continue**.



2. From the Sign in screen, click **Forgot your password?**.

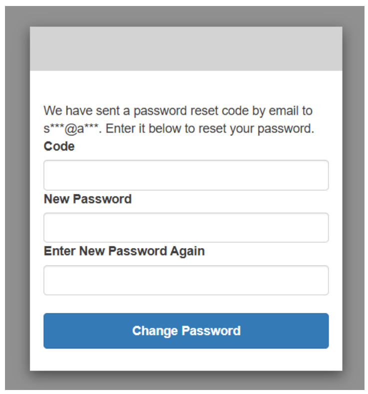


3. Enter your username, and click **Reset my password**.



Result: You will receive an email containing a verification code. If you do not receive the email, check a spam folder.

4. Enter your new password and the verification code received by email.



5. Click **Change password**.

Result: You are returned to the Sign in screen to use your new password.

2.3.2 Log out

To log out, click **Logout** icon in the application header.

2.4 Navigation tools

Tools	Description
	Online Help; click for product documentation, including release notes and configuration guide.
	Deletes element.
	The Pencil icon is to indicate any unsaved changes.
	Element is disabled.
	Element is enabled.
	Logs out of the page.

3 WFM Adapter: set up a Scope

Each Salesforce organization requires its own scope. You may add additional scopes to manage multiple organizations, such as production and lab environments, or Canada and US environments. Additional scopes may also be used to manage the amount of licensed users per scope.

Note: The WFM Adapter has a limit of 5,000 licensed users per scope.

Scopes are managed from the scope drop-down menu on the top navigation bar:

Begin configuring a scope by selecting it the from drop-down menu. This drop-down menu displays the name of the scope you currently have selected.

3.1 Manage a scope

To edit a scope name:

1. Click the drop-down arrow next to the scope menu.
2. The active scope is indicated by the green bar next to it.
3. Select **Manage scope**.

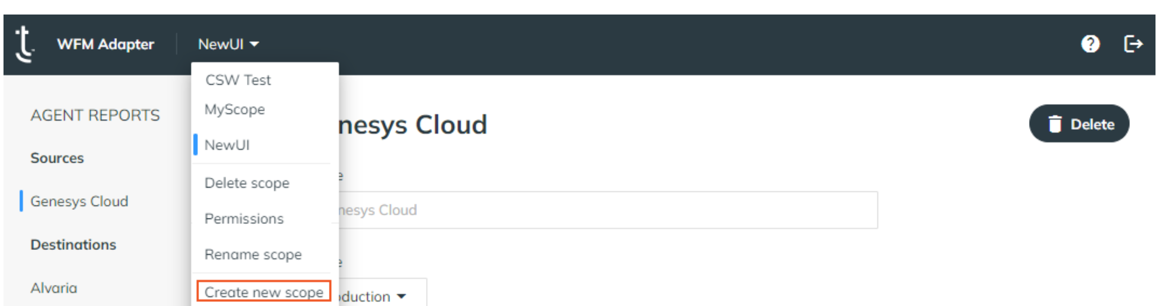
4. Edit the name field presented and click **Save**.

   Result: WFM Adapter refreshes and displays the new scope name.

3.2 Create a new scope

When you require an additional scope:

1. Click the drop-down arrow next to scope menu and select **Create new scope**.



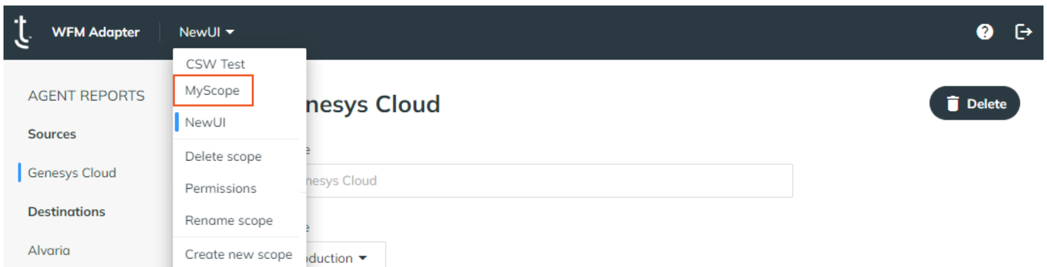
2. Enter a unique name for this new scope and click **Create**.

   Result: WFM Adapter refreshes and displays the newly created scope.

3.3 Switching scopes

Once multiple scopes are created, you can change between them:

1. Click the drop-down arrow next to scope menu.
2. The active scope is indicated by the green bar next to it. Select the name of another scope.



   Result: WFM Adapter refreshes and displays the selected scope.

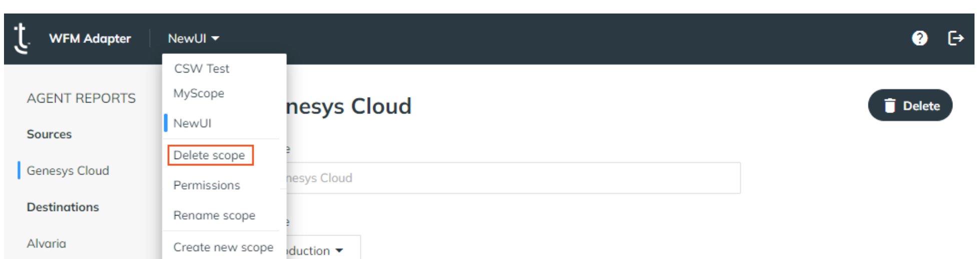
Note: Upon logging in to WFM Adapter, the display defaults to the last accessed scope when using the same browser.

3.4 Delete a scope

To completely remove a scope and all its contents (this cannot be reversed):

Note: The Delete scope option is only available when there is more than one scope available in the environment. You may edit the existing scope or, if preferred, create a new scope with desired configuration and return to delete the unwanted scope.

1. Click the drop-down arrow next to the scope menu.
2. Select the scope you intend to delete.
3. Click **Delete scope**.



4. Confirm removal of the scope.

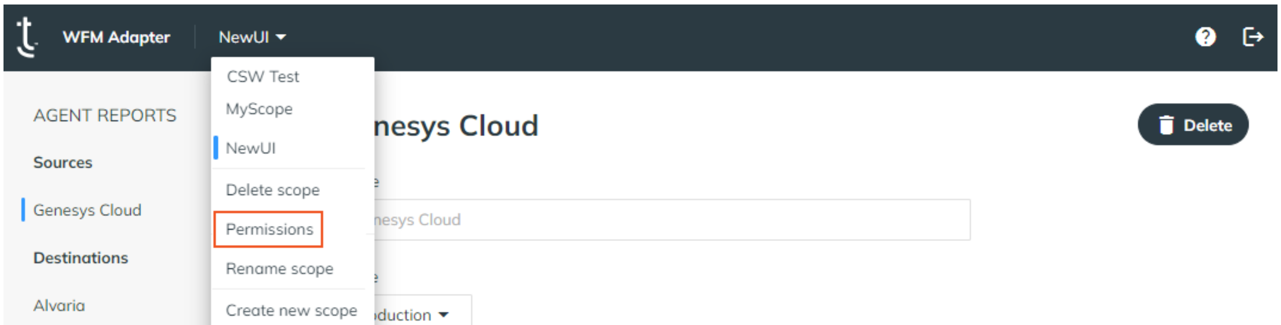
   Result: WFM Adapter refreshes and displays the next available scope.

3.5 Scope permissions

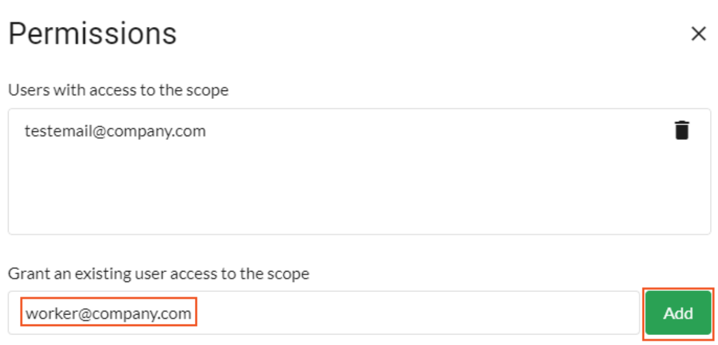
Access to scopes created with your user login can be shared with your business's other WFM Adapter users.

Note: Users must first be created by TTEC Digital Support team. See *Request user account*.

1. Click the drop-down arrow next to the scope menu.
2. If required, select the scope for which you would like to edit permissions.
3. Click **Permissions**.



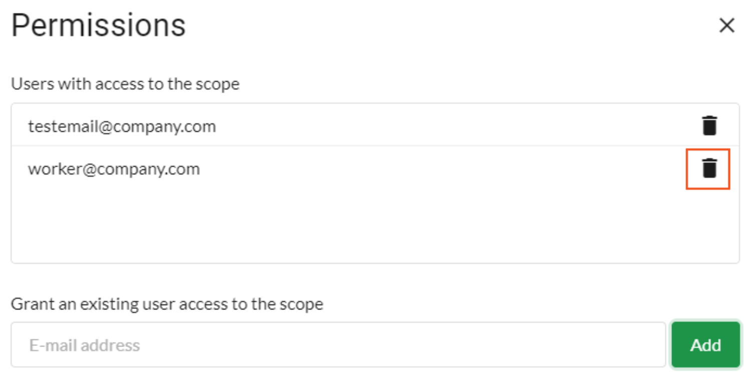
4. Enter the email address of a fellow WFM Adapter administrator and click **Add**.



Result: The *Users with access to the scope* section updates to show the added user with access to this particular scope (in addition to yourself).

5. To remove access to this particular scope for a user, click the trash icon next to the user's email.

   Note: Access cannot be removed from yourself (i.e., your current login).


Permissions
Users with access to the scope
testemail@company.com
worker@company.com
Grant an existing user access to the scope
E-mail address
Add

4 Salesforce: package configuration

The Salesforce package provides the WFM Adapter settings and permissions to your specified users in order to capture their interactions from your contact center and report on them.

Prerequisites

You must have the System Administrator profile or a profile with the following permissions to proceed with installation and configuration:

- `Download AppExchange Packages`
- `Customize Application`

For help installing a package, see Salesforce's documentation, [https://help.-salesforce.com/articleView?id=distribution_installing_packages.htm](https://help.salesforce.com/articleView?id=distribution_installing_packages.htm).

4.1 Install Salesforce package

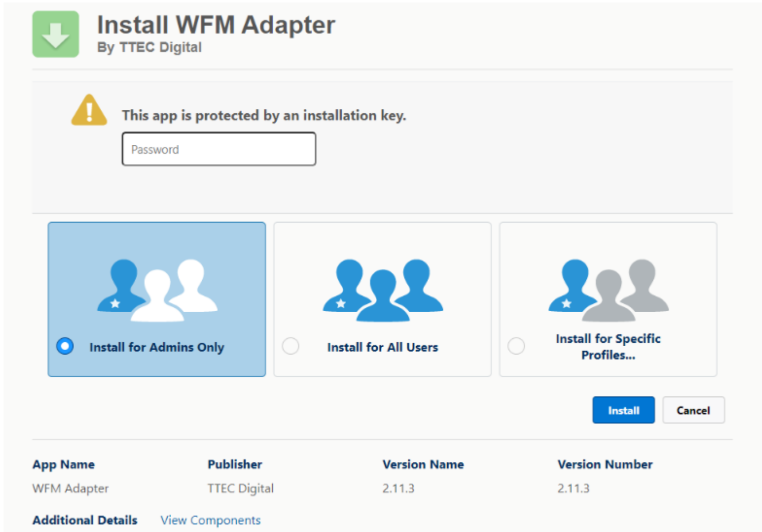
The most recent Salesforce package link is published on the *WFM Adapter Documentation* website: https://wfm-doc.ariacec.com/salesforce.

Important:

- Keep a copy of the package link for future reference to ensure the same version is installed in both your sandbox and production environments. The package link published on our documentation site is updated when a new version is released.
- If installing into a sandbox, change the domain name of the link to the sandbox install URL (e.g., **test.**salesforce.com).
- WFM Adapter for Salesforce does not support running concurrently in multiple browser windows or browser tabs.

In a second browser window, go to the Salesforce package link:

1. Enter your username and password for the Salesforce organization in which you want to install the package.
2. Enter the install password provided above and select your preferred installation method. **Install for Admins Only** or **Install for Specific Profiles** is suggested.



3. When installation is complete, click **Done**.

4.2 Assign permissions

There are three types of users that require one of the designated permission sets provided by the WFM Adapter Salesforce package. Additionally, administrator and outbound message sender users need to be verified to ensure they have the identified Salesforce system permissions.

User	Permission set	Additional system permissions	Function
Administrators	WFM Adapter Admin	Customize Application Modify Metadata Through Metadata API Functions	Provides access to WFM Adapter Configuration App
Agents	WFM Adapter User	Send Outbound Messages	User activity is reported on by the WFM Adapter
Outbound message sender	WFM Adapter Outbound Messages	Send Outbound Messages	System user to send outbound messages to the WFM Adapter API

4.2.1 Assign administrator permissions

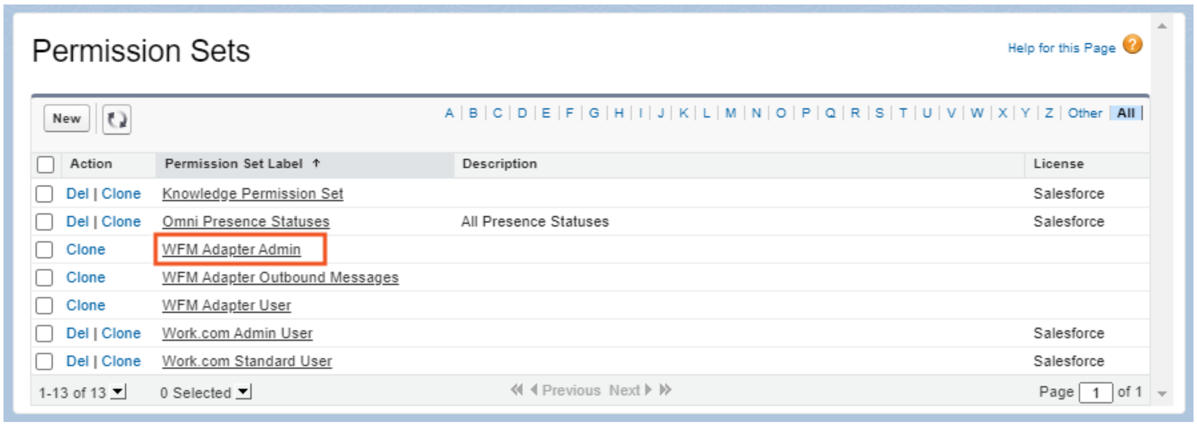
To ensure users responsible for administering the Salesforce package have access to the WFM Adapter Configuration App, they require the following permissions:

Permission	Type	Instructions
WFM Adapter Admin	Permission set provided by the WFM Adapter package	See *Assign WFM Adapter Admin permission set*
Customize Application	Salesforce system permission	See *Verify additional system permissions*
Modify Metadata Through Metadata API Functions	Salesforce system permission	

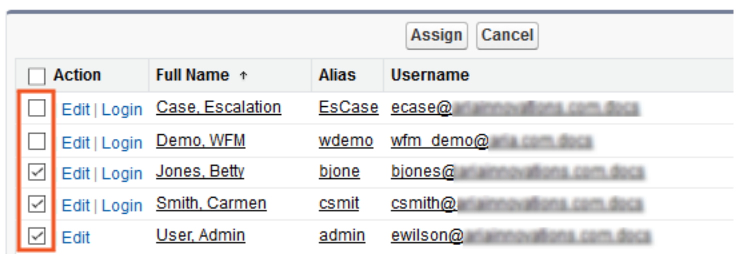
Assign WFM Adapter Admin permission set

Assign the `WFM Adapter Admin` permission set to users that will be administering the Salesforce package.

