

TIBCO Flogo® Enterprise

Transition Guide

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Getting Started

To remove the effort of installing and updating TIBCO Flogo[®] Enterprise, the functionality of TIBCO Flogo[®] Enterprise web UI is now delivered as a part of the hosted TIBCO Cloud Integration environment. The option to set up TIBCO Flogo[®] Enterprise web UI locally is no longer available. This does not affect app deployment options supported with TIBCO Flogo[®] Enterprise and the latest Flogo features are accessible from TIBCO Cloud[™] Integration.

This guide provides introduces you to the concepts of TIBCO Cloud[™] Integration, provides pointers on how to create a new Flogo app using TIBCO Cloud[™] Integration, and migrate an existing app (created using release 2.14.0 or a prior release) from Flogo Enterprise to TIBCO Cloud[™] Integration.

If you are entitled to TIBCO Flogo Enterprise and you would like to get access to TIBCO Cloud Integration to design your TIBCO Flogo apps, you can send a Support Request on https://supportapps.tibco.com/ to provide the required Cloud contact details for us to provision Cloud access.

Activating Your TIBCO Cloud Integration Account

To use TIBCO Cloud Integration, you must first activate your TIBCO Cloud[™] Integration - Flogo[®] account.

Before you begin

After your TIBCO Cloud Integration account is successfully created, you receive an email with the account activation link. Keep the email handy.



Note: If you have not received an invitation by email to register to TIBCO Cloud[™] Integration - Flogo[®], contact TIBCO Support.

To activate your account:

Procedure

1. Open the email inviting you to register to TIBCO Cloud[™] Integration - Flogo[®] and click Activate your account.

The Activate your TIBCO Account form is displayed.

2. Fill in the form.

The first name, last name, company, and email address fields are auto-populated. Note that, you can make changes in all the fields on the form except the **Email** Address field.



Note: If you have not received an email to register to TIBCO Cloud™ Integration - Flogo[®], contact TIBCO Support.

- 3. Type a password for your account and confirm it.
- 4. Select the check box to agree to the End User License Agreement and the Terms of Services and click **ACTIVATE**.

Result

Your account is activated. The domain is opened in the region that was recommended by TIBCO Cloud or in the region that you selected. You can use all the capabilities the domain has to offer.

After you sign up, you are assigned a TIBCO Cloud account and an organization. You are now the owner of this organization.

Requesting a New Activation Link

After your TIBCO Cloud account is successfully created, you receive an email with the account activation link. This link is valid only for 72 hours. If you do not activate your account within this time, you can request for another link to be sent to your registered email address (that you provided in the sign-up form).

Procedure

- 1. Go to cloud.tibco.com and, on the top bar, click **SIGN IN**.
- 2. When prompted, select a region for your TIBCO Cloud subscription.
- 3. On the Sign in to TIBCO Account page, enter your email address and click **NEXT**. You

are prompted to enter your password.

4. To request a new activation link, click **Need help with Log in**, and in the new window that opens, click **Resend activation link**.

TIBC	
TIBC	х
If you are a Federated User, please contact your service provider. If you are a TIBCO Accounts User, please click Reset password Resend activation link	
TIBCO LOGIN	
Need help with Login?	
OR	
G Sign in with Google	

5. In the Resend Account Activation Link window, enter your email address and click **SEND**.

Resetting the Password

You might want to change passwords regularly simply as a best practice or because you forgot the password. You can reset your TIBCO Cloud password in just a few easy steps.

Before you begin

You must be a TIBCO Cloud user to reset the password by using this method. If you are using TIBCO Cloud Federated Authentication, contact your service provider to reset the password.

Procedure

- 1. Go to cloud.tibco.com and, on the top bar, click **SIGN IN**.
- 2. When prompted, select a region for your TIBCO Cloud subscription.
- 3. On the Sign in to TIBCO Account page, enter your email address and click **NEXT**. You are prompted to enter your password.
- 4. To reset your password, click **Need help with Log in**, and in the new window that opens, click **Reset password**.



5. In the Reset Password window, enter your email address and click **SEND**.

TIBCO Password Policy

The password policy for users whose passwords are managed by TIBCO is as follows:

- The minimum password length is eight characters. No other password complexity rules are enforced.
- Users can change the password as frequently as required.
- Users are locked out of the system for one minute after three consecutive incorrect passwords. They can attempt again after waiting for a minute.



Note: TIBCO does not manage the account lockout and password policies for the users of an organization for which external IdP has been configured.

Signing in for Existing Users

If you are an existing user, you can sign in with your TIBCO account or with your Federated credentials.

Procedure

1. Click the link in the email to sign in. The Sign in to TIBCO Account page is displayed.

TIBC	
Sign into TIBCO [®] Account To continue to TIBCO Cloud	
Email Address	
Email Address	
NEXT	
Or Sign in with	
Your corporate account	
Google	

2. Click **NEXT**.

A notification is sent to the email address you used to sign in to TIBCO Cloud.

You can start using the domain and its capabilities.

If you are an organization owner, you can also add new subscriptions from the **Subscription** tab.

Selecting an Organization

If you are an owner or a member of multiple organizations, when you are signing in, you can select the organization you want to start working in. You can also search for the organization you want to select if you are an owner or a member of more than 10 organizations.

You can see the list of the most recently accessed organizations and the list of all organizations of which you are either an owner or a member.

TIBCO CLOUD [®]			٩
	Select an organization		
	Search	Q	
	Recently accessed	All organizations	_
	▼ TIBCO (12)	Role: owner Select	
	Child1	Role: owner Select	
	Child1	Role: owner Select	
	child10	Role: owner Select	
	Child2	Role: owner Select	
	Child3	Role: owner Select 🗸	

Getting Familiar With TIBCO Cloud Integration

About TIBCO Cloud

With TIBCO Cloud, you can centrally manage multiple accounts and teams and can subscribe to domains across regions. This is done with a single sign-on. Authentication is done either by TIBCO or your identity provider.

You can sign up for TIBCO Cloud and become an organization owner. As organization owners, you can subscribe to domain capabilities as per your requirement. Subscriptions are tied to a region, and therefore, you can have multiple subscriptions in different regions. You can switch between regions with a single click.

You can try the domain capabilities of your choice, explore, and buy them. Click any hexagon representing a domain on the landing page to see its capabilities. From the page that opens, you can start a trial, launch, upgrade, or purchase a domain capability.



About TIBCO Cloud Integration

TIBCO Cloud[™] Integration is TIBCO's integration platform as a service that is designed and built for the cloud. It supports all traditional iPaaS use cases and is optimized for REST-based and API use cases.

TIBCO Cloud[™] Integration hosts and runs instances of different types of apps. It is a wizarddriven web-based tool that enables you to create integration apps without having to leave your browser.

It supports a Zero-Code and API first approach to planning, designing, and implementing integration apps that run in the cloud. There is no coding required to create an API contract and even turn it into a mock app to enable outside developers to start writing their apps without waiting for the internal developers to finish the entire Business logic.

TIBCO Cloud Integration Terminology

Before you start using TIBCO Cloud[™] Integration, reading this topic would be beneficial to understand and use TIBCO Cloud[™] Integration easily. The terms explained here are about TIBCO Cloud[™] Integration.



Account

When you sign up as a new user with TIBCO Cloud[™] Integration, an account is created for you. This is called the TIBCO Cloud[™] Integration account.

Organization

When you sign up as a new user with TIBCO Cloud[™] Integration, you are assigned an organization and you become the organization owner. Thereafter, you can invite other people to become organization owners. All organization owners share the same TIBCO Cloud[™] Integration account. An organization encompasses a group of users, a department in a company, or an entire company.

Domain

The term is used to indicate an area of work in which TIBCO Cloud[™] Integration provides services.

Domain Capability

The term is used to indicate a specific capability in the domain. For example, you might want to purchase Flogo services in the Integration domain.

