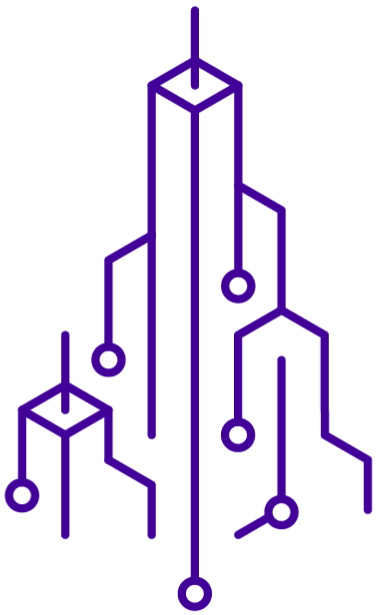
HEROKU

Customer Solutions Architecture

Heroku Enterprise

Customer Onboarding Guide



For detailed information about Heroku Support and other resources, please see our Enterprise Help & Support Guide. For all Enterprise help resources, see the Enterprise Portal.

If you have an immediate need for Heroku Support, please open a ticket here.

Contents

What is Heroku?

Heroku is a cloud platform-as-a-service (PaaS) for building, running, managing and scaling web applications. This guide will help you to get started on the Heroku platform.

Heroku's Architecture

Application code runs on Heroku inside containers, called dynos, that we manage for you. Unlike static server infrastructure, Heroku dynos are dynamic and disposable. The number and size of the dynos provisioned to run your application code can be changed with the click of a button or a single CLI command.

Additional functionality can be added to your application through add-ons. Add-ons allow you to quickly add backing services to your app, like databases, monitoring, logging, and more. The Heroku Elements Marketplace has details about every available add-on.

Tying it all together, application configuration and settings are managed through hosted environment variables called config vars. These variables are available to your application on every dyno, and are also used by add-ons for their own configuration purposes.

You can dive more deeply into Heroku's Architecture in the Dev Center.

Building Apps on Heroku

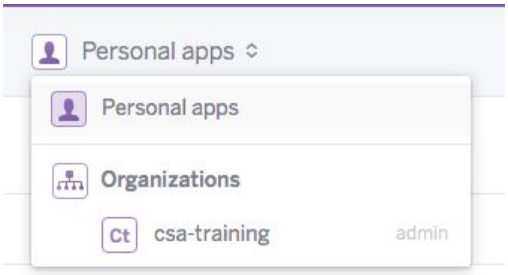
Heroku is an open platform and there's nothing proprietary about how it works. However, there is a set of principles to guide the architecture and implementation of applications on Heroku in order to achieve the best results. These principles have been developed through experience using the platform and are designed to help you take advantage of the unique and powerful Heroku platform architecture.

For more details, check out the series of documents on Application Architecture on Heroku in the Dev Center.

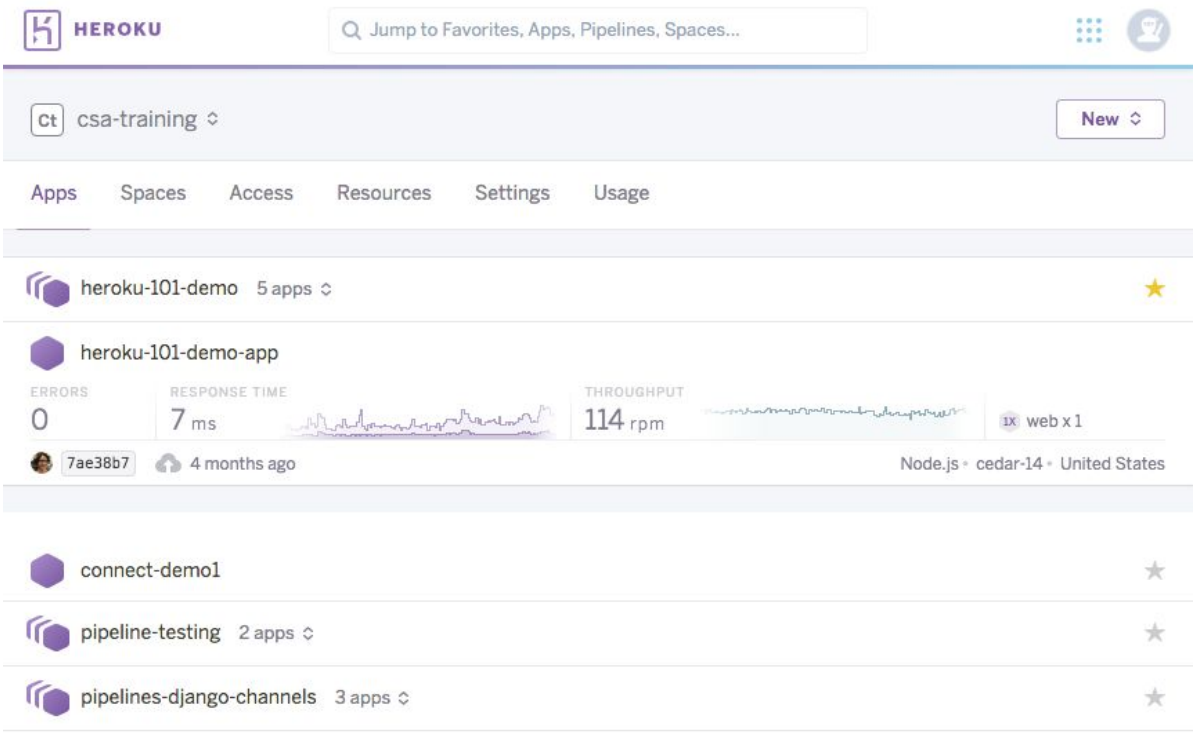
Heroku Organization Account: Dashboard Tour

The Organization Account, or Heroku "Org," is the keystone of Heroku Enterprise. Access the Org by logging into the Heroku Dashboard.

