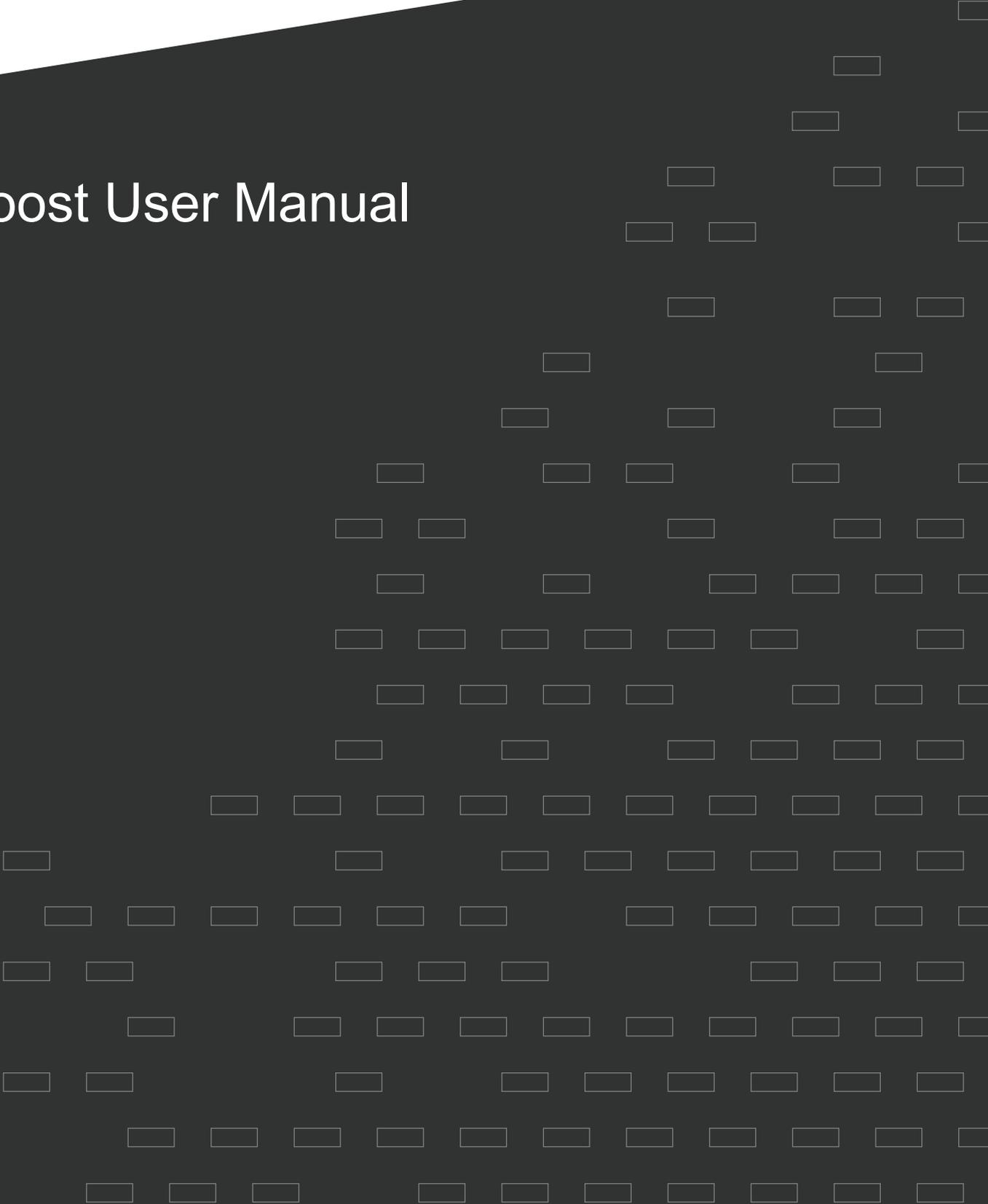




# Roost User Manual



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## Introduction to Roost

Roost helps development teams to eliminate change failure.

## Install Roost

### Download Roost

Roost is available for Windows, Mac and Linux. You can download the installer from the Roost.ai website by going to the Products page.

### System Requirements

#### **MAC**

- Min 8 GB RAM (at least 4GB should be free)
- VM Instance: Nested virtualization should be enabled
- Min Free Disk space 30 GB
- Mac OS Version 10.0 or later
- Install Git
- Download DMG and install. Allow app permissions in Apple Security
- Search for "Roost" in Applications (Finder)

#### **Ubuntu**

- Min 8 GB RAM (at least 4GB should be free)
- VM Instance: Nested virtualization should be enabled
- Min Free Disk space 30 GB
- Install libvirt, qemu-kvm and packages on your system
- Install Git
- Download TAR ball and un-compress the archive

#### **16.04 LTS or 18.04 LTS or less than 18.10**

- `sudo apt update`
- `sudo apt install -y qemu-kvm libvirt-bin virtinst nfs-server virt-manager genisoimage net-tools libstdc++6 curl`
- `sudo dpkg -i Roost-amd64-1.9.5.deb`

### **20.04 LTS or >= 18.10**

- sudo apt update
- sudo apt install -y genisoimage virt-manager qemu-kvm nfs-server net-tools curl libvirt-daemon-system libvirt-clients bridge-utils
- sudo dpkg -i Roost-amd64-1.9.5.deb

### ***Windows***

- Min 8 GB RAM (at least 4GB should be free)
- VM Instance: Nested virtualisation should be enabled
- Min Free Disk space 30 GB

### **Pro/Server/Enterprise (64 bit)**

- Virtualisation is enabled at firmware level (BIOS)
- Hyper-V is enabled "Turn on/off windows features"
- Install Git
- Download EXE and install.
- Search for RoostDesktop and execute (grant admin permissions when asked)

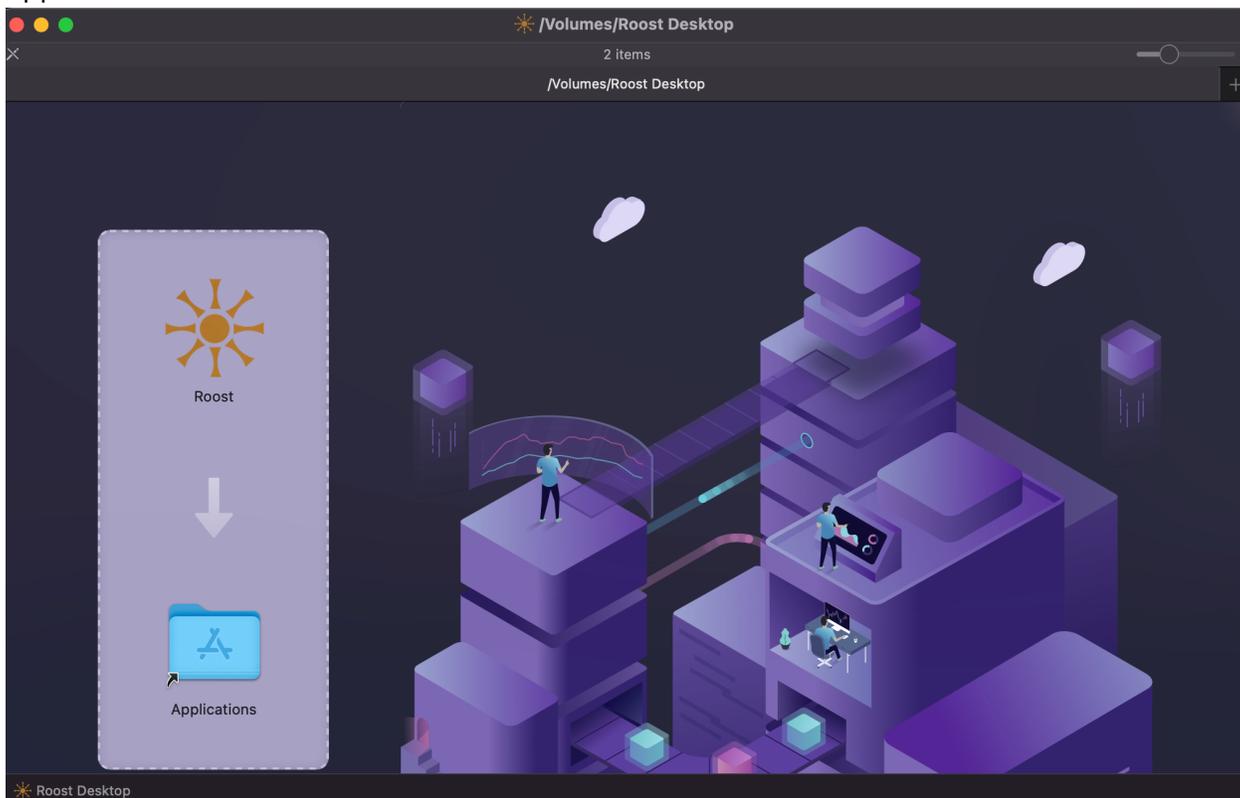
### **Home Edition (64 bit)**

- Install VirtualBox
- 64-bit Windows 10
- Install Git
- Download EXE and install.
- Search for RoostDesktop and execute (grant admin permissions when asked)

## Install the Software

### Mac

1. Double click on downloaded roost-\$version.dmg and drag Roost binary into Mac Application.

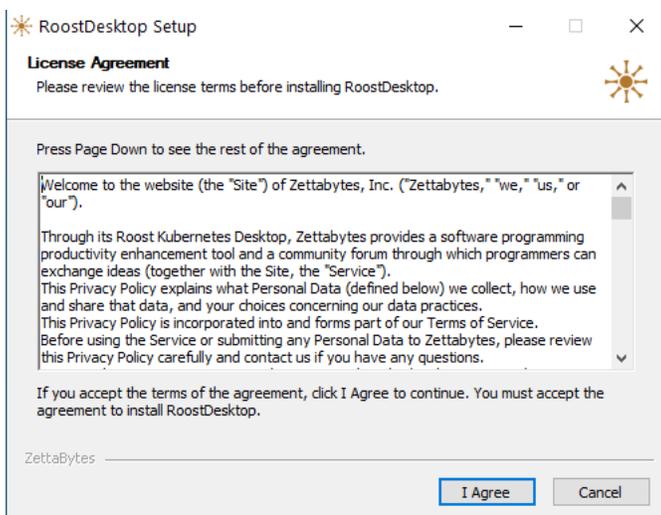


2. Launch Roost and provide necessary permission when prompt appear in Roost Desktop.

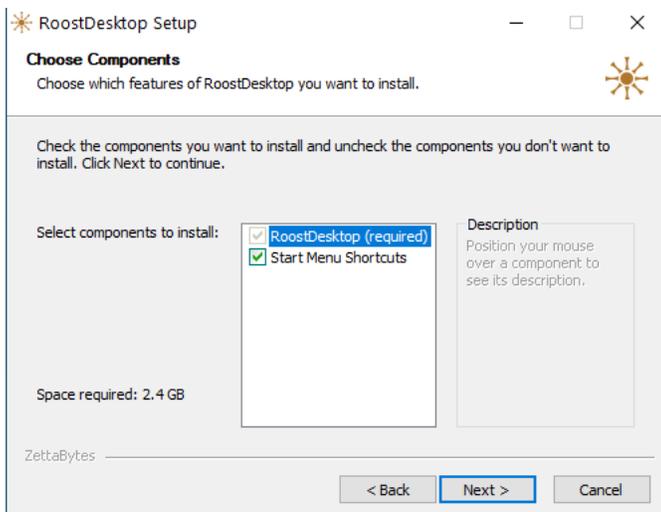
### Windows

To install Roost for Windows:

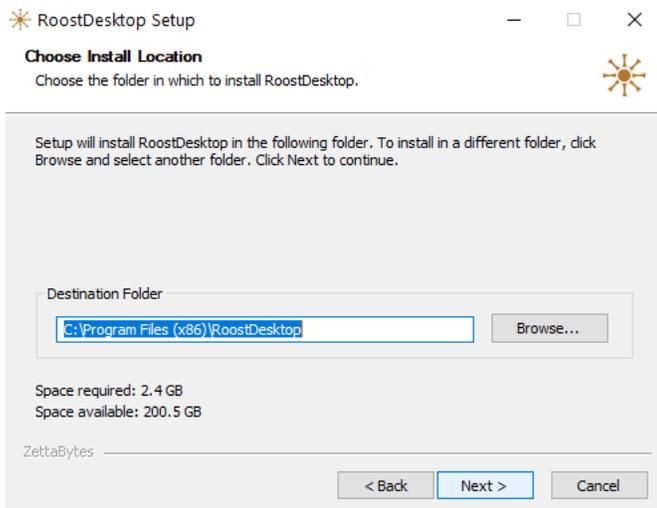
1. Double click on the downloaded executable setup file. The first setup window appears.



