

How to disable services without disrupting traffic by using a TROFS monitor on a NetScaler ADC?

Use Case

Doing server/endpoint maintenance without impacting production traffic. ADC to automatically identify the event, close existing connections gracefully, and disable the service.

Introduction

Maintenance of servers is a periodic event in any datacenter. It must be done carefully to avoid a bad experience for the end users.

Since release 9.3, the NetScaler software has supported graceful shutdown of services, which disables a service only when all the current active client connections are closed by either the server or the client. Services remain in transition out of service (TROFS) state until all active connections are closed. To use this feature, the admin had to manually disable service(s) and select graceful while doing so.

From release 11.0, NetScaler supports TROFS monitors, which automate the graceful shutdown of services. A TROFS code can be added to an HTTP type monitor, and a TROFS string can be added to an HTTP-ECV or TCP-ECV type monitor. Servers can be configured to send this code or string as the response to a monitor probe. Upon receiving the code/string, the NetScaler ADC puts the service into the TROFS state.

For details, including limitations, see: <http://docs.citrix.com/en-us/netscaler/11-1/load-balancing/load-balancing-advanced-settings/graceful-shutdown.html>.

NetScaler Configuration Steps

Step 1: Add a TROFS monitor

CLI: At the command prompt, type one of the following commands to add a monitor suitable for your deployment:

```
add lb monitor <monitor name> HTTP -trofsCode <response code>
```

```
add lb monitor <monitor name> HTTP-ECV -trofsString <response string>
```

```
add lb monitor <monitor name> TCP-ECV -trofsString <response string>
```

GUI:

1. In the NetScaler GUI, go to **Configuration > Traffic Management > Load Balancing > Monitors**, and click **Add**.
2. Enter a name for the monitor.
3. Select the monitor type and enter the TROFS code or string.

Example

← Create Monitor

Name*
HTTP-TROFS

Type*
HTTP

Standard Parameters | Special Parameters

Interval
5 | Second

Destination IP

Response Time-out
2 | Second

Destination Port

Down Time
30 | Second

TROFS Code
210

TROFS String

Step 2: Bind the TROFS monitor to a service

CLI:

At the command prompt, type:

bind service <service name> **-monitorName** <monitor name>

GUI:

In the NetScaler GUI, go to **Configuration > Traffic Management > Load Balancing > Services**, select the service to which to bind the monitor, and click **Edit**. In the Monitors section, click **Add Binding**, select the monitor created in previous step, and click Bind.

Service Load Balancing Monitor Binding / Load Balancing Monitor Binding / Monitors

Monitors

Select | Add | Edit | Delete | Action

Filters: Name: trofs

Name	State	Type
HTTP-TROFS	ENABLED	HTTP