When you first login, you'll find yourself in the Personal Apps section of your Dashboard. Navigate to your Org through the dropdown menu in the upper left. Any Organizations with which you are associated will be listed there. Click the Org name to view it in the Dashboard.



Once inside an Org in the Heroku Dashboard, you'll see the **Apps tab** and a listing of apps owned by the Org will be displayed below the navigation bar.



If your user has **Admin** privileges, you'll see all the navigation options shown in the example above, including Apps, Spaces, Access, Resources, Settings and Usage. **Members** will have fewer options. Read on to learn about Organization-level User Privileges.

Managing Organization Access

Org User Privileges

There are two privilege sets at the Organization level: **Admin** and **Member**.

Admins have full access to see and do anything in the Org, from adding new Admins and Members to full privileges on every app and monitoring of Org-wide resource usage.

Read more about Admin Privileges in the Heroku Dev Center.

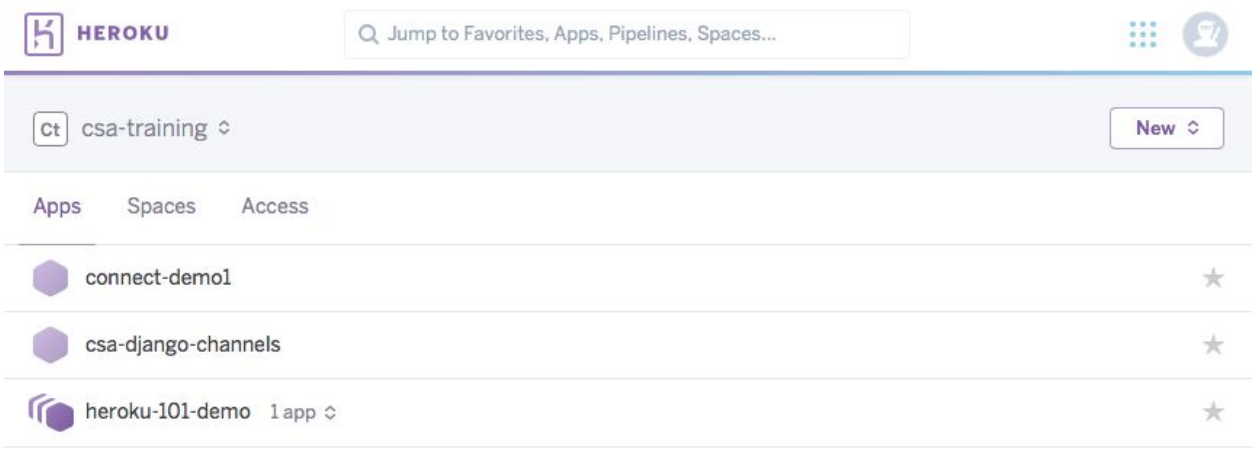
Members have fewer privileges, and a reduced set of menu options prevents them from viewing certain Org-level information such as the Settings and Usage tabs. While Members can view all apps in the Org, they don't necessarily have privileges on those apps. Members must be be given App-level privileges explicitly (more on this below).

> When a Member creates or transfers an app into the org, they are granted full access privileges for the app.

