

BT Cloud Work for ServiceNow

Powered by Tenfold

Admin Guide for configuring ServiceNow integration



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Introduction

Audience

This document is directed to customers and prospective customers interested in using Tenfold and BT Cloud Work in a Bullhorn environment. Those who will perform the procedures described in this guide should have a basic level of familiarity with ServiceNow APIs, ServiceNow administration, general networking, and Tenfold.

Goals

The goal of this document is to provide knowledge, reference, and procedural information necessary to understand a proposed ServiceNow/Tenfold/BT Cloud Work integration. This document is NOT intended as a specific system or network design document. If further clarification is needed, please contact BT Cloud Work support at <https://support.btcloudphone.bt.com/>

Customer Responsibilities

You are responsible for supplying the physical and/or IP connection(s) to ServiceNow and LAN, and for obtaining and loading any licensing required by ServiceNow. You are also responsible for configuring ServiceNow to support the Tenfold integration. Responsibilities for ServiceNow management include but are not limited to maintaining a customized Role within ServiceNow with the minimum amount of permissions required for a viable integration and maintaining the RESTlet scripts loaded into the ServiceNow scripts folder

Terminology

To ensure a common frame of reference, this guide uses the following terms in conjunction with this ServiceNow integration:

- **Application programming interface (API):** A set of clearly defined methods of communication used by Tenfold for reading and writing data.
- **Click-to-dial:** A feature in the Tenfold UI that allows agents to click a phone number to dial a contact.
- **RESTlet:** Server-side scripts that interact with ServiceNow data following RESTful principles. RESTlets extend the SuiteScript API to allow custom integrations with ServiceNow and improve performance.
- **Tenfold cloud:** A set of web services that receives events from the telephony system and takes further action such as querying and saving to the CRM.

- **Tenfold user interface (TUI):** An agent facing user interface that agents will interact with for identifying callers, viewing recent activities, saving notes, dispositioning calls, etc.

Integration Overview

Connection Requirements

- Accessible through any browser
- Dedicated Service Account (i.e., API User)

Version Requirements

- ServiceNow version must be at least London or Madrid.
- Accessible via TCP port 443 (https) to Tenfold Cloud
- Dedicated Service Account (i.e., API User)

Considerations

If using non-standard forms, please consult with Tenfold to understand supportability.

Installation

Installation Requirements

Tenfold for ServiceNow integration requires “Openframe” and “Customer Service” plugins installed for making all functions work properly. Please, install mentioned plugins before making any integration-related setup. In the case plugins are not installed, the installation wizard will show the appropriate error message that describes the problem. Other prerequisites:

- Windows or Mac-based computer
- Google Chrome browser
- Granted access to ServiceNow for Tenfold servers from [Whitelist](#)
- Administrative access to the organization’s ServiceNow instance with installed [Openframe](#) and [CSM](#) plugins
- Supported by Tenfold phone system

Installation Process

1. First step

Tenfold uses a single user with enough permissions to access system tables and tables related to Incident\Case\User>Contact management. The user you want to integrate with should be authenticated by using OAuth standard procedure. In order to access UI pages and the API of the Tenfold application, the user should be assigned to the Role x_93331_tenfold_sn.user.

2. Permissions

The following table contains a list of tables and access rights that should be manually assigned to a selected user by the system administrator

Privilege	Value	Table	Table Scope
Read	Allowed	cmn_department	Global
Read	Allowed	cmn_location	Global
Read	Allowed	core_company	Global
Read	Allowed	customer_account	Global
Create	Allowed	customer_contact	Global
Write	Allowed	customer_contact	Global
Read	Allowed	customer_contact	Global
Create	Allowed	incident	Global
Write	Allowed	incident	Global
Read	Allowed	incident	Global
Create	Allowed	incident_task	Global
Write	Allowed	incident_task	Global
Read	Allowed	incident_task	Global
Create	Allowed	sn_customerservice_case	Customer Service
Write	Allowed	sn_customerservice_case	Customer Service
Read	Allowed	sn_customerservice_case	Customer Service
Create	Allowed	sn_customerservice_task	Customer Service
Write	Allowed	sn_customerservice_task	Customer Service

Read	Allowed	sn_customerservice_task	Customer Service
Create	Allowed	sn_openframe_phone_log	openframe
Write	Allowed	sn_openframe_phone_log	openframe
Read	Allowed	sn_openframe_phone_log	openframe
Read	Allowed	sys_choice	Global
Read	Allowed	sys_dictionary	Global
Create	Allowed	sys_user	Global
Write	Allowed	sys_user	Global
Read	Allowed	sys_user	Global
Read	Allowed	task	Global

Make sure to create ACLs on Incident [incident], Incident Task [incident_task], Task [task], Case [sn_customerservice_case], Customer Service Task [sn_customerservice_task], and Follow On Task [cert_followon_task] tables to give read permissions for the “x_93331_tenfold_sn.user” role. Depending on your release version, you might face issues when creating Cases. If you have any trouble doing so, add the sn_customerservice_agent role to the integration user as well.