1. From setup using the Quick Find box, search for and select **Permission Sets**.
2. Click on the **WFM Adapter Admin** permission set.



3. Click **Manage Assignments**.
4. Click **Add Assignments**.
5. Select the user(s) you want to receive the permission set.



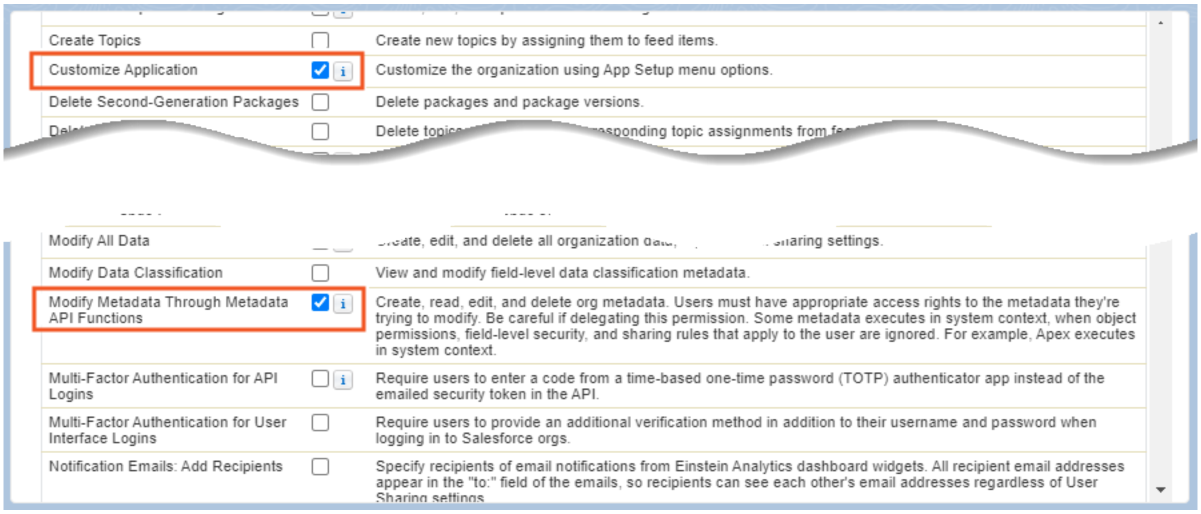
6. Click **Assign** and then **Done**.

Verify additional system permissions

Ensure the administrators have the following system permissions in their user profile:

- `Customize Application`
- `Modify Metadata Through Metadata API Functions`

Note: These permissions are part of the System Administrator profile and may already be assigned to some users.



Once added, the following permissions are automatically added as well:

- View Setup and Configuration
- Manage Custom Permissions
- View Roles and Role Hierarchy

These permissions can be assigned to an existing profile or you may create a new permission set. See https://help.salesforce.com/articleView?id=sf.perm_sets_system_perms.htm.

4.2.2 Assign agent permissions

All agents to be included in reporting must be provided permission to be tracked by the User Monitor component. This ensures all events for the agent are monitored. Without these permissions, agent activity will not appear.

Note: If the permission is removed from an active user, they may appear in the RTA feed with the *Unknown* state.

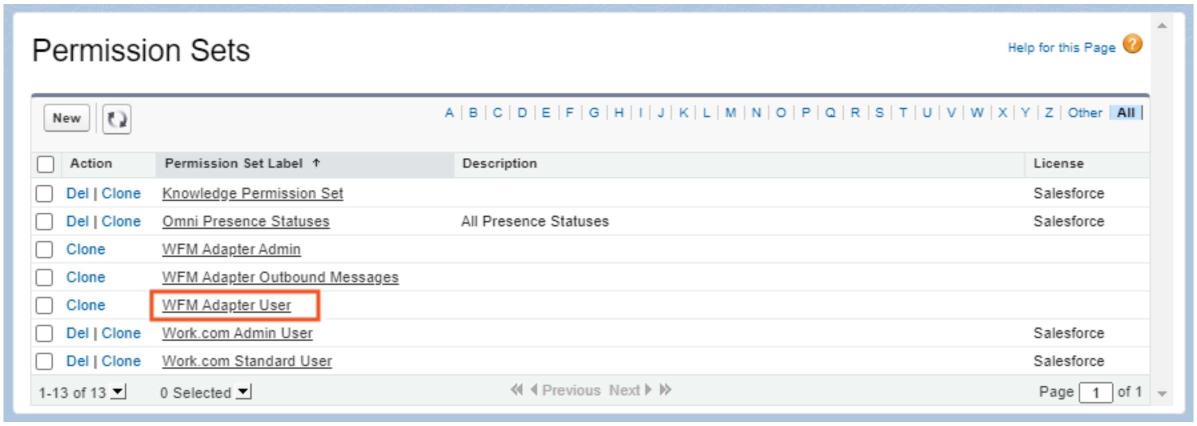
Agents require the following permissions:

Item	Type	Instructions
WFM Adapter User	Permission set provided by the WFM Adapter package	See *Assign WFM Adapter User permission set*
Send Outbound Messages	Salesforce system permission	See *Verify Send Outbound Messages system permission*

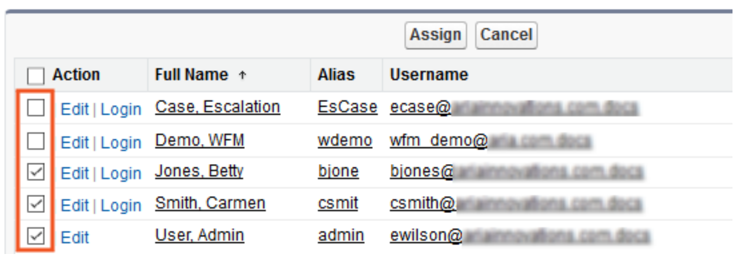
Assign WFM Adapter User permission set

Assign the `WFM Adapter User` permission set to all desired agents:

1. From setup using the Quick Find box, search for and select **Permission Sets**.
2. Click on the **WFM Adapter User** permission set.



3. Click **Manage Assignments**.
4. Click **Add Assignments**.
5. Select the user(s) you want to receive the permission.

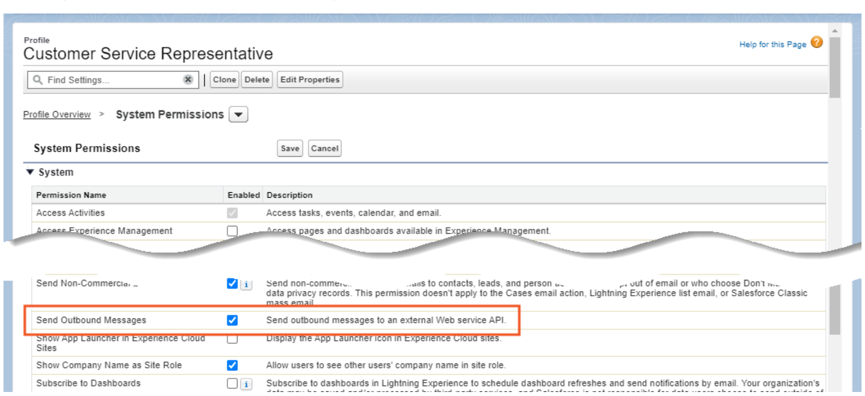


6. Click **Assign** and then **Done**.

Verify *Send Outbound Messages* system permission

Ensure agents have the `Send Outbound Messages` system permission in their user profile. This permission is part of the Standard User profile and may already be assigned to some users.

Important: If using a custom profile or permission set for your agents, the `Send Outbound Messages` system permission may need to be manually added.



See https://help.salesforce.com/articleView?id=sf.perm_sets_system_perms.htm.

4.2.3 Assign package outbound message user

Salesforce Workflow Outbound Messages are used to transfer the created custom objects to the WFM Adapter API. A Salesforce user is configured to send these messages.

Note: The configuration defaults to the user that installed the package. A different user may be selected. We recommend you *Assign package outbound message user* first.

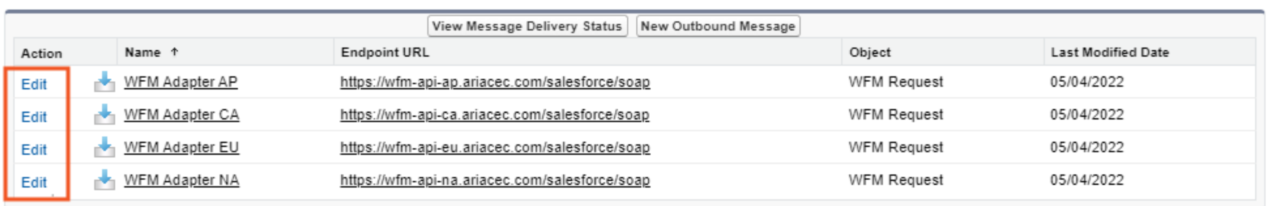
This user also requires the following permissions:

Item	Type	Instructions
WFM Adapter Outbound Messages	Permission set provided by the WFM Adapter package	See *Assign WFM Adapter Outbound Messages permission set*
Send Outbound Messages	Salesforce system permission	See *Verify Send Outbound Messages system permission*

Verify or edit the assigned outbound message user

Verify or change the designated user that will send outbound messages on behalf of the package:

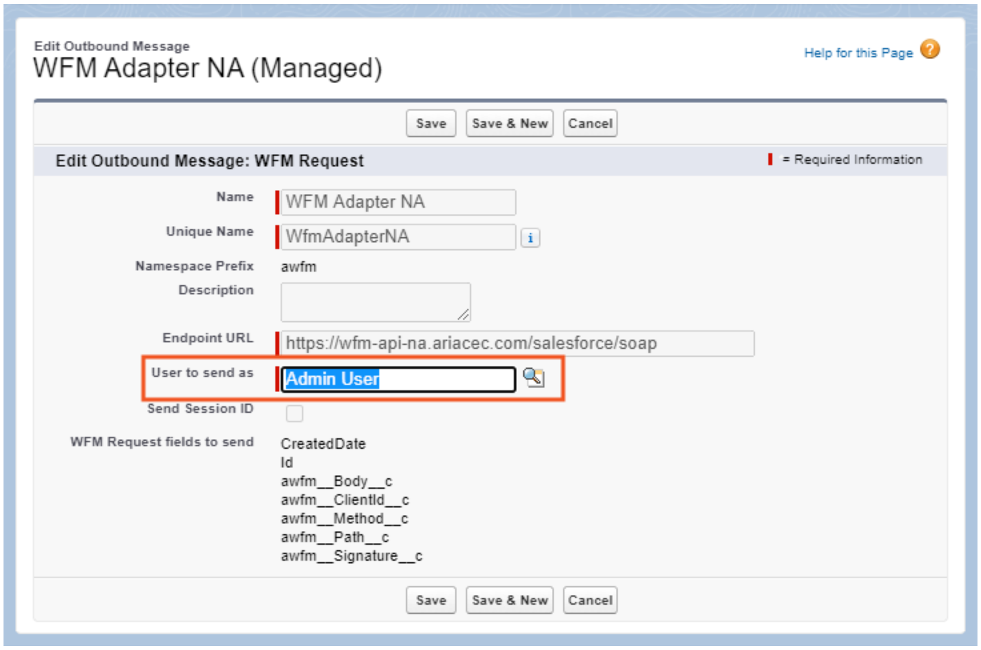
1. From setup using the Quick Find box, search for and select **Outbound Messages** from the *Process Automation* > *Workflow Actions* section.
2. Click **Edit** next to the WFM Adapter region that aligns with your WFM Adapter Source credentials.



View Message Delivery Status | New Outbound Message

Action	Name ↑	Endpoint URL	Object	Last Modified Date
Edit	WFM Adapter AP	https://wfm-api-ap.ariacec.com/salesforce/soap	WFM Request	05/04/2022
Edit	WFM Adapter CA	https://wfm-api-ca.ariacec.com/salesforce/soap	WFM Request	05/04/2022
Edit	WFM Adapter EU	https://wfm-api-eu.ariacec.com/salesforce/soap	WFM Request	05/04/2022
Edit	WFM Adapter NA	https://wfm-api-na.ariacec.com/salesforce/soap	WFM Request	05/04/2022

3. In the **User to send as** field, verify or select the configured user.

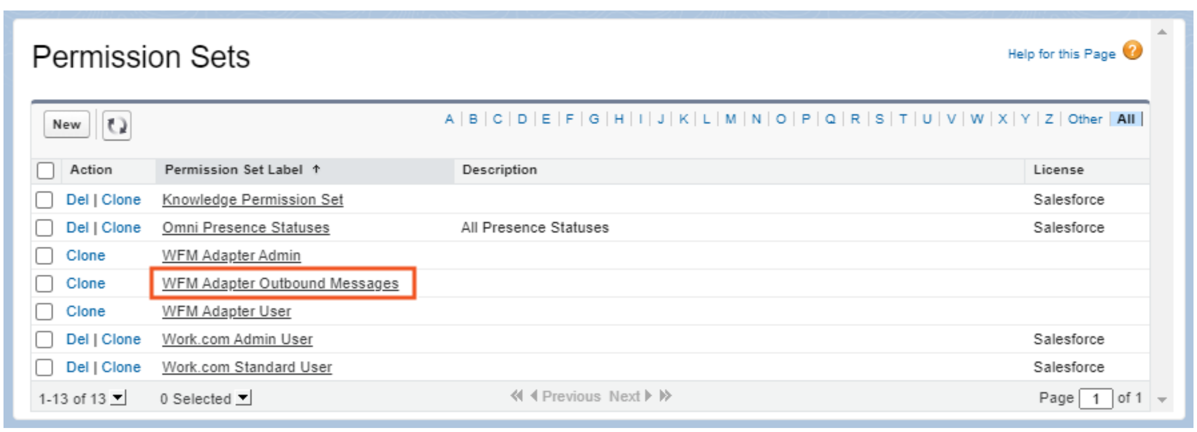


4. Click **Save**.

Assign WFM Adapter Outbound Messages permission set

Assign the `WFM Adapter Outbound Messages` permission set to the preferred outbound message user established in the previous section.

1. From setup using the Quick Find box, search for and select **Permission Sets**.
2. Click on the **WFM Adapter Outbound Messages** permission set.



3. Click **Manage Assignments**.
4. Click **Add Assignments**.
5. Select the user you want to receive the permission set.
6. Click **Assign** and then **Done**.

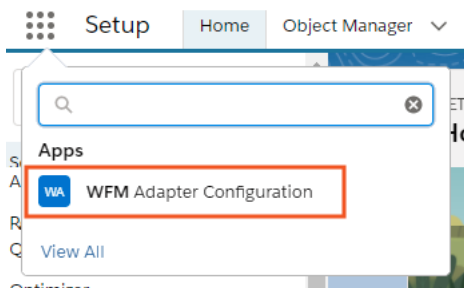
Verify *Send Outbound Messages* system permission

Ensure the outbound message user established above has the `Send Outbound Messages` system permission in their user profile.

This permission can be assigned to an existing custom profile or you may create a new permission set or group. See https://help.salesforce.com/articleView?id=sf.perm_sets_system_perms.htm.

4.3 Configure WFM Adapter app settings

To configure, go to the App Launcher and locate the **WFM Adapter Configuration** App.