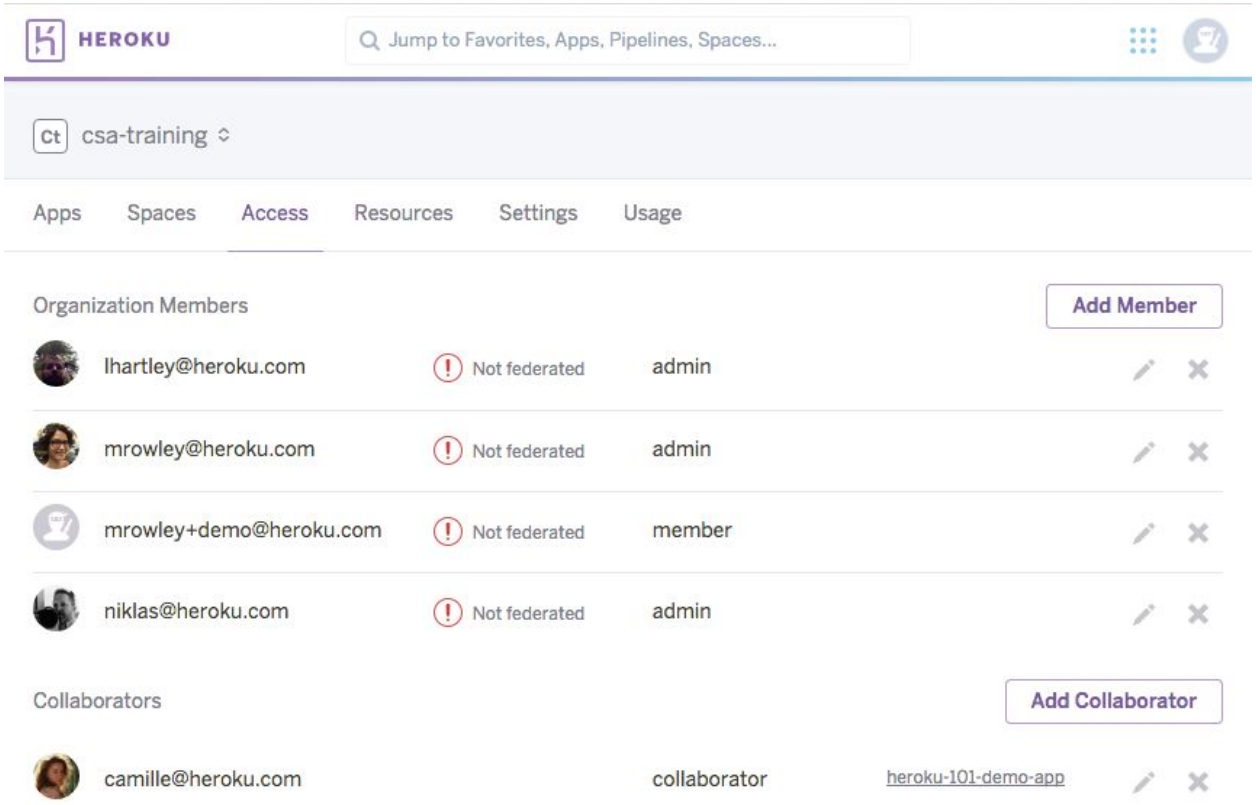
Read more about Member Privileges in the Dev Center.

Viewing and Managing User Access

Below is an example of a **Member's** Dashboard view. You can see that the available menu items have been limited to Apps, Spaces and Access:



As noted, Admins and Members alike can view the **Access** tab, showing which Heroku users have what access to the Organization as a whole:



Only Admins have privileges to add new users as Admins or Members to the Org through this interface.

Collaborators

You may notice a third level of access in the image above: Collaborator. Collaborators are Heroku users who do not have Org-level privileges, but rather have been granted privileges on specific apps within the Org. This is useful to allow external contractors to collaborate on your apps.

In the Access tab, you'll see a listing of the Collaborators for all apps in the Org. You can also use this interface to add a Collaborator to one or more apps in the Org.

Read more about Collaborators (or Non-Org Users) in the Dev Center.

App-level User Privileges

In addition to Org-level user privileges, user access must also be managed at the application level. While Org Admins have full access to every application in the Org, Members have limited access, and that access must be managed on an app-by-app basis.

Members and Collaborators are limited as to what they can do at the application level through privilege sets. The four possible privilege sets at the application level are: **view**, **operate**, **deploy** and **manage**. The Application Permissions and Allowed Actions matrix shows what each privilege set allows. Use this matrix to determine how Member access should be controlled at the application level.

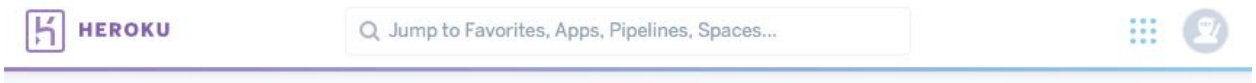
> Org Members with full privileges on an application have the capability to add other Members and non-Org user Collaborators as fully-privileged users to that application at the application-level.

Read more about Application Level User Privileges in the Dev Center.