Region

This is the geographical area of the service to which you are subscribing or want to subscribe TIBCO Cloud[™] Integration provides services in three geographical regions - The United States (US), Europe (EU), and Australia (AU). Your physical presence is not required in a region to subscribe to a service. You can subscribe to:

- Any service from any region
- Any number of services from a region

Subscription

When you purchase a domain capability in a region, it is termed a subscription. For example, you might want to purchase Flogo services in the Integration domain for the US region.

Asset

Any entity that you create by using a subscription in your organization, such as an app or an API service, is an asset.

About Region Instances for TIBCO Cloud Integration

There are multiple instances for the TIBCO Cloud[™] Integration site available in different regions. When you signed up for TIBCO Cloud[™] Integration, your confirmation email contained a sign-up link that indicated where your account was provisioned.

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The following instances are used for Amazon AWS:

- US
- Europe
- Australia

This instance URL is used for Azure.



Note: Some examples and images in the documentation show the URL for the US AWS instance. If you are provisioned on another instance, you can substitute your instance URL.

Organizations

When you sign up to TIBCO Cloud[™] Integration, you are assigned an organization and you become its owner. As an organization owner, you can, among other things, create child organizations.

Organizations are created and administered in the TIBCO Cloud[™] Integration Web UI.

You can logically partition TIBCO Cloud[™] Integration by using organizations.

You can see your current organization or switch to another organization in the global navigation bar.

Child Organization

A child organization is an organization created and owned by a TIBCO Cloud account holder within an organization, making it a child organization.

- All organization owners become the owners of the child organizations.
- Child organizations can have their own subscriptions.



Note: Although there is a limit to the number of child organizations that an organization owner can create, you can contact the TIBCO Support team to modify this limit.

The Behavior of Child Organizations

The following points describe the behavior of child organizations:

 If you enable the option to inherit subscriptions from the parent organization, then at the time of creating a child organization, only the active purchase order subscriptions of TIBCO Cloud[™] Integration are inherited.



Note: When you create a child organization, the active subscriptions that are copied to the child organization are the ones that you have purchased in the region where you are currently signed in to.

For example, if you are signed in to the EU region at the time of creating a child organization, only the active subscriptions from the EU region are copied to the child organization.

- At the time of creating a child organization, the organization users (owners and members) existing in the parent organization are copied to the child organization.
- If you enable the option to sync users when creating a child organization, any of the add, update or delete operations performed on a user of a parent organization are synchronized in all its child organizations.
- When you remove organization users (owners and members) from the organization, they are removed from its child organizations. However, if only ownership privileges are removed, then the users continue to be members of the organization.
- When subscriptions in an organization expire, they also expire in all the child organizations.
- Child organization owners can sign up for trial subscriptions independently.

Managing Your Organization

As an organization owner, you can invite other users to share the organization's ownership. Organization owners can perform the following tasks on the **Settings** tab:

- Update organization name
- Add org owners
- Cancel invitations
- Remove organization ownership privileges
- Invite a Service Account user

Updating Organization Name

You can change the name of your organization.

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Organization > Organization structure** section, click **Update**.
- 3. Click **Save** after changing the name of the organization.

After you update your account information, the relevant information is updated in the TIBCO Cloud subsystems.

Adding Organization Owners

You can invite other users to become owners of your organization.

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Organization > Organization owners** section, click **Add owner**.
- 3. In the **Invite new owner to** *your organization* dialog box, enter the name or email address of the user you want to invite as an organization owner in your organization.
- 4. Click Continue.

A default limit is set for the number of users that you can invite to become owners of your organization. To modify this limit, contact the TIBCO Support team.

Canceling Invitations

If the user, whom you have invited to become a new owner of your organization, has not yet accepted the invitation, you can cancel the invitation by performing the following steps:

Procedure

1. Go to the **Settings** tab.

2. In the **Organization > Organization owners** section, click **Cancel invitation** on the tile displaying the owner's name or email address.

To remove multiple users or cancel multiple invitations, click **Remove owner** or **Cancel invitation** on each of the organization owner's tiles.

Changing the Organization Owner

If you are the only organization owner, you cannot remove yourself from the organization. However, you can first invite another user to join your organization, and then after that user accepts the invitation, you can be removed from the organization owner's list.

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Organization > Organization owners** section, click and on the tile that displays your name and click **Confirm**.

Removing Organization Ownership Privileges

An organization owner can remove ownership privileges of another organization owner. You can invite the owner again if required. However, at any given time, there must be at least one organization owner.

Removing ownership privileges does not delete the member or remove the member from the organization. The user remains a member of the organization.

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Organization > Organization owners** section, click $\boxed{10}$ on the owner's tile.
- 3. Click **Confirm** to remove the ownership privileges.

Inviting a Service Account User

A service account is a special user in an organization. You can invite a new user or an existing member of your organization. After you invite users to be a service account users, an email notification is sent to the user as well as all the owners of the organization. For more information, see Service Accounts.

Note: After you invite a user to be a service account user, a service account user icon is displayed by their name when inviting them to a domain capability and assigning roles to them.

Prerequisite

The user must be a member of a subscription.

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Organization > Service accounts** section, click **Add service account**.
- 3. Enter the name or email address of the user you want to assign the service account to and click Invite.

Canceling Invitations

To cancel unaccepted invitations:

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Service accounts** section, choose the invited user and then click cancel invitation 🙆.

Revoking Service Account User Privileges

To revoke service account user privileges:

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Service accounts** section, click revoke service account user .



Note: Only the service account privileges are revoked. All other roles, privileges, and OAuth tokens are left untouched.

Managing Child Organizations

As an organization owner, on the **Settings** tab, you can perform the following tasks related to your child organizations:

- Create child organizations
- Use APIs to manage child organizations

You can assign tags to a child organization when you create them. These tags can be added even after you create a child organization. They can be edited or deleted. For more information about tags, see Child Organization Tags.

Creating Child Organizations

You can consider using the following settings when creating a child organization:

Setting	Default Value	Description
Enable sync user setting	ON	Synchronizes the parent organization users with child organization users after the child organization is created.
		Note: Whenever you add a user to the parent organization, remove an existing user from the parent organization, or update the role of a user, the change is made in all the child organizations for that user.
Inherit subscriptions from parent	ON s	When child organizations are created, they inherit some of the subscriptions from parent organizations such as TIBCO Cloud Integration.
organization		Note: This setting is available only to partner customers.
Inherit users from parent organization	ON	Allows child organizations to inherit all users from the parent organization.

Setting	Default Value	Description					
		Note: This setting is available only to those organizations that have a child organization count limit greater than zero.					
Allow child orgs	OFF	Allows child organizations to share assets.					
		Note: This option is available when the parent organization has at least two child organizations.					

Prerequisites

- You must be signed in to the organization for which you want to create a child organization.
- On the Settings tab, in the Organization > Organization structure section, the Add Organization link must be enabled. For more information, contact your administrator.
- To inherit subscriptions from the parent organization, the **Inherit subscriptions from parent organization** option must be turned on.

Procedure

- 1. Go to the **Settings** tab.
- 2. In the **Organization > Organization structure** section, click **Add organization**.
- 3. In the Create a new organization dialog box, select the type of organization you want to create and click **Continue**.
- 4. Provide a unique name for the organization that you want to create and click **Create**.



Note: Child organization names are not case-sensitive and you can use special characters.

5. Optionally, you can also add up to five tags to the child organization.

Create a new child organizatio	n for TIBCI	×					
All the owners and users will be copied to the child organization. Child organization name							
Tags (Optional)							
No tags specified	Cancel	Create					

After creating an organization, you can click the organization name on the global navigation bar to view the structure of your organization.

	Home Team Members	Subscriptions	Settings	Downloads &	& APIs					
	Account	0	rganiza	tion sett	ings					
Be	Organization		0		U					
	Service accounts	Org	ganization : sanization	structure +	Add organization	19 of 20	standalone organizations	available 17	of 20 child organizations avail	able
A	Enterprise SSO	AC	CME U	pdate						
W	OAuth access	Ena	able sync user s erit users from	etting o parent organizatio	on 💽		Inherit Allow c	subscriptions fr hild orgs to sha	rom parent organization 🥂	C
	OAuth access tokens	Ch	ild organizatio	n †↓	Named users	ţţ	Available domains	~	Tags	
	OAuth clients	Fir	nance		2		AuditSafe		Induction Edit	Ē
	API access keys	HR	5		2		AuditSafe		Training, Induction Edit	Ì
0	Proxy Agent access keys	Le	gal		2		AuditSafe		Training Edit	Î

Child Organization Tags

You can add a tag to the child organizations that you have created. You can add a tag either at the time of creating the child organization or even after you have created it.