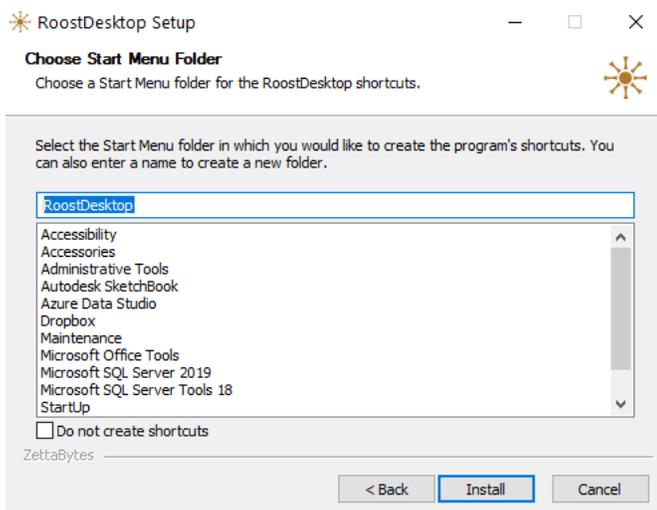
2. Read the License Agreement and click the I Agree button. The next setup window appears.



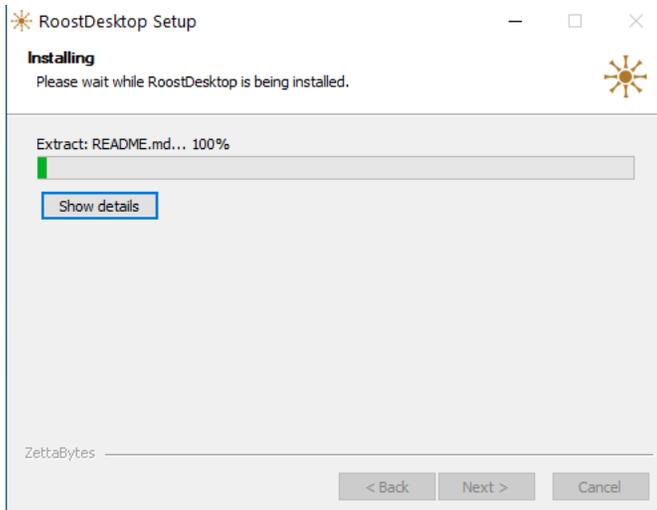
3. Select the components you want to install. The Roost Desktop and Start Menu Shortcuts options are selected by default. Click the Next button to move to the next setup window.



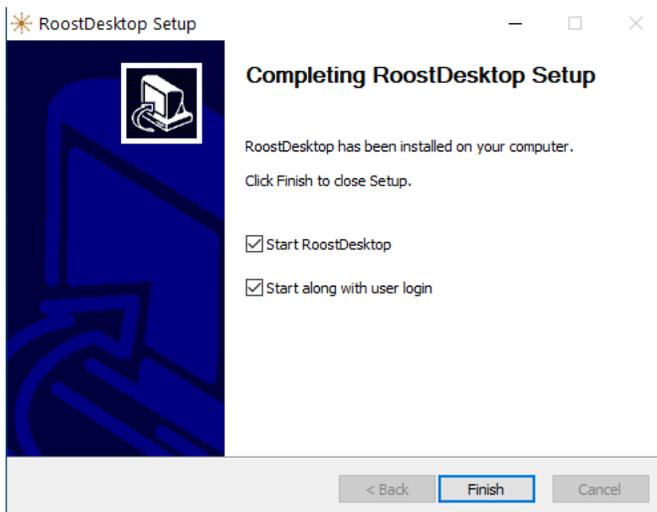
4. To accept the default Install Location, click the Next button to move to the next setup window. Generally, the default Install Location is where you want to install Roost Desktop.



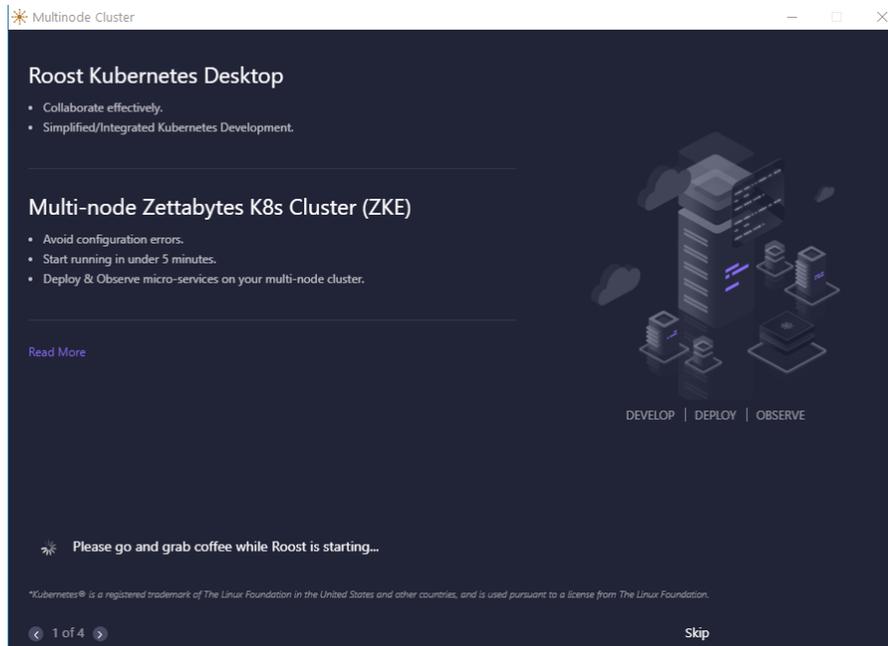
5. To accept the default Start Menu folder, click the Install button to begin installing Roost. The default folder is RoostDesktop.



6. When the installation is complete and the progress bar is completely green, click the Next button.

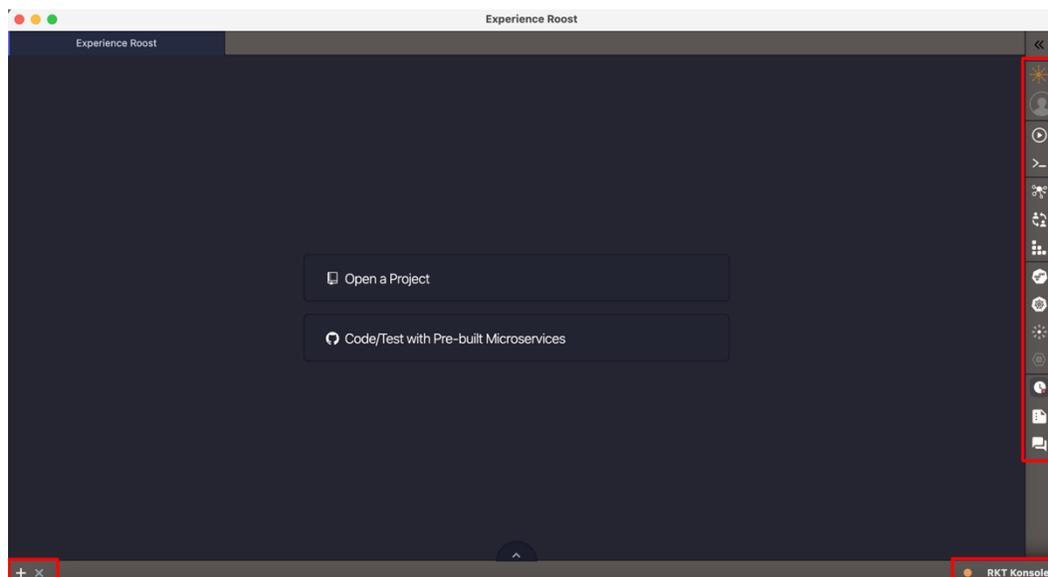


7. Click the Finish button. The loading splash screen appears.



8. To see information about Roost, click the forward and back arrows at the bottom of the screen. Click Skip to go right to the Roost Desktop.

## The Roost Screen



On the right side of the screen is the Roost toolbar, which contains these icons:

1. Toggle – Expands the right-side menu to show labels with the icons.
2. About – Displays information about Roost, including the current version, privacy policy and welcome guide.
3. User – Displays your account picture (if you’ve added one) and your username.
4. Start Cluster – Starts the selected cluster.
5. Terminal – Displays the Roost Kubernetes Terminal.
6. Analytics – Displays Workload Analytics.
7. Collaborate – Displays the Collaboration tab.
8. Registry – Displays the Registry/Container (RCR) tab.
9. AWS – Opens the Remote Cluster tab of the Preferences, with AWS selected in the Cloud Vendor field.
10. GCP – Opens the Remote Cluster tab of the Preferences, with GCP selected in the Cloud Vendor field.
11. Local Cluster – Opens the ZKE Cluster tab of the Preferences.
12. Cloud Console --
13. Events – Opens the Events window.
14. Logs --
15. Live Support – Opens a window for Roost Live Support.

In the bottom left corner:

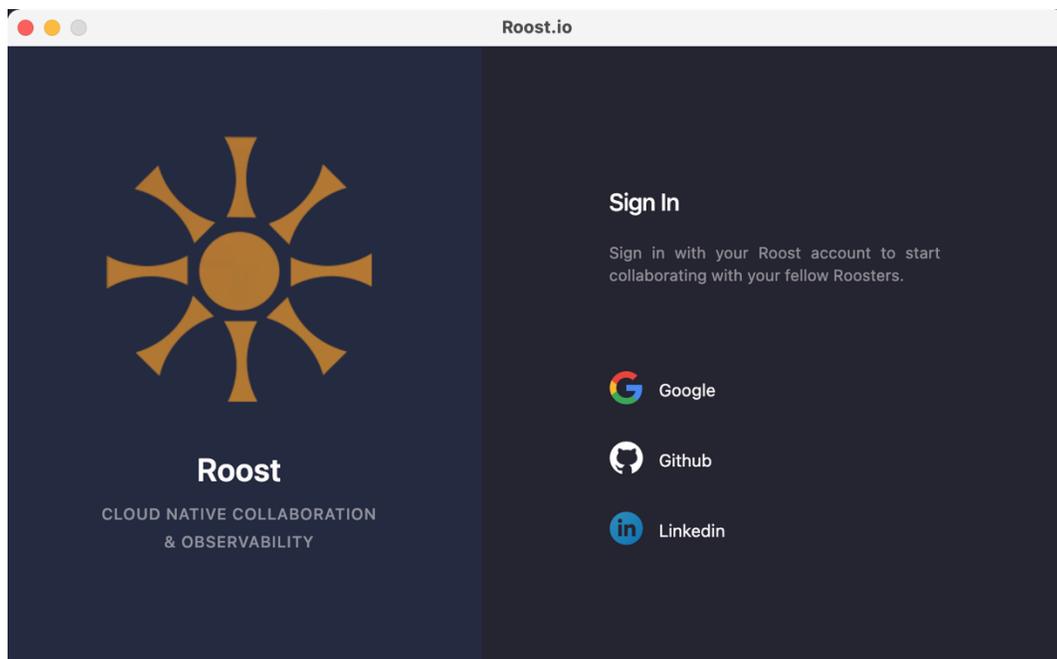
- Plus sign (+) -- Click to open a terminal window.
- Minus sign (-) – Click to close all terminal windows.

In the bottom right corner, you'll see the current cluster with a status indicator.

## Sign In

To sign in:

1. Click the User icon in the toolbar or choose Collaborate, Sign in. A screen appears to allow you to choose the method you use to sign in.



2. Click the option you want to use to sign in. The webpage for the selected option opens for you to enter your credentials. You're returned to Roost and your username appears beside the User icon in the toolbar.

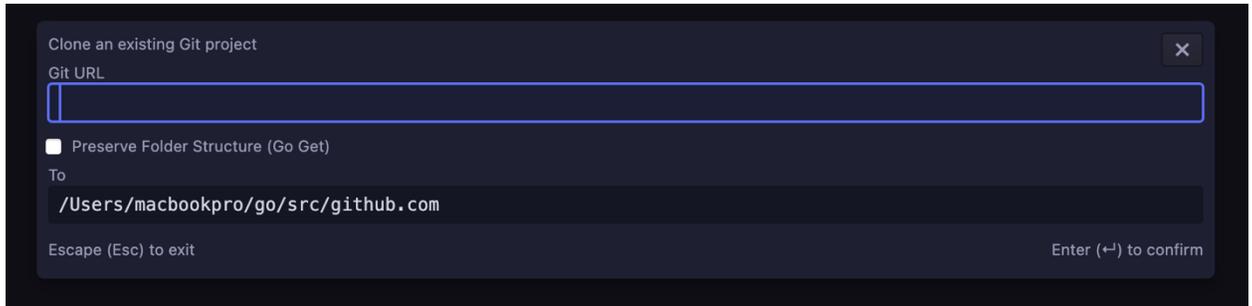
## Sign Out

To sign out of Roost, choose Collaborate, Sign out.