Just specify the instance you want to be authenticated against and then press the “Change User” button to go through the authentication process. After saving the settings, the Tenfold system automatically performs a check of connection and remembers the connection settings.

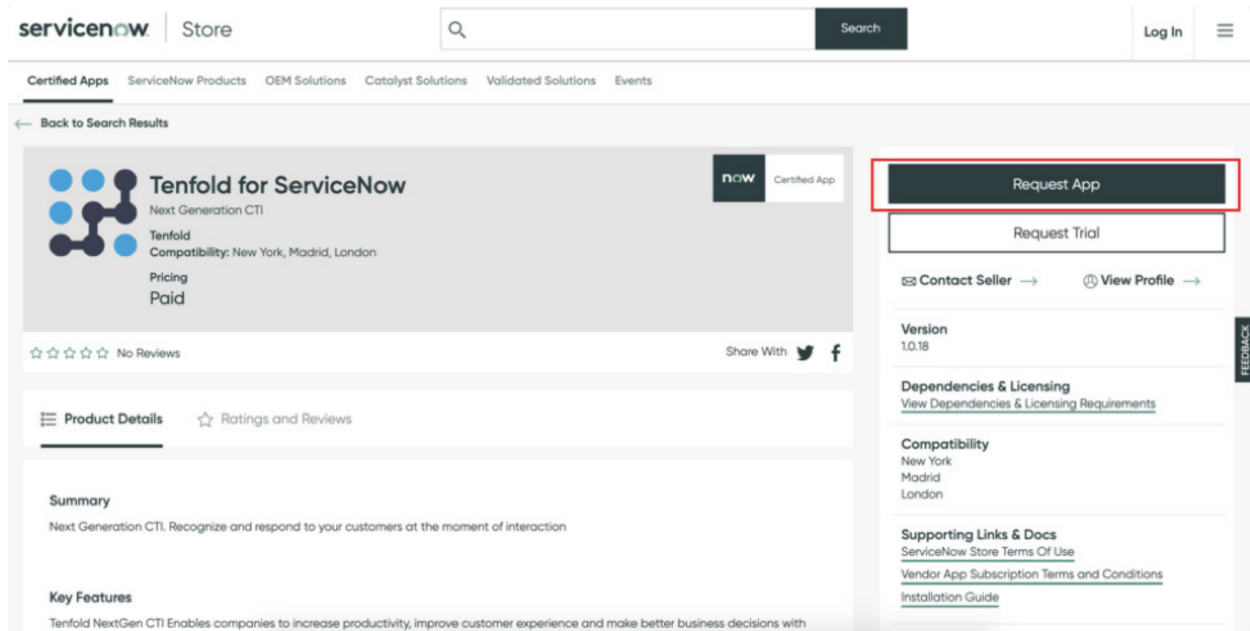
3. Task Settings for User Role

Make sure to create ACLs on Incident [incident], Incident Task [incident_task], Task [task], Case [sn_customerservice_case], Customer Service Task [sn_customerservice_task], and Follow On Task [cert_followon_task] tables to give read permissions for the “x_93331_tenfold_sn.user” role. Depending on your release version, you might face issues when creating Cases. If you have any trouble doing so, add the sn_customerservice_agent role to the integration user as well.

4. Request App

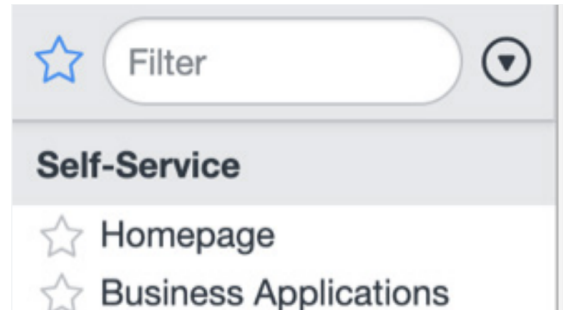
Navigate to the ServiceNow store and find the [Tenfold listing](#)

Upon requesting the app, submit your ServiceNow instance name to your BT Cloud Work contact person. They will approve your request and assign the app.