Integration Settings

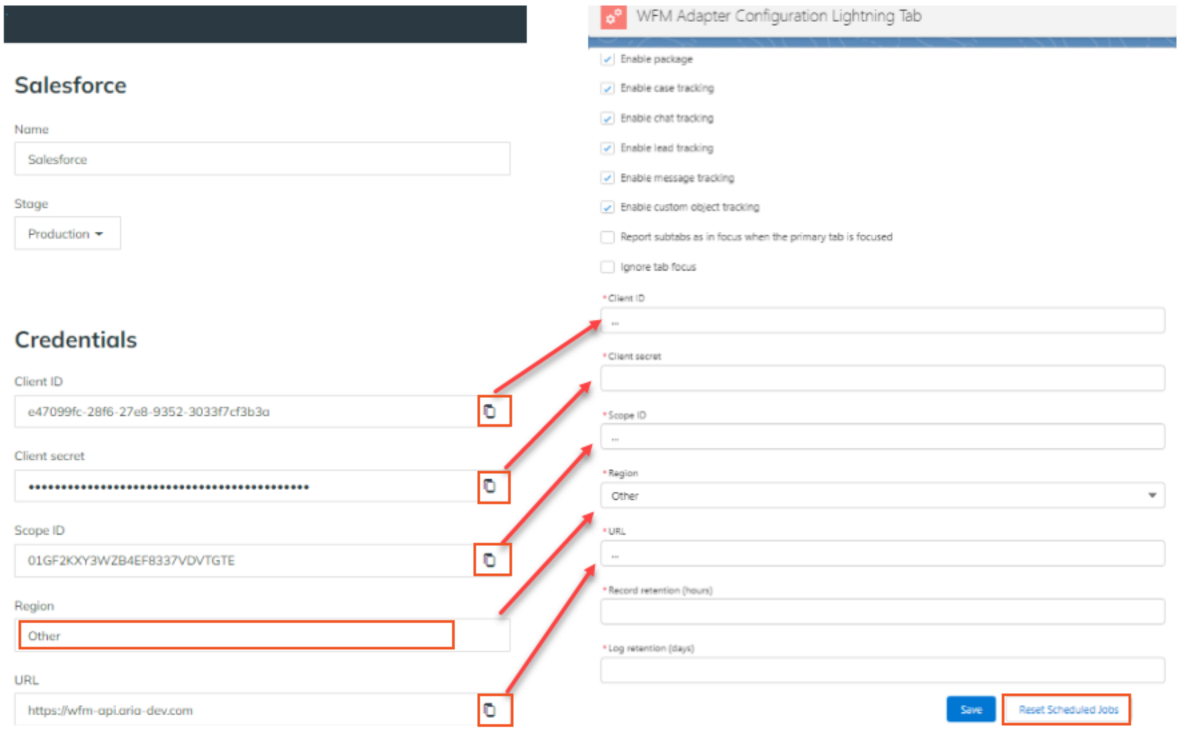
1. Enable the configuration options as required:

Feature	Description
Enable package	Enables the WFM Adapter package and creates the required scheduled jobs.
Enable case tracking	Provides reporting of cases.
Enable chat tracking	Provides reporting of chats.
Enable lead tracking	Provides reporting of leads.
Enable message tracking	Provides reporting of messages.
Enable custom object tracking	Provides reporting of custom objects.
Report subtabs as in focus when the primary tab is focused	Enable to have **subtabs** considered focused when the primary tab is focused. For complete details on reporting of Salesforce tabs, see *Verint WFM RTA & Historical Reports Guide > Configuration impacts*.
Ignore tab focus	Enable to track **handle time based on work status** instead of focus time. When an `AgentWork` record is in `Opened` status, time is reported as `Handle`. Exception: chats after the customer has left, report time as `Work`. **Note:** This option is read by the agent browser when the page is initially loaded; if the option is changed, the previous value will be used until the agent's next log in.

2. Using your WFM Adapter Source page credentials (created in *Create a Source*), click the copy icon for the **Client ID**, **Client Secret**, **Scope ID**, and **URL** fields and paste the details to the corresponding fields on the configuration page.
3. **Region**: Select the same region identified in your WFM Adapter Source page credentials.

4. **Record retention (hours)**: 24

   Custom object records are generated and sent to the WFM Adapter API using Workflow Outbound Messages. The default retention setting of 24 hours aligns with the Salesforce outbound message retry limit. If there are concerns with your Salesforce org's custom object storage limits, this retention time may be decreased to release custom object space sooner.



5. **Log retention(days)**: 7

   Custom logging object records are generated and sent to the WFM Adapter API using Workflow Outbound Messages/ Triggers. It facilitates support for any issues. The default retention setting holds the logs for 7 days and deletes it later.

6. Click **Save**.

7. **Reset Scheduled Jobs**: The Reset Scheduled Jobs removes and recreates the scheduled Jobs used by the WFM Adapter package. The button is enabled only when the **Enable Package** box is checked and the configuration has been saved.

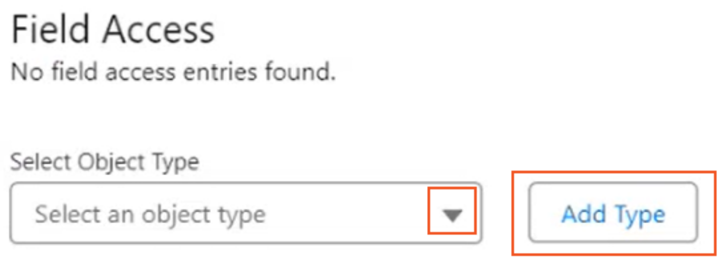
Field Access

Salesforce admin can now configure Field Access on any supported objects (Case, Chat, Email, Lead, Custom object), which will specify the field(s) to be attached as a property to a work item.

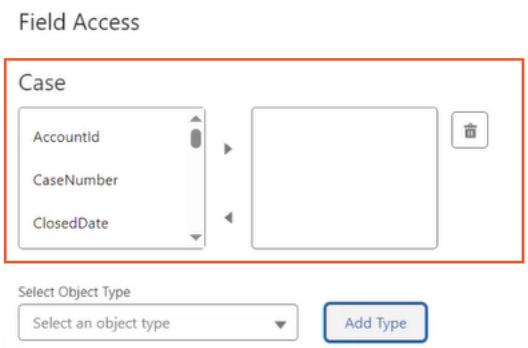
Important: The field is only attached when the work item is routed. Changes to the field value after the work item is routed will have no impact.

To configure supported objects:

1. Select the object type from the **Select an Object Type** drop-down.
2. Click **Add type**.



3. List of the available fields associated with the object type are displayed.



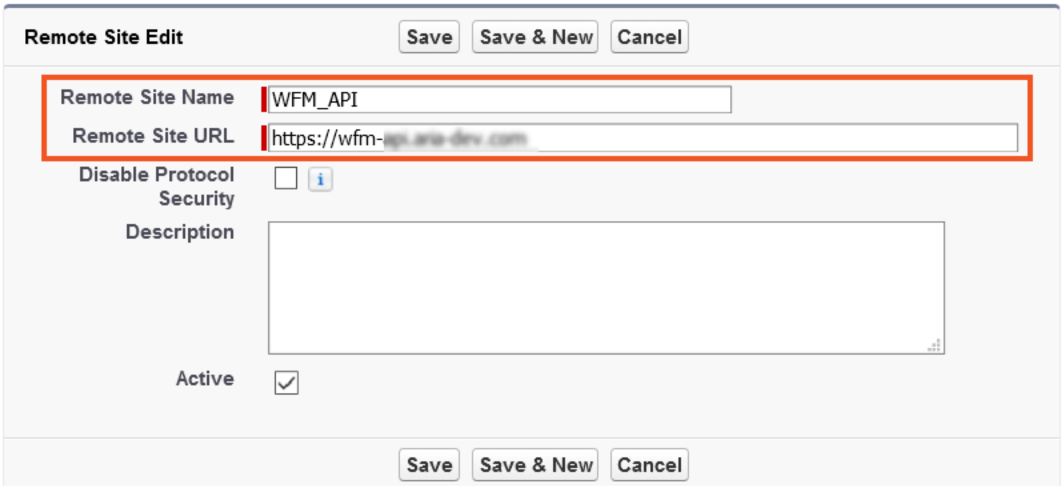
4. Move the required objects to the selected list.
5. Click **Save**.

4.4 Create a remote site connection

Salesforce prevents connection to unauthorized network addresses. The URL previously generated in the WFM Adapter Source page credentials is utilized in the remote site connection to authorize connection to the WFM Adapter.

1. From setup using the Quick Find box, search for and select **Remote Site Settings**.
2. Click **New Remote Site**.
3. In **Remote Site Name**, enter `WFM_API`.

4. Copy the URL from the WFM Adapter Source page credentials and paste in **Remote Site URL**.



5. Click **Save**.

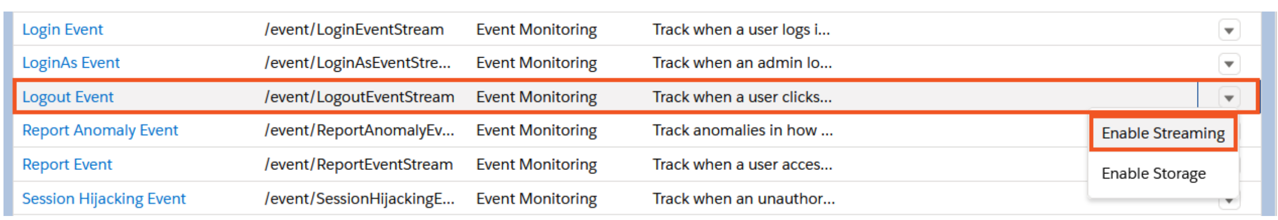
4.5 Configure handling of logout events

- When an agent closes their browser without logging out of Salesforce, the WFM Adapter reports the RTA state as signed out with the reason code of *No Heartbeat* after five minutes.
- When an agent leaves their browser idle longer than their Salesforce org's session timeout limit, the WFM Adapter reports the RTA state as signed out.

4.5.1 Enable streaming for logout event

Enabling streaming for logout events allows real-time monitoring of logout status.

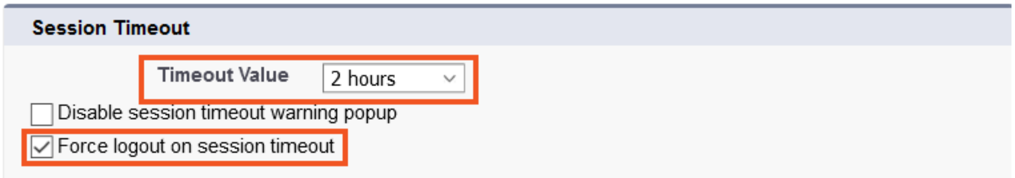
1. From setup using the Quick Find box, search for and select **Event Manager**.
2. For the **Logout Event**, select **Enable Streaming**.



4.5.2 Enable logout on session timeout

Session timeout sets the length of time after which the system logs out inactive users.

1. From setup using the Quick Find box, search for and select **Session Settings**.
2. In the Session Timeout section (scroll up if required), adjust the **Timeout Value** as desired and enable **Force logout on session timeout**.



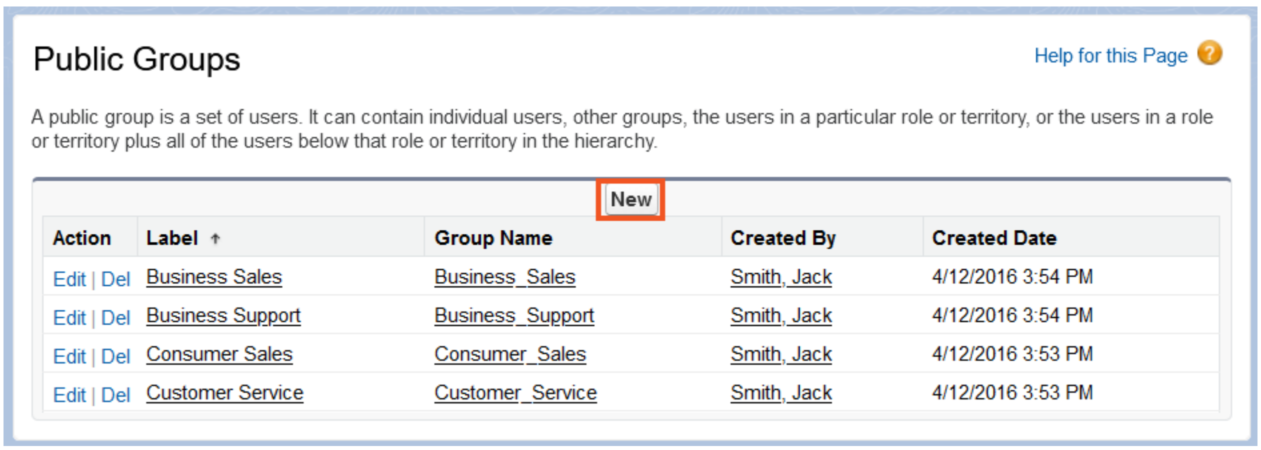
3. Click **Save**.

4.6 Create/edit public groups

If public groups are used in your Salesforce organization, WFM Adapter uses these to monitor agent reporting.

Important: Monitored groups must only contain permitted users to ensure report accuracy. Activity from users without the *WFM Adapter User* permission will *not* appear on agent related reports. See *Assign agent permissions*.

1. From setup using the Quick Find box, search for and select **Public Groups**.
2. Click **New** to create a group or **Edit** next to an existing group.



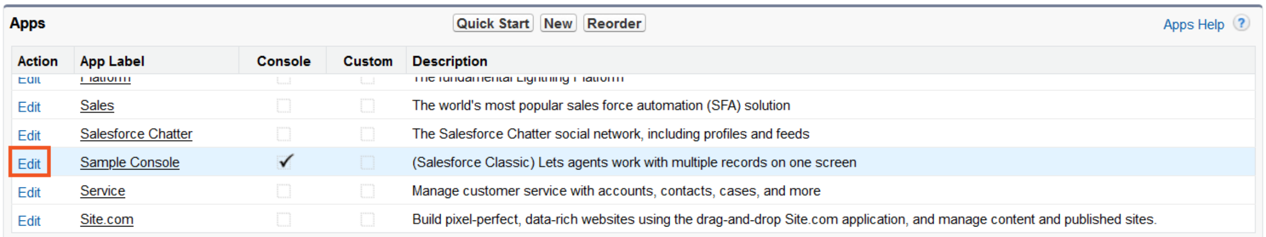
3. Groups may be comprised of Users, Roles, or other Public Groups. See https://help.salesforce.com/articleView?id=creating_and_editing_groups.htm for additional information.

4.7 Add WFM Adapter to an existing App Console

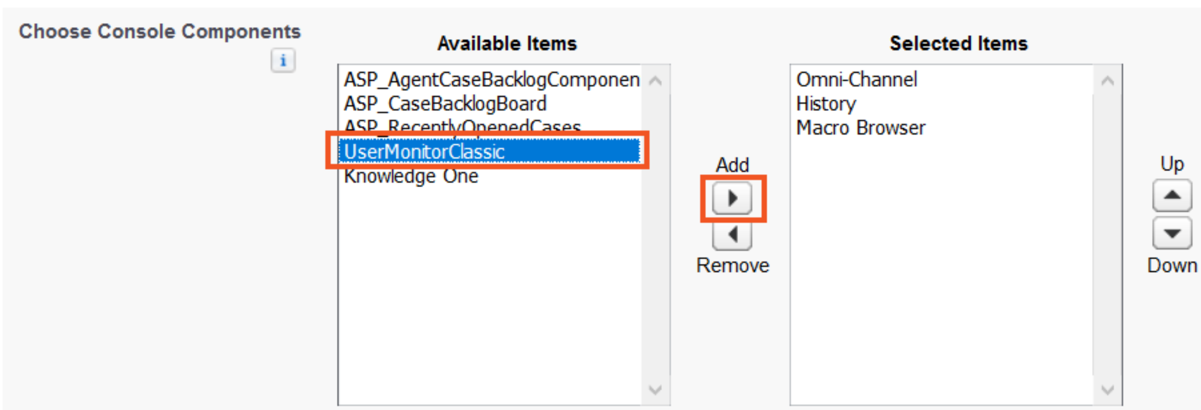
The WFM Adapter custom console component, **UserMonitorLightning** or **UserMonitorClassic**, must be added to an existing console application that has Omni-Channel or a new application may be created.

