

Distil Networks Load Balancer Integration Guide

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Introduction

This guide explains the methodology used when integrating load balancers with Distil Networks. Distil provides no warranties on the following configurations. Each should be thoroughly tested before being implemented in a production environment.

Traffic Workflow

Organizations often use a load balancer (LB) to distribute website traffic load across multiple web servers.

Below is a typical LB workflow:

Client → LB → Server

Similar to the basic workflow (above), Distil inspects all HTTP requests and responses.

Below is a typical workflow depicting this integration:

Client → LB → Distil → LB → Server

Distil sends traffic back to the LB instead of directly to the backend server. This lets the LB continue to apply any rules or manipulate traffic (as may be required) that were established prior to Distil being deployed as part of your infrastructure.

Mirrored Staging Environment

Prior to implementing an additional ruleset to a production environment, we strongly recommend you set up a separate VIP to mirror the existing production configuration. This lets you validate the logic and traffic flow prior to going live. If your environment uses a content delivery network (CDN), then we recommend you set the logic at the CDN to allow test traffic to go through the Distil VIP as well.

As functionality and quality assurance tests are passed in the staging environment, the logic can then be migrated to the production environment.

NOTE: Keep changes to the logic and traffic flow as few as possible so as to maintain a high degree of confidence that the results will be the same as what was evaluated in the staging environment.

Testing Scenario

Now that your mirrored staging environment is in place, test the logic and traffic flow to make sure everything is functioning as planned.

Only traffic having a specific HTTP header name, such as “DistilQA,” is sent through Distil. This rule lets you perform functionality and regression testing without impacting normal users. Similar logic (source IP-based) to the production rule should be used for determining when to send traffic to Distil, versus when to send it to the origin.

Onboarding Scenario

Now that testing is complete, choose an onboarding scenario that fits your setup.

There are a few options for onboarding traffic through Distil:

- A DNS-based transition can be made if discrete IP addresses are used to load balance traffic to the same origin servers.
- If a DNxS-based transition is not an option, then logic can be used to incrementally increase the load through Distil. Only a percentage of requests will go through Distil, but Distil-specific resources, such as Distil JavaScript and custom pages, will always be routed through it.

Similar logic (source IP-based) to the production rule should be used for determining when to send traffic to Distil, versus when to send it to the origin.

Product Scenario

All traffic is sent to the Distil instances before processing additional logic. The advantage of placing the logic at Distil—prior to evaluating any other logic—is to avoid a situation where not all traffic goes through Distil. The rule should make a decision as to when to send traffic through Distil (or not) based on the source IP of the request.

If the layer 3 source IP address is not Distil, then send traffic to Distil. If the layer 3 source IP address is Distil, then do not send traffic to Distil and continue to evaluate the subsequent LB logic.

ADDITIONAL RESOURCES

F5 LTM

F5 LTM-specific deployment

<https://help.distilnetworks.com/hc/en-us/articles/230143608-Distil-Networks-F5-Networks-Integration-Guide>.

HAProxy

HAProxy-specific deployment

<https://help.distilnetworks.com/hc/en-us/articles/230387727-Distil-Networks-HAProxy-Integration-Guide>

NetScaler

NetScaler-specific deployment

<https://help.distilnetworks.com/hc/en-us/articles/230387867-Distil-Networks-NetScaler-Integration-Guide>