- A tag can be from 2 to 80 characters long consisting of alphanumeric characters, dashes, and underscores.
- Every child organization can have up to a maximum of five unique tags. However, multiple child organizations can have the same tag.

Note: Adding tags to child organizations is optional.

About the Tags

You can use the tags to filter the child organizations. For example, you have several child organizations, but only some have trial subscriptions. You can tag these child organizations with a tag named "trial". Later on, when you want to see which organizations have trial subscriptions, you can filter the organizations by using the tag named "trial".

You can perform the following actions related to child organization tags:

- 1. Add a tag You can add multiple tags (up to five) by giving a comma-separated list of tags in the text box. An auto-suggest list of tags is displayed when you create a new tag. This list consists of tags in all the child organizations.
- 2. Edit or delete an existing tag
- 3. Filter the child organizations based on the tags

Home Team Members Subscriptions Setting	s Downloads & APIs				
Account	Organization settings				
R Organization	organization settings				
Service accounts	Organization structure + Add organization 11	9 of 20 standalone organizations available	17 of 20 child organizations available		
Enterprise SSO	Organization ACME Update				
W OAuth access	Enable sync user setting 🚺 Inherit subscriptions fr	om parent organization 🚺 Inherit use	rs from parent organization	Allow child orgs to share 🚺 🕕	
OAuth access tokens					
OAuth clients	Child organization	Named users 1	Available domains	✓ Tags	
API access keys	Finance	2	AuditSafe	Induction Edit	Ô
😵 Proxy Agent access keys	HR	2	AuditSafe	× ×	茴
	Legal	2	AuditSafe	Training Add Training	亩

Using APIs to Generate Child Organization tags

You can use TIBCO Cloud APIs to generate child organization tags. To visit the Cloud APIs page, go to the **Child Organization Tags** and click the **Cloud APIs** section. Optionally, you can visit the TIBCO Cloud APIs page. The Cloud APIs for generating child organization tags are available on the **Cloud Intelligence Cloud** tile.

Sharing Assets Across Organizations

In TIBCO Cloud, as an organization owner, you can configure how all organizations in the family can share assets with other organizations in the family.

Asset-sharing Scenarios

Consider a parent organization - ACME with three child organizations - HR, Finance, and Legal. All these organizations have created assets in their subscriptions and would like to share these assets.

• Parent organizations share assets with their child organizations.

For example, ACME is configured to share assets with HR, Finance, and Legal organizations.



• Child organizations share assets with the parent organization.

For example, HR and Legal organizations are configured to share assets with the parent organization ACME.



• Child organizations share assets with parents and other organizations in the family.

For example, HR is configured to share assets with ACME, Finance, and Legal organizations.



• Child organizations share with other child organizations in the family, but not with the parent organization.

For example, Finance is configured to share with HR and Legal organizations, but not with ACME.



You can create a list that either includes organizations with which you want to share the assets or organizations with which you do not want to share any assets.

Points to Note

- Organization owners can configure sharing of assets across organizations.
- In the family, parent organization owners can control whether child organizations in the family can share assets.
- If parent organization owners do not enable the sharing option for child organizations, then the child organizations cannot see the **Cross-organization sharing** section on the **Settings > Organization** tab. Existing cross-organization settings are ignored if the parent organization owner has not enabled the sharing for child organizations.
- Whether to configure to share with the parent organization is at the discretion of the child organization owners. Parent organization owners have no control over this setting.
- Organization owners can choose to select the organizations with which to share assets or choose those organizations with which not to share any assets.
 - If you change this setting, a warning is displayed and after you confirm, the previous sharing setting is cleared.
- Organization owners can update the list of selected organizations at any time.
- If an organization is deleted and is part of one or more of the sharing lists, it is deleted from all those lists as well.

Sharing Assets with Other Organizations

Organization owners can use this feature to configure sharing of their assets with other organizations.



Note: To allow child organizations to share their assets with other child organizations in the family, enable the **Allow child orgs to share** setting on the **Settings** tab, in the **Organization > Organization settings > Organization** structure section.

Home	Team Members	Subscriptions	Settings	Downloads &	APIs						
Account		OI	rganiza	tion settiı	ngs						
Organizati	on		•		•						
Service acc	ounts	Org	anization :	structure + Ad	dd organization	19 of 20 stand	alone organizations a	available 17 o	of 20 child organizations availa	able	
Enterprise	SSO	AC	ME U	odate							
W OAuth acce	155	Ena	ble sync user s erit users from	etting or			Inherit s Allow ch	ubscriptions fro ild orgs to share	m parent organization	C	
OAuth acce	ess tokens	Chi	ild organizatior	n †↓	Named users	†↓ Av	ailable domains	~	Tags		
OAuth clier	nts	Fin	ance		2	Au	ditSafe		Induction Edit		İ
API access	keys	HR			2	Au	ditSafe		Training, Induction Edit		
የ Proxy Agen	t access keys	Leg	gal		2	Au	ditSafe		Training Edit		Ì

Procedure

1. On the Settings tab, in the Organization > Organization settings > Crossorganization sharing section, select whether you want to share the assets with specific organizations or you want to share with all organizations but exclude a few.



Note: You can switch between these two options at any time. However, when you switch the setting, the former setting and the associated list is cleared.

2. If you want to share assets with specific organizations, click Add org(s) to share with.

	Home	Team Members	Subscriptions	Settings	Download	s & APIs
•	Account					
Ba	Organization			Cross-organiza	ation sharir	ng
	Service account	s	1	Manage which orga	nization within	the org family to share assets with.
A	Enterprise SSO		:	Share with Spec	cified orgs	All orgs
W	OAuth access		(
	OAuth access to	kens		Add org(s) t	o share with	
	OAuth clients		[⊾ HR × ⊨ Fina	nce ×	
	API access keys					
9	Proxy Agent acc	ess keys				

3. In the Add organization(s) to share with a dialog box, select the organizations from the displayed list and click **Add org(s) to Share with list**. Optionally, you can also search by organization or tag names.

Add o	rganizations to share with			×
Search	1	Q		
	Org name	ţ↓	Tags	ţ†
✓	⊾HR		Induction, Training	
	⊾Legal		Training	
✓	↓ Finance		Induction	
			Cancel	Add to Share with list

4. If you select to share with all organizations except a few in step 1, in the Add organization(s) to share with a dialog box, select the organizations from the displayed list and click Add org(s) to Exclude list.

If you do not specify any organizations to exclude, it implies that the assets can be shared with all the organizations in the family.

Exclud	Exclude organizations from sharing with						
Search	1	Q					
	Org name	ţ↑	Tags	ţ↑			
	₩HR		Induction, Training				
	⊾Legal		Training				
	↓ Finance		Induction				
			Cancel	Add to Exclude list			

Roles

Each TIBCO Cloud[™] Integration user is assigned a role. Users and roles are administered in the TIBCO Cloud[™] Integration Web UI.



Note: If you make changes to user roles in TIBCO Cloud[™] Integration, you must log out and log back in for changes to take effect.

In TIBCO Cloud, users can either be owners or members of an organization and a team administrator at the domain level. Different domain capabilities offer different roles.

The following table lists the roles available in TIBCO Cloud:

Role	Description
Organization owner	Administrator at the organization level. Can invite users to join the organization and domains. Can also manage roles at the domain level.
Team member	Any user who is invited by organization owners to join their organization.
Team administrator	Administrator at the domain level. Can manage roles only at the domain level.

