



Flow Enterprise Server installation behind a load balancer

Tags: [Flow Enterprise Server](#)

You can install Flow Enterprise behind a load balancer such as:

- AWS Classic Load Balancer
- Google load balancer
- F5 load balancer
- Azure load balancer

Completing the installation requires technical understanding of SSL certificates, termination points, and networking details of the underlying infrastructure. The load balancer can be either internal or external to the network. Load balancer configuration, including the configuration or implementation of a reverse proxy or load balancer, is not handled during the Flow installation.

Important: The load balancer must be able to support and forward SNI (Server Name Indication) extensions of the TLS protocol in the header and TLS handshake calls as per [RFC 6066 \(opens in new tab\)](#).

In this article

[Procure the domain name and respective SSL certificate](#)

[Configure the load balancer](#)

[Verify that the DNS is working](#)

[Configure Flow via the KOTS console](#)

[Accessing the application via the load balancer](#)

Procure the domain name and respective SSL certificate

Certificates can be for both internal and external domains. The certificate's SAN (subject alternative name) list must contain the fully qualified hostname that will be used as part of the URL for the application (i.e. FQDN/CNAME of the load balancer).

[back to top](#)

Configure the load balancer

At a minimum, the following ports should be open or in Listen mode at the load balancer:

- Port 443 for the Flow main application
- Port 8800 for the KOTS admin console

These ports should forward to the instance(s) where you plan to install the Flow application.

Upload and configure the certificate for the FQDN or the URL where you will access Flow. This is the same as the DNS name.

For health checks, ping to port 8800/TCP.

There are a few considerations for termination options:

- If SSL is being terminated at the load balancer itself, point the forwarding of port 443 to port 80 of the instance where Flow was installed. Port 8800 should always be forwarded to port 8800 of the target server running the Flow application stack to successfully access the KOTS admin console.

The following listeners are currently configured for this load balancer:

Load Balancer Protocol	Load Balancer Port	Instance Protocol	Instance Port	Cipher	SSL Certificate
HTTPS	443	HTTP	80	Change	53ef04bf-9a49-48
TCP	8800	TCP	8800	N/A	

- We currently do not recommend setting up SSL in passthrough mode.

[back to top](#)

Verify that the DNS is working

Prior to attempting the installation, you should check to make sure the host's DNS system can resolve the FQDN.

[back to top](#)

Configure Flow via the KOTS console

Once the load balancer is configured, log in to the server where the Flow app is installed and [install KOTS](#). Once KOTS is installed, the load balancer health check usually shows the state as **Active** or **Healthy** as the instance starts to listen on port 8800.

Open a browser and go to the URL listed at the end of the installation script. It looks like `http://[ip-address]:8800`. This is the KOTS admin console.

Log in to the console with the password printed at the end of the installation log output. In the TLS screen, ensure the hostname field matches the DNS/FQDN. Click **Upload & continue**.



HTTPS for Flow Enterprise admin console

We're currently using a self-signed TLS certificate to secure the communication between your browser & the management console. If you don't upload your own TLS cert, you'll see a warning about this in your browser every time you access the management console.

Private key & certificate

Files will be uploaded directly to the management server & will never leave.

Hostname

Ensure this domain is routable on your network.

Upload private key

[Choose private key](#) No file selected.

Upload SSL certificate

[Choose SSL certificate](#) No file selected.

[Upload & continue](#)

[Skip & continue](#)

In the **Flow URL** field on the Configure Flow Enterprise, make sure the URL is `https://FQDN` of your DNS entry configured earlier.

Uncheck the **Use TLS** box.

Important: Unchecking the **Use TLS** box is specific to installing Flow behind a load-balancer. If you're following the [Flow installation instructions](#) and are installing Flow behind a load balancer, double-check that you've unchecked the box.

Configure Flow Enterprise

Flow Enterprise Configuration

Use this page to configure the base settings for your instance of Flow Enterprise.

You can find more information about configuring Flow Enterprise on our wiki at <https://enterprise-kb.gitprime.com>.

Flow Host Settings

These settings control the web functionality of the site.

Flow URL **Required**

The fully qualified URL your users will use to access the site.

Use TLS

Use TLS for web UI

Administrator E-mail Address **Required**

Proceed with the next steps of the Flow installation to [configure the KOTS app and deploy Flow](#).

Accessing the application via the load balancer

Once the Flow application pods are fully initialized, the application is available via the URL entered in the Flow configuration screen. Open a browser and try `https://FQDN` without any ports specified.

If you need help, please contact [Pluralsight Support](#).