Application Detail View

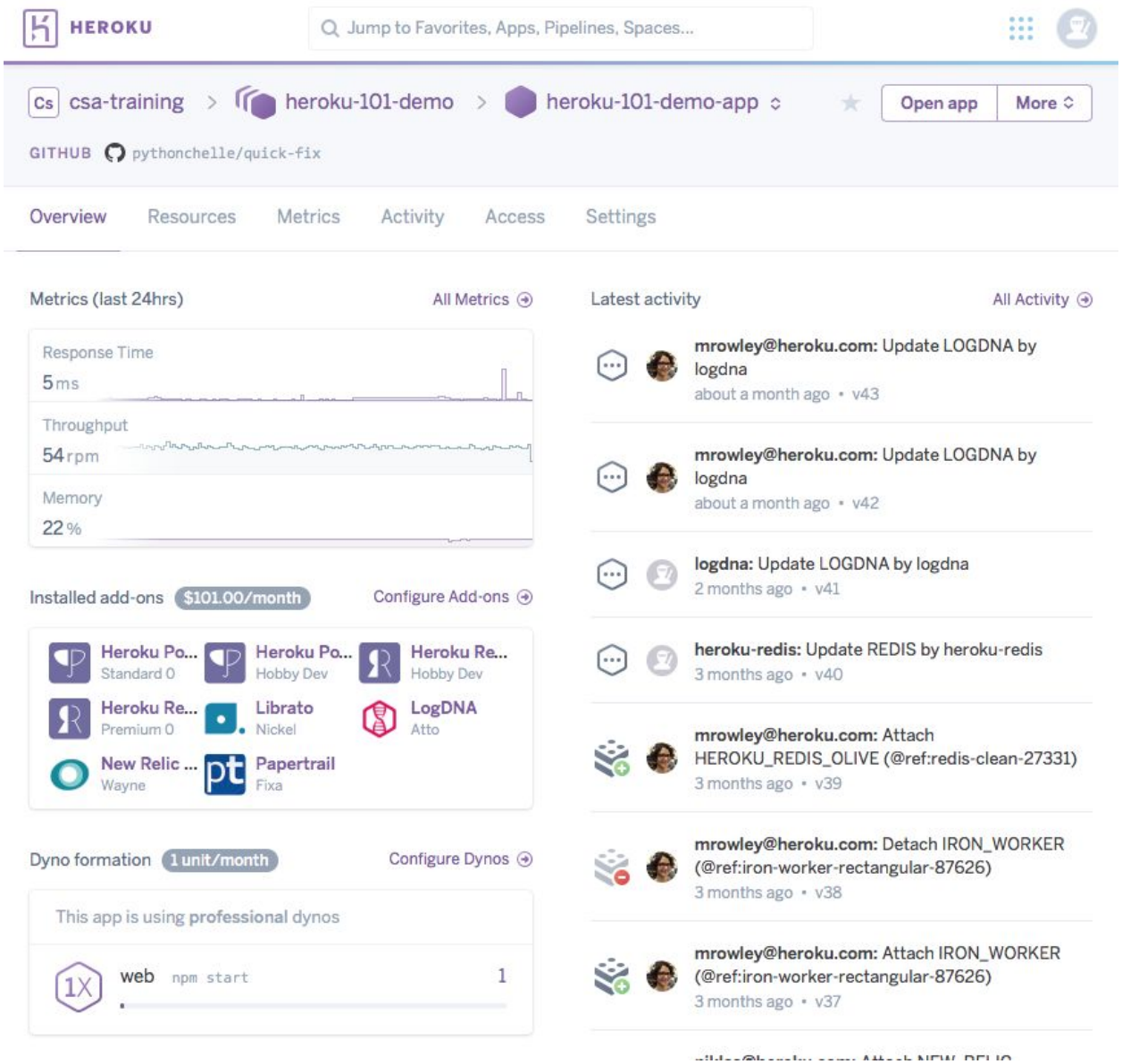
We'll continue this brief tour with an overview of the Application Detail View in the Dashboard from the perspective of a user with full privileges (i.e. view, operate, deploy and manage) on the application that is being viewed.

To access the Application Detail View for an application, click into it from the **Apps** tab of the Org, or you can search for the application by name in the search bar at the top:



Application Overview

The Application Detail View starts on the Overview tab. Here you can see some details about your application at a glance, including the last 24 hours of metrics, current dyno formation, provisioned add-ons and latest activity.



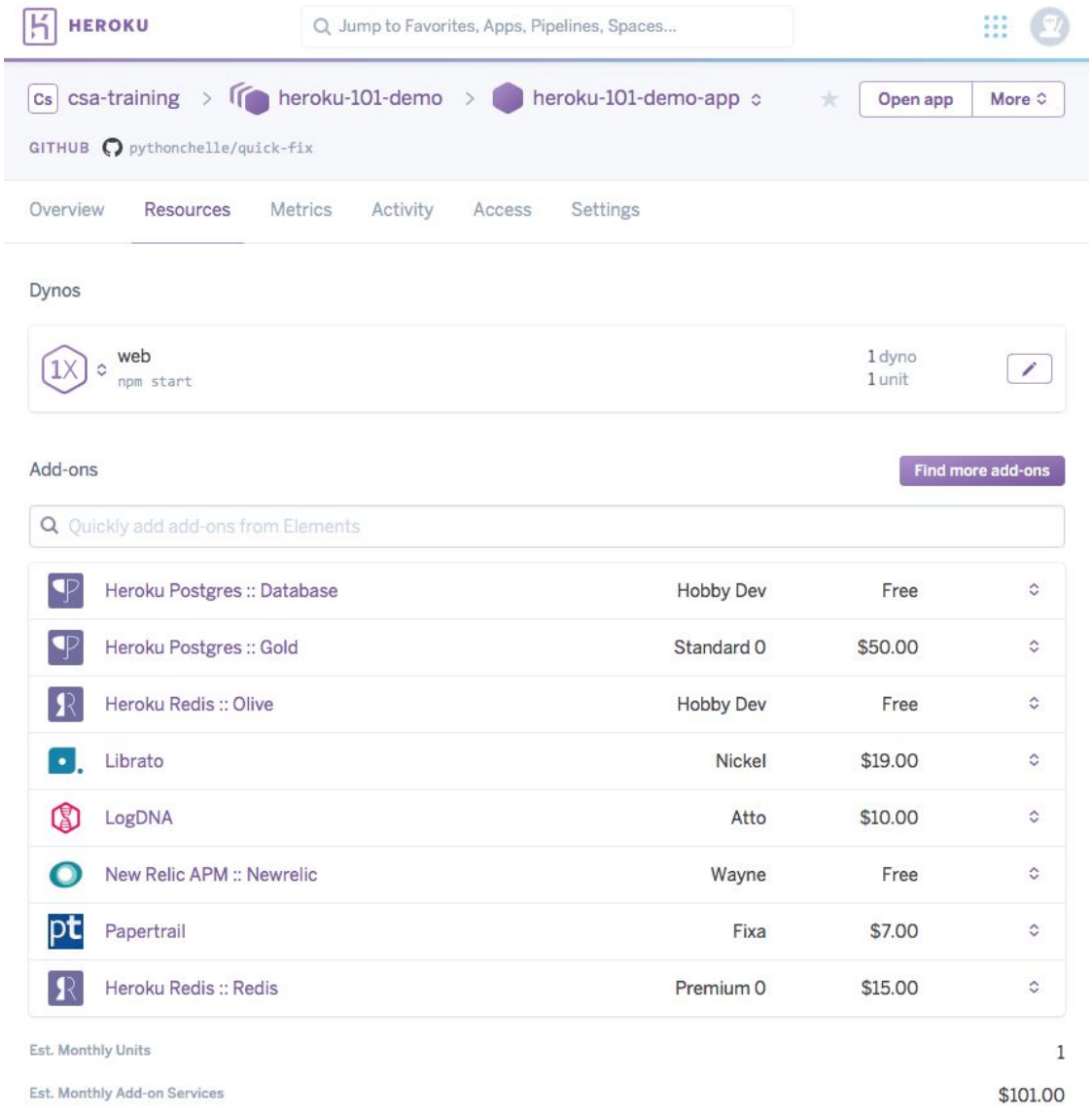
Note that the navigation items at the top have changed slightly. These now apply to the Application Detail View. To navigate back to the Org View, click on the name of the Org in the upper left.