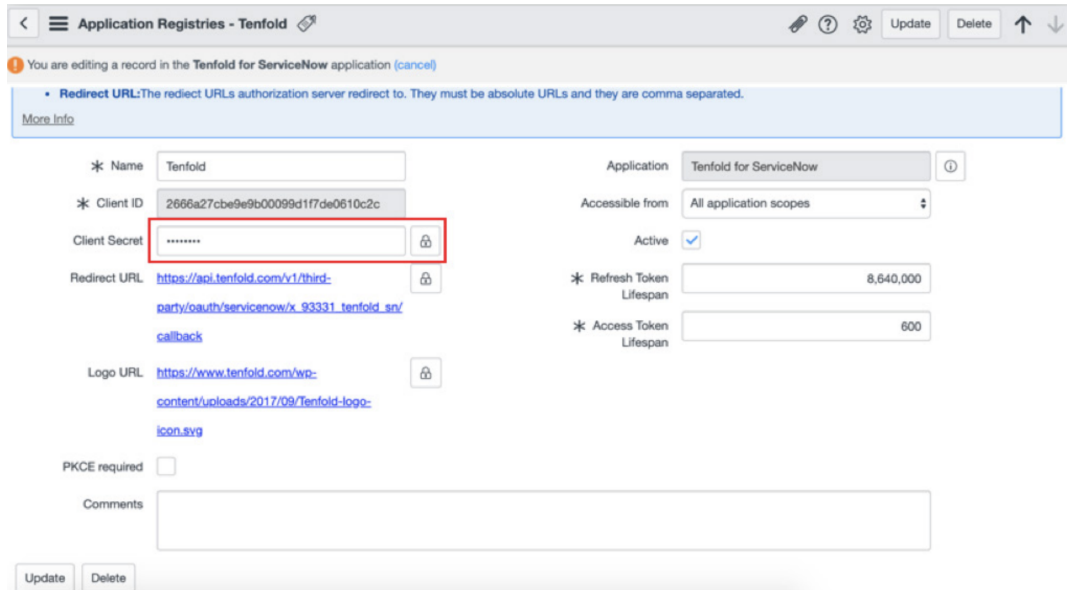


5. Obtaining Client Secret

Log in to ServiceNow as an admin with elevated privileges at "security_admin" and navigate to the **Application Registries** page. You can do this by searching within the left pane of the screen using the "filter navigation".



Within the **Application Registries** page, find Tenfold and open its details by clicking on the Tenfold name. Unlock visibility to the **Client Secret** by selecting the lock icon next to the field. It will be randomly generated, and you can modify it if preferred. This value will be leveraged when authenticating your ServiceNow instance within the Tenfold portal.



Application Registries - Tenfold


You are editing a record in the **Tenfold for ServiceNow** application [\[cancel\]](#)

Redirect URL: The redirect URLs authorization server redirect to. They must be absolute URLs and they are comma separated.


[More Info](#)

* Name:

* Client ID:


Client Secret: 

Redirect URL:

Logo URL: 

PKCE required: ☐

Comments:

Application: 

Accessible from:

Active: ☒

* Refresh Token Lifespan:

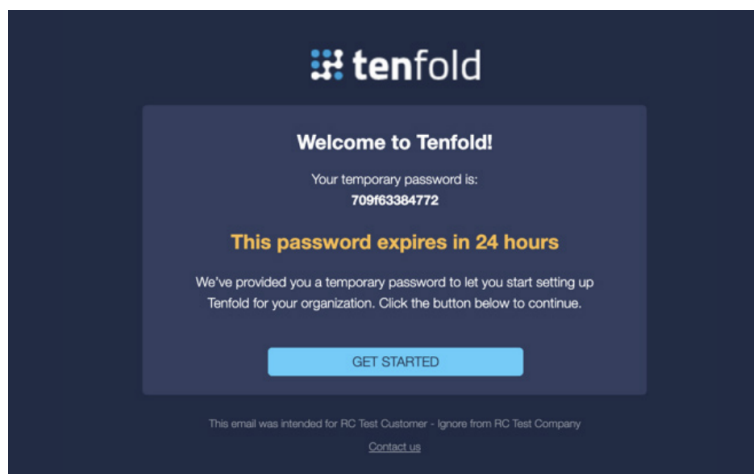
* Access Token Lifespan:

[Update](#) [Delete](#)