4.7.1 Classic console

1. From Setup using the Quick Find box, search for and select **Apps**.
2. Locate the desired console application where you want to install WFM Adapter and click **Edit**.



3. In the **Choose Console Components** section (scroll down), from the Available Items list select **User-MonitorClassic**, and click **Add**.

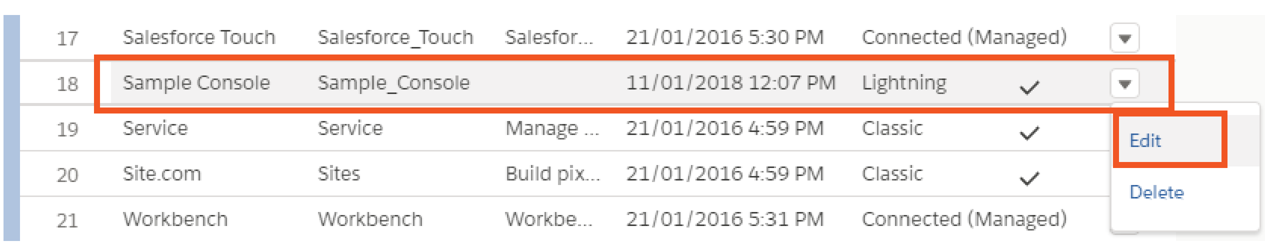


4. Click **Save**.
5. Repeat these steps to activate WFM Adapter for all console applications in Salesforce Classic.

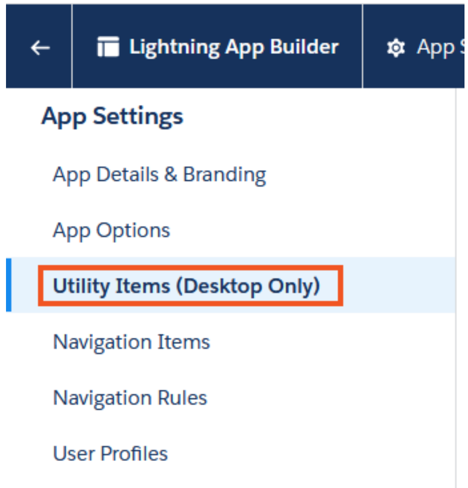
   Note: To create a new console app, see https://help.salesforce.com/articleView?id=dev_tabsets.htm.

4.7.2 Lightning console

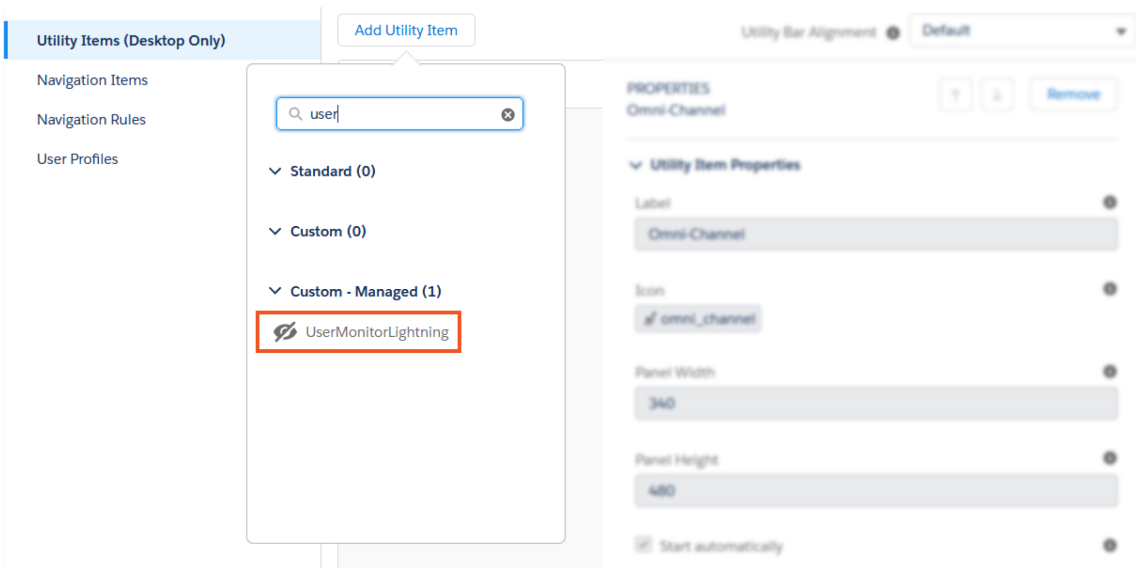
1. From Setup using the Quick Find box, search for and select **App Manager**.
2. Locate the application where you want to install WFM Adapter and click **Edit**.



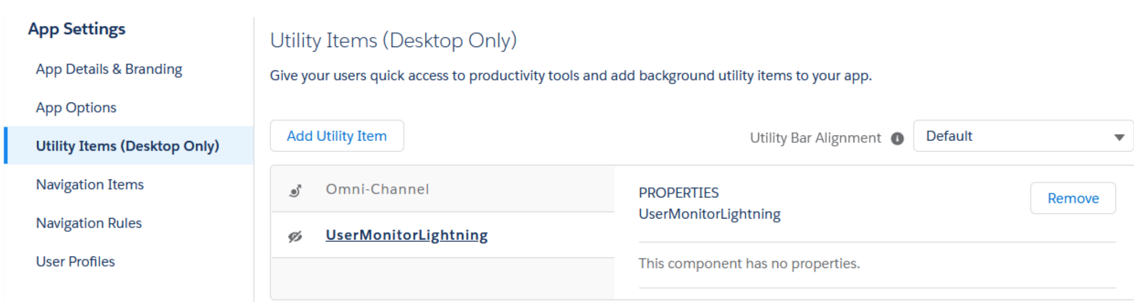
3. Select the **Utility Items** section.



4. Click **Add Utility Item**. In the search box, search for and select **UserMonitorLightning**.



5. Click **Save**.



6. Repeat these steps to activate WFM Adapter for all console applications used in your Salesforce org.

Note: To create a new lightning app, see https://help.salesforce.com/articleView?id=lightning_app_builder_overview.htm.

5 WFM Adapter: configure Agent Reports

5.1 Configure a Source

Sources collect agent and interaction data from your call center. We store and optimize your data in the cloud. Your data is only accessible to you and is never shared with a third party.

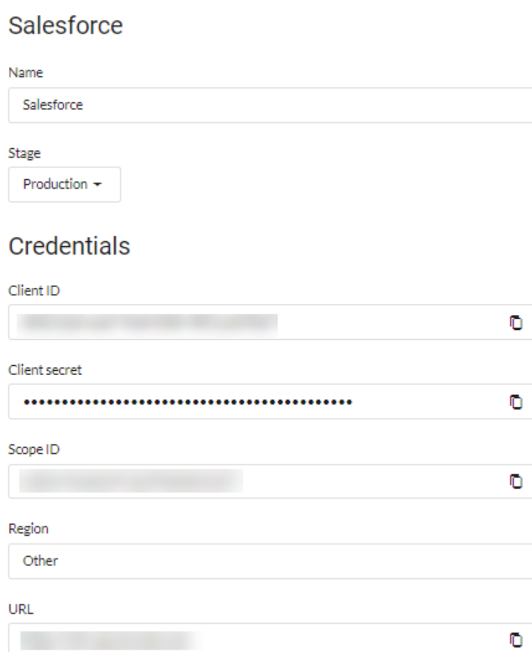
5.1.1 Create a Source

Note: It is not recommended to configure multiple sources of the same type within a scope.

Creating a new Source generates a Client ID, Client Secret, and Scope ID. These credentials will be required to configure the WFM Adapter's Salesforce package in the next section.

To access Sources, click the "+" icon next to it on the menu. Choose **Salesforce** from the list of sources.

Result: The Source credentials are created.



1. **Name**: Edit the name to something unique to identify this new source. (Optional)
2. **Stage**: Select the environment stage to **Production** or **Testing**. The production stage triggers alarm emails to TTEC Digital Support team when a connection is lost; the testing stage does not. This ensures the Support team is receiving credible alerts for *production* instances only.
3. Click **Save changes**.

Tip: Keep this browser page accessible for use when completing the Salesforce package configuration.

5.2 Configure a Destination

Add a destination to send reports and real-time data to your workforce management system. You can customize your destinations to meet your needs, including create multiple destinations to send data to multiple systems, and preview Reports and RTA output.

5.2.1 Create a Destination

1. To access Destinations, click the "+" icon next to it on the menu.
2. From the Destinations list select > **Verint**.

   Result: The destination is saved, pulling information from the source configured within this scope.

   Note: Salesforce groups and queues update 15 minutes after saving the destination. If they do not populate, check your Source credentials.

3. **Name**: Edit the name to something unique to identify this new destination. (Optional)
4. **Stage**: Select the environment stage to **Production** or **Testing**. The production stage triggers alarm emails to TTEC Digital Support team when a connection is lost; the testing stage does not. This ensures the Support team is receiving credible alerts for *production* instances only.
5. **Time zone**: Select the relevant time zone for this destination.

   Important: Report generation times are based on this time zone.

   The WFM Adapter uses the IANA time zone database, https://www.iana.org/time-zones. For information and supporting websites using this database, see https://data.iana.org/time-zones/tz-link.html.

6. **User ID mode**: *Not applicable for Salesforce sources.*
7. **Run in the Cloud**: Running in the cloud has the benefit of TTEC Digital Support team managing connections for you. This is recommended for RTA cloud applications. See *Available features when running in the cloud*.
8. Click **Save changes**.

Important: If **Run in the Cloud** is *off*, the reporting client application must be installed to run locally on a computer or server on your local network to ensure the WFM Adapter is able to communicate to your local WFM system's RTA feed. The selected machine must remain "awake" at all times to ensure connectivity. A laptop with sleep or power savings features enabled is not recommended. Proceed to *Windows reporting client installer* or *Linux reporting client installer*.

Note:

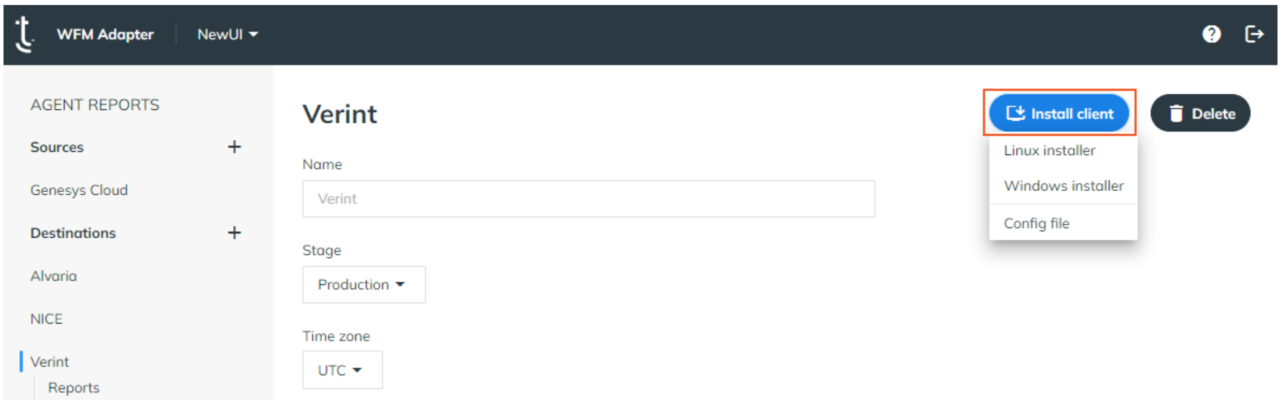
- If there are multiple destinations, the installer must be run for each required integration in each scope. The same installer application is used for each install, but different selections are made according to the relevant integration required.

- *Run in the Cloud* can be turned on or off at anytime. If turning off *Run in the Cloud*, be sure to follow the instructions below for the installer.
- For information on using a proxy, see *Configuring a proxy for the reporting client*.

Windows reporting client installer

1. Click **Install client** and select **Windows Installer** to download the installer.

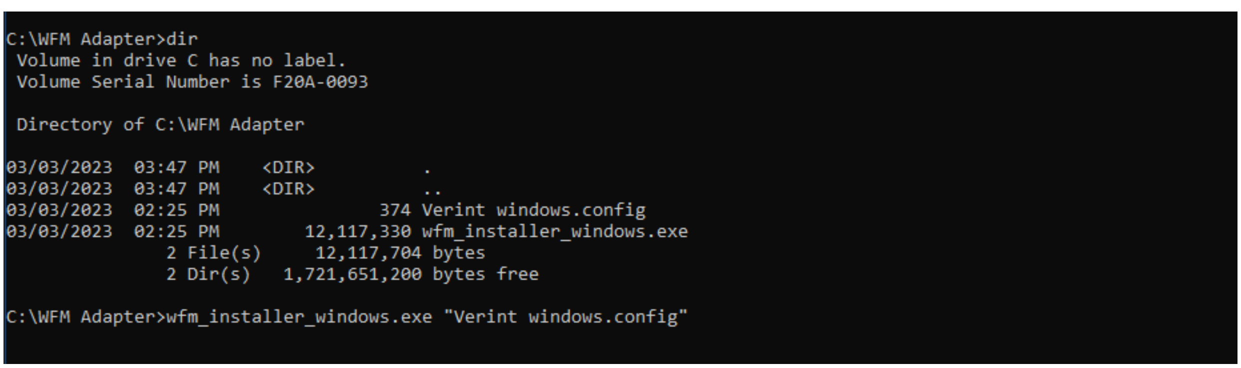
   The **Install** option is only available when *Run in the Cloud* is off.



   Note: If you already downloaded the installer today for a previous Source or Destination, you can return to the same `wfm_installer_windows.exe` download.

2. Click **Install client** again and select **Config file** to download the configuration file.
3. Save the installer application and the configuration file to the appropriate folder you would like the application to run in.
4. Run the installer, specifying the configuration file.

   Example: `wfm_installer_windows.exe "Verint windows.config"`

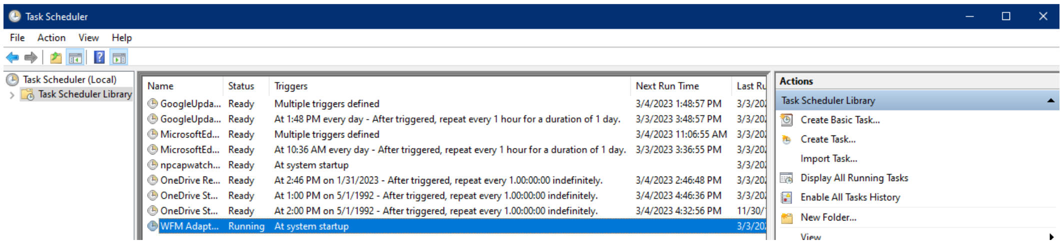


5. When prompted, enter the desired install directory path or leave blank to install in the current directory.

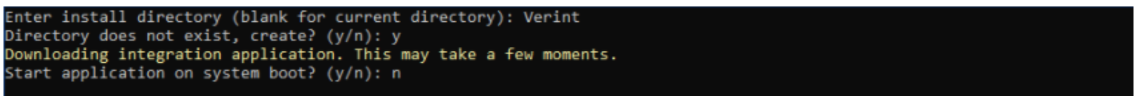
   Result: The reporting client application will download.