Resources Tab

You can view or change the dyno formation or provisioned add-ons in the Resources tab.

You'll also see the total estimated cost of the current provisioned state if it were to be maintained as it is for one month. However, it is important to note that provisioned resources are measured **by the second** in order to calculate resource burn-down. This provides the opportunity to try out various add-ons and tiers without wiping out your monthly resources in one go.

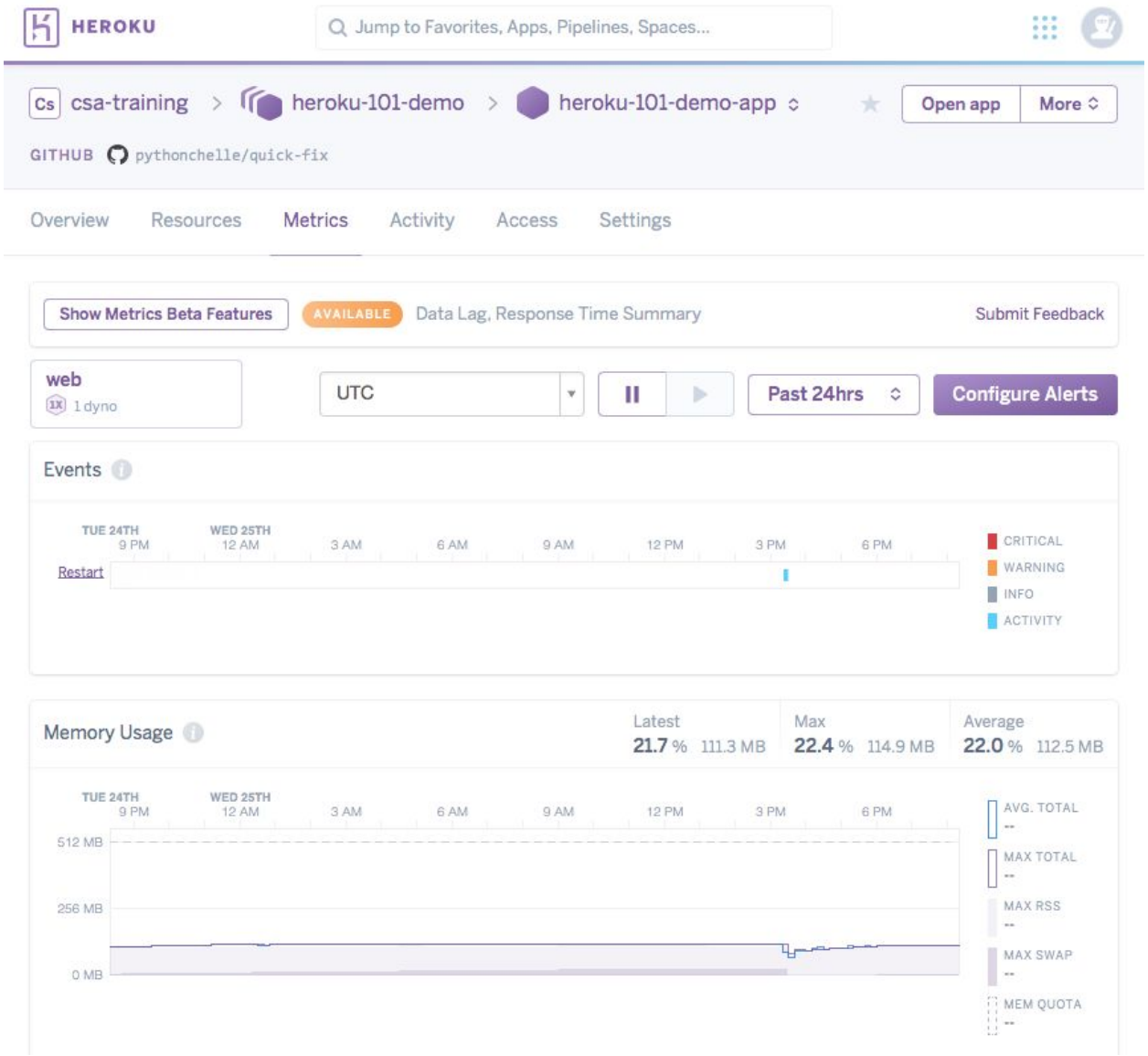
Org Admins can monitor overall resource usage through the Org Usage tab (more on this later).