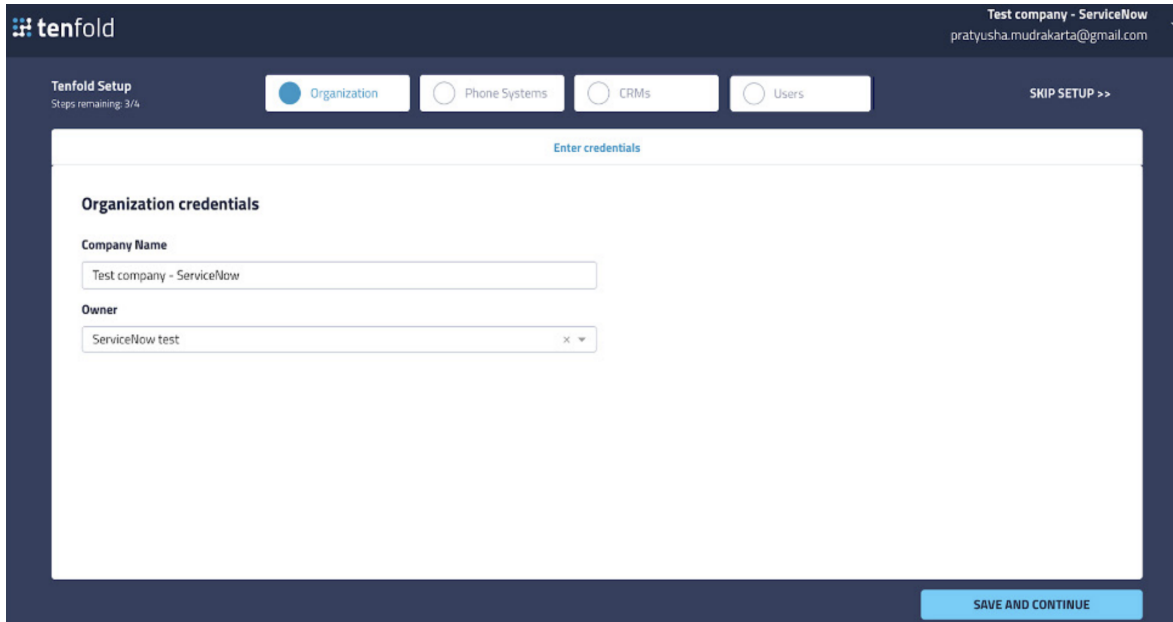
6. Tenfold Account Creation and Dashboard Setup

New customers of the integration are taken through an onboarding wizard where CRM admins of the company can follow a step-by-step procedure to establish and test the connection with their CRM, Tenfold, and BT Cloud Work. It only takes a few minutes.

1. After requesting the Tenfold integration in the BT Cloud Work App Gallery, check your email for instructions on how to create your Tenfold account.



2. Accept the invite, set your password, and set your organization details.



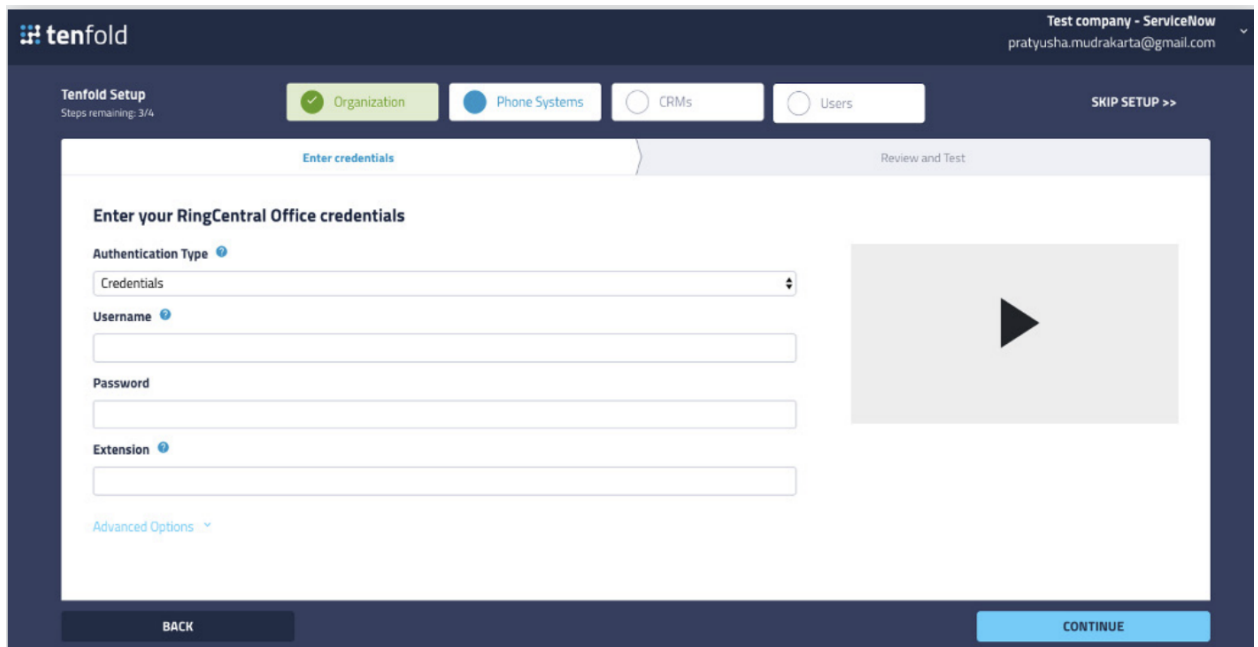
The screenshot shows the 'Tenfold Setup' interface. At the top, the 'Organization' step is selected, indicated by a blue circle. Below the header, there are four tabs: 'Organization', 'Phone Systems', 'CRMs', and 'Users'. The 'Organization' tab is active. The main content area is titled 'Enter credentials' and contains the following fields:

- Company Name:** A text input field with the value 'Test company - ServiceNow'.
- Owner:** A dropdown menu with the value 'ServiceNow test'.