About Role Requirements

A user's role limits which activities they can perform on what apps. In general, admin users can take action on any apps in their organization; users can act upon any apps they own. Read-only users cannot change apps. A complete matrix of role permissions is available at the User Roles Permissions Matrix.

In addition to the matrix, individual help topics and commands in the CLI reference have a Role Requirements section, which describes how user roles and app ownership affect the use and visibility of commands.



Note: Some UI commands and components may not be visible, depending on the user role.

Organization Owner

Organization owners have a registered account with TIBCO Cloud and can subscribe to the domain offerings in one or more regions. A user can be the owner of multiple organizations. An owner of an organization can also be a member of another organization and a team administrator of a domain capability. Whether or not the organization owner occupies a seat in the domain capability, is specific to the domain capability.

Every organization must have at least one owner. However, it is always convenient to have another owner in the absence of one to keep the working of the organization from coming to a grinding halt. To facilitate this, organizations can have multiple owners. An effect of this feature is that one user can be an owner of multiple organizations. Therefore, when

organization owners sign in to TIBCO Cloud, a list of all the organizations that they are a part of and their role in those organizations is displayed for selection.



Note: Members from different email domains can jointly own an organization.

What Organization Owners Can Do

Organization owners can perform the following tasks:

- Invite users to join their organization
- Invite organization members and other users to become a new owner of the organization
- Invite organization members and users to a domain
- Resend or cancel an invitation sent to a user
- Remove members from the organization
- Give up ownership of an organization. In other words, change the owner of an organization. For more information about changing owners, see the Changing the Organization Owner section in the Managing Your Organization topic.
- Remove ownership privileges of other owners
- Remove self from a domain
- Manage roles assigned to members and team administrators in a domain
- Purchase new domain subscriptions
- Renew or cancel credit card subscriptions for a domain
- Manage authentication for all users in the organization
- Create child organizations
- Get information about child organizations
- Delete child organizations

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Home Team Members	Subscriptions Settings Downloads & APIs	
Organization	圓 圓 Flogo1	
Integration	□ v o selected □ v	Invite new members 🗸
Integration	All	
	Members 11 Domain memberships	✓ Last seen 11
	Invited Integration	2 minutes ago

Member

Members are users who are invited by organization owners to join their organization.

If you accept an invitation sent by an organizational owner, you become a member of that organization. You can be a member of one or more organizations.

Organization members can only view the information of other members in their organization.



Team Administrator

A team administrator is a user who is appointed for managing a team of subscription users for a specific domain capability. A user can be a team administrator of multiple domain capabilities.

A team administrator may or may not occupy a seat on a subscription. This behavior is specific to domain capabilities. For example, if a domain capability requires that a team administrator also be an administrator for one of its subscriptions, then such a user occupies a seat on the subscription.

Team administrators can perform the following tasks:

- Invite users to join a domain
- Retract or resend an invitation sent to a user to join a domain
- Manage roles of team members of a domain

A team administrator cannot perform any of the following tasks:

- Remove organization members from an organization
- View the subscription billing or credit card information of the organization owner
- Manage organization owners of an organization
- Add subscriptions from the organization owner's account

An email notification is sent to users whenever they are assigned the role of a team administrator or their role is revoked.

1 Note: Some domains might have a role titled Administrator for their cloud services. If members are assigned this role, they are automatically assigned the same permissions as the team administrator. An email notification is sent to the members whenever administrator permissions for the domain are granted to them or revoked.

Home Team Members	Subscriptions Settings Downloads & APIs	
Organization	In Flogo1	
Integration		Invite new members 🗸
	Name/Email 11 Domain memberships testwaveqa@gmail.com (invited) C imitation imitation	✓ Last seen 11
	Flogol mock flogouser1@mailinator.com Integration	6 minutes ago

Administrator

In some domain capabilities, there is a requirement to have some team members to be assigned the role of an administrator. This role is defined by that domain capability.

Such users occupy a seat on the subscription and also have all the privileges that are defined by that domain capability.

In domain capabilities where a team administrator is automatically given a corresponding administrator role for the domain, if you revoke the administrator role of a member, then the team administrator role is also revoked.

An email notification is sent to users whenever they are assigned the role of an administrator or their role is revoked.

Roles Offered by Domain Capabilities

Domains in TIBCO Cloud might offer different roles that are domain-specific. Team members can be assigned a single role or multiple roles. This assignment is domain-specific and dependent on the number of roles or seats available. Users could just be members, without any roles assigned to them.

Seats are also offered to the users.

User Roles Permissions Matrix

A user's role affects what actions are available for apps. Further, the ownership of an app may also limit the actions a user can take on it. Roles also affect whether or not some items are shown in the UI.

The following matrix details which actions are possible for a user role, and if an app is owned or not owned by that user.

App Actions

	User		Admin		Read-Only		
Actions	Owner	Non - Owner	Owner	Non- Owner	Owner	Non- owner	
Generic App Actions							
App Create	Y	Y	Y	Y	Ν	Ν	

	User		Admin		Read-Only	1
Actions	Owner	Non - Owner	Owner	Non- Owner	Owner	Non- owner
Сору	Y	Y	Y	Y	Ν	Ν
Set endpoint visibility	Y	Ν	Y	Y	Ν	Ν
Replace	Y	Ν	Y	Y	Ν	Ν
Delete	Y	Ν	Y	Y	Ν	Ν
Change Owner	Y	Ν	Y	Y	Ν	Ν
Set app to Live / Draft	Y	Ν	Y	Y	Ν	Ν
Rename	Y	Ν	Y	Y	Ν	Ν
App Push (overwrite existing app)	Y	Ν	Y	Y	Ν	Ν
Scale up / down	Y	Y	Y	Y	Ν	Ν
API View and Test	Y	Y	Y	Y	Y	Y
Endpoint spec download / Copy URL	Y	Υ	Y	Υ	Y	Y
Run / Stop	Y	Y	Y	Y	Ν	Ν
Change app name / description	Y	Ν	Y	Y	N	Ν

	User		Admin		Read-Only	1
Actions	Owner	Non - Owner	Owner	Non- Owner	Owner	Non- owner
Change service name / description	Υ	Ν	Υ	Υ	Ν	Ν
App tag	Y	Ν	Y	Y	Ν	Ν
Marketplace						
Create Listing	Y		Y		Ν	
Delete Listing	Ν		Υ		Ν	
Edit Private Listing	Y		Y		Ν	
Edit Public Listing	Ν		Y		Ν	
Upgrade Private Listing	Y		Y		Ν	
Upgrade Public Listing	Ν		Y		Ν	
Get/Request Listing	Y		γ		Ν	
Make Listing Public/Private	Ν		Y		Ν	
Manage Listing Access	Ν		Υ		Ν	
Environment Cont	trol					

	User		Admin		Read-Onl	у
Actions	Owner	Non - Owner	Owner	Non- Owner	Owner	Non- owner
App Variables	Y	Y	Y	Y	Ν	Ν
Engine Variables	Y	Y	Y	Y	Ν	Ν
VPN Connections	Y	Y	Y	Y	Ν	Ν
Security Settings	Ν	Ν	Y	Y	Ν	Ν
Upload Supplement	Ν	Ν	Y	Y	Ν	Ν
FLOGO App Specif	fic					
Build App Executable	Y	Ν	Y	Υ	Ν	Ν
Create Flow	Y	Ν	Y	Ν	Ν	Ν
Edit app properties	Y	Ν	Y	Ν	Ν	Ν
Push	Y	Ν	Y	Ν	Ν	Ν
Export app	Y	Ν	Y	Y	Ν	Ν
Import app	Y	Ν	Y	Ν	Ν	Ν
Revert last pushed	Y	Ν	Y	Ν	Ν	Ν
Tester	Υ	Ν	Υ	Ν	Ν	Ν

View and Test

	User		Admin		Read-Only	,
Actions	Owner	Non - Owner	Owner	Non- Owner	Owner	Non- owner
API View and Test	Y	Y	Y	Y	Y	Y
Endpoint spec download / Copy spec URL	Υ	Y	Υ	Y	Υ	Y
FLOGO Implementation view	Y	Y	Υ	Y	Y	Y
Metrics and Logs	Y	Y	Y	Y	Y	Υ

Others

	User		Admin		Read-Only	,		
Actions	Owner	Non - Owner	Owner	Non- Owner	Owner	Non- owner		
VPN Connections								
Create	Y	N/A	Y	N/A	Ν	N/A		
Edit/Delete	Y	N/A	Y	N/A	Ν	N/A		
Download								
TIBCO Cloud CLI	Y	N/A	Y	N/A	Y	N/A		

	User		Admin		Read-Only			
Actions	Owner	Non - Owner	Owner	Non- Owner	Owner	Non- owner		
FLOGO Connections								
Create	Y	Y	Y	Y	Ν	Ν		
Edit/Delete	Y	Ν	Y	Ν	Ν	Ν		
Extensions								
Upload	γ	Y	Υ	Y	Ν	Ν		
View	Υ	Ν	Υ	Ν	Ν	Ν		

Note: VPN Connections are app-level and not shared across an organization.
 FLOGO Connections can be promoted from app level to organization level on the Connections page. FLOGO extensions can be promoted from user level to organization level on the Extensions page.