Read more about Scaling your Dyno Formation, or more generally about Dyno Types in the Dev Center.

Metrics Tab

The Metrics tab shows a collection of metrics about your application, including: Events, Memory Usage, Response Time, Throughput in requests per minute and Dyno Load. By default, you'll see metrics from the past 24 hours at 10-minute resolution.



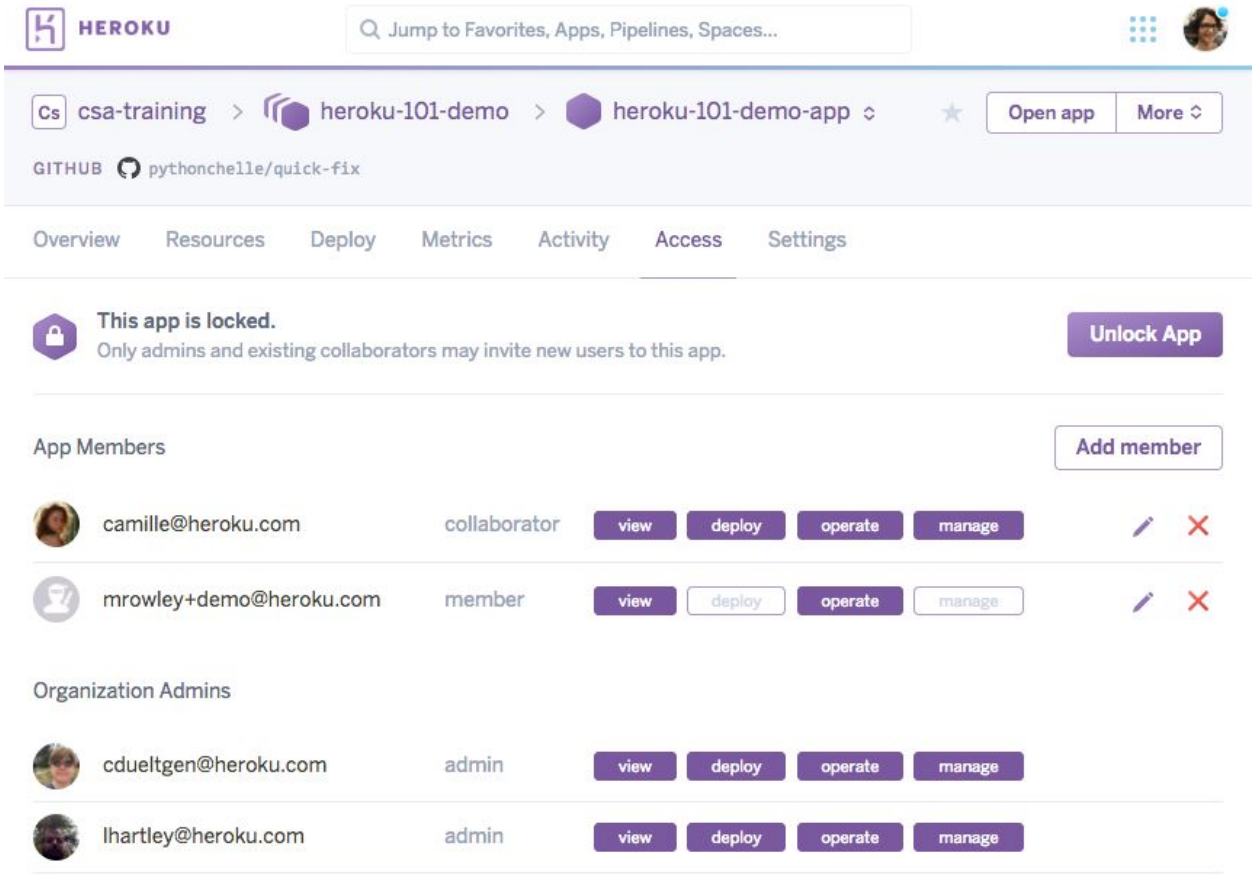
The display can be changed to show up to 7 days of application metrics, or you can view the data at a higher resolution by choosing a shorter timeframe.

You also have the option to set up alerts to monitor response time and application request failures. Click the "Configure Alerts" button in an application's Metrics tab to configure these alerts.

Application-level Access Tab

As noted earlier, In addition to the Org-level access settings each application also has its own access settings. Any Org Admin or Member with full application privileges can adjust the access settings for other Org Members or for Collaborators that have been granted access to the application.

Below is an example of an application's Access tab. You can see that some Org Members only have access to view this app, while the others are Org Admins and therefore have **full** privileges. There is no way to remove application-level privileges from Org Admins.



Org Admins or other users with full application privileges also have the ability to "Lock" an application. You can see that this application is locked, meaning only Admins and existing Members and Collaborators can invite users to collaborate on this application.

To learn more about how to use the fine-grained access controls available at the application level, have a look at Using App Permissions in Heroku Organizations in the Dev Center.