## Clone an Existing Git Project

To clone an existing Git project:

1. Choose File, New, Git Clone.



2. Enter the URL for the Git project you want to clone.
3. Check the Preserve Folder Structure checkbox to keep the folders as is in the repository.
4. Change the directory where the clone will reside if desired.
5. Press Enter to confirm.

## Roost Microservices

Roost contains the following microservices that you can add to your project:

- Google Book API
- CRPC Client/Server
- Image Optimization
- Open Tracing
- Service Collaboration
- Voting App
- Service Fitness Example
- Container Templates
- K8s Manifest Templates
- K8s Volumes

To open a microservice:

1. Choose File, Roost Microservices and then the microservice you want to open.

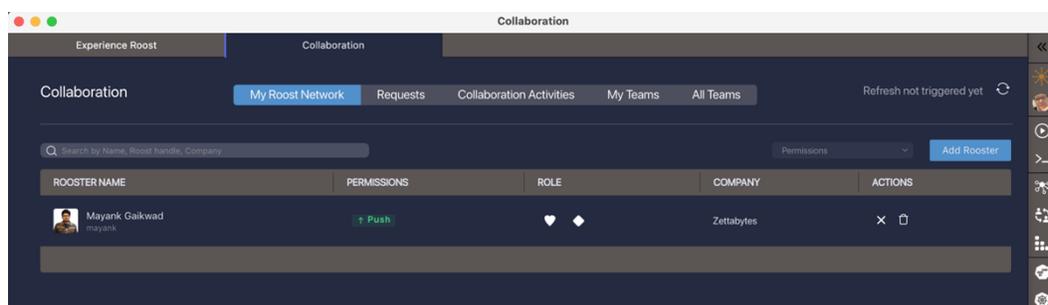
## Collaborate

Collaborate feature in Roost Desktop allows individual roost members, teams to share and deploy microservice in remote cluster either running in cloud or local kubernetes clusters

### My Roost Network

All Roost members are part of the Roost Network within which all members can collaborate docker images or by remote deployment.

To view your Roost network, choose Collaborate, Collaborate View. The Collaboration tab appears.

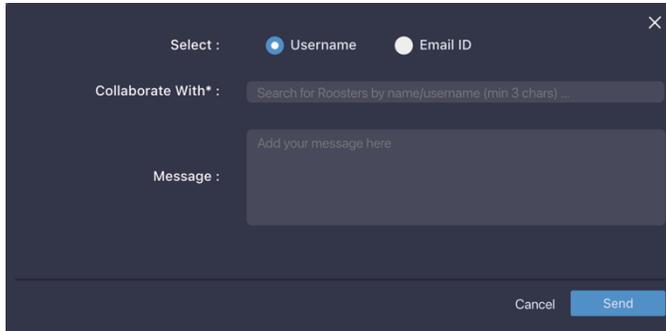


Other users that are in your Roost network appear in the list. You can see each person's name, the permissions they have, their role and company.

- To revoke a user's permissions, click the X in the Actions column.
- To remove a user from your Roost network, click the Trash icon in the Actions column.

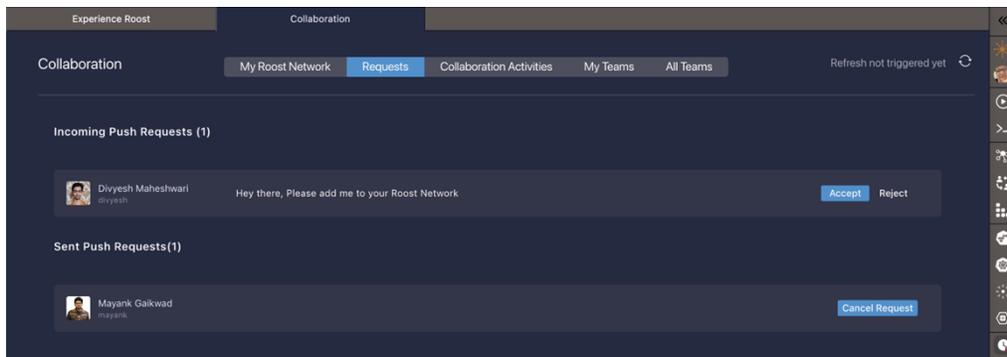
On this tab, you can also:

- Search for a user in your network: Enter a user's name, Roost handle or company in the search field. As you enter text, the list is reduced to only those users that meet your search criteria.
- Filter by Permissions: Click the down arrow in the filter field. In the drop-down menu, click the type of permission you'd like to filter by and click Apply.
- Add a Rooster to your Network: Click the Add Rooster button. In the window that appears, choose whether to look up the user by their username or email ID, then begin entering that information in the Collaborate With field. After you enter three characters, users that match your search criteria appear in a drop-down list. Find the user you want and click on that user in the list. Enter a message and click the Send button.



## Requests

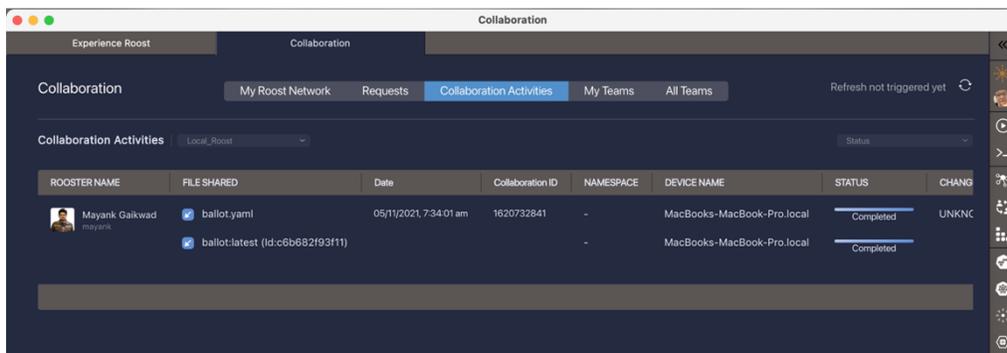
On the Requests tab, you'll see any requests to collaborate that come from other users as well as requests that you've sent.



- To accept a request, click the Accept button.
- To reject a request, click the Reject button.
- To cancel a sent request, click the Cancel Request button.

## Collaboration Activities

The Collaboration Activities tab shows the items you've collaborated on with users in your network. Scroll to the right to see the actions you can take for each activity.



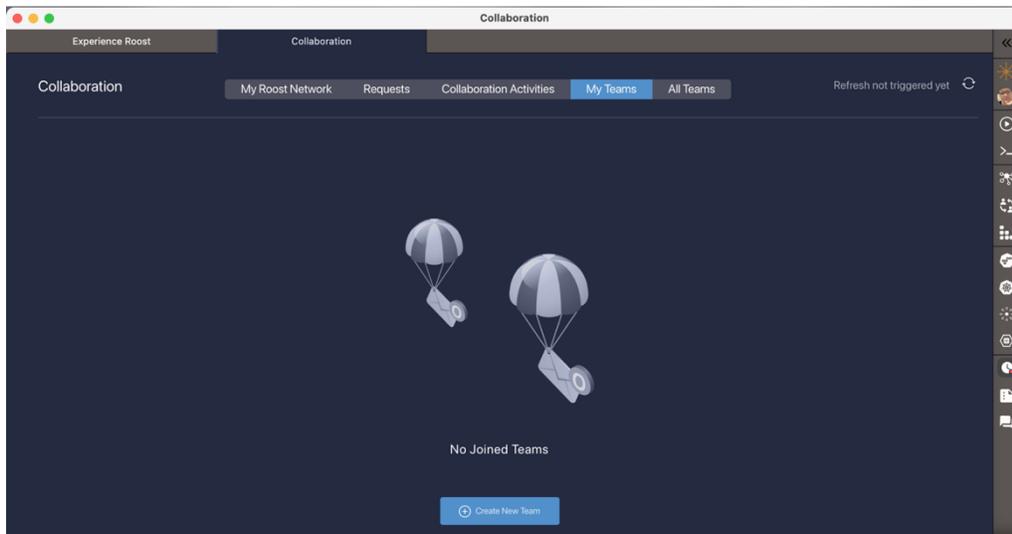
- Deploy: received .yaml into the cluster
- Delete: Click to delete the activity.

- Open Service Test Result
- Certify

### My Teams

The My Teams tab shows the teams within Roost that you are a member of.

*Note: If you do not belong to any teams, have not requested to join any teams or have not been invited to any teams, you will not have any teams listed.*



### Create a New Team

To create a new team:

1. Click the Create New Team button. The Create Team window appears.

*Note: If you have teams listed on the My Teams tab, you'll need to click the All Teams tab and click the Create New Team button there.*

Name\* : Team name

Description : Team Description

First Members : Search for Roosters by name/username (min 3 chars) ...

OPA : Open Policy Agent

Visibility :  All Users  Team Members

**Cluster Configuration for Individual Member**

Clair Scan for Images  Allow Privileged Containers

Enable Falco Runtime Security

k8s Version : v1.19.1

vCpu per node : 2

Cluster Size : RDE Recommended

Disk per node : 20G

Memory per node : 3GB

Cancel Create

2. Enter a name for your team as well as a description if desired.

Name\* : Documentation

Description : Team for Roost Documentation

First Members : May

OPA :

Visibility :

Enable Falco Runtime Security

k8s Version : v1.19.1

vCpu per node : 2

Disk per node : 20G

Memory per node : 3GB

Cancel Create

Mayank Gaikwad  
mayank

Tanmay Gaikwad  
tanmaysgaikwad

Mayank Choudhary  
chaudhary.mayank26

Jose Mayorga  
jlmayorga

Tanmay Agarwal  
tanmayagarwal0707

3. In the First Members field, begin typing the name of a user you want to add to your team. Users that match your entry appear in the drop-down list. To select a user to add, click on their name. Continue adding users as needed.

The screenshot shows a dark-themed dialog box for creating a team. At the top right is a close button (X). The fields are as follows:

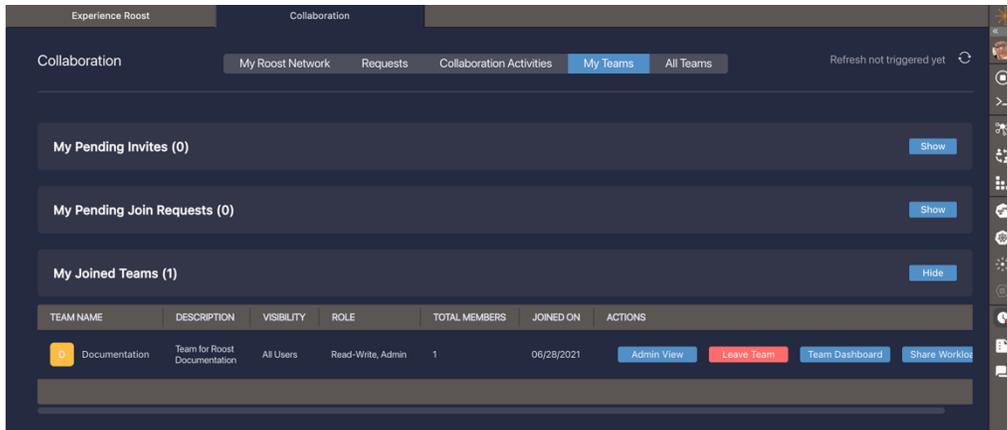
- Name\* :** Documentation
- Description :** Team for Roost Documentation
- First Members :** A profile picture of a person and a search bar with the text "Search for Roosters by name/username (min 3 chars) ...".
- OPA :** Open Policy Agent
- Visibility :** Two radio buttons: "All Users" (selected) and "Team Members".
- Cluster Configuration for Individual Member:**
  - Checked: Clair Scan for Images, Enable Falco Runtime Security
  - Unchecked: Allow Privileged Containers
  - Cluster Size: Roost Recommended
  - Disk per node: 20G
  - Memory per node: 3GB
  - k8s Version: v1.19.1
  - vCpu per node: 2

At the bottom right are "Cancel" and "Create" buttons.