Your Account

As an organization owner, you can perform the following tasks related to your account on the **Settings** tab:

- Managing Your Account
- Managing Your Organization
- Service Accounts
- Managing Child Organizations
- Child Organization Tags
- Sharing Assets Across Organizations

Managing Your Account

On the **Settings** tab, you can view your personal account information.

Information about your account such as name, email address, phone number, name, and location of your company is displayed here. If you are a member of an organization, click **Contact** to contact the organization owner.

Updating Account Information

Signed-in users can edit their account information on the **Settings** tab in TIBCO Cloud.

You can edit personal information such as first name, last name, phone, company name, and country. The state can be updated only if you select the country as USA or Canada.



Note: You cannot update your email address. In case you do need to update your email address you can contact the TIBCO Support team.

- 1. Go to the **Settings** tab.
- 2. In the Account > Account settings section, click Update.

н	ome	Team Members	Subscriptions	Settings	Downloads & APIs	
	Account	t			Account settings	
B ∎	Organiz	ation			8	
	Service	accounts			Name	
A	Enterpr	ise SSO			🔀 Email address	
W	OAuth a	ccess			Phone	
	OAuth a	ccess tokens				
	OAuth c	lients			🖺 Company	TIBCI
	API acce	ess keys			Location	United States, Alabama
8	Proxy A	gent access keys			Update	

Service Accounts

When users leave an organization, their access tokens are revoked. If these tokens are being used for machine-to-machine communication, the communication is disrupted on the revocation of the tokens. To avoid such disruptions, you can use service accounts.

A service account is a special user in an organization. Service account users are the only users who can use the OAuth credential flow. In such a case, the callers can obtain an access token provided they have a client ID and client secret.

Features of a Service Account

- As an organization owner, you can create a new service account user or designate existing users in the organization as service account users.
- You can invite a service account user to any of your domain subscriptions. In such a case, the service account user occupies a seat on the subscription just like a normal user.

- You can use a service account non-interactively in scripts. Only a service account user can generate OAuth access tokens by using client credentials to authenticate. Normal users must use the web UI to generate the first OAuth access token.
- By default, you can invite up to five service account users per organization. To invite more service account users, contact the TIBCO Support team.
- A service account user might also be an owner as long as there is at least one other owner who is not a service account user.
- Operations performed on service account users in a parent organization are not synced with the child organizations even when the sync-user setting is set to true.
- When a child organization is created, the user is inherited as a normal user without inheriting service account user privileges. Such users have to be manually assigned as service account users in the child organization by the organization owner.
- Service account users can be re-designated as normal users and all other roles, privileges, and OAuth tokens are left untouched.

Managing Team Members

The **Team Members** tab provides information about the organization members and the members of the domain capabilities to which you have subscribed.

As an organization owner, you can perform the following tasks:

- Inviting Members and Assigning Seats and Roles
- Resending or Canceling Invitation to Join a Domain Capability
- Removing Members
- Managing Roles and Team Administrator Status

Inviting Members and Assigning Seats and Roles

As an organization owner, you can invite members to join a subscribed domain capability and assign a seat and a role to them. However, in a trial subscription, there might be a limit to the number of members you can assign a seat for the domain.



Note: When inviting users to join a domain capability, you can edit and delete the email addresses that you have added to the list of invitees before you send the invitation.

The following procedures are explained:

- Inviting Members to Join a Domain Capability
- Inviting Members to Join an Organization
- Assigning a Seat and Role for a Domain Capability

Inviting Members to Join a Domain Capability

You can invite members of your organization to join a domain capability by using their email addresses.

Procedure

1. On the **Team Members** tab, click the name of the domain capability in the left pane and then click Invite new members.

The Invite new team members to the *<domain>* window is displayed.

Home	Team Members	Subscriptions	s Settings Downlos	ads & APIs			
Organization		G) Integration				
Integration	ion		• selected			Launch Integration	Invite new members
			Name/Email FE SUBSC	11	Administrator status and roles User	View all 💙	Last seen 1
			testwaveqa@gmail.com Flogo1 mock flogouser1@mailinator.com	(invited)	team administrator, Administrator		8 minutes ago

2. Alternatively, you can also invite users to join a domain by selecting your organization in the left pane and then clicking Invite team members. A list of domains is displayed. Select the domain to which you want to invite members. 43 | Getting Familiar With TIBCO Cloud Integration

Home Team Members	Subscriptions Settings Downloads & APIs	
Organization	目 ■ Flogo1	
Integration	Image: Selected Image: Selected Name/Email II Domain memberships	Invite new members V Invite new members V Integration V Last seen []
	testwaveqa@gmail.com (invited) Integration (invited) Flogo1 mock C flogouser1@mailinator.com Integration	10 minutes ago

3. In the "Invite new team members to the *<domain>*" window, enter the email addresses of all the users you want to invite as members of the domain and click **Invite**.

The members receive an email inviting them to join the domain, clearly stating the region in which they have the domain subscription.

Points to note:

- The number of users you have added to the list of invitees is displayed on Invite.
- If you type the email address of an existing organization member, the email address is not added again to the list of invitees. A message informing you about it is displayed at the bottom on a yellow band.

hersh@ocm		/ 🖻
kim⊚		
liam@		
1 email was left out becau	ise he/she is already in the org	anization. Mide

Inviting Members to Join an Organization

You can invite users to be members of your organization. You can invite them by using their email addresses.



Note: This feature is available only on the AWS cloud platform; not on the Azure cloud platform.

Procedure

- 1. On the **Team Members** tab, click the name of the organization in the left pane and then click Invite new members.
- 2. From the drop-down, select the organization name.
- 3. In the Invite user to *Organization name* dialog box, enter the email addresses of the members you want to invite and click Invite.



Note: After a member accepts the invitation to join a parent organization, if the sync user setting has been turned ON, the member becomes part of its child organizations too. Deleting a member from the parent organization deletes the member from the child organizations as well.

Assigning a Seat and Role for a Domain Capability

Users can be a part of a domain capability only after the organization owner or a team administrator assigns a seat to them. This seat must be in a domain capability that is a part of an active subscription.

Procedure

- 1. On the **Team Members** tab, click the name of a domain capability you have subscribed to, such as Integration, and then click **Invite new members**.
- 2. In the Invite new team members to the *<domain>* window, enter the email addresses of all the users you want to invite to be members of your domain. You can enter the user's first name or last name if the user is already a member of the organization. For other users, you can enter the email address.
 - When you start typing, a list of matching first names, last names, and email addresses is displayed. Matching first names and last names are displayed at the top of the list followed by matching email addresses.
 - If a matching first name, last name, and email address are displayed in the list,

it indicates that the user is already a member of the organization. If only the email address is displayed in the list, it indicates that the user is not a member of the organization.