6. Select whether to start application on system boot:
   - **Yes**: *Recommended*

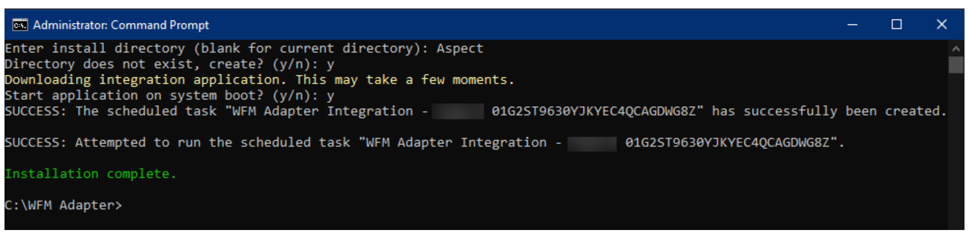
     Note: A startup task, *WFM Adapter Integration*, is created to start the application and run immediately when the machine starts.



   - **No**: application must be started manually.



   Result: Confirms successful task creation (if selected) and installation is completed.



7. Successful installation of the `Verint_windows.exe` reporting client application is confirmed.
8. Return to the WFM Adapter to continue your configuration.

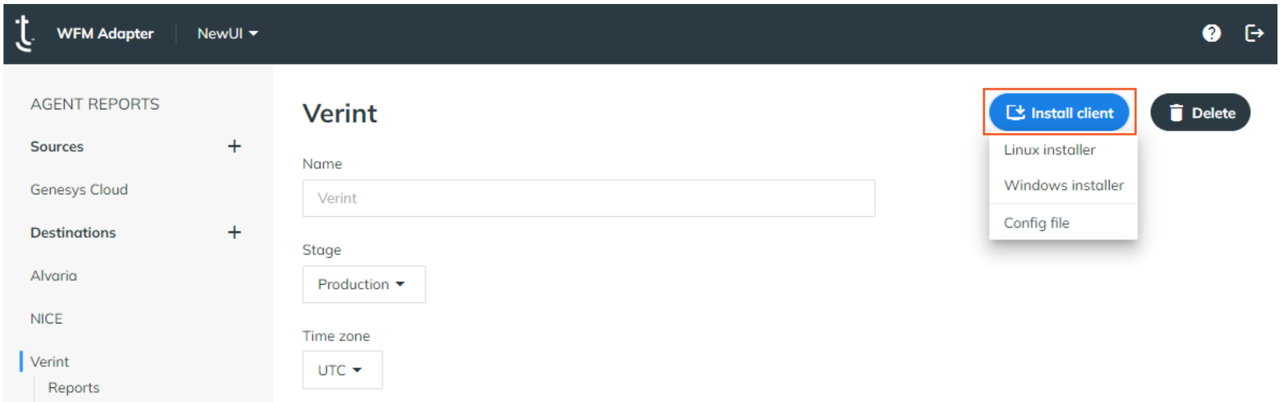
   Note: Additional configuration made in the WFM Adapter to this resource is applied automatically within one minute.

Linux reporting client installer

Note: Linux systems are unable to restart the reporting client application on a system boot. The application must be started manually; this differs from the Windows process.

1. Click **Install client** and choose the Linux installer to download the installer.

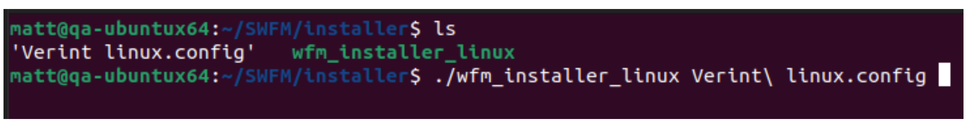
   The Install client option is only available when *Run in the Cloud* is off.



Note: If you already downloaded the installer today for a previous Source or Destination, you can return to the same `wfm_installer_linux` download.

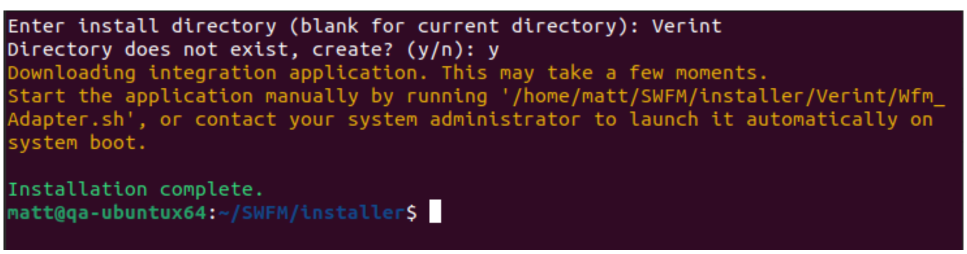
2. Click **Install client** again and select **Config file** to download the configuration file.
3. Save the installer application and configuration file to the appropriate folder you would like the application to run in.
4. Run the installer, specifying the configuration file.

   Example: `./wfm_installer_linux Verint\ linux.config`



5. Enter the desired install directory path or leave blank to install in the current directory.

   Result: The reporting client application will download.



6. Successful installation of the `Verint_linux` reporting client application is confirmed. Return to the WFM Adapter to continue your configuration.

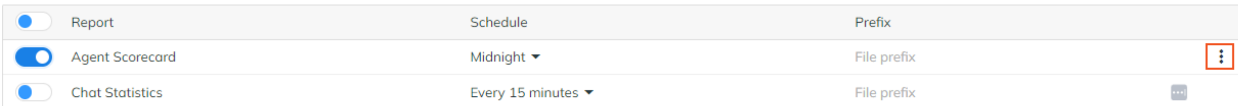
   Note: Remaining configuration made in the WFM Adapter to this source is applied automatically to the applicable reporting client application within one minute.

5.2.2 Reports

Note: Temporary connection failures or reporting client interruptions result in reports not being sent. Once the connection is restored, reports for the previous 4 hours will be retried.

Schedule

1. **Report**: Enable each report. Click the toggle switch to turn off or on.
    - **Agent Scorecard**: The media types included in the Agent Scorecard report can be specified via the menu on the right:



2. **Schedule**: Select the frequency to generate the report(s). Specific times are based on the time zone selected at the top of the Destination page. Once saved, changes are applied on the next minute. The **Every 5 minutes** selection is only recommended for testing purposes; report accuracy may be impacted with such a short interval.

3. **Prefix**: All configured reports are saved to the same directory. To customize the directory structure and naming of the generated reports for ease of use, enter a directory path and/or a prefix for the generated report. Nested directories may be used. Supported characters are alpha numeric, dash (-), underscore (_), forward slash (/), and spaces.

    Examples:

Scenario	Example
Nested directory structure with a file prefix	`dir_1/subdirectory/Booking_`
Directory structure without a file prefix	`directoryname/`[1]
File prefix only	`CustomerService_`[2]

1 An ending forward slash (/) is the only differentiator between a directory and a prefix.

2 Ensure prefixes are unique; if multiple reports with the same name are downloaded, " .1" is appended to the second file of the same name. Numbering will continue for subsequent files, e.g., .2 , .3 .

Folder

1. Enable to write reports to a folder.

    Note: This delivery option is not available when running the application in the cloud (i.e., managed mode). See *Available features when running in the cloud*.

2. **Path**: Enter the folder path for the desired storage location for all reports. The path can be absolute, or relative to the install directory. Use the path format of the operating system chosen for the installed application, i.e., Linux or Windows.

Operating system	Absolute path example	Relative path example	UNC path example
Windows	`S:\Applications\CallCenter\WFM\Reports`	`WFM\Reports`	`\\hostname\WFM\Reports`
Linux	`/home/users/WFM/Reports/`	`WFM/Reports/`	`//hostname/WFM/Reports/`

FTP

Enable to send reports to an FTP server.

Note: FTP and Explicit FTPS (FTPES) URLs are supported (Implicit FTPS are not).

1. **URL**: enter the URL address for the FTP server.

   Example: `ftps://host:port/folder_name/`

2. **Username** and **Password**: enter the login credentials for this FTP server.
3. **Mode**: select active or passive.

   Note: Active mode is not available when running the application in the cloud (i.e., managed). See *Available features when running in the cloud*.

S3

Enable to store reports in an Amazon S3 bucket.

1. **Bucket**: Enter your S3 bucket.
2. **Prefix**: Add desired prefix mapping for your applicable S3 bucket folder directory.
3. **Region**: Select your Amazon region.
4. **Client ID** and **Client Secret**: Enter your Amazon Client ID and secret.

SFTP

Enable to send reports to an SFTP server.

1. **Host**: Enter the host address.
2. **Port**: Enter the port location on the host.
3. **Authentication Mode**: options to use a password or a certificate for credentials.
   - **Password**: select if you have a username and password for the host.
   - **Private key**: select if you have a username and certificate for the host.

   Note: Private key files that are password or passphrase protected are not supported.

If reports are to be nested in a folder on the server, the folder must already exist. See *Reports* > *Schedule* >*Prefix* to setup a nested directory .

If required, see *WFM Adapter IPs to allow*.

WebDAV

Enable to send reports to WebDAV server.

1. **URL**: Enter the WebDAV URL. Sub-directory paths must end with a forward slash, '/'.
2. **Username** & **Password**: Enter the credentials for WebDAV.

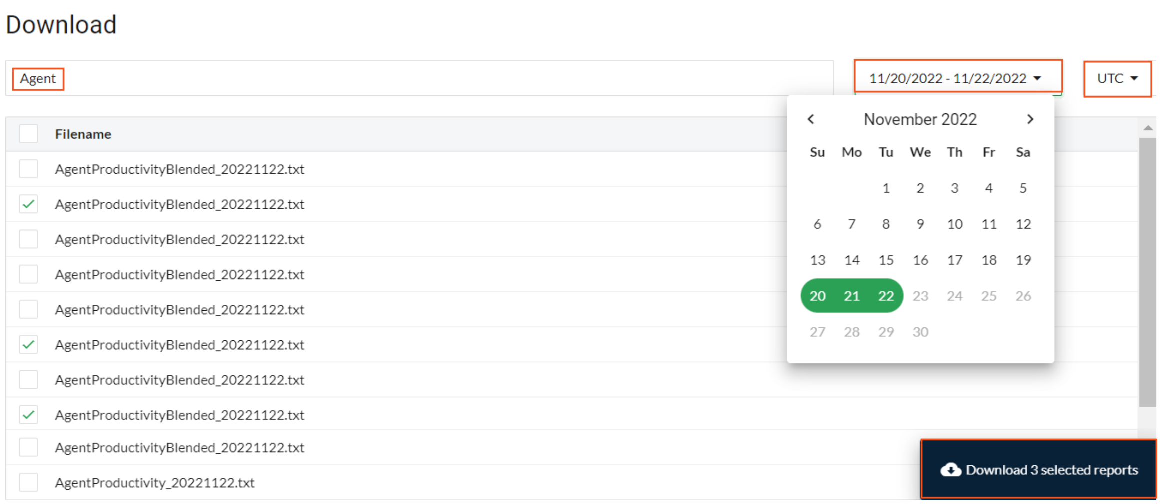
If required, see *WFM Adapter IPs to allow*.

Download reports

When a report schedule is enabled, the files are available to be downloaded. The Download page has the ability to view and download the reports.

See *Schedule* for more information.

- Reports are downloaded in text format.
- Once the report information displays, use the search field to query any string field in the report. e.g., agent name or queue name.
- Select the checkbox to the left of the reports. Multiple reports can be selected. Number of reports selected to download is presented at the bottom of the page.
- Date range or a specific date can be selected to download the reports. Only reports generated within the past 60 days can be downloaded.
    a. Specific date: Select Date and Time for report.
    b. Range: Select a date range.
- The time zone from the destination is used to calculate the dates by default. It can be changed using the time zone selector drop-down list.



Note: If the calendar is partially off your screen, check your monitor display settings or browser zoom option.

5.2.3 RTA

Connection

Enable to host a real-time data server.

Note: This delivery option is not available when running the application in the cloud. See *Available features when running in the cloud*.

1. **Port**: Enter the port to match your WFM system's configured RTA port.
2. **Agent ID length**: 24 or 128 character length. This selection must match your Verint WFM system configuration. See Verint WFM's advanced configuration parameter `KEEP_CCM_PLUGIN_ORIGINAL_AGENTID_LENGTH: true = 24, false = 128`.

   Note: The string includes a null-terminator (/0) so the agentID length to appear in RTA is effectively 23 and 127, respectively.
3. **Send reason with ready status**:
   - **On**: The service presence status, if known, is added to the reason code field of the ready status.
   - **Off**: No service presence status information is sent with the ready status.
4. **Send reason with work status**: When enabled, not ready reasons, if any, are sent with all work statuses. When disabled, not ready reasons are only sent with the not ready status.

Preview

Provides a preview of RTA data based on current configuration, including any unsaved changes on the Destination page. This gives the status updates from all monitored users.

Search

ID	Time	State	Reason	Place	Group
qatester@ariasolutions.com	15:35:22	1101 - Not ready	Back in 15		Aria QA
qatester@ariasolutions.com	15:34:59	1102 - Ready			Aria QA
qatester@ariasolutions.com	15:34:42	1104 - After email work			Aria QA
qatestertwo@ariasolutions.com	15:34:24	1101 - Not ready	Dinner		Aria QA
qatestertwo@ariasolutions.com	15:34:16	1102 - Ready			Aria QA
qatester@ariasolutions.com	15:34:12	1400 - Inbound email			Aria QA
qatester@ariasolutions.com	15:34:07	1102 - Ready			Aria QA
qatestertwo@ariasolutions.com	15:33:46	1502 - After chat work			Aria QA

Note: If required, the search field can be used to filter the users list.

5.2.4 Filters

When creating your destination, all public groups queues from the configured Salesforce source within the current scope are populated as groups and queues into WFM Adapter and automatically selected for monitoring.

Salesforce groups and queues update 15 minutes after initially saving the destination. If they do not populate, check your source credentials. See *Create a Source*.

You may edit the selected groups and queues by clearing the check box for each item or the check box next to **Name** to clear all items. When the Search field is used to filter the list, clearing the check box next to **Name** applies *only* to the items displayed.

To ensure any newly added items in Salesforce are automatically included in reports, select **Include new items by default** (this is enabled by default). The WFM Adapter checks for updates every 15 minutes at :00, :15, :30, and :45 past the hour.

Note: In extremely high volume environments, updates could take longer to process and may not appear before the next interval update.

Important: Monitored groups and queues must only contain permitted users to ensure report accuracy. Activity from users that do not have the *Salesforce* > *WFM Adapter User* permission will not appear on agent related reports. See *Assign agent permissions*.

The queues that haven't been updated in more than 48h are no longer displayed. See *Handling Deleted Queues in WFM Adapter*.

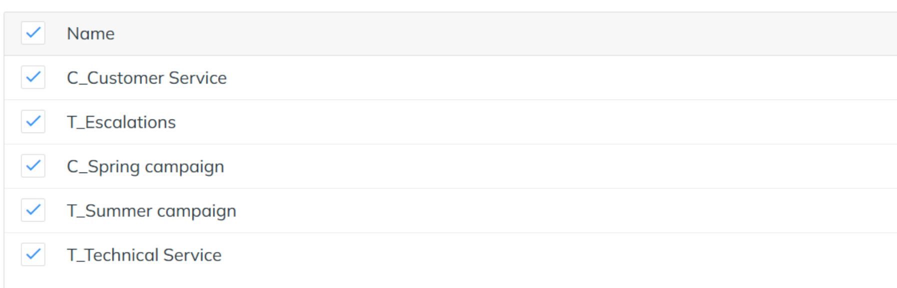
Groups

Important: Only public groups containing permitted users are sent through to the adapter. If your Salesforce environment does not utilize public groups, **Include new items by default** must be enabled to ensure non-grouped users are captured on reports. See *Create/edit public groups*.