At the bottom right, there is a blue button labeled 'SAVE AND CONTINUE'.

3. Under Authentication Type, select **OAuth**. Then, under **Select Your Environment**, select your company's BT Cloud Work production or sandbox environment to be connected to Tenfold. This step allows the CRM users who are provisioned to a Tenfold account to have a BT Cloud Work phone number assigned to them.

Note: You can always reach this page by logging in to the Tenfold dashboard on a browser. Click **Company Settings**, then click **Phone Systems** from the menu

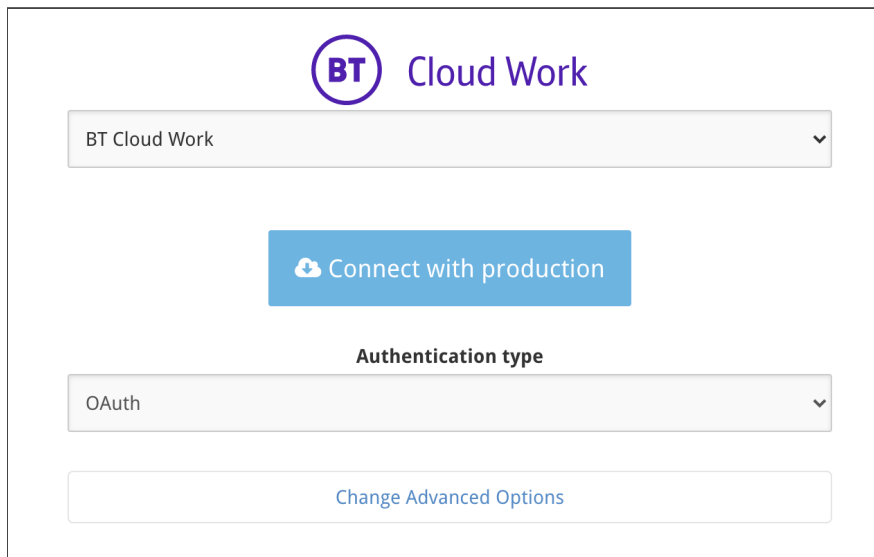


The screenshot shows the 'Tenfold Setup' interface. At the top, the 'Phone Systems' step is selected, indicated by a blue circle. Below the header, there are four tabs: 'Organization', 'Phone Systems', 'CRMs', and 'Users'. The 'Phone Systems' tab is active. The main content area is titled 'Enter your RingCentral Office credentials' and contains the following fields:

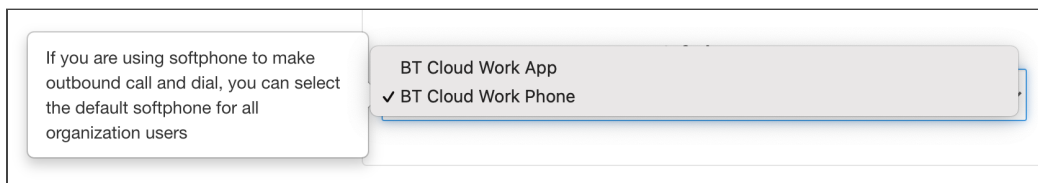
- Authentication Type:** A dropdown menu with the value 'Credentials'.
- Username:** A text input field.
- Password:** A text input field.
- Extension:** A text input field.

At the bottom left, there is a blue button labeled 'BACK'. At the bottom right, there is a blue button labeled 'CONTINUE'. On the right side of the form, there is a large grey rectangle with a black play button icon.

4. Select **BT Cloud Work** as your phone system and connect using OAuth (Recommended)



You can also select the default calling app/softphone for your org by **Change Advanced Options**
 -> **Softphone**



5. Select your CRM to connect your company's CRM account* with admin privileges to the Tenfold account. Hit Continue.

Enter inputs for:

- Client ID
- Client Secret (obtained from Step 5)
- Hostname (for example, <https://dev65068.servicenow.com>)
- TaskModule as either Incident Task, Customer Service Task, or Follow On Task

Hit **Continue**.

This step is required to pull all the users from the CRM account into Tenfold so that the users of the CRM can provision the Tenfold integration

Note: You can always reach this page by logging in to the Tenfold dashboard on a browser. Click **Company Settings**, then click **CRMs** from the menu.