4. Select the other options for your team:

- Open Policy Agent: Add OPA Policy
- Visibility: Choose to make this team visible to all Roost users or only to team members.
- Cluster Configuration for Individual Members:
  - Clair Scan for Images
  - Enable Falco Runtime Security
  - Kubernetes Version
  - vCPU per node:
  - Allow Privileged Containers:
  - Cluster Size:
  - Disk Per Node:
  - Memory Per Node:

5. Click the Create button to create the team. The new team appears on the My Teams tab.

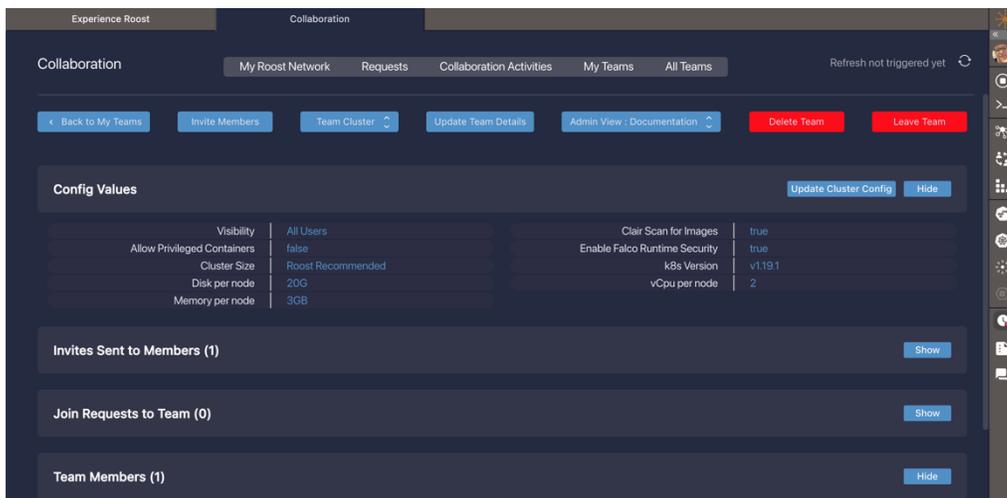


### See the Admin View of a Team

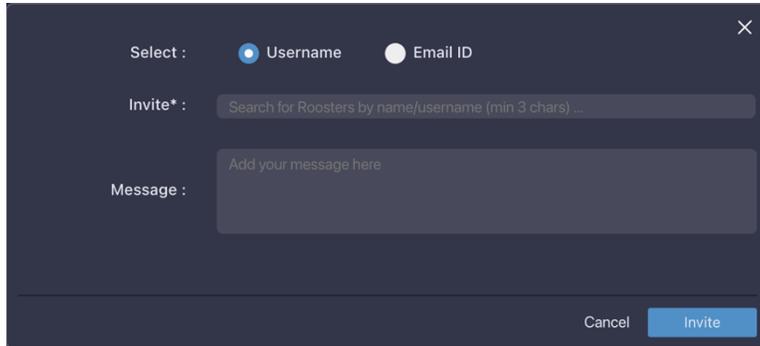
The admin view of a team allows you to control a team. You will only be able to access this view if you are an admin for the team because you created it or you were made an admin by another team admin.

To see the Admin View of a Team:

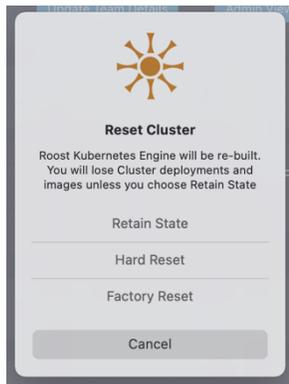
1. On the My Teams tab in the My Joined Teams section, click the Admin View button for the team you want. The Team Admin View appears.



2. From this screen, you can:
  - **Invite Members:** Click the Invite Members button. In the window that appears, choose whether to look up the user by their username or email ID, then begin entering that information in the Invite field. After you enter three characters, users that match your search criteria appear in a drop-down list. Find the user you want and click on that user in the list. Enter a message and click the Invite button.



- Select a Team Cluster:
- Update Team Details: Click the Update Team Details button to change the information you entered about the team when you first created it.
- Delete the Team: Click the Delete Team button. A prompt appears asking if you're sure you want to delete the team. Click the Yes button to finish deleting the team.
- Leave the Team: Click the Leave Team button to leave the team. A prompt appears asking if you're sure you want to leave the team. Click the Yes button to leave the team.
- Update Cluster Config:



### **View Invitations to the Team**

After you've invited another user to your team, that person will be listed in the Invites Sent to Members section. When the user accepts the team invitation, he will be listed in the Team Members section.

*Note: To cancel the invitation, click the Cancel Invite button.*



### Accept Team Join Requests

If a user has requested that they be allowed to join your team, you'll see that request listed in the Join Requests to Team section.

### Manage Team Members

In the Team Members section, you can take the following actions on each member:

- Remove Member: Click the Remove Member button to remove the user from the team.
- Change Member's Role to Read Only: Click the Change Role to Read Only button to ensure user is restricted from deploying workload.
- Grant or Remove Admin Privileges for Members: Click the Grant Admin button to make the user an admin for the team. Click the Remove Admin button to remove team admin privileges from the user.



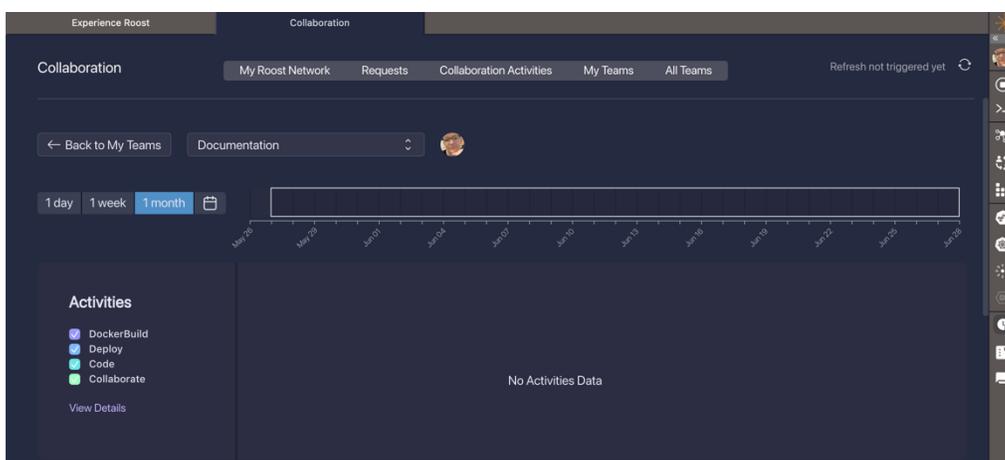
MEMBER NAME	DESCRIPTION	ROLE	JOINED ON	ACTIONS
 tracylbenma67		Read-Write, Admin	06/28/2021	<a href="#">Remove Member</a> <a href="#">Change Role to Read-Only</a> <a href="#">Remove Admin</a>

### View the Team Dashboard

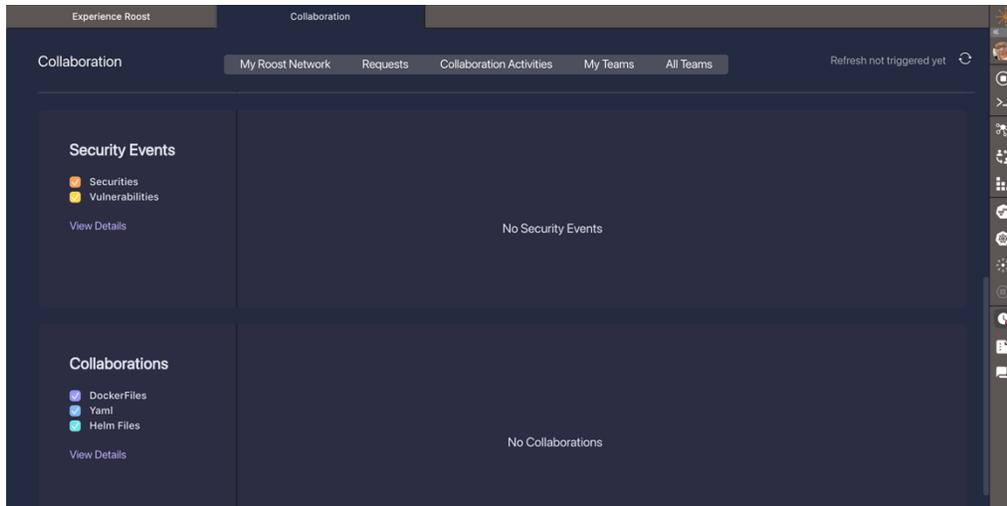
The team dashboard contains information about the team's activities.

To view the team dashboard:

1. On the My Teams tab under the My Joined Teams section, click the Team Dashboard button. The Team Dashboard appears.



Scroll down to see more information including Security Events and Collaborations.

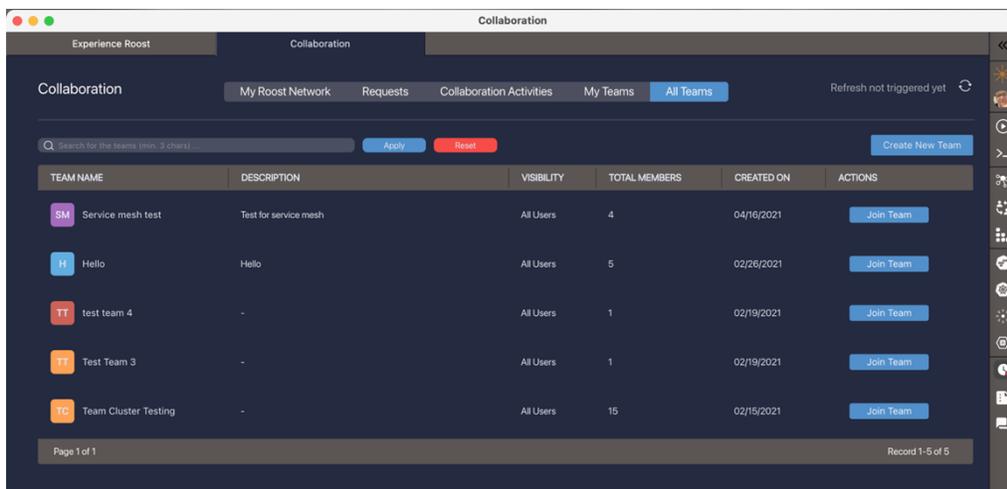


### Share Workload with a Team

When workload is shared with the team, use gets option to choose either individual or All team member as receiver.

### All Teams

The All Teams tab shows all of the teams in Roost and these teams can include users from all over the world.



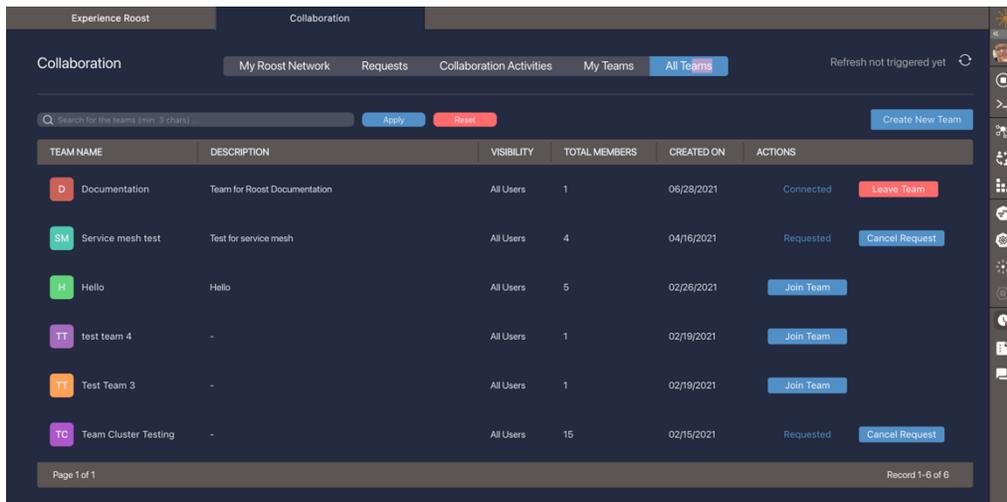
### Find a Team

To find a team, type some or all of the team name in the search field then click the Apply button. Teams that match your search criteria are listed.

To clear the search field, click the Reset button.

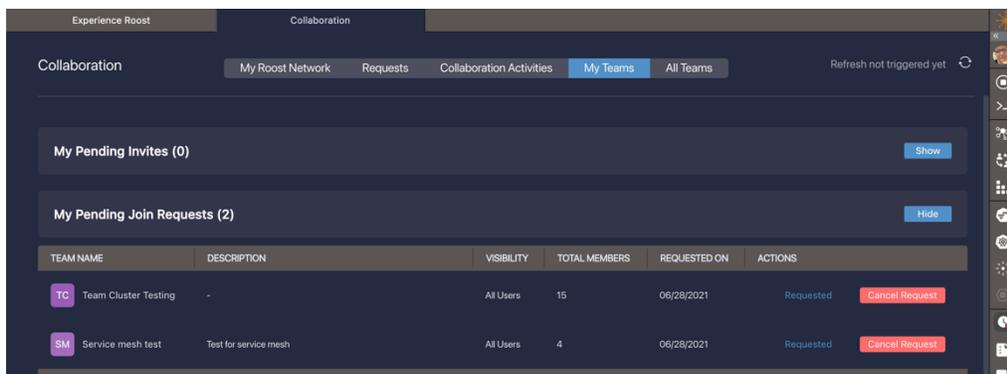
### Join a Team

To join a team, click the Join Team button. Your request to join is sent to the team admins and on your screen, you'll see the Cancel Request button as well as the status of "Requested."