Queues

Separate queues, denoted by the appropriate prefixes, are displayed for inbound cases, leads and chats. See *Queue prefixes* for more detail.

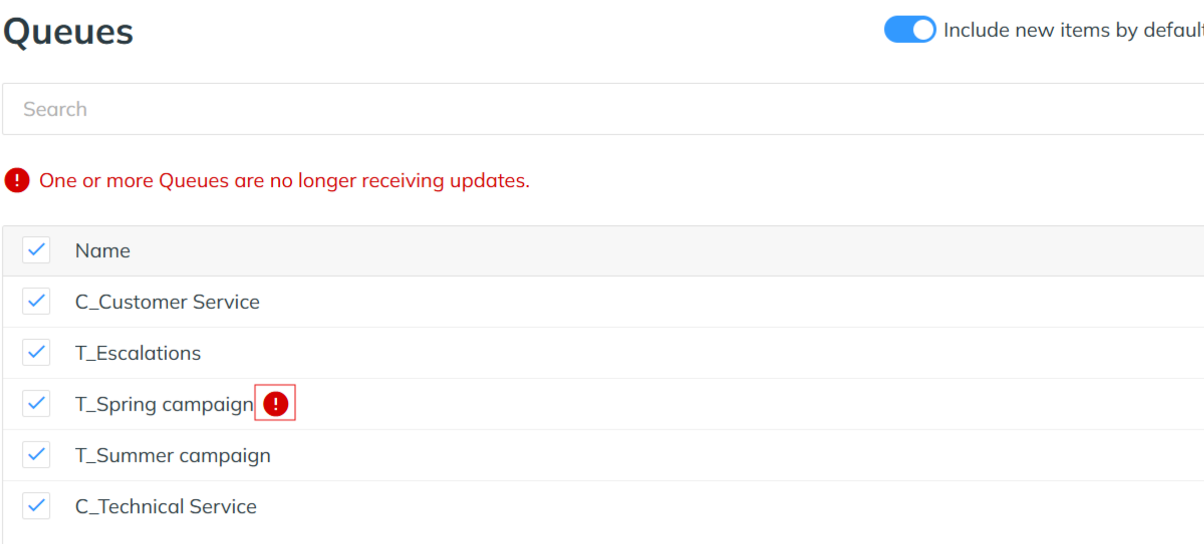
For information on queues, see https://help.salesforce.com/articleView?id=setting_up_queues.htm.



Handling Deleted Queues in WFM Adapter

Queues deleted from the customer's source environment still show up in the WFM UI, but may no longer receive updates. To ensure the UI reflects only active queues, inactive queues are now monitored based on their update status.

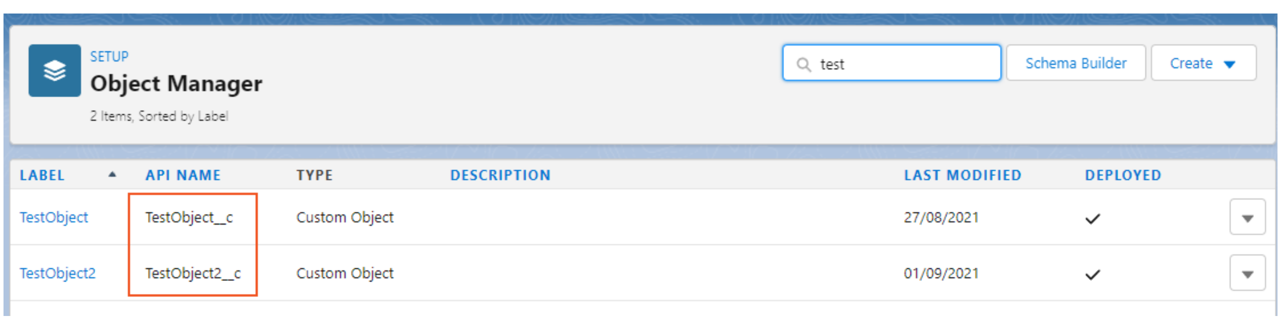
- **Inactive for 24-48 hours**: An alert appears in the UI indicating the queue is no longer receiving updates.
- **Inactive for over 48 hours**: The queue is automatically removed from the UI to prevent showing stale data.



5.2.5 Media

By default, Salesforce custom objects are reported as the Task media type. The media section allows custom object types to be re-mapped to a different media type. Multiple custom objects can be mapped to the same media type.

1. Click **Add media**.
2. **Name:** Enter the **API Name** for the custom object you'd like to re-map. See *Object Manager* in Salesforce.



3. **Report as:** Select the media type applicable to this custom object.

   Note: The *Do not report* type may be selected to *exclude* the custom object from reporting.

5.2.6 Reasons

Reason codes may be remapped to override their default actions:

- Reason codes are case sensitive.
- A reason code can only be mapped to an alternate code once but many different reason codes can be mapped to one code.

  Note: Attempting to remap the same code multiple times or leaving the **Maps to** field blank will result in an error. If the configuration is saved anyway, the adapter will ignore the incorrect entry.

To add a reason code mapping, click **Add mapping**:

1. **Code**: Enter the originating reason code name.
2. **Maps to**: Enter the desired replacement to map to.
3. Click **Logout** check box to identify reason codes that you want to infer logout.

5.2.7 Skills

WFM Adapter retrieves existing skills from Salesforce For more information, see https://help.salesforce.com/articleView?id=omnichannel_skills_based_routing_enable.htm.

To facilitate the configuration of Queue rules, reporting template aliases and skill categories may be used to create rule templates.

Reporting template alias

A skill can be given an optional alias to replace the skill name when producing reports. For example, a skill name of English can be modified to appear as EN. These aliases will be used when using skill categories in rule templates.

1. In the **Reporting template alias** field for the skill, type the preferred alias.

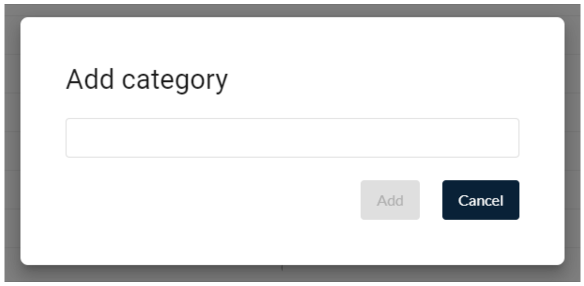
Name	Reporting template alias	Category
Bronze	Bronze	None
Collection	Collection	None
Connected_Health	Connected_Health	None
Customer Support	Customer Support	None
English	English	None

2. Click **Save changes**.

Category

Skills can be categorized or grouped together. For example, skills of English, Spanish, and French may all be assigned the 'Language' category. These skill categories can be used when creating rule templates.

1. In the Category field for the relevant skill, click the drop-down menu next to None and select **Add category**.



2. Enter the new category name.

   Note: Category names can only use letters, numbers, and _ (underscore) characters, and cannot begin with a number.

3. Click **Add**.
4. This new category is now available in the drop-down menu. Configure additional skills to belong to this new category.
5. Click **Save changes**.
6. If desired, add additional categories to group other skills.

5.2.8 Rules

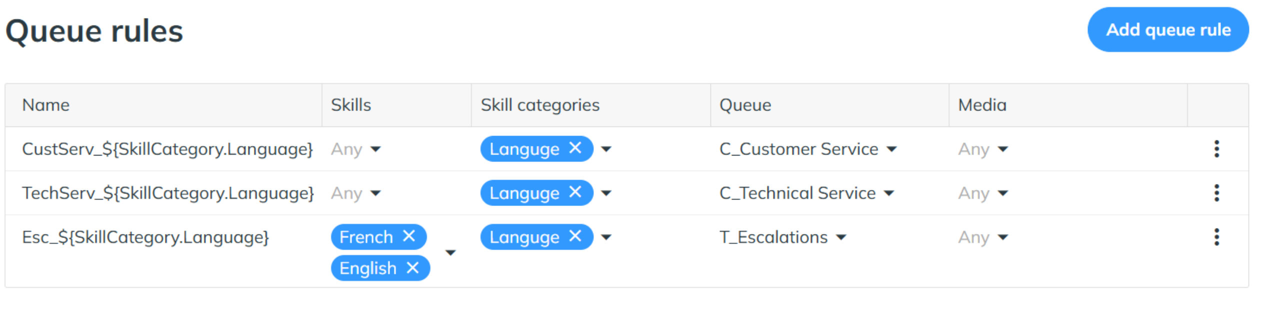
Queue rules

Queue rules allow you to customize the queue reported for work items. Rules can assign a new queue name, add/remove a media prefix from a queue name, or use parameters to customize how the work items are reported. See *Skills* for additional information.

Important: Rules are actioned in the displayed order. To edit an existing list, see *Edit a rule list*.

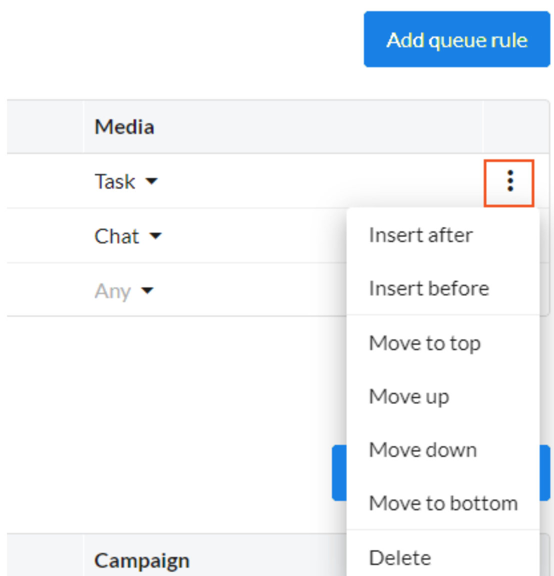
1. Click **Add queue rule**. This creates a new rule at the bottom of the table; if the list is long, manually scroll to the bottom.
2. **Name**: Enter a unique name for the rule or a rule template. If a rule has the same name as a queue or another rule, two rows may appear in the report. If the media types are different, the duplicate rows may appear in separate reports for some WFM systems.
3. **Skills**: Select applicable skills. Add multiple skills individually or select Any to include all or all within a skill category.
4. **Skill categories**: Select configured skill categories. See *Skills* for information on creating a skill category.

5. **Queue**: Select a queue.
6. **Media**: Select a media type.



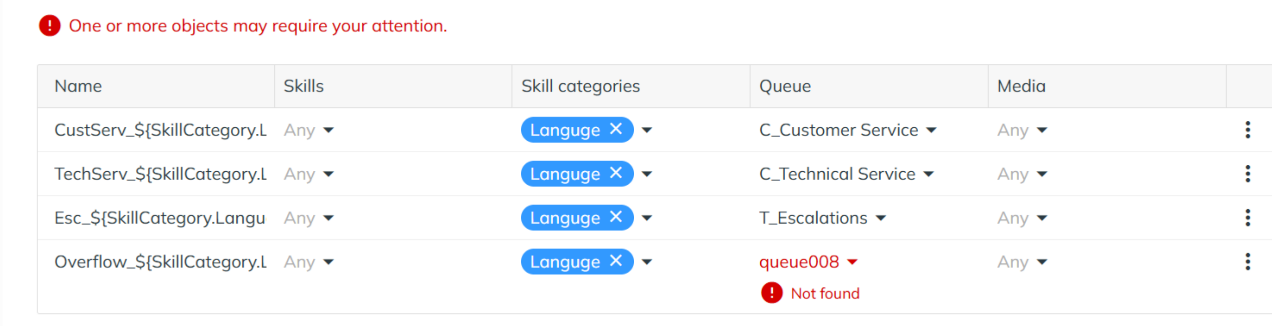
Edit a rule list

- To change rule order, click the item menu of a rule you'd like to move and select an option to move up, down, or to the top or bottom of the list.
- To add a rule to a specific spot in a list, click the item menu of a rule you'd like the new rule to be near and select either **Insert below** or **Insert above** as required. A new line item is created.
- To delete a rule, click the item menu of the rule and select **Delete**.



Impact on Reporting for Non-Existent Queues

While a deleted queue may no longer exist in the source environment, its associated rule can still be reported on. However, once the queue is deleted and inactive, the rule becomes ineffective. The rule may continue to appear in reports, it no longer has a functional impact, as the corresponding queue is not available. See *Handling Deleted Queues in WFM Adapter*.



Using templates

Skill rule templates can be used in the *Rules* section to facilitate generating multiple rules for categories of skills.

- Use `${}` syntax and reference skill categories using the prefix `SkillCategory`. E.g., `${SkillCategory.Language}`.
- Both the prefix and category name are case-sensitive. E.g., if the category set in the Skills section is *Language*, the rule cannot use `SkillCategory.LANGUAGE`.

Example:

A rule name of `MyQueue_${SkillCategory.Language}_${SkillCategory.Tier}` inserts the corresponding skill matched from the *Language* and *Tier* skill categories, creating a line in the reports for each language and tier combination using the skill alias if applicable.

Note: The full skill name is used when a skill does not have an alias entered.

```
MyQueue_EN_Bronze         0    0    0
MyQueue_EN_Silver         0    0    0
MyQueue_EN_Gold             0    0    0
MyQueue_FR_Bronze         0    0    0
...
```

Work property templates

Important: To ensure the work properties report accurately, enable **Include new items by default** in the Filters section, specifically on the Queues table.

Work property templates can be used in the Queue rules section to facilitate generating rules based on field(s) attached to a Salesforce object. See *Field Access*.

- In the rule `Work.Properties.SObject.Fields.field api name`, only the `field api name` changes, while the `Work.Properties.SObject.Fields` remains static.

  Example: If the `field api name` on a Case object is `MyQueue_c`, the rule would represent as `Work.Properties.SObject.Fields.MyQueue_c`.

- Use `${}` syntax and reference the specified field using the prefix Work and the path to the field. E.g., `MyRule_${Work.Properties.SObject.Fields.QueueName__c}`.

```
MyRule_MyQueue
```

- The rule must be constructed using PascalCase (the first letter of each compound word in a variable is capitalized).
- Work properties and Skill categories can be combined in the same rule. E.g., `${SkillCategory.Language}_${Work.Properties.SObject.Fields.QueueName__c}`.

Note: The Queue rules are case sensitive. Using incorrect casing will prevent the queue rules from being matched.

Example:

`${SkillCategory.Language}_${Work.Properties.SObject.Fields.QueueName__c}` rule name inserts the corresponding skill matched from the *Language* and if `QueueName__c` has a value of `MyQueue`, the resultant queue reported in queue reports would be `Language_MyQueue`.

Campaign rules

Not applicable for Salesforce sources.

5.2.9 Service level

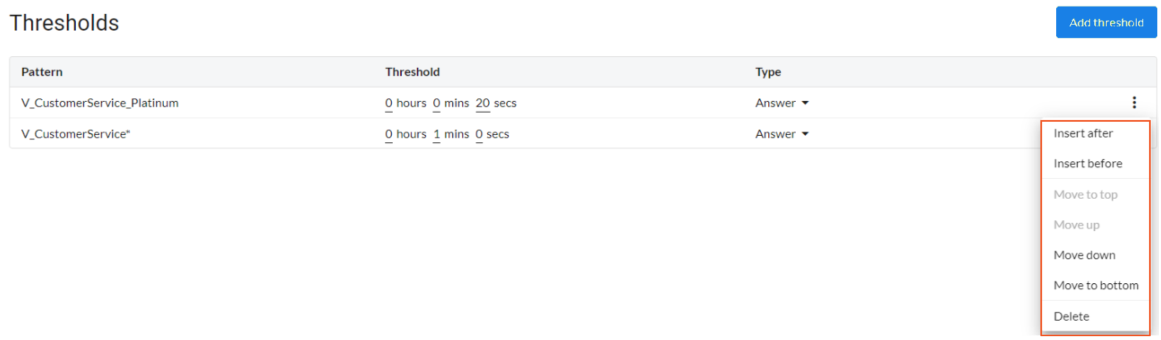
Thresholds

Specify the service level threshold for any or all queues and rules. Thresholds configured here will override any configured in Salesforce .