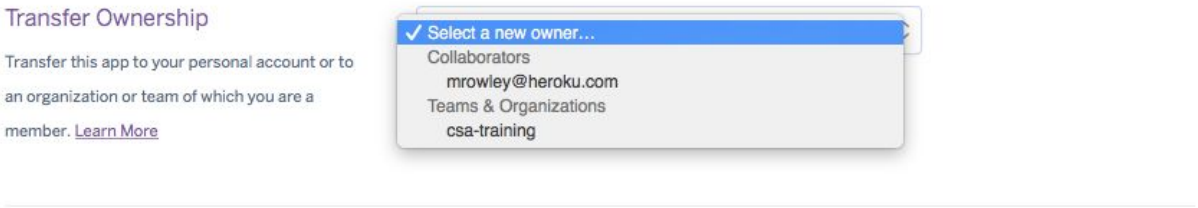
Deploy, Activity and Settings Tabs

The remaining tabs available in the Application Dashboard provide options for deploying your Heroku application, viewing the history of activity in that application, and viewing and changing the application-level settings for the app. Settings includes configuration variables as well as ownership. The Settings tab is where you can transfer an app to a new owner, such as when moving an application into or out of an Organization.

Transferring Existing Applications

If you had been using Heroku before becoming an Enterprise customer, you may have existing applications that are located in the Personal Apps section of your Heroku Dashboard. These applications are owned by your individual account and paid for through the credit card associated with your account.

In order for existing applications to utilize the resources available through your Enterprise license, you'll need to transfer existing apps to the ownership of the Org account. You can do this in the Transfer Ownership section of the **Settings** tab of an existing application. Choose the Org from the dropdown menu and click "Transfer." If you don't see the Organization listed in the drop down, ask an Org Admin to add your user to the Org access list.

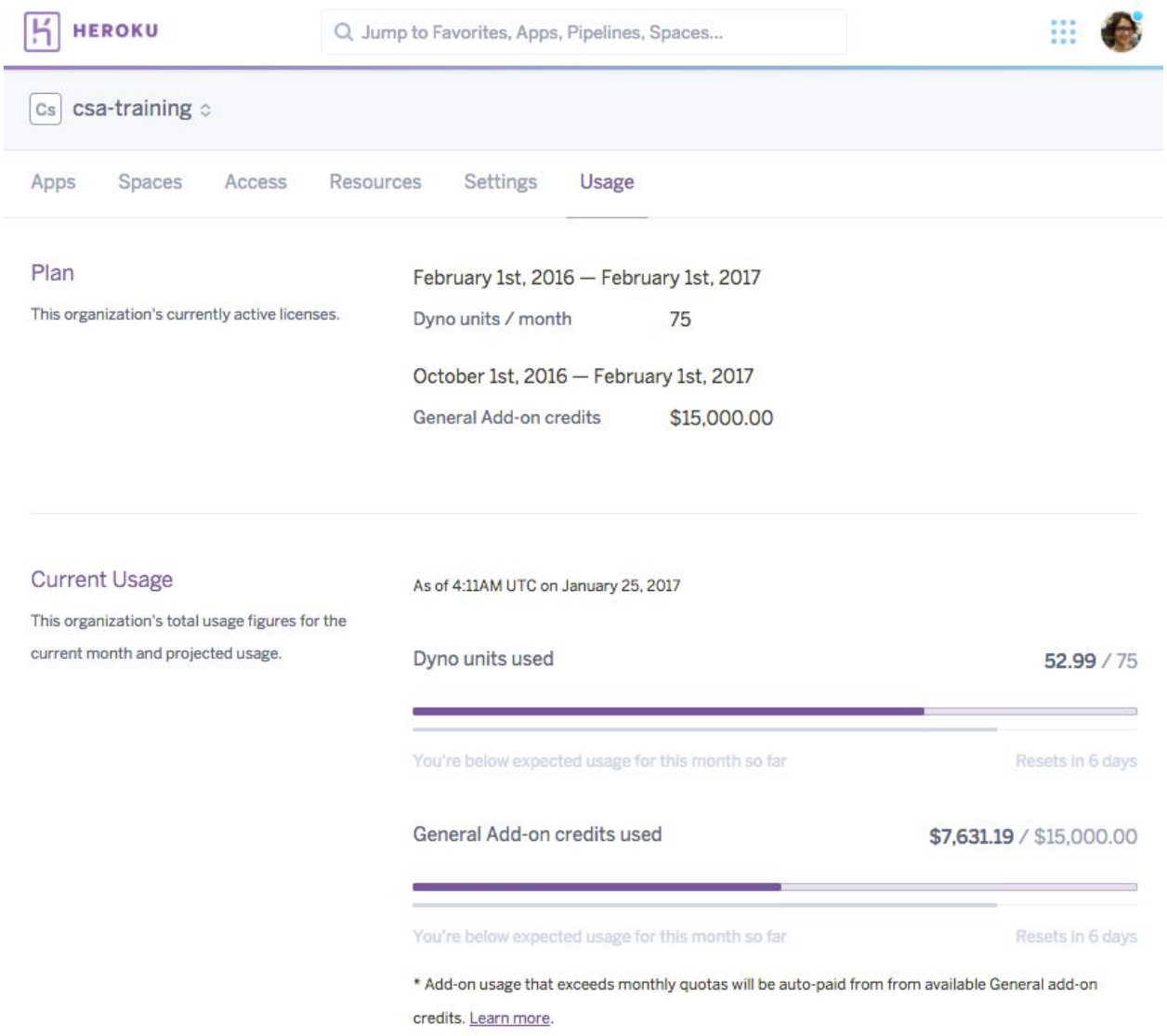


Apps using Legacy, Free or Hobby dynos will need to be upgraded to Professional dynos as part of the transfer. Org accounts cannot own applications that have non-Professional dynos as part of their dyno formation. If you initiate the transfer from the Heroku Dashboard, you will be prompted to allow this upgrade to take place automatically.