### Cancel a Request to Join a Team

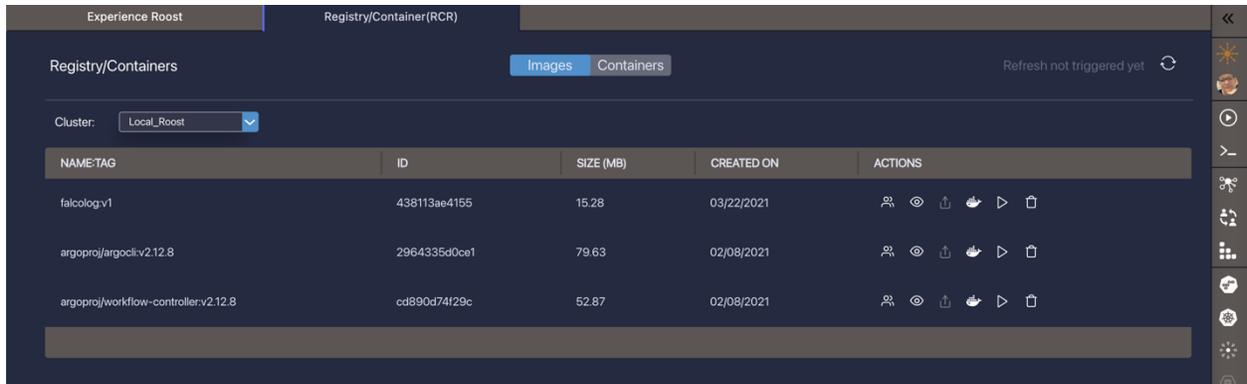
To cancel a request to join a team, click the Cancel Request button.



## Container Registry

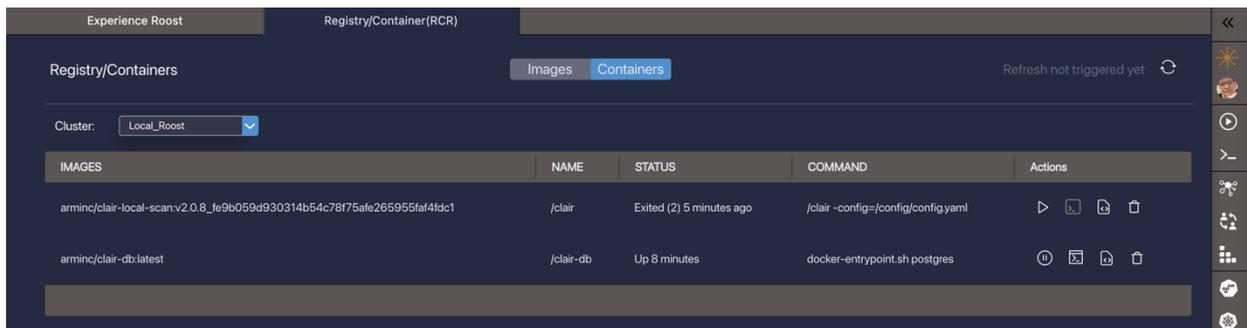
Roost provide

### Images



- Collaborate: User can Directly share the image with another Roost members
- Scan: Docker image vulnerability scanning
- Push to Docker-hub registry
- Run: Docker image as container
- Delete: Click the Delete icon to delete the image.

## Containers

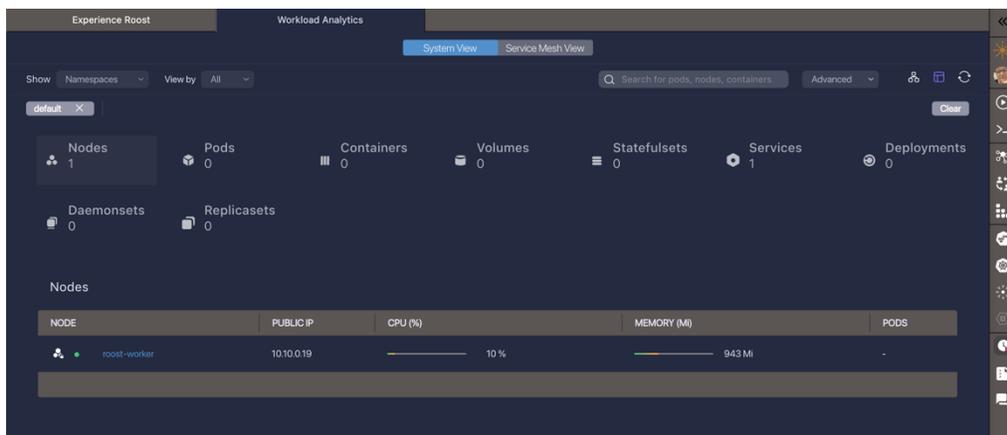
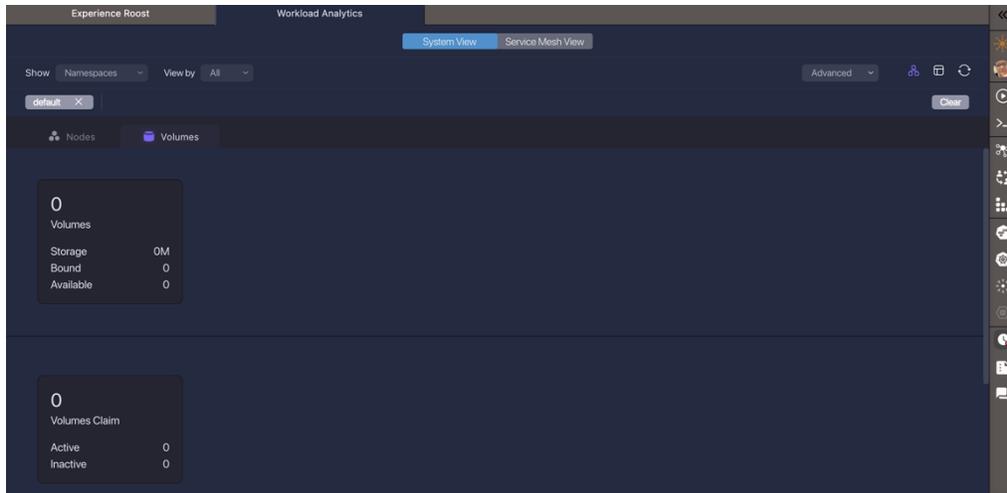


- Run:
- Terminal:
- Logs:
- Delete: Click the Delete icon to delete the container.

# Observability

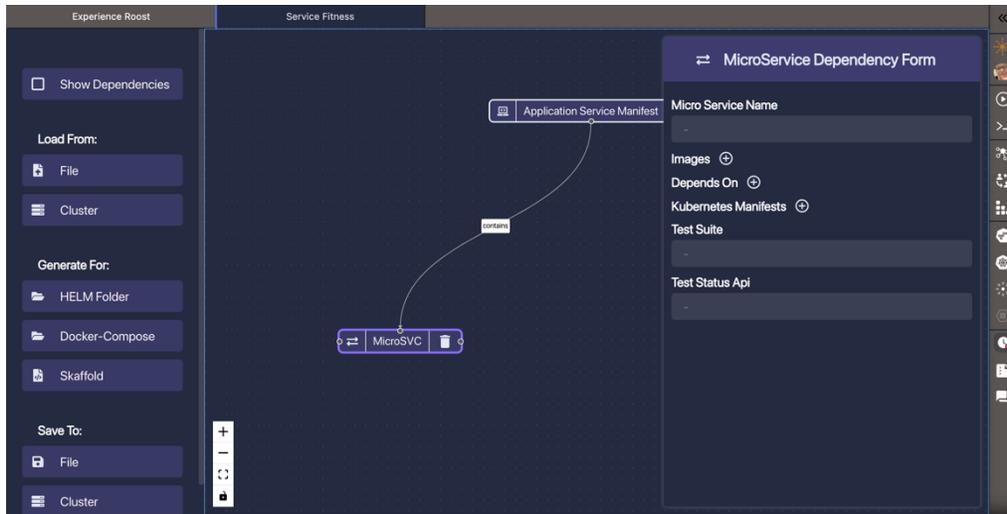
## Workload Analytics

### System View



### Service Mesh View

### Service Fitness



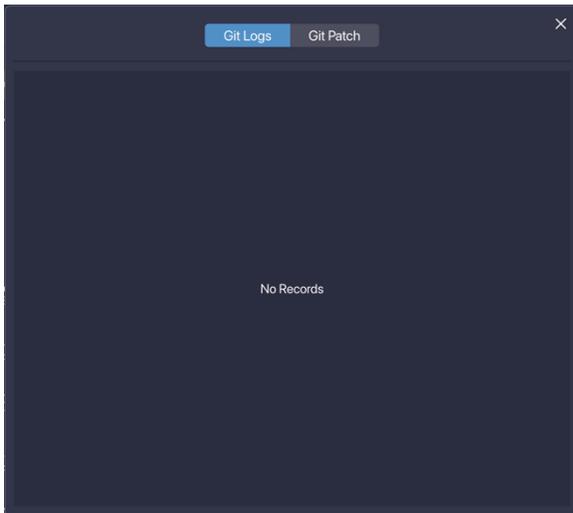
## My Activity

The screenshot shows the 'My Activity' page in the Roost application. It features a table with columns for 'EVENT TIME', 'EVENT', 'ARTIFACT / CHECKSUM', 'NAMESPACE', 'CLUSTER NAME', 'DEVICE NAME', and 'CODEBASE'. There are four entries in the table, each with a 'View' button. A 'Refresh not triggered yet' button is located in the top right corner of the table area. A vertical toolbar on the far right contains various icons for navigation and actions.

EVENT TIME	EVENT	ARTIFACT / CHECKSUM	NAMESPACE	CLUSTER NAME	DEVICE NAME	CODEBASE
June 2, 2021 6:59 AM	docker pull	argoproj/workflow-controller-v2.12.8 (Id:ca890d74f29c) c11b94b6d75ee28cd7206750458af9a7b00da7a766848c24d6e378accb3c7711	-	ZKE	MacBooks-MacBook-Pro.local	<a href="#">View</a>
June 2, 2021 6:58 AM	docker pull	argoproj/argocd-v2.12.8 (Id:2964335d0ca1) 9372cdaa3af2e9a15dca15b00e8b186502f69c908738c834e7c4292601be6fa	-	ZKE	MacBooks-MacBook-Pro.local	<a href="#">View</a>
May 7, 2021 7:25 AM	docker pull	argoproj/workflow-controller-v2.12.8 (Id:ca890d74f29c) c11b94b6d75ee28cd7206750458af9a7b00da7a766848c24d6e378accb3c7711	-	ZKE	MacBooks-MacBook-Pro.local	<a href="#">View</a>
May 7, 2021 7:25 AM	docker pull	argoproj/argocd-v2.12.8 (Id:2964335d0ca1) 9372cdaa3af2e9a15dca15b00e8b186502f69c908738c834e7c4292601be6fa	-	ZKE	MacBooks-MacBook-Pro.local	<a href="#">View</a>

Click the View button to see information about each activity entry. The Activity Information window appears.

## Git Logs



## Git Patch

## Run Diagnostics

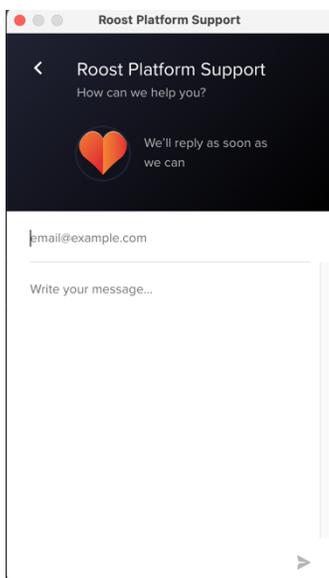


## Live Support

If you need help with Roost, support is available.

To get support:

1. Choose Help, Support. The Support window appears.



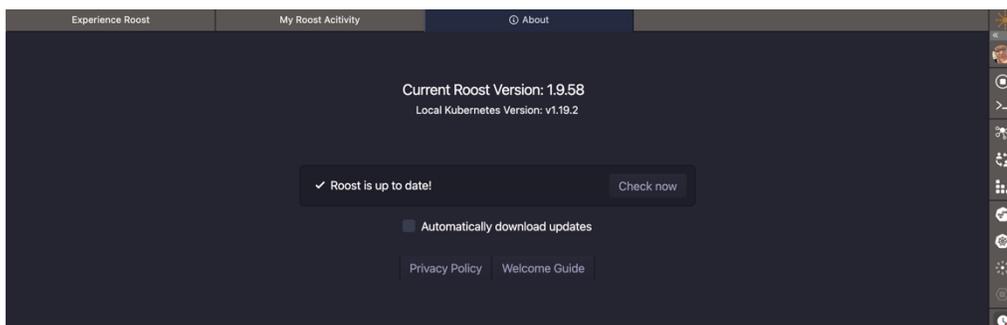
2. Enter your email address and then your message to the support team. Please describe your issue in as much detail as possible.
3. Click the Send button to send your message. The support team will respond as quickly as possible.