To add a threshold, click **Add threshold**:

1. **Pattern**: enter a pattern of a queue name or rule name. Glob pattern strings may be used to apply a threshold to multiple queues or rules. See *Queue prefixes* and *Glob patterns* for more information.
2. **Threshold**: enter the service level threshold.
3. **Type**: select Abandon, Answer, or Short Abandon.
4. When multiple service level thresholds exist, confirm the correct order. For each pattern, matching rules are applied in the *displayed* order, i.e., thresholds must be ordered from most to least specific. To change order, click the item menu of a threshold you'd like to move and select an option to

move up, down, or to the top or bottom of the list.



Formula

From the drop-down list, select the preferred formula to calculate the service level. See *Service level* for more information.

5.2.10 Save changes

Click **Save changes** in the top right of the interface.

For an *unmanaged* destination (Run in the cloud is not enabled), the changes made in the WFM Adapter will be applied to the applicable integration application previously installed within one minute.

Note: Edits to RTA options will cause a short disruption to the RTA feed.

5.3 Set up RTA in the WFM system

The WFM system's real-time adherence (RTA) server software must be set up to support all agent codes that the WFM Adapter's RTA feed may send.

A list of these values can be found in the *Verint WFM RTA & Historical Reports Guide*.

6 Salesforce: upgrade package

The process to upgrade the Salesforce package is different depending on the version currently installed.

1. To determine the version currently installed, search for **Installed Packages** in Salesforce and note the version number.
2. Consult our release note documentation to determine if a newer package is available. See https://wfm-doc.ariacec.com/salesforce.

Best practice: Ideally upgrades or re-installs should be done during off or non-peak hours for your environment to minimize any impacts to in progress interaction data.

6.1 Upgrade within the 2.x release version

To upgrade the Salesforce WFM Adapter package from any 2.x version to a more recent 2.x version, the new package can be installed seamlessly over top of the existing 2.x package.

Note: This package upgrade is not expected to result in any data loss. Ideally, upgrades or re-installs should be done during off or non-peak hours for your environment to minimize any impacts to in progress interaction data.

To upgrade:

1. Click the new package URL provided. See https://wfm-doc.ariacec.com/salesforce for the most recent release information.
2. After the installation is complete, re-login to Salesforce to reload the WFM Adapter Configuration app settings page to review potential new settings. See *Configure WFM Adapter app settings*.

6.2 Upgrade from 1.x to 2.x release version or rollback

To *upgrade* the Salesforce WFM Adapter package from version 1.x to version 2.x or to *rollback to a previous version* of the WFM Adapter Salesforce package, a complete uninstall of the existing WFM Adapter package in Salesforce is required prior to reinstalling the desired package.

Important: If a rollback is desired, you must contact TTEC Digital Support team prior to starting the uninstall to ensure there is an acceptable package available. Past Salesforce package URL links are only available from TTEC Digital Product Management team.

Data impact

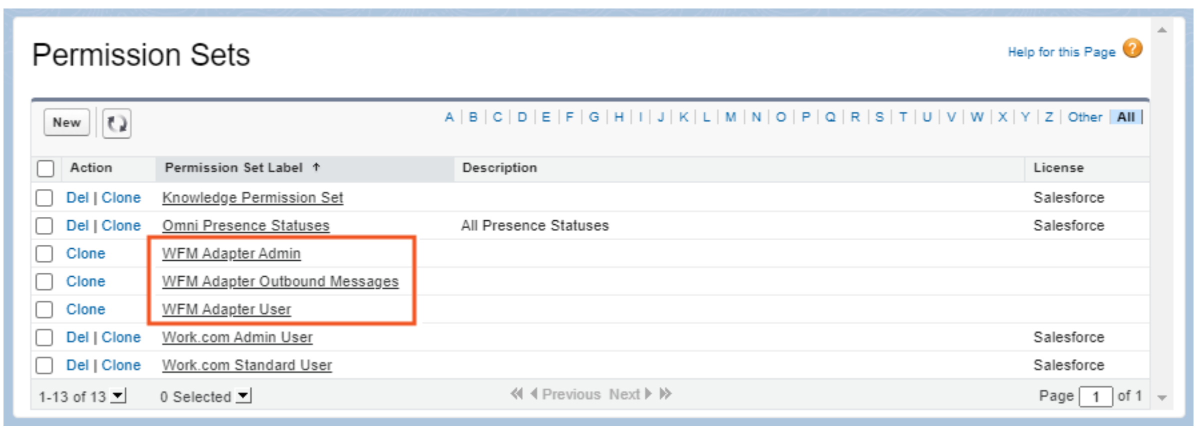
Important: If done during operational hours, agent and work changes that occur will not be captured due to the gap between uninstalling and reinstalling.

Work state at the start of an upgrade	Event missed during the upgrade	Impact
Work item is in focused	Work item goes out of focused or agent completes the work item.	Work will continue to be in the Handle state. Handle time will continue to accumulate for at most 8 hours.
Work item is in focused	Work item goes in focus	Work will continue to be in the Idle state. No additional handle time will be reported for this work item until it is back in focus.
Work item is in queue	Work item gets answered by agent.	Work will continue to be in the Queue state. No handle time will be reported for this work item until it is back in focus.
Work item does not exist	Work item gets queued	No impact.

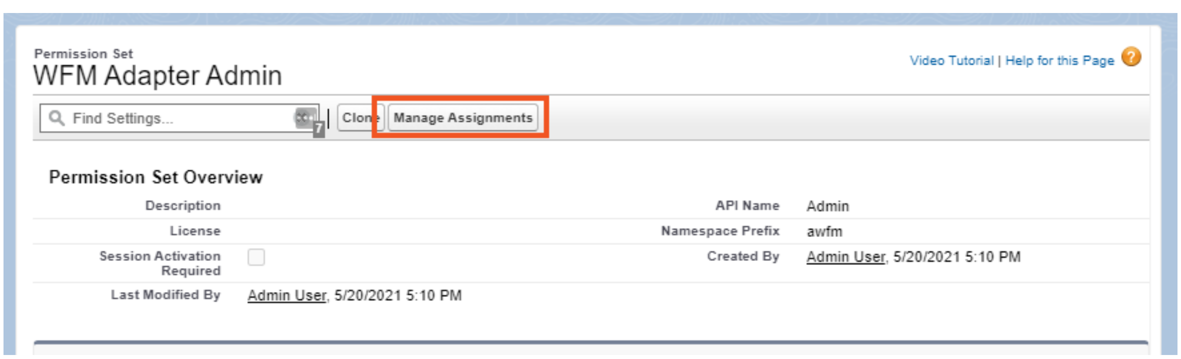
Note: If an agent state is missed during the upgrade, the agent will be in same state as they were at the beginning of the upgrade until the agent changes their state, logs out of Salesforce, or close the Salesforce browser.

6.2.1 Remove assignments of WFM Adapter permission sets

1. In Salesforce from Setup, using the Quick Find box, search for and select **Permission Sets**.
2. Click on the permission set label.



3. Click **Manage Assignments**.



4. Select all the users for this permission set. Click **Remove Assignments**.
5. Repeat for each WFM Adapter permission set.

6.2.2 Remove WFM Adapter from the console applications

See *Add WFM Adapter to an existing App Console* to edit the required console applications and remove the WFM Adapter console component.

6.2.3 Uninstall Salesforce package

This task removes the package from Salesforce. For more information, see https://help.-salesforce.com/articleView?id=distribution_uninstalling_packages.htm.

1. From Setup, using the Quick Find box, search for and select **Installed Packages**.
2. Find the WFM Adapter package in the Installed Packages list and click **Uninstall**.
3. Select **Yes, I want to uninstall this package**.

   Note: Remove the associations with WFM Adapter. When all the dependencies are removed, return to the WFM Adapter Package Detail page and review the status of the **Uninstall** button.
4. Click **Uninstall**. The application sends an email to your Salesforce login email account to confirm a successful uninstall. View the email to confirm the uninstall.

6.2.4 Proceed with installation of new package

Once the package and its components have been successfully removed from Salesforce, begin re-installation of the desired package using the package URL link provided. See https://wfm-doc.ariacec.-com/salesforce for the most recent release information.

Proceed to *Salesforce: package configuration* for installation process.

7 Troubleshooting & FAQs

7.1 Does the reporting client support connecting through a proxy?

The WFM Adapter reporting client respects the proxy configuration of the system on which it is run. There are no changes required to the reporting client to use the system proxy.

If an *application specific* proxy server is required so reporting client network traffic is independent from the rest of the system, this can be configured in the post installation script file after the reporting client installation is complete.

For information, see *Configuring a proxy for the reporting client*.

7.2 Missing or delayed data

Issue: Salesforce Apex code with asynchronous processing, such as scheduled jobs and batch apex jobs, is not guaranteed to run immediately or exactly at the time it is scheduled as it can be impacted by other activity in the org. As a result, the data sent to the WFM Adapter API could be delayed if the volume of org jobs is significant. Normally, delays, if any, are negligible in a production environment and go unnoticed. If the delay is greater than 15 minutes, RTA data may be inaccurate or missing from an interval report.

Action: To determine if a backlog of apex jobs are causing an issue, in Salesforce from Setup, search for *Jobs* in the Quick Find box, and select **Apex Jobs**. See https://trailhead.salesforce.com/en/content/learn/modules/asynchronous_apex/async_apex_monitoring.

7.3 Error from scheduled batch Apex job

Issue: The "`Too many DML rows: 10001`" error associated with scheduled and batch Apex jobs occurs when the limit of total records that can be processed in a single Apex transaction has been reached.

Action: This issue was fixed with the 2.7.0 release of the WFM Adapter Salesforce package. Installing the most recent version of the Salesforce package will resolve this scheduled job error.

7.4 RTA missing sign out states

Issue: No sign out states in RTA; all other states are as expected.

Action:

1. Ensure the RTA sign out states are mapped in the Verint WFM system.
   - 1201
   - 1201 + No Heartbeat

2. Check Verint WFM's Advanced Configuration parameter LOGOUT_AGENT_MODE_DEFAULT_VALUE is set to 1201, not the system default of 1102.

8 Appendix

8.1 Available features when running in the cloud

Having a destination Run in the Cloud is recommended for RTA cloud applications.

Running in the cloud has the benefit of TTEC managing connections for you. However, some features are not available from the cloud. The following identifies what can or cannot be accessed:

- **Folder**: No
- **FTP**: Passive only
- **RTA**: No
- **S3**: Yes
- **SFTP**: Yes
- **WebDAV**: Yes

8.2 Configuring a proxy for the reporting client

The WFM Adapter reporting client respects the proxy configuration of the system on which it is run. There are no changes required to the reporting client to use the system proxy.

If an *application specific* proxy server is required so reporting client network traffic is independent from the rest of the system, this can be configured in the post installation script file after the reporting client installation is complete.

Note: Do not include `http://` in the host address or system proxy.

Windows

1. Locate the `Wfm_Adapter.bat` script file in the installation directory.
2. To enable an application proxy, uncomment and configure with the appropriate `host` and `proxy` information:

   `set ALL_PROXY={host}:{port}`

   E.g., `set ALL_PROXY=proxy.example.com:123`

   Note: If the environmental variable already exists, remove the comment to enable and configure it appropriately.
3. Save.

Linux

1. Locate the `Wfm_Adapter.sh` script file in the installation directory.
2. To enable an application proxy, uncomment and configure with the appropriate `host` and `proxy` information:

   `export ALL_PROXY={host}:{port}`

   E.g., `export ALL_PROXY=proxy.example.com:123`

   Note: If the environmental variable already exists, remove the comment to enable and configure it appropriately.
3. Save.

Available variables

`ALL_PROXY` : identifies the proxy server used for all requests, including `HTTP` and `HTTPS` requests when `HTTP_PROXY` and/or `HTTPS_PROXY` are not defined.

`NO_PROXY` : a comma-seperated list of hostnames to be excluded from proxying.

8.3 Configure SSO providers

WFM Adapter currently supports single sign-on via Azure Active Directory, PingFederate and PingOne.

Important: WFM Adapter utilizes the user email address as the username.

SSO providers require the following information to configure a new SAML application:

ACS URL

Region	ACS URL
Canada	https://wfm-auth-ca.ariacec.com/saml2/idpresponse
North America	https://wfm-auth-na.ariacec.com/saml2/idpresponse
Europe	https://wfm-auth-eu.ariacec.com/saml2/idpresponse
Asia Pacific	https://wfm-auth-ap.ariacec.com/saml2/idpresponse

Entity Id

Region	Entity Id
Canada	urn:amazon:cognito:sp:ca-central-1_AGRa8zvdy
North America	urn:amazon:cognito:sp:us-east-1_wP60Cy2sw
Europe	urn:amazon:cognito:sp:eu-west-1_f6XoW4uIC
Asia Pacific	urn:amazon:cognito:sp:ap-southeast-2_l3pzIFA5P

Sign-on URL

Region	Sign-on URL
Canada	https://wfm-ca.ariacec.com/login.html
North America	https://wfm-na.ariacec.com/login.html
Europe	https://wfm-eu.ariacec.com/login.html
Asia Pacific	https://wfm-ap.ariacec.com/login.html

8.3.1 Azure Active Directory

Note: Ensure the required claim is set to the user email address.

- Download Federation Metadata XML.
- Send the XML file to TTEC Digital Support team along with the user email address(es).

8.3.2 PingFederate

Note: Ensure the claim SAML_SUBJECT is mapped to the username .

- Set the SP Connection to **Browser-SSO**.
- Set the SAML bindings to **REDIRECT**.
- Export the metadata XML file.
- Send the file to TTEC Digital Support team along with the user email address(es) and request an Identity provider be created.

8.3.3 PingOne

Note: If required, go to **Attribute Mappings** and map saml_subject to the email address.

- Once the application is saved, download metadata for the JSON file.
- Send the JSON file to TTEC Digital Support team along with the user email address(es).

8.4 Service level

How the service level is calculated depends on the configuration defined in the WFM Adapter.

$$\frac{\text{Answered in threshold} + \text{Abandoned in threshold}}{\text{Answered} + \text{Abandoned}} \times 100$$

$$\frac{\text{Answered in threshold}}{\text{Answered}} \times 100$$

$$\frac{\text{Answered in threshold}}{\text{Answered} + \text{Abandoned}} \times 100$$

$$\frac{\text{Answered in threshold}}{\text{Answered + Abandoned after threshold}} \times 100$$

- **Answered in threshold**: the number of interactions answered before the answered threshold is reached.
- **Abandoned in threshold**: the number of interactions abandoned by the customer after the short abandoned threshold and before the abandoned threshold.
- **Answered**: the number of interactions answered (before and after the answered threshold).
- **Abandoned**: the number of interactions abandoned by the customer after the short abandoned threshold (before and after the abandoned threshold).
- **Abandoned after threshold**: the number of interactions abandoned by the customer after the abandoned threshold.

Note: Chat and message interactions are considered serviced when accepted from the queue. Case and lead interactions are considered serviced when completed.

8.5 Queue prefixes

Media type	Direction	Queue prefix
Chat	Inbound	C_
Cases	Inbound	T_
Leads	Inbound	L_
Messages	Inbound	M_

8.5.1 Glob patterns

A glob pattern using the wild cards " ***** " and " **?** " can be used when creating *Service level*.