*Multiple CRM connections are not yet supported by Tenfold. Create two separate Tenfold accounts to connect more than one CRM integration

Tenfold Setup

Steps remaining: 3/4

Organization

Phone Systems

CRMs


Users

SKIP SETUP >>

Select your source(s) to begin syncing users

All available user data from your CRMs and Phone Systems will be imported

☒



ServiceNow

BACK

SYNC

tenfold

Test company - ServiceNow

pratyusha.mudrakarta@gmail.com

Tenfold Setup

Steps remaining: 3/4

Organization

Phone Systems

CRMs

Users

SKIP SETUP >>

Enter credentials

Review and Test

Enter your ServiceNow credentials


Client ID

Client Secret

Hostname

TaskModule

Incident Task



BACK

CONTINUE

- Click on **Sync**. The users list and dashboard will be updated with the CRM users linked to their phone extensions

Note: BT Cloud Work extensions are auto-assigned based on fuzzy match between the users' first and last names in the CRM or BT Cloud Work

tenfold

Test company - ServiceNow
pratyusha.mudrakarta@gmail.com

Tenfold Setup
Steps remaining: 3/4

Organization

Phone Systems

CRMs

Users

SKIP SETUP >>

Select your source(s) to begin syncing users

All available user data from your CRMs and Phone Systems will be imported

ServiceNow

BACK

SYNC

- Next, click **Invite** under the Status column to invite the users who are going to be using the integration

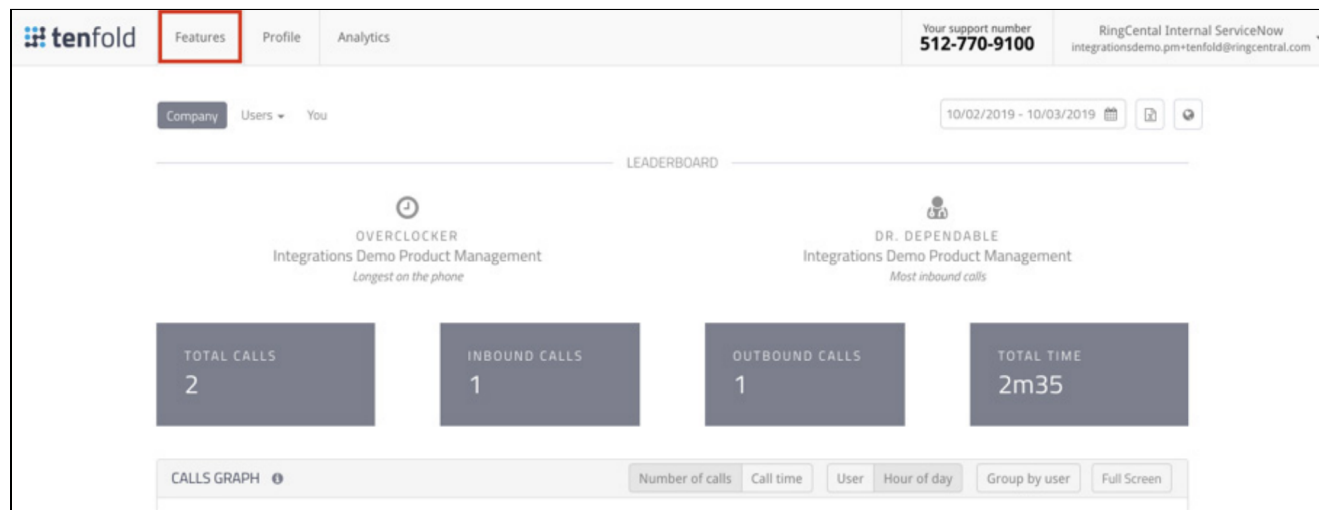
Note: If the phone extensions are not auto-assigned, click the “+” icon and manually assign the corresponding phone extension to the user.

tenfold	Users	Company settings	Features	Profile	Analytics	Troubleshooting	Your support number 512-770-9100	RingCentral Internal SugarCRM pratyusha.mudrakarta@ringcentral.com
You are using 1 users out of 10 licensed users, 24 users imported.								<a>Create User <a>Download CSV <a>Import Users <a>Synchronize users
Name ID:	Username ID:	<div> <div>104 x</div> <div>Use for Click to Dial</div> <div>Device Settings</div> </div>	Device	CRM User Linked	Status ID:	Settings ID:		
Pratyusha Mudrakarta	pratyusha.mudrakarta@ringcentral.com	<div>Select extension. Type to filter.</div>		✓	✓			
Alexa Smith	alexa.smith@example.com		+	✓	✗ Invite			
Bruce Wayne2	bruce.wayne2@example.com		+	✓	✗ Invite			
Charlie Townsend	charlie.townsend@bartle-associates.com		+	✓	✗ Invite			
Charlotte Blackwood	charlotte.blackwood@bartle-associates.com		+	✓	✗ Invite			
AP RingCentral (Do not Reply)	@ringcentral.com		+	✓	✗ Invite			

Feature Setup

Setting up features will allow you to better utilize what Tenfold has to offer.

1. To enable and update features, log in to your Tenfold dashboard.
2. In the top left, click on **Features**.
3. Here you will be able to adjust the individual user features such as click-to-dial, enable/disable SSO, and more



Embedding Tenfold within ServiceNow

Ensure that both the OpenFrame plugin and Tenfold for ServiceNow from the ServiceNow store are installed and enabled.

In the "filter navigator" under **System Properties**, go to **OpenFrame**.