## Update Roost Manually

You may decide not to have Roost automatically download updates, so you will need to update Roost manually.

To update Roost:

1. Choose Roost, About Roost. The About tab appears.

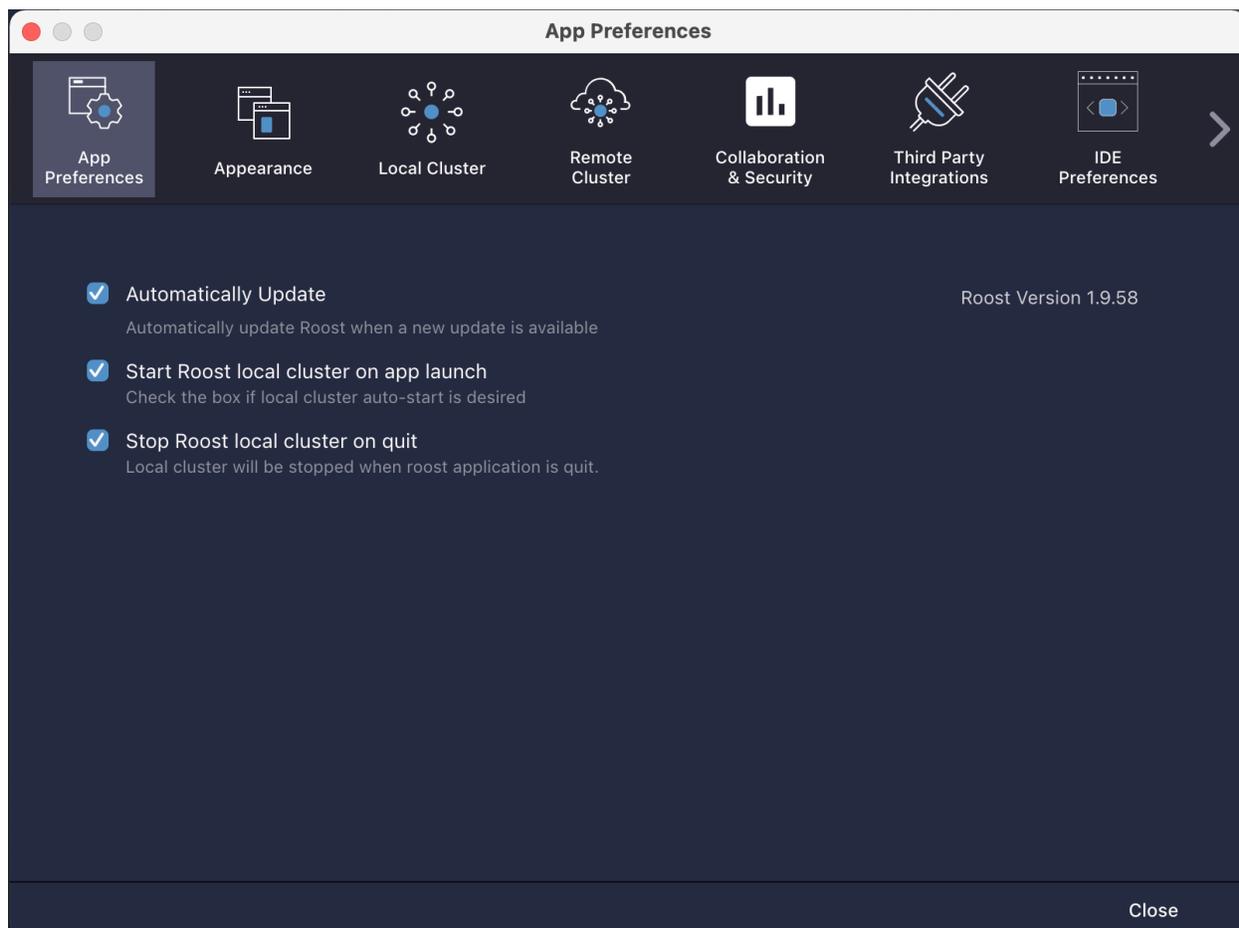


2. Click the Check Now button to check for a Roost update. If Roost is up to date, a message appears to tell you that there are no updates available.

## Preferences

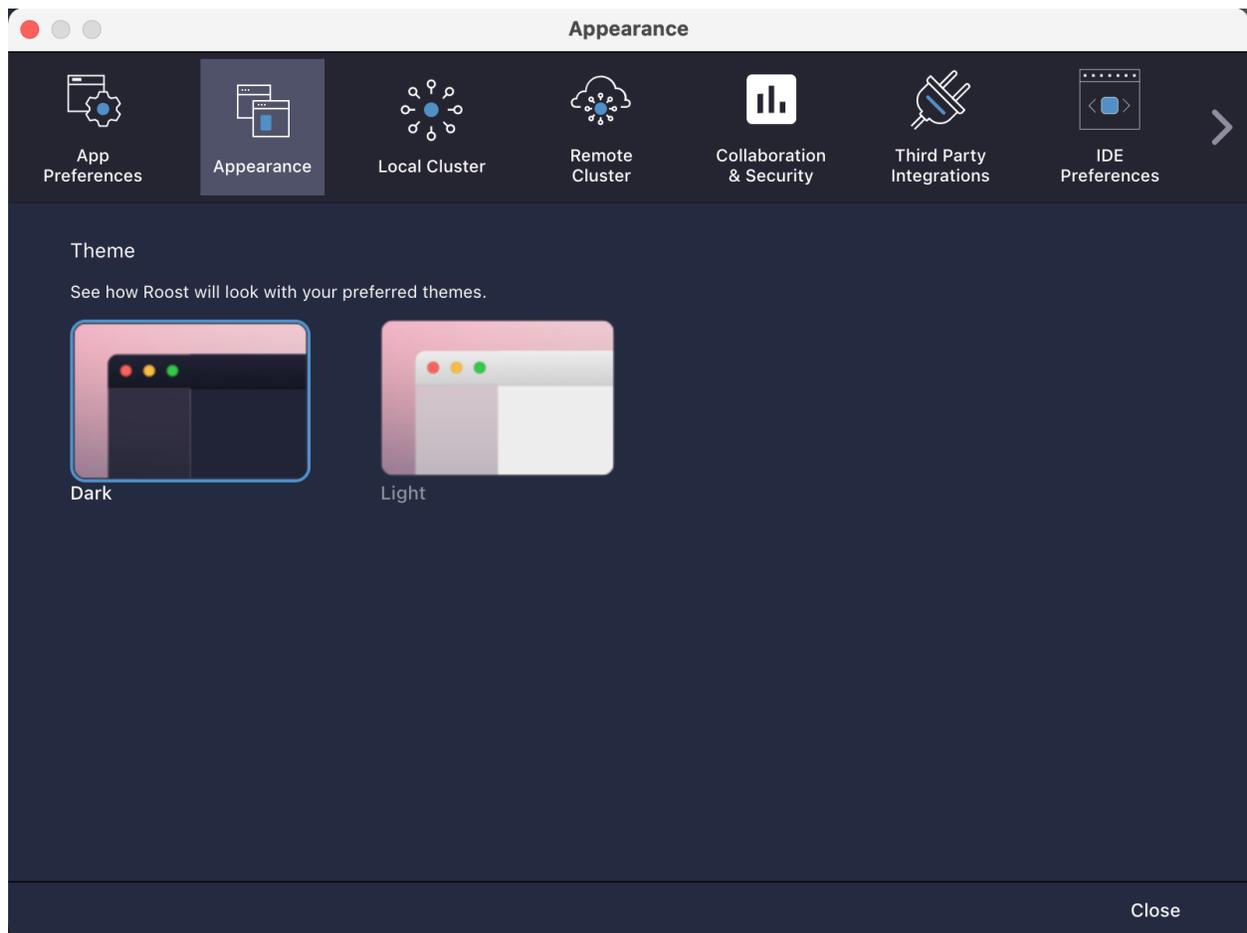
To go to the Roost Preferences, choose Roost, Preferences. The Preferences window appears.

### App Preferences



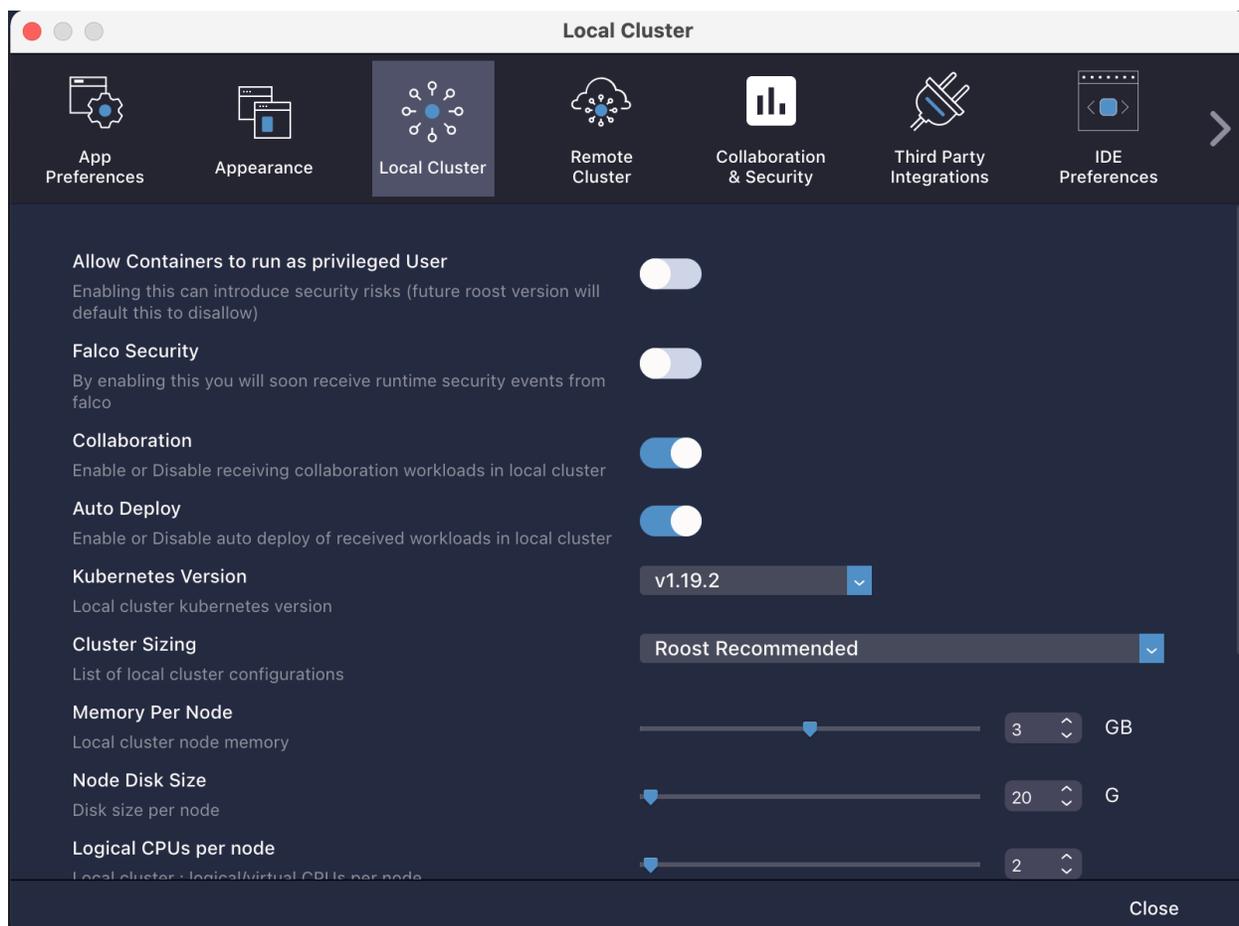
- **Automatically Update:** Check to automatically update when a new version of Roost is available. If you uncheck this, you'll need to update Roost manually.
- **Start Roost local cluster on app launch:** Check to automatically start the local cluster when you launch Roost.
- **Stop Roost local cluster on quit:** Check to stop the local cluster when you quit Roost.