- You can use the up and the down arrow keys to traverse through the list and press the Tab key or the Enter key to add the entry to the list of invitees or use a mouse click to select the entry to add to the list of invitees.
- A user is already a member of your organization and also a member of the domain capability to which you are inviting. In this scenario, when you select the user's email address from the suggested list, it is not added to the list of invitees. Instead, a message is displayed, on a yellow band, that the user is already a member of the domain capability.
- You can see the number of users you have added to the list on Assign roles.
- 3. Click **Assign roles** to assign roles to the users.



4. On the Assign roles and Team Administrator status page, select the appropriate available roles for the users and then click **Save and send notifications**. The members receive an email inviting them to join the domain capability. The email includes the region from which the domain capability is subscribed.

G Integration Assign roles and Team Administrator status								×
Team members	Administrator	Unlimited Unlimited	Read-Only User Named users total	Unlimited Unlimited	User Named users available Named users total	Unlimited Unlimited	Team Administrator	

The number of seats available for each role is displayed in the respective column. This number is specific to the domain capability. Whether the organization owner occupies a seat or depends on the domain.

Points to note:

- You can invite users to a domain capability even if they are not members of your organization. In this scenario, they receive an email invitation to join the organization and on accepting the invitation, they are automatically added as members of the domain capability.
- Users who are already members of the organization do not have to accept the invitation to join a domain capability in the organization. They are automatically added as members of the domain capability.
- You can paste a comma-separated list of email addresses of users to invite to a domain.
- Incorrect email addresses are displayed in red.



The list of invited members is displayed on the <domain> tab. Names of users who

are team members are displayed in the **Name** column and *(invited)* is appended to the names of users who have not yet accepted the invitation.

Home Team Member	Subscriptions Settings Downloads &	
Organization	Bo Flores 1	
E Flogo1		
Integration	• • • • selected • · · ·	Invite new members
	Name/Email. 11 Demain memberships testwaveqa@gmail.com (invited) Operation	✓ Last seen
	Flogo1 mock Flogo1 mo	17 minutes ago
	flogouser 2 gentalimator.com flogouser 2 gentalimator.com (invited) flogouser 2 gentalimator.com (invited) flogouser 2 gentalimator.com	
	(ovited)	

Resending or Canceling Invitation to Join a Domain Capability

If members have not accepted the invitation to join your domain capability, you can either resend or cancel the invitation.

To resend or cancel an invitation:

Procedure

- On the Team Members tab, click the <domain> tab in the left panel. A list of members is displayed.
- 2. In the **Name/Email...** column, select the members and expand the **S** list to select an action.

Home Team Members Sul	ibscriptions Settings Downloads & APIs	
Organization	G Integration	
Integration	selected is selected	Invite new members
	Name/Email Image: Constraint of the second sec	View all 👻 Last seen 11
	Flogo1 mock flogouser1@mailinator.com	5 minutes ago
	Flogo2 mock flogouser2@mailinator.com (invited)	

Removing Members

You can remove members from your organization or a domain capability to which you have subscribed. If you have reached the maximum number of members than the seats you have subscribed for a domain capability, you can remove an unwanted member and invite another member.

Removing members from your organization removes them from the child organizations as well.

To remove a member from an organization or a domain capability, perform the following steps:

Procedure

- 1. On the **Team Members** tab, select the members you want to remove.
- 2. Click and then select the option of your choice to remove the members from the organization or from the domain capability.

Home Team Members Sub	ibscriptions Settings Downloads & APIs	
Organization	Integration Image: Selected Image: Selected Image: Selected Image: Selected Image: Selected Image: Selected Image: Selected Image: Selected Image: Selected Image: Selected Image: Subsc Image: Selected Image: Selected Image: Selected Image: Selected Image: Selected <th>e new members</th>	e new members
	testwaveqa@gmail.com (invited) Flogo1 mock flogouser1@mailinator.com Team administrator, Administrator Flogo2 mock flogouser2@mailinator.com (invited)	ago

• Note: If you remove members from a domain capability, they continue to remain, members of your organization, unless you explicitly remove them from your organization.

Managing Roles and Team Administrator Status

As a team administrator, you can manage the roles you have assigned to members. You can also manage their team administrator status. You can do this on the Team Members

tab for a single member or multiple members.

Managing Roles and Team Administrator Status for a Single User

To manage roles and team administrator status for a single user, go to the **Team Members** tab:

Procedure

1. Click the name of the domain capability and then click the **Assign roles and Team Administrator status** icon in the **View all** column of the member whose role you want to update.

A Flop1 Integration	Organization		Flogo1 mock	
Integration Integration </th <th>🖻 Flogo1</th> <th>G Integration</th> <th>Team administration</th> <th>ïc</th>	🖻 Flogo1	G Integration	Team administration	ïc
Name/Email 11 Administrator status and roles User Unlimited SUBSC User Cancel Save and send notification testwavega@gmail.com (invited) Tesm administrator, Administrator, Administrator	ntegration	🛛 🗸 selected 🕺 🖾 🗸 🚵 🗸 saign roles and Team Admin	istrator status Assign roles Administrator	Named users available Unlimited
SUBSC User testwaveqa@gmall.com (invited) Cancel Save and send notification Plogo Inock Team administrator, Administrator, Administrator Gipposer1@mailinator.com \$ minutes ago		Name/Email 11 Administrator status and role	es User	Unlimited Last seen
Flogo1 mock flogouser1@mailinator.com		SUBSC User testwaveqa@gmail.com (invited)	Cancel	Save and send notification
		 Flogo1 mock flogouser1@mailinator.com 	ministrator	5 minutes ago

- 2. To assign or update a role, select or clear the checkbox preceding the name of the role.
- 3. Click **Save and send notification**. An email notification is sent to the member whose role you have updated. The notification states the member's region.

Managing Roles and Team Administrator Status for Multiple Users

To manage roles and team administrator status for multiple users, go to the Team Members tab:

Procedure

- 1. Click the name of the domain capability and then select the members whose roles you want to update by selecting the checkboxes against their name.
- 2. Click the Manage roles and Team Administrator status icon.

G Integration	Integration Assign roles and Team Administrator status						×		
Team members		Administrator		Read-Only User		User		Team Administrator	
Named users Unlimited AVAILABLE	Unlimited TOTAL	Named users available Named users total	Unlimited Unlimited	Named users available Named users total	Unlimited Unlimited	Named users available Named users total	Unlimited Unlimited		
user1@gmail.com									
Undo								Save and send notification	ns

3. On the Assign roles and team administrator status page, update the roles as required and click Save and send notifications. Email notifications are sent to the members about the update in the roles assigned to them. The notification states the region to which the change is applicable.

TIBCO Cloud Federated Authentication

TIBCO Cloud Federated Authentication feature allows users to sign in to TIBCO Cloud by using their federated credentials. In TIBCO Cloud, you can configure a custom Identity Provider (IdP) for authenticating user credentials instead of relying on the IdP provided by TIBCO. After a custom IdP is configured and enabled for an email domain, all users in that email domain can sign in to TIBCO Cloud using their federated credentials.

TIBCO Cloud currently supports the following types of external IdPs:

- Google
- External SAML SSO Server
- LDAP
- JWT-based OAuth for REST-based OEM solutions (RFC 7521)



Note: Although organization owners can be granted permission to enable multiple external IdPs, they can enable only one external IdP at a time.

Benefits of Using a Custom IdP

Configuring a custom IdP has the following benefits:

- Eliminates the need for users to create and maintain an additional account with TIBCO
- Enhances compliance with customer's security policies such as password strength, password aging, credential revocation, and auditing
- Reduces the risk of a security breach by keeping the authentication process in the customer's on-premises systems

Points to be Noted

- Users who receive invitations to join TIBCO Cloud need not set up a password with TIBCO if their email domain has a custom IdP configured and enabled. They can continue to use their corporate login to sign up. They can also use their corporate login to do a credit card purchase for a domain capability.
- TIBCO does not manage the account lockout and password policies for the users of an organization for which external IdP or LDAP has been configured.
- After you send a request for permission to enable signing in by using your federated credentials, you can cancel your request before it is approved.
- After you enable Enterprise SSO, new users are not issued a password by TIBCO Accounts. Instead, they are redirected to your IdP.
- If you cannot sign in to TIBCO Cloud to make Enterprise SSO changes, you can contact TIBCO Support. They can disable the mandatory sign-in for you and then you can make the desired changes.