The Tenfold for ServiceNow app should have added an OpenFrame configuration titled "Tenfold Embedded UI". If it's not there, you may create a new one.

Now, edit the OpenFrame configuration window and apply the following settings:

1. Set the configuration to Active.
2. Set the desired width and height (285 x 600 pixels is recommended).
3. Edit the URL with the following:

<https://app.tenfold.com/servicenow.html?base=<<your instance URL>>>

Example: <https://app.tenfold.com/servicenow.html?base=https://dev65068.service-now.com>

4. Save the configuration.

openframe

OpenFrame Configuration - Tenfold Embedded UI

System Properties

OpenFrame

Name: Tenfold Embedded UI

Title: Tenfold

Subtitle:

Order: 0

Enable collapsed view: ☐

Active: ☒

* Width: 285

* Height: 600

Icon Class: icon-phone

Title Icon:

User Group:

Available:

- CAB Approval
- Capacity Mgmt
- Catalog Request Approvers > \$1000
- Catalog Request Approvers for Sales
- Consumer Service Support
- Customer Service Support
- Database
- Database Atlanta
- Database San Diego
- Field Services

Selected:

Selecting no group is equivalent to selecting all groups

URL: <https://app.tenfold.com/service-now.html?base=https://ven01492.service-now.com>

Configuration:

Update Delete

Whitelist App Origin

It may be necessary to whitelist the Tenfold app origin so that the OpenFrame frame can communicate with the top frame.

1. In the **filter navigator**, type “sys_properties.list” and press enter on your keyboard.
2. Search for the property “glide.ui.concourse.onmessage_enforce_same_origin_whitelist”.
3. Edit this property and add “https://app.tenfold.com” to the Value textbox.

System Properties

New Search

Name Search

All > Name >= glide.ui.concourse.onmessage_enforce_same_origin_whitelist

Search

Search

glide.ui.concourse.onmessage_enforce_same_origin_whitelist https://app.tenfold.com

System Property - glide.ui.concourse.onmessage_enforce_same_origin_whitelist

Name: glide.ui.concourse.onmessage_enforce_sa Application: Global

Description: List of trusted origins we allow to propagate messages (sent via window.postMessage) in the UI. Origins can be separated by comma, space or new line.

Choices:

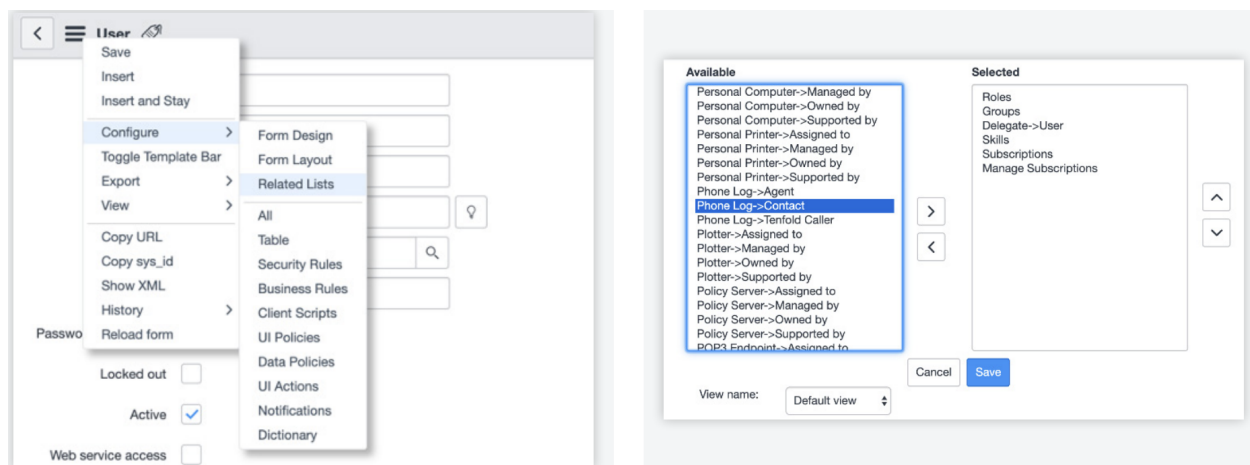
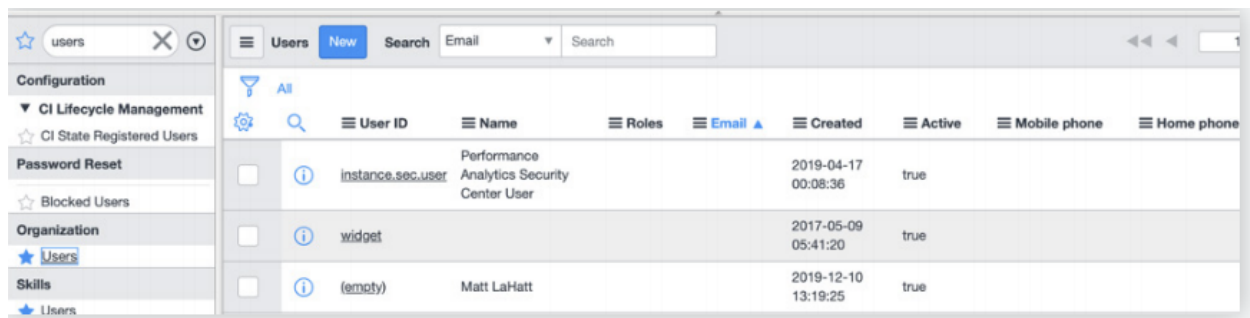
Type: string