## Appearance Preferences



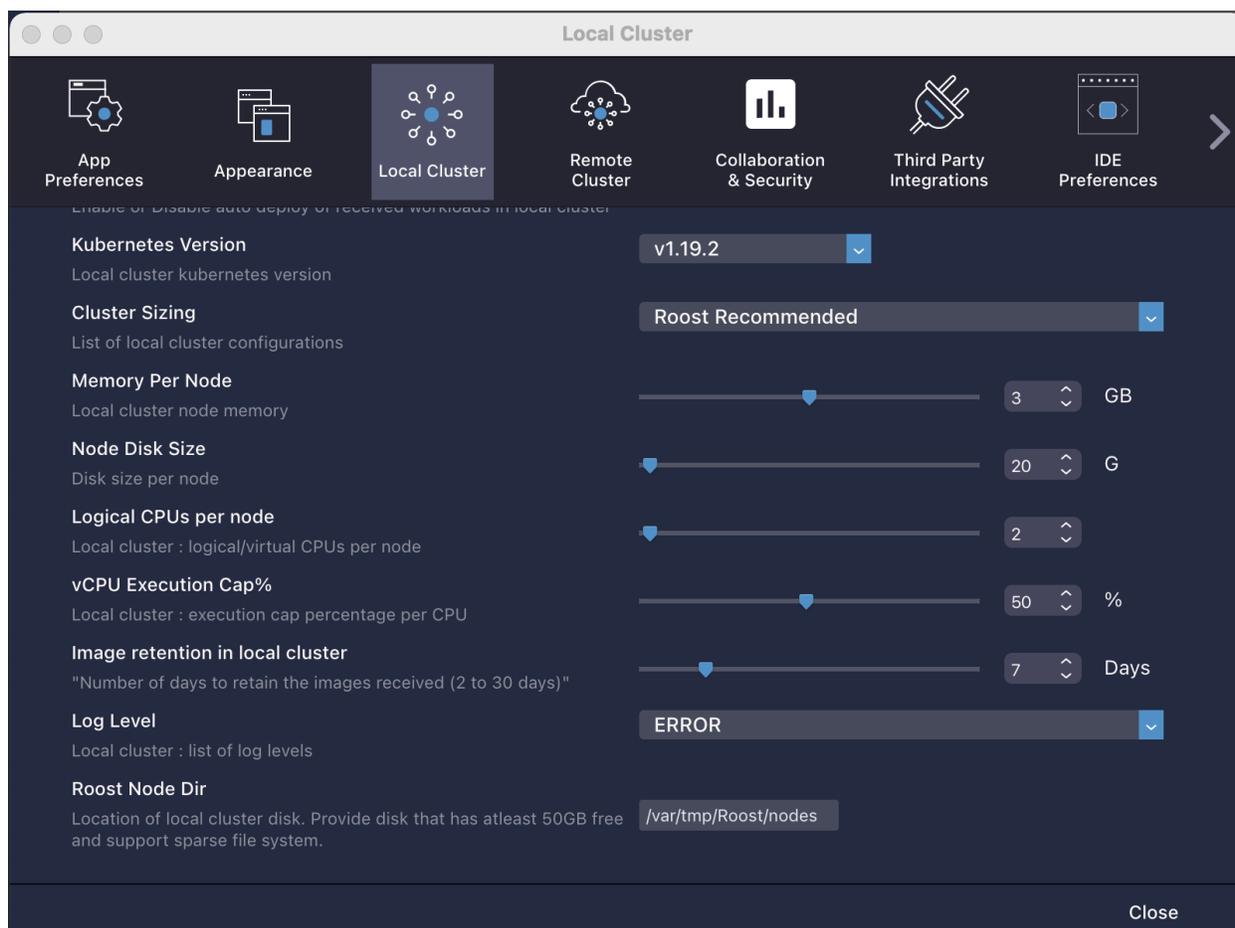
Click on the dark or light version of Roost to choose the screen's appearance. Your local theme colors will be used.

## Local Cluster Preferences



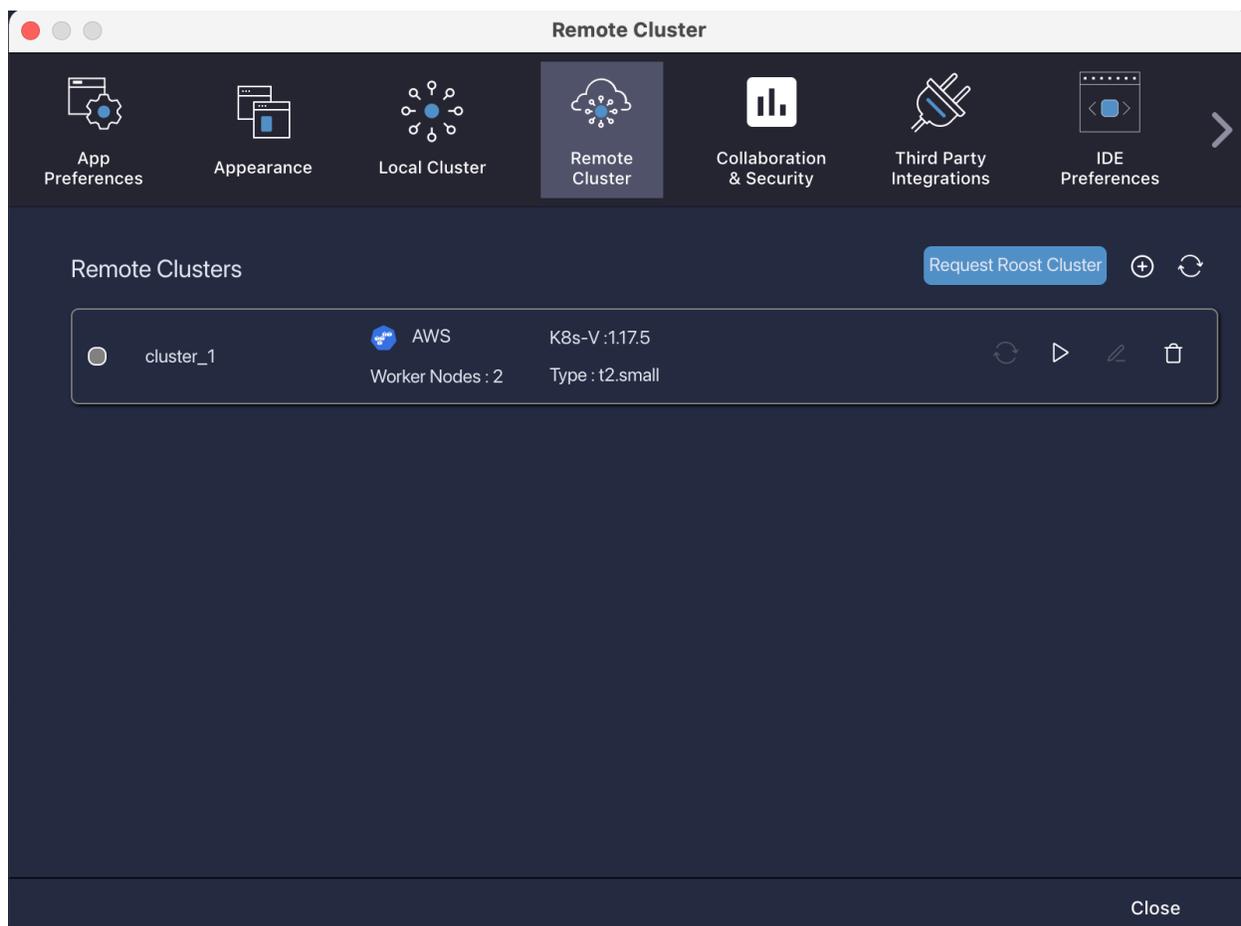
- **Allow Containers to run as privileged User:** Click the slider to enable (blue) and allow any containers to run as a privileged user.
- **Enable Falco Security:** Click the slider to enable (blue) Falco Security so you'll receive runtime security events from Falco.
- **Collaboration:** Click the slider to enable (blue) collaboration with other users.
- **Auto Deploy:** Click the slider to enable (blue) auto deployment of workloads.
- **Kubernetes Version:** Select the Kubernetes version you want to use.
- **Cluster Sizing:** Select the cluster configuration you want to use.
- **Memory Per Node:** Set the memory per local cluster node.
- **Disk Size Per Node:** Set the disk size per local cluster node.

## Local Cluster Preferences



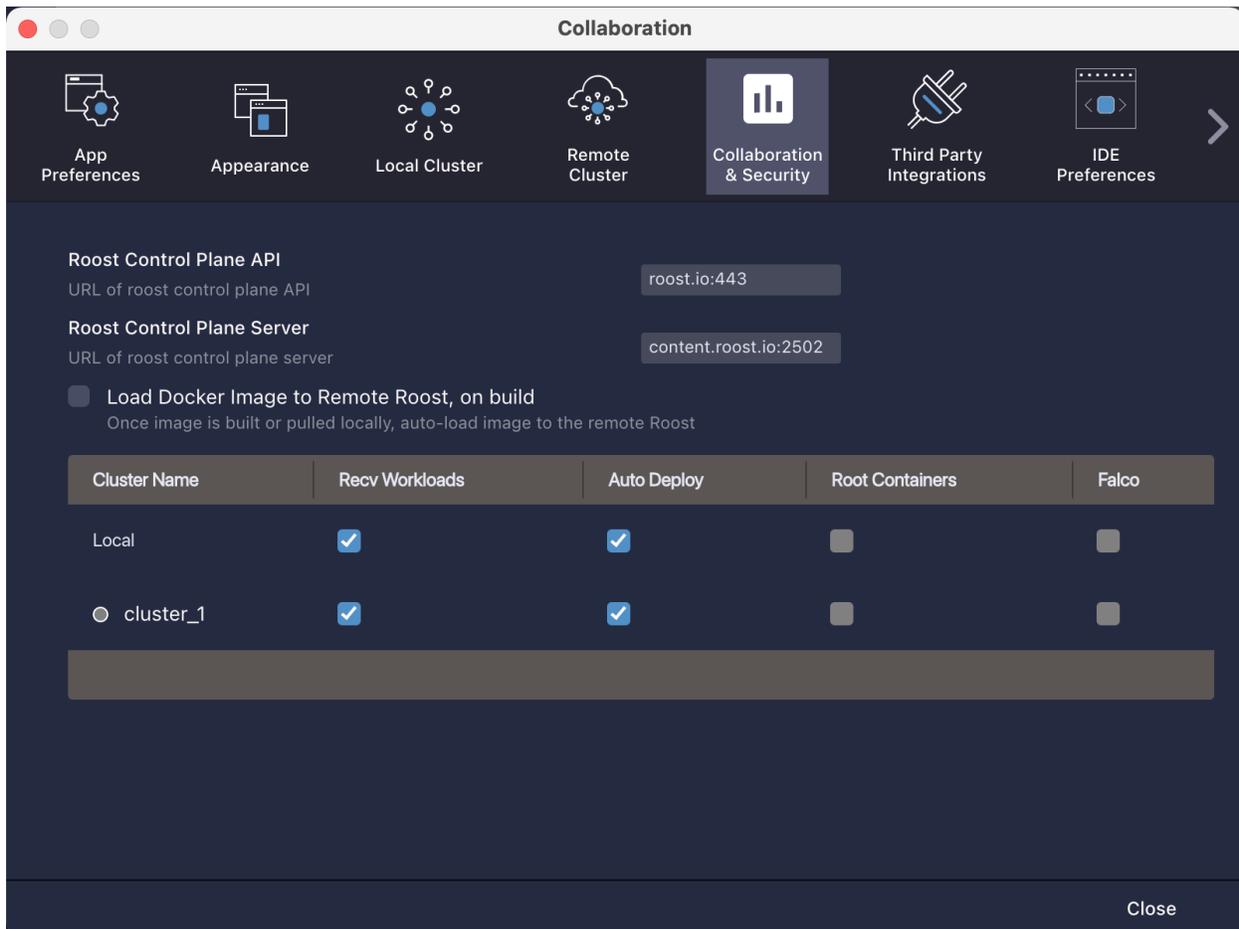
- Logical CPUs per node: Set the logical/virtual CPUs per local cluster node.
- vCPU Execution Cap%: Set the execution cap percentage per CPU.
- Image retention in local cluster: Set the number of days to retain images in the local cluster.
- Log Level: Set the log level. The options are Info, Error and Debug.
- Roost Node Dir: The location of the local cluster directory.

## Remote Cluster Preferences



- Request Remote Cluster: Click the request for a remote cluster.
- Add New Cluster: Click to add a new remote cluster.
- Refresh the List of Remote Clusters: Click to refresh the list of remote clusters.