- An asterisk (*****) denotes *anything* or *nothing*. For example, **C_*** will match all C_ queues.
- A question mark (**?**) denotes a *single* character. For example, **VO_Test?** will match 'VO_Test2', but not 'VO_TestQueue' or 'VO_Test'.

8.6 Release process

Frequent, low impact releases are done to provide access to the latest features as soon as they are released, typically on Wednesdays. The WFM Adapter architecture is designed to minimize data loss during updates.

Updates to the WFM Adapter user interface and reporting client application are delivered seamlessly but the RTA feed may be interrupted for up to 10 seconds; the historical feed is not impacted.

If there are reports in progress of being generated at the time of the push, the update will wait and retry every minute until successful. After an hour of waiting, the update will force a restart of the client application if required.

Standard updates include new features, improvements, and minor bug fixes. During implementation, the project team communicates necessary releases to the customer. After project implementation, the customer receives product updates from the Support and Product Management teams.

- Schedule: Automatically applied to all regions on Wednesdays at 2pm MST.
- Announcement: The release announcement is sent to customers as soon as the update is complete. If an update requires you to change configuration in the UI or WFM, or changes how a metric is reported, we send an announcement at least 1 week prior to the update.

Hot fixes are urgent bug fixes. During implementation, the project team communicates necessary releases to the customer. After project implementation, the customer receives product updates from the Support and Product Management teams.

- Schedule: Deployed when it is ready. The deployment schedule can be outside of the standard update schedule.
- Announcement: The release announcement is sent to customers as soon as the update is complete.

Versioning: Releases are versioned by date.

Salesforce package

The customer is given time to evaluate, plan and implement Salesforce package updates. Updates are only added to the latest package; we strongly recommend keeping pace with package updates to take advantage of new features and improvements.

Standard updates include new features, improvements, and minor bug fixes. During implementation, the project team communicates necessary releases to the customer. After project implementation, the customer receives product updates from the Support and Product Management teams.

- Schedule: The customer is responsible for applying the package updates in sandbox and production and should make their best attempt to be on the latest version.
- Announcement: Release announcement is sent out when the package is released. The release announcement contains the release notes and information you should consider or need to do the installation.

Hot fixes are urgent bug fixes. During implementation, the project team communicates necessary releases to the customer. After project implementation, the customer receives product updates from the Support and Product Management teams.

- Schedule: The customer is responsible for applying the package updates in sandbox and production and should make their best attempt to be on the latest version.

- Announcement: Active communication with the customer requiring the fix. Release announcement is sent out when the package is released. The release announcement contains the release notes and information you should consider or need to do the installation.

Versioning: a three-part version number A.B.X, where:

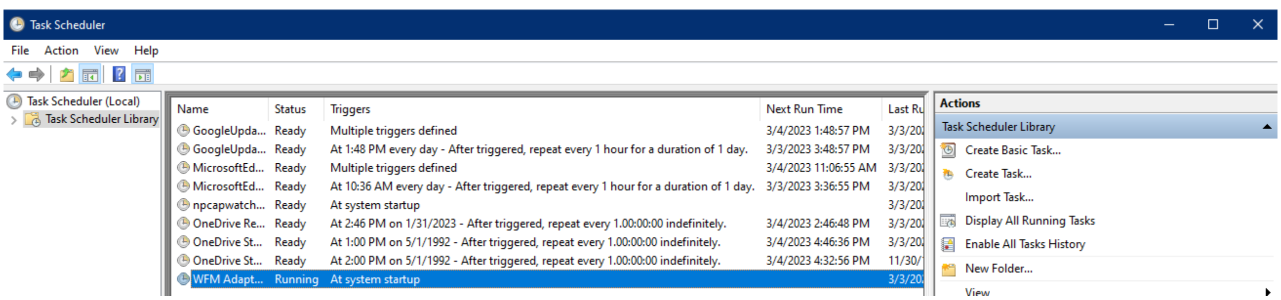
- Increments in A = major release. Major releases are big changes such as a group of new features, new UI, architectural change, etc. Package 2.0 is considered a major release since it changes the architecture of the Salesforce package.
- Increments in B = minor release. Minor releases are functional changes such as a new feature, improvements to an existing feature and major bug fixes.
- Increments in X = patch release. Patch releases are smaller bug fixes such as spelling mistakes on the UI.

8.7 Removing WFM Adapter

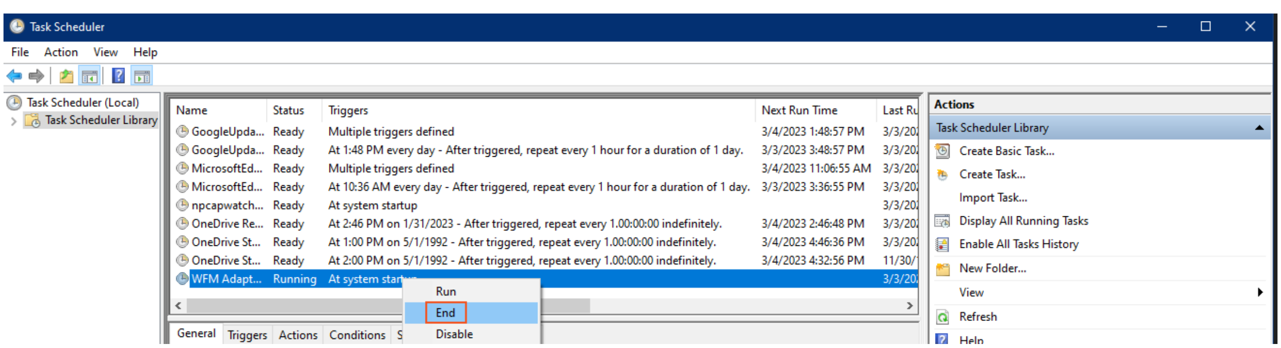
8.7.1 Remove unmanaged integrations

This step removes the unmanaged integration application from the host machine:

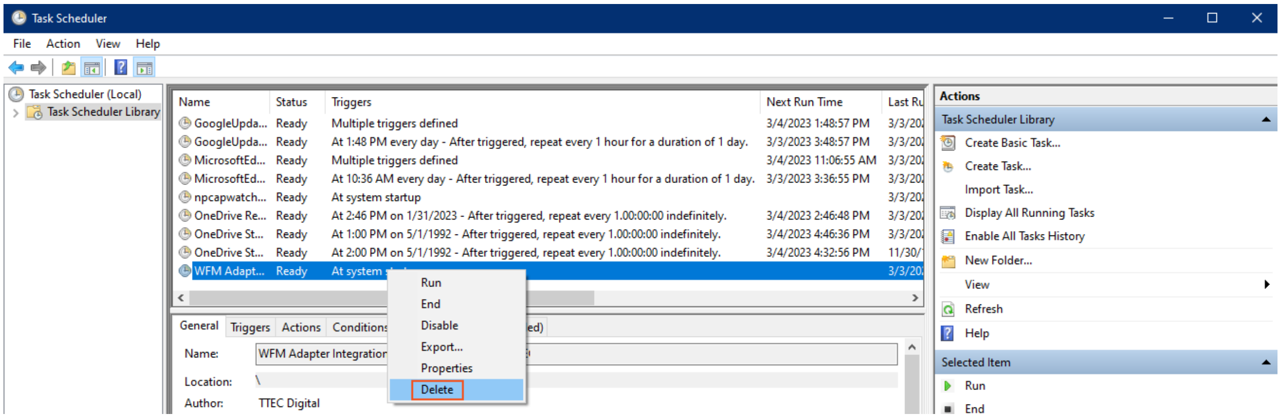
1. Go to the **Task Scheduler** on the host machine.



2. On the selected startup task, right-click and select **End**.



3. On the same selected startup task, right-click and select **Delete**.



4. Delete the executable for each installed integration. E.g., `salesforce_windows.exe` or `sales-force_linux`.
5. Delete the `WFM_Adapter.bat` file.
6. If necessary, delete any log or report folders created by the WFM Adapter configuration.

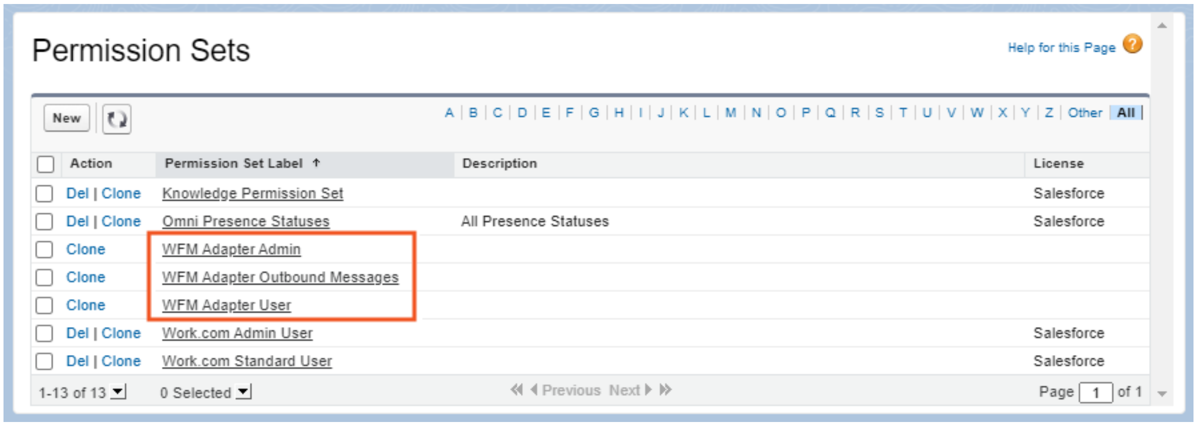
   Note: To reinstall integrations configured in WFM Adapter, go to the appropriate Destination and click Get installer again. See *Create a Destination*.

8.7.2 Delete a source or destination

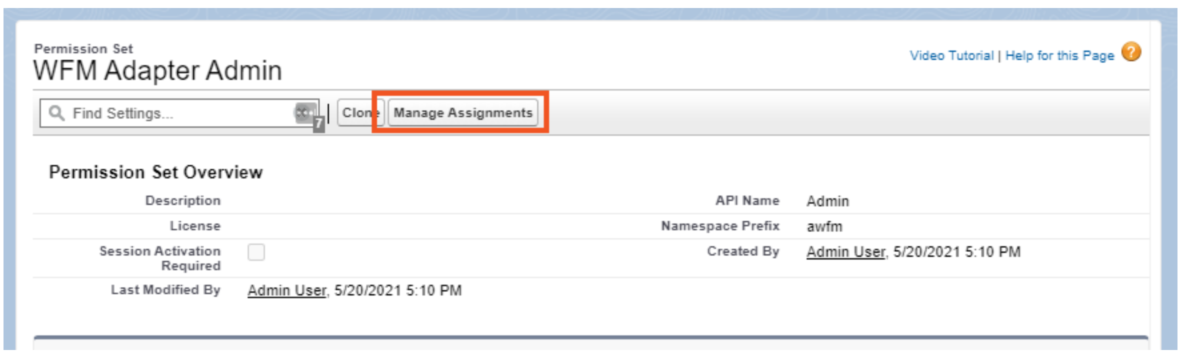
A source or destination can be erased by clicking the **Delete** button. This cannot be undone; only delete configuration when it is no longer needed.

8.7.3 Remove assignments of WFM Adapter permission sets

1. In Salesforce from Setup, using the Quick Find box, search for and select **Permission Sets**.
2. Click on the permission set label.



3. Click **Manage Assignments**.



4. Select all the users for this permission set. Click **Remove Assignments**.
5. Repeat for each WFM Adapter permission set.

8.7.4 Remove WFM Adapter from the console applications

See *Add WFM Adapter to an existing App Console* to edit the required console applications and remove the WFM Adapter console component.

8.7.5 Uninstall Salesforce package

This task removes the package from Salesforce. For more information, see https://help.-salesforce.com/articleView?id=distribution_uninstalling_packages.htm.

1. From Setup, using the Quick Find box, search for and select **Installed Packages**.
2. Find the WFM Adapter package in the Installed Packages list and click **Uninstall**.

3. Select **Yes, I want to uninstall this package**.

   Note: Remove the associations with WFM Adapter. When all the dependencies are removed, return to the WFM Adapter Package Detail page and review the status of the **Uninstall** button.

4. Click **Uninstall**. The application sends an email to your Salesforce login email account to confirm a successful uninstall. View the email to confirm the uninstall.

9 Revision history

Date	Description of change
June 10, 2025	Added *Handling Deleted Queues in WFM Adapter* topic to the *Queues* section. Updated *Forgot Password* section.
September 18, 2024	Updated *Configure WFM app settings* and *Templates* section.
January 9, 2024	Updated Rename a scope section to *Manage a scope*.
October 24, 2023	Added limitation to the *Agent scorecard* in the Schedule section.
October 2, 2023	Updated the WFM Adapter user interface.
May 10, 2023	Added *Reset Scheduled Jobs* to the WFM Adapter app settings section.
April 25, 2023	Updated *ASCWS* section with *Send reason with work status* option.
March 7, 2023	Removed *Aria* and updated *Configuring a proxy, Removing WFM Adapter* sections. Removed *Aria* and updated *Client installer* section.
January 13, 2023	Updated document to TTEC branding. Updated product name to WFM Adapter.
November 22, 2022	Updated RTA Preview columns with new arrangement. Updated *Reports Download* functionality to display the number of selected reports to download.
October 12, 2022	Updated WFM Adapter user interface. Added new *Configure SSO Providers* section. Updated *Accessing WFM Adapter* section with request user account and sign-in process. The Report preview tool has been deprecated. Added new *Download Reports* section. Updated *RTA preview* functionality to display all agent statuses in a single table.
August 31, 2022	Updated *Configure WFM Adapter app settings* section. Added support for lead interactions.
July 12, 2022	Added instructions for configuring a specific proxy server for the reporting client.
June 13, 2022	Updated historical report delivery methods with connection retry process.
April 20, 2022	Added support for Canadian region. Updated *Media* section.
March 15, 2022	Updated the *Salesforce: package upgrade* section.
March 9, 2022	Added option to set the environment stage for Sources and Destinations.
February 9, 2022	Updated screen shots for user interface.
January 26, 2022	Added *Skills* and *Queue rules* sections.
December 15, 2021	Added support for message interactions from SMS, Facebook messenger, and WhatsApp.
November 25, 2021	Replaced Rules section with two new sections, *Queue rules* and *Campaign rules*.
October 27, 2021	Added note addressing the inability to use a temporary login to install the reporting client.
October 14, 2021	Updated Destination > *Groups* section.
October 6, 2021	Added queue name restrictions to *Rules* section. Updated document to Avtex branding.

Date	Description of change
September 29, 2021	Updated screen shots with new UI look. Updated *Configure WFM Adapter app settings* section.
September 1, 2021	Updated *Configure WFM Adapter app settings* section. Added *Media* section.
August 25, 2021	Changed temporary password expiry from 7 days to 30 days.
August 18, 2021	Added new option, *Send reason with ready status*, to the *RTA* section of the Destination settings. Updated *Assign agent permissions* section: added step to verify system permissions.
July 13, 2021	Updated *Remove unmanaged configuration* section. Removed the Salesforce package URL from the *Salesforce package configuration* section. The package URL is available in the Release Notes document.
June 23, 2021	Updated the *Reports preview* section.
June 1, 2021	Revised *About WFM Adapter* section, adding network configuration diagrams. Revised *Salesforce package configuration* section.
March 10, 2021	Added *Reports* and *RTA preview* sections.
January 21, 2021	New version of WFM Adapter of Salesforce - cloud edition.