Value: https://localhost:8201, https://apps.ringcentral.com, https://app.tenfold.com

Add Phone Call Within User Record

By default, ServiceNow does not display the list of calls associated with a given record, but this can be easily configured.

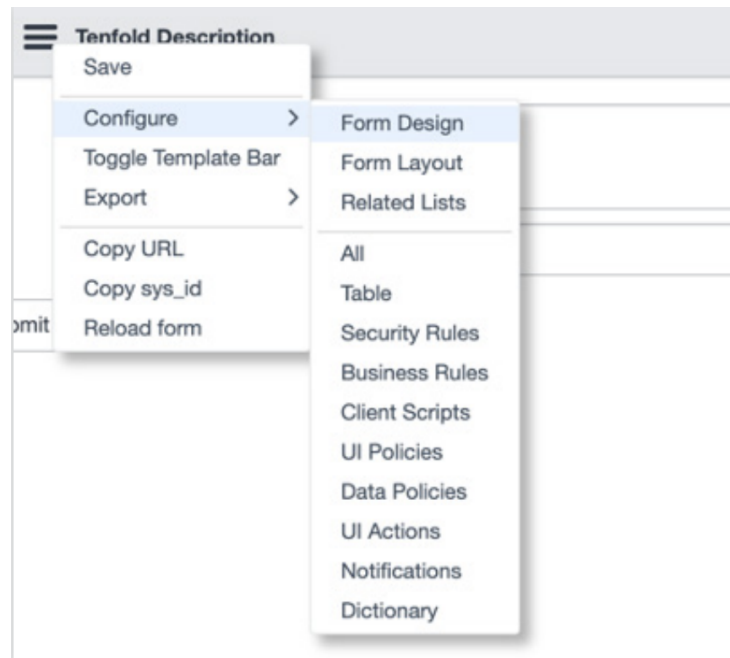
1. Search for **Users** in the left Filter Navigation tab.
2. Click on **Users**
3. Click on one of the users to open the user details view.
4. Click on the menu in the user details and select **Related Lists**
5. Select **Phonelog->Contact** from the **Available** section and move it to the **Selected** section.
6. Click **Save**.



Enable Notes to Be Displayed in ServiceNow

Tenfold creates a custom field for phone calls in ServiceNow. This field can be seen as “Display: false”.

1. Go to the phone call page using the URL:
`https://{domainHere}.service-now.com/sn_openframe_phone_log.do.`
2. Click on the menu beside Tenfold Description and select **Configure** then select **Form Design**.
3. On the left hand side of the screen, you will see the field available to add.
4. Move the Tenfold Description field onto the screen and click **Save**.



Using Tenfold with BT Cloud Work

Note: For the following calling features, users need to install the [BT Cloud Work softphone app](#) or [BT Cloud Work Unified app](#). For call logging and notes, users need to install the [Tenfold Chrome extension](#)

Call Controls give users the option of managing controls such as Answer, Mute, Keypad, Hold, Record, Transfer, Hangup and more directly from within the BT Cloud Work SoftPhone or BT Unified desktop app. Some call controls are also available on the Tenfold UI for easy access.

Inbound Calling automatically captures inbound calls in CRM whether or not a user interacts with the Tenfold UI or the BT Cloud Work SoftPhone desktop app.

Outbound Calling allows users to place a call through the BT Cloud Work desktop app. The appropriate record is then matched in the Tenfold UI. All calls will reflect in call history, both in the Tenfold and BT Cloud Work apps.

Furthermore

To make phone service integration possible, Tenfold doesn't utilize any extra connections except for connections to the ServiceNow instance provided during configuration (using REST API) and the PBX system. This also means that there are no ServiceNow UI changes performed during installation.

Testing the Configuration

To make sure that the ServiceNow instance of your organization and PBX system are working properly, just visit "Company Setting -> CRM" and "Company Settings -> Phone System" pages from within the organization's dashboard. Once you've entered those pages, the health check is performed and the current integration status will be available on the top of the page.

Demo Data

Any record data in ServiceNow (user, contact, task, incident, etc.) will be available in the Tenfold dashboard when the phone system and ServiceNow instance are correctly configured. No additional configurations required.

Please contact BT Cloud Work support at <https://support.btcloudphone.bt.com/>