Creating an App

You can create a Flogo[®] app from the **Apps** page.

Procedure

- 1. Log in to TIBCO CloudTM Integration.
- 2. On the **Apps** page, click **Create/Import**.

The What do you want to build? dialog box is displayed.

What do you want to build?						×
Quickstart Get started	•	Apps	*6	ö	Ċ,	^
All app types		Create a Flogo app	Import a Flogo app	Create a Scheduled app	Import a Scheduled app	
Application Integration API-based Integration API-based Integration Messaging/Event-based Integrat Event Processing IoT & Edge Processing Mobile/Web Event-driven Integrat O Data Integration Legacy Interface Integration File-based Integration	ion ation	Create a Data Replication app Flogo Create a Flogo app to su app on TIBCO Cloud or o Flogo open source proje	pport event-driven integrati deploy it as a function on ser ict.	ons, microservices, and APIs. verless compute. Flogo apps a	You can run your are based on the	Create Flogo app
Data Replication Data synchronization and migrat Standard Protocol-based B2B	tion	ල් Create an Event app APIs	import an Event app	(import a NodeIS app	G Import a BusinessWorks app	

- 3. To create a Flogo app:
 - Under Quickstart > All app types > Apps, click Create a Flogo app.
 - On the left, select a category that identifies the type of integration you need. On the right, click **Create a Flogo app**. In the block that displays below your selection, click **Create Flogo app**.

The app is created and the **App Details Page** is displayed for the new app. By default, the app is named in sequential order in the format New_Flogo_App_<sequential_number>. For example, if you created three apps without renaming

them, then the first one has a default name of New_Flogo_App_1, the second one is called New_Flogo_App_2 and the third one is called New_Flogo_App_3. The version of a newly-created app is 1.0.0 and is displayed as v: 1.0.0 beside the name of the app. You can edit the version of the app.

4. Edit the app name to a meaningful string. To do so, click anywhere within the app name and edit it, then click anywhere outside the text box to persist your change.



Note: The app name must not contain any spaces. It must start with a letter or underscore and can contain letters, digits, periods, dashes, and underscores.

5. Click **Create**.

Result

The app is created and the **Add triggers and flows** dialog box is displayed.

What to do next

You can now create one or more flows for the app.

Migrating an Existing App to TIBCO Cloud Integration

To migrate an existing app (created using release 2.14.0 or a prior release) from TIBCO Flogo[®] Enterprise to TIBCO Cloud[™] Integration, you must:

- 1. Export your app from Flogo Enterprise (using release 2.14.0 or a prior release)
- 2. Import the (exported) app in TIBCO Cloud[™] Integration

Exporting an App From TIBCO Flogo Enterprise

Here are a few things to keep in mind before you export an app:

- When you export an app, all flows in your app get exported. You cannot pick and choose flows to export.
- Passwords or connection details configured in any Activity within any flow or connection in the app to be exported are removed in the exported app. You must manually configure the credentials or VPN connections in the flows after importing such apps.
- Some apps created in Project Flogo[™] use the any data type. The any data type is not supported in Flogo Enterprise. Such apps get imported successfully, but the element of type any gets converted into an empty object. You must explicitly use the mapper to populate the empty object with member elements.
- When an app is exported, the connections are also exported and they retain the same visibility level (org level connection or user-level connection).



Warning: When exporting an app, if the app contains Launch Configurations to hold its test data, the Launch Configurations are not exported with the app. Launch Configurations in an app must be exported independently of the app export.

To export an app:

Procedure

- 1. On the **Apps** page, click the app to open the app details page.
- 2. Click the shortcut menu (:).
- 3. Click **Export**.

The **Export** option dropdown menu allows you to download the following:

- **App** exports a single <*appname*>.json file. You can use this option to download an app that you plan to import into TIBCO Cloud Integration using the drag-and-drop method.
- **TIBCO Cloud Integration artifacts** downloads two files, manifest.json, and flogo.json. The manifest.json contains the manifest details such as the endpoints, memory resource details, and so on. The flogo.json contains the app itself. These artifacts are needed to push the app directly using TIBCO Cloud CLI. You must have the TIBCO Cloud CLI installed on your local machine to do so. Use this option to push a Flogo app to TIBCO Cloud Integration without having to import it into TIBCO Cloud Integration.

Exporting a Launch Configuration From TIBCO Flogo Enterprise

There may be occasions when you want to use the same test data configurations for testing multiple flows. You have the option to create a Launch Configuration that contains this data in one flow, export the Launch Configuration, then import it into each of the other flows. The ability to export a Launch Configuration is particularly useful when the data set is very complex. In such a scenario, you can export a Launch Configuration. Reusing a Launch Configuration by exporting and importing it saves you the time and effort needed to create a separate Launch Configuration for each flow.

To export a Launch Configuration:

Procedure

1. In the Flow Tester, hover your mouse cursor to the extreme right of the Launch Configuration name that you want to export.

2. Click the **Export Launch Configuration** (

A file with the name <flow-name>_<Launch Configuration-name>.json is downloaded to your Downloads directory. You can import this file into another flow and use the Launch Configuration that you just exported.

1 Note: The Launch Configuration name is not preserved, so the imported Launch Configuration is given a default name of "Launch Configuration x" where x stands for the next number in the series of existing Launch Configurations. For example, if you have two existing Launch Configurations in the flow, the imported Launch Configuration is named Launch Configuration 3. You have the option to edit the name to make it more meaningful.

Importing an App

By importing the .json file of an app, you can easily use flows and triggers from another Flogo app. You can import the .json file to a new app (which does not have flows) or to an existing app that contains flows.

Important Considerations

Consider the following points before you import an app:

- Flogo apps that are exported from Flogo Enterprise 2.5.0 and later cannot be imported into previous versions of Flogo Enterprise.
- If a flow in the app uses extensions developed by the community, you can import the app even without the extension. You can import the extension later by clicking on the missing extension.
- Some apps created in Project Flogo use the any data type. The any data type is not supported in Flogo Enterprise. Such apps get imported successfully, but the element of type any gets converted into an empty object. You must explicitly use the mapper to populate the empty object with member elements.
- The passwords and secrets for any connections configured in the app do not get imported. You must reconfigure any password or secret for the connection after the app has been imported.

- When you import an app that does not have a **Return** Activity in any flow (main or branched flow), the **Return** Activity is not added automatically by default. However, if an existing app already has **Return** activities in main or branched flows, the app is imported as expected.
- When importing an app, the long and double data types get converted to the number data type.
- When importing an app into an existing app, if the existing app has entities with the same name as the ones you are importing, a warning is displayed. You can opt not to import those flows, activities, or triggers. You can go back and rename them using the UI, export the app again, and re-import it.
- When importing apps that were exported from Project Flogo, be aware of the following:
 - If the apps being imported use an Activity that is not supported in Flogo Enterprise, a validation error is displayed.
 - You can only import apps that were created in Project Flogo version 0.5.2 or above.

Importing Your App to a New App

Procedure

- 1. On the **Apps** page, click **Create/Import**.
- 2. In the block that displays below your selection, upload the JSON file of the app that you want to import. You can browse and select the file or use the drag-and-drop action to upload the file.



3. Click the Import Flogo app.

Result

The app is created. After the import is complete, the **App Details Page** is displayed for the new app.

If your app uses a connection and that connection name and type already exist in the org, your Flogo app uses the same connection by default. Otherwise, a new connection is created based on the imported app.



Note: If you are reusing the same connection name and type, make sure that the credentials are correct or match with the intended usage.

For example, if you import an app that uses the SalesForce connection SFTest and a SalesForce connection with the name SFTest already exists in your org, then the app being imported uses SFTest by default.