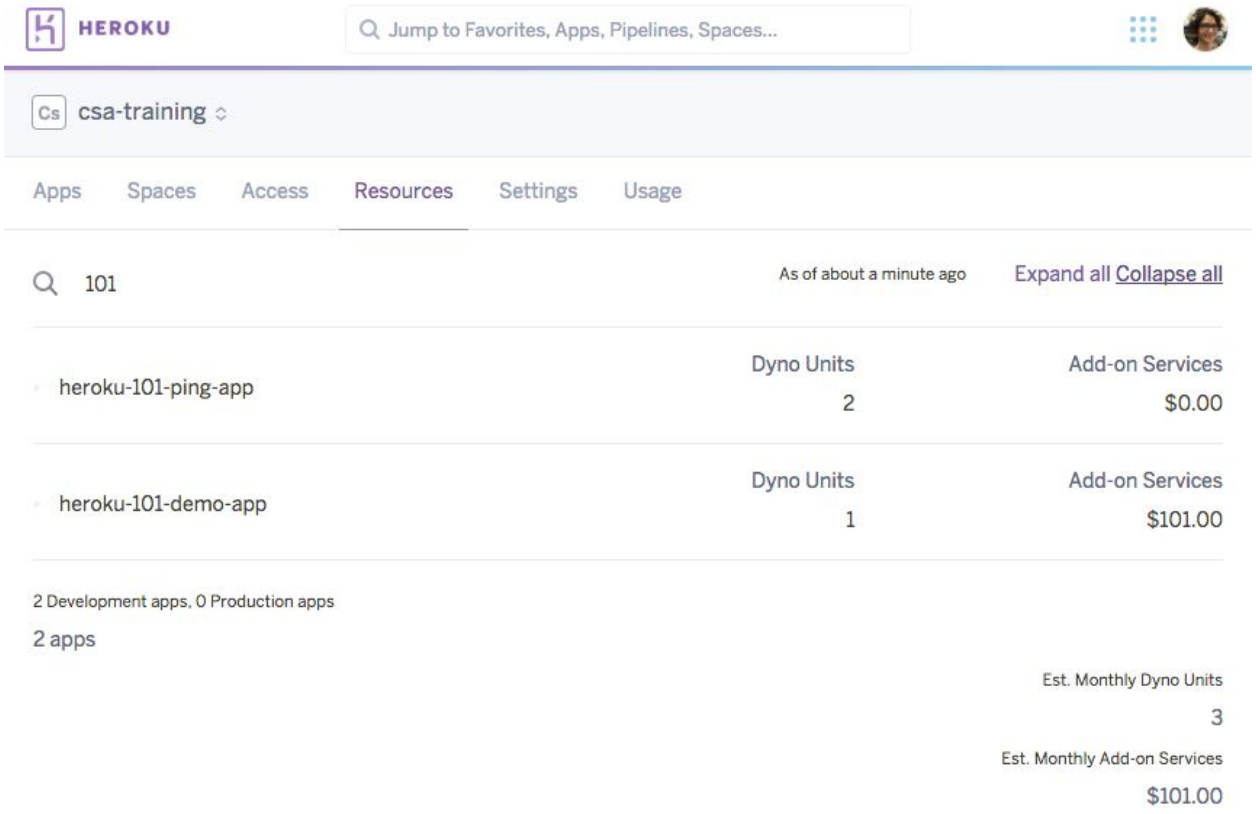
You **must** transfer any existing applications into the Org account as soon as possible to avoid being billed for usage outside your Enterprise contract.

Monitoring Organization Usage

Org Admins can view license details and overall resource usage for applications across the Org in the Org-level **Usage** section.



The Org-level **Resources** section shows a snapshot of current provisioned usage across all apps in the Org and the estimated monthly usage if these values were to remain constant over the month.



Heroku CLI

The Heroku CLI, formerly known as the Heroku Toolbelt, allows you to accomplish most of the same tasks through the command line that are available through the Dashboard GUI. Once you've installed the CLI, use the command `` `heroku login` `` to login to your Heroku account on the CLI. `` `heroku help` `` will display the available commands and provide syntax details.

For all the details about how to use the Heroku CLI, check out the Heroku CLI reference section in the Dev Center.

Leveraging the Enterprise Support System

At Heroku, we're dedicated to helping customers be successful on the platform. In order to foster your success, we've built a solid Heroku Enterprise Support System that consists of three parts:

- World Class Documentation: The Dev Center
- SLA-backed Technical Support: Heroku Help
- Best Practices Guidance: Customer Solutions Architecture

By leveraging all three of these resource centers, you can feel confident that your team is on track for success on the Heroku platform.

For detailed information about these resources, please see our Enterprise Help & Support Guide.