## Collaboration & Security Preferences

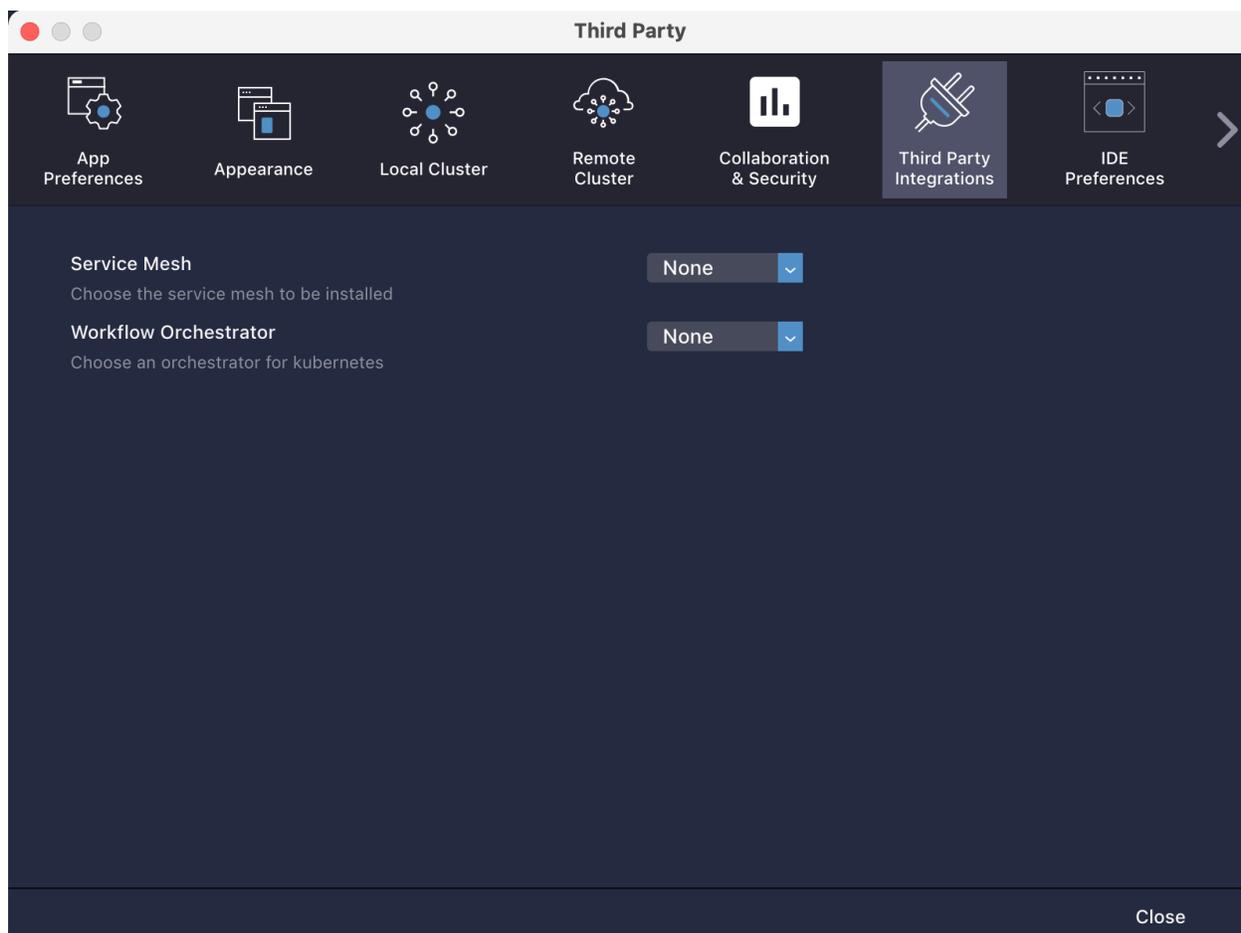


The screenshot shows the 'Collaboration & Security' preferences window. It features a top navigation bar with icons for App Preferences, Appearance, Local Cluster, Remote Cluster, Collaboration & Security (selected), Third Party Integrations, and IDE Preferences. Below the navigation bar, there are two input fields for 'Roost Control Plane API' (URL of roost control plane API) and 'Roost Control Plane Server' (URL of roost control plane server). A checkbox labeled 'Load Docker Image to Remote Roost, on build' is checked, with a sub-note: 'Once image is built or pulled locally, auto-load image to the remote Roost'. Below this is a table with columns for Cluster Name, Recv Workloads, Auto Deploy, Root Containers, and Falco. The table lists 'Local' and 'cluster\_1' clusters, both with 'Recv Workloads' and 'Auto Deploy' checked, and 'Root Containers' and 'Falco' unchecked. A 'Close' button is located at the bottom right of the dialog.

Cluster Name	Recv Workloads	Auto Deploy	Root Containers	Falco
Local	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/> cluster_1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

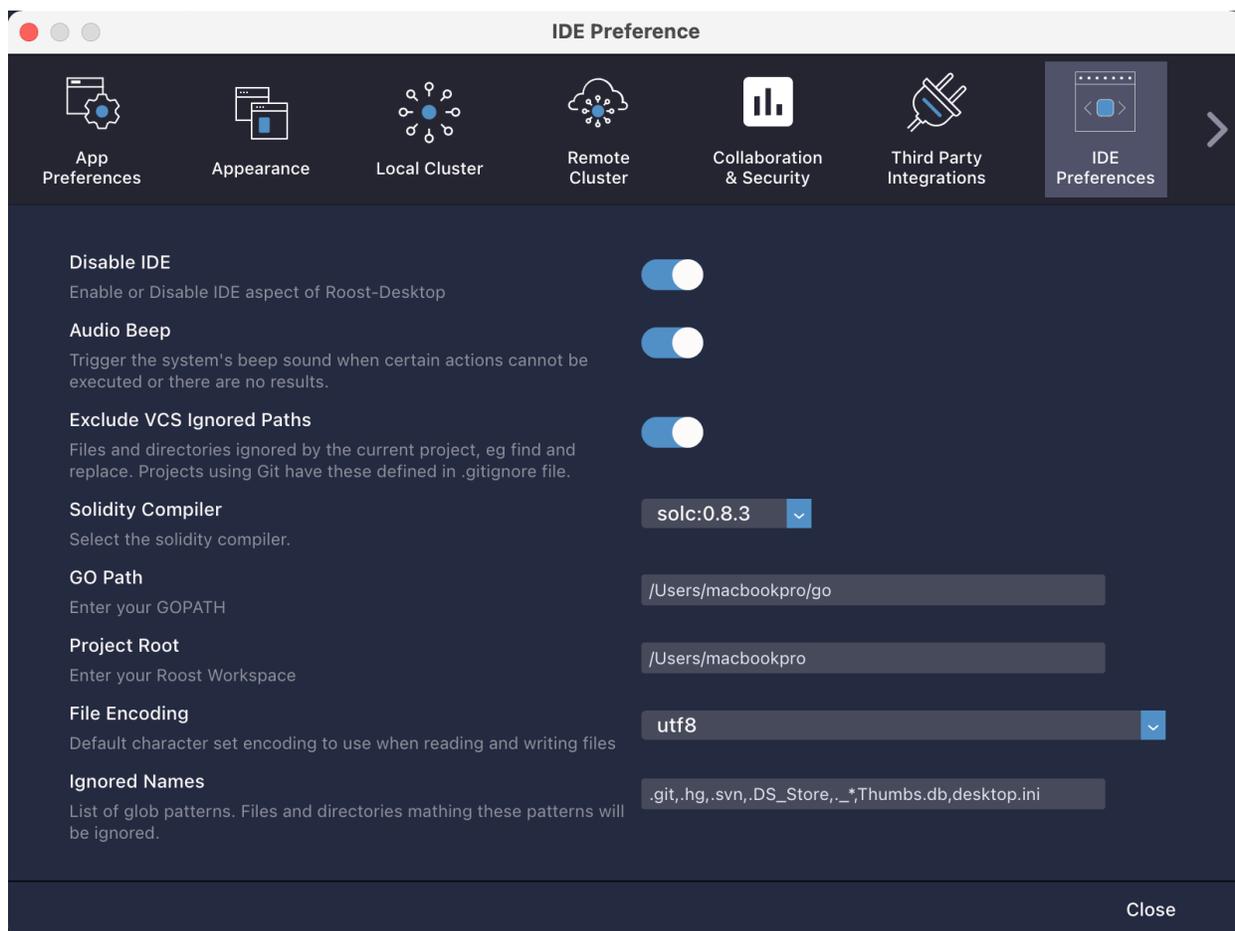
- Roost Control Plane API: The URL of the Roost Control Plane API.
- Roost Control Plane Server: The URL of the Roost Control Plane server.
- Load Docker Image to Remote Roost on Build: Check to auto-load the image to the remote Roost once the image is built.

## Third Party Integrations Preferences



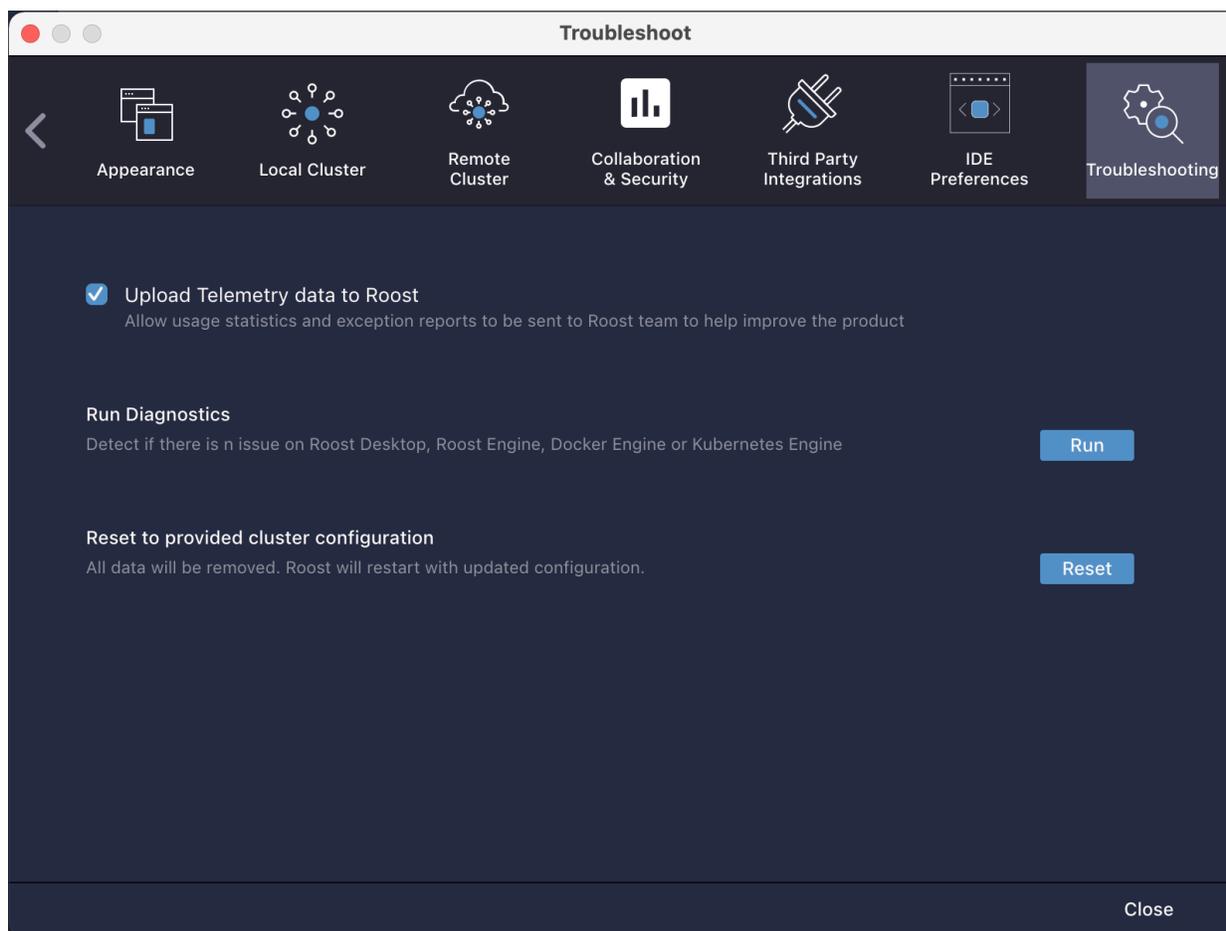
- **Service Mesh**: Select the service mesh to be installed. The options are None, Linkerd and Istio. If you select Linkerd or Istio, you'll see a message that tells you the installation is in progress.
- **Workflow Orchestrator**: Select the workflow orchestrator for Kubernetes. The options are None, Argo and Airflow. If you choose Argo or Airflow, you'll see changes in the terminal window. If you choose Airflow, you'll see a message asking you to confirm that you want to enable Airflow and that the process will take 4-5 minutes. Do NOT close the terminal window during this process.

## IDE Preferences



- **Disable IDE:** Click the slider to **disable** (blue) IDE for the Roost Desktop.
- **Audio Beep:** Click the slider to enable (blue) the system sound when an action cannot be performed or there are no results.
- **Exclude VCS Ignored Paths:** Click the slider to enable (blue) having certain files and directories ignored by the current project.
- **Solidity Compiler:** Choose the solidity compiler you want to use.
- **GO Path:** Enter your GOPATH.
- **Project Root:** Enter the root for your Roost workspace.
- **File Encoding:** Choose the default character set encoding to use.
- **Ignored Names:** Enter a list of glob patterns; files and directories that match the patterns will be ignored.

## Troubleshooting



- Upload Telemetry Data to Roost: Check to allow statistics and exception reports to be sent to the Roost team.
- Run Diagnostics: Click the Run button to detect any issues with Roost.
- Reset to Provided Cluster Configuration: Click the Reset button to reset Roost. Note that all data will be removed.



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Roost.ai uses machine learning for automated and continuous change validation by providing an on-demand production-ready environment where developers test with live services.

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