Importing Your App to an Existing App

1. Log in to TIBCO Cloud[™] Integration.

- 2. On the **Apps** page, open the existing app by clicking its name. The **Apps Details Page** is displayed.
- 3. Click the shortcut menu and select Import.
- 4. In the **Import app** dialog box, upload the JSON file of the app that you want to import. You can browse and select the file or use the drag-and-drop action to upload the file. Click **Upload**.
- In the dialog box that opens, check the Errors and Warnings section for generic messages as well as any specific errors or warnings about the app you are importing. Flogo Enterprise validates whether all the activities and triggers used in the app are available on the Extensions tab.

salesforce.json		×					
All ~	Search	٩					
Triggers		Unselect all					
ReceiveHTTPMessage / Simple REST Trigger							
Flows SF_RestTrigger / Rest trigger with Get operation performing sf Create and delete							
Connections							
SF sfConn1	Connections in current env	ironment					
Salesforce Connector	Create new connection	$\mathbf{\mathbf{v}}$					
Errors and warnings Any passwords used in the application configuration will not be imported. You	u must reconfigure them.						
Any existing application properties with the same name will be overwritten by application properties from the application that is being imported.							
Any existing application schemas with the same name will be overwritten by a that is being imported.	application schemas from the ap	plication					
Back		Import					

- 6. Select the entities that you want to import from the source app:
 - **Default:** All flows, triggers, and connections are selected for import.
 - Use the drop-down list in the upper-left corner and the **Search** field to narrow down the information displayed.
 - Use the checkboxes to clear selections of specific flows or triggers or click **Unselect all** to clear all the selections.
 - If you select specific triggers or flows to import, the dialog box lists only those connections that are used in the flows and triggers that you selected. If you want to use the existing connection, select the existing connection from the Connections in current environment > Existing connections drop-down list. You can also choose to create a new connection instead.
 - If you select All, existing connections are automatically re-used. A new connection is created by default. If you want to use an existing connection, select the existing connection from the Connections in current environment
 > Existing connections drop-down list.
 - If you select a trigger for import, all flows associated with that trigger are selected by default.
 - If you want to import a flow without importing the trigger to which it is attached, select the flow but do not select the attached trigger. The flow is imported as a blank flow without being attached to a trigger.
- 7. After ensuring that all entities you want to import are selected, click Import.
- 8. After importing an app, you must reconfigure all the newly created connections. For example, set the password of the new connection after the app is imported.

Building the App in TIBCO Cloud Integration

After you have created your app, you can build it anytime. When you build the app, its deployable artifact gets created and downloaded to your local machine. Each operating system has its build target. You must select the right target for your operating system when building the app. You can use the built artifact to run the app.

You can also use the TIBCO Cloud Integration API to build the app executable. For more information on the APIs, see TIBCO Cloud[™] Integration API.



Note: Building an app executable in TIBCO[®] Cloud Integration always builds the app executable with the latest version of Flogo.

Before you begin

Make sure you have the following:

- The app for which an app executable needs to be created must have a trigger and a flow in it. If the app does not have a trigger and flow, the app executable is not created.
- Read through the Considerations.

Procedure

- 1. Open the **Apps** page.
- 2. Click the app for which you want to build an app executable. The page for the selected app opens.
- 3. On the page that opens, click **Validate** and resolve errors if any.
- 4. Open the shortcut is menu, click **Build app**, and select a build target option that is compatible with your operating system (such as Darwin/amd64 for Macintosh).



Note: If you have created or pushed an app using tibcli or platform API, the **Build App** option is not displayed as the apps are read-only.

Flows	Endpoints	Monitoring	Environment controls	Logs	History				
Create	Trigger View ~					2	Properties Schemas Valid	Inte Push a	
(TimerTrigger	test						Darwin/amd64	Export app	
							Linux/amd64	Build app 🕨 🛛 🖒	
						0	Linux/x86	Revert to last push	
							Windows/amd64		
						-	Windows/amd64	Revert to last push	

The following build target options are available:

- Macintosh: Darwin/amd64
- 64-bit Linux: Linux/amd64
- 32-bit Linux: Linux/x86
- Microsoft Windows: Windows/amd64

The app begins to build. When it is built, the deployable artifact is downloaded to your local machine.

5. To confirm whether the app executable is built successfully, go to the **History** tab and check whether **Action** is displayed as **APP BUILD**.

Running the App

On Macintosh and Linux

Procedure

- 1. Open a terminal.
- 2. Run:

chmod +x <app-file-name>

3. Run:

./<app-file-name>

On Microsoft Windows

At the command prompt, run:

<app-file-name>.exe

Considerations

- You cannot build an app executable if your app uses:
 - ° TIBCO Cloud Mesh

Specifically, if your app includes an InvokeRESTService activity that is configured to use services from TIBCO Cloud Mesh (by setting the **Discover services from TIBCO Cloud Mesh** option to **True**), you cannot build an app executable.

- ° TIBCO Cloud[™] Live Apps connectors
- ° TIBCO Cloud[™] AuditSafe connectors
- Custom Golang code
- SSL/TLS configuration is not enabled for inbound triggers such as GraphQL, ReceiveHTTPMessage, and Websocket triggers. If you configure SSL for these triggers in TIBCO Flogo[®] Enterprise and then import the app in TIBCO Cloud[™] Integration, the SSL configuration is not displayed in TIBCO Cloud[™] Integration.
- For the Amazon S3 Get and Amazon S3 Put activities of TIBCO Flogo[®] Connector for Amazon S3, Input Type/Output Type of File is not supported for a service or operation object.

If you create the app in TIBCO Flogo[®] Enterprise and then import the app in TIBCO Cloud[™] Integration, the **File** option is not displayed in:

- Input Type of Upload setting of Put Activity
- **Output Type** of single object operation setting of **Get** Activity
- You cannot build a Docker image of an app using TIBCO Cloud[™] Integration Flogo[®]. Instead, download the Linux app executable and then build the Docker image. For more information on building a Docker image, see Build the App Docker Image.

Build the App Docker Image

Before you begin

Docker or Docker Desktop must be installed on your machine.

Procedure

- 1. Build a Linux executable by clicking the shortcut menu and selecting **Build app**. Select the Linux/amd64 option.
- Provide execute permission to the app executable: chmod +x <app-executable
- 3. Create a Docker file in the directory containing the Flogo app executable and add the following commands to the Docker file.

```
FROM <FLOGO_RUNTIME_IMAGE>:<TAG>
ADD <FLOGO_APP_EXECUTABLE_NAME> flogoapp
```

For example:

```
FROM alpine:3.8
RUN apk add --no-cache ca-certificates
WORKDIR /app
ADD <FLOGO_APP_EXECUTABLE_NAME> /app/flogoapp
ENTRYPOINT ["/app/flogoapp"]
```

4. Run the docker build command:

```
docker build -t <APP_IMAGE_NAME>:<TAG> -f <path-to-Dockerfile> .
```

The app tag must be of the format <app-name>:<app-version>.

Result

The Docker image for the app is built.

Useful Resources

- Contact TIBCO Support for any issues.
- TIBCO Flogo[®] Enterprise documentation.
- TIBCO Cloud[™] Integration documentation.
- TIBCO Flogo[®] Enterprise Web UI deprecation FAQ.
- TIBCO Community.

TIBCO Documentation and Support Services

For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

How to Access TIBCO Documentation

Documentation for TIBCO products is available on the Product Documentation website, mainly in HTML and PDF formats.

The Product Documentation website is updated frequently and is more current than any other documentation included with the product.

Product-Specific Documentation

The following documentation for this product is available on the TIBCO Flogo[®] Enterprise Product Documentation page.

How to Contact Support for TIBCO Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our product Support website.
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the product Support website. If you do not have a username, you can request one by clicking **Register** on the website.

How to Join TIBCO Community

TIBCO Community is the official channel for TIBCO customers, partners, and employee subject matter experts to share and access their collective experience. TIBCO Community offers access to Q&A forums, product wikis, and best practices. It also offers access to extensions, adapters, solution accelerators, and tools that extend and enable customers to gain full value from TIBCO products. In addition, users can submit and vote on feature requests from within the TIBCO Ideas Portal. For a free registration, go to TIBCO Community.

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