FortiADC - Server Load Balance General Deployment Guide

Version 5.3.0

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FortiADC 5.3.0 Server Load Balance General Deployment Guide
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Change Log

Date	Change Description
12/2/2019	First release.

Introduction

This guide details the steps required to configure a Layer 7 load balance server in FortiADC. It covers the common concept for configuration of load balance profile, load balance method and load balance pool. For other optional features information, please also refer to the relevant deployment guide.

Server load balance

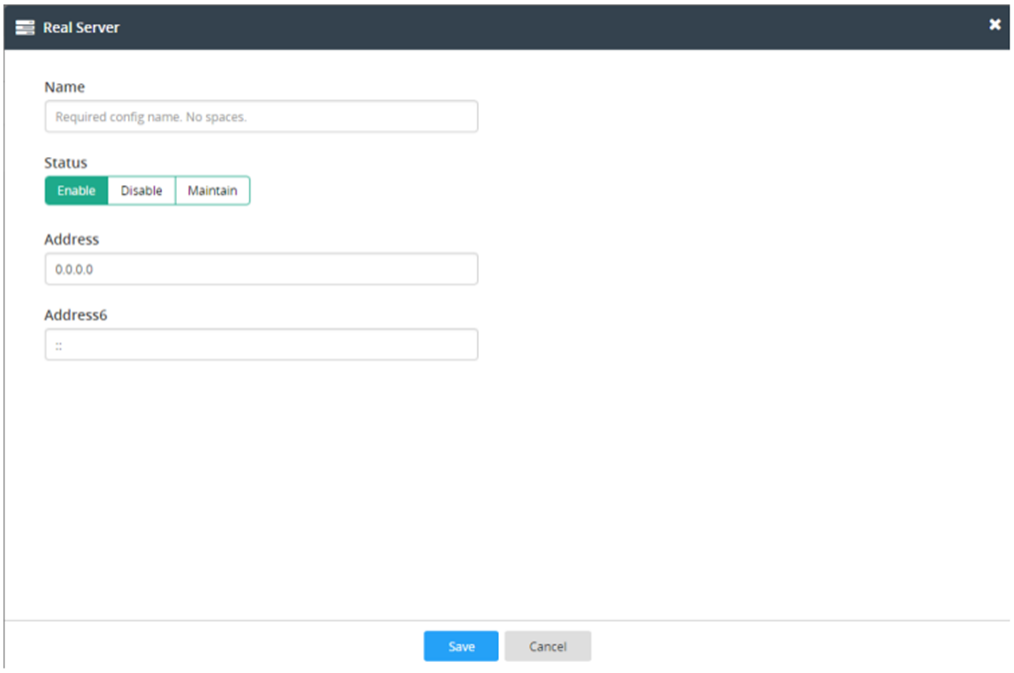
Server Load Balance overview

FortiADC provides two options for configuring virtual servers—Basic Mode and Advanced Mode. In this document we will provide a step by step example for you to deploy load balance based on Advanced mode.

Example

1. Configure a load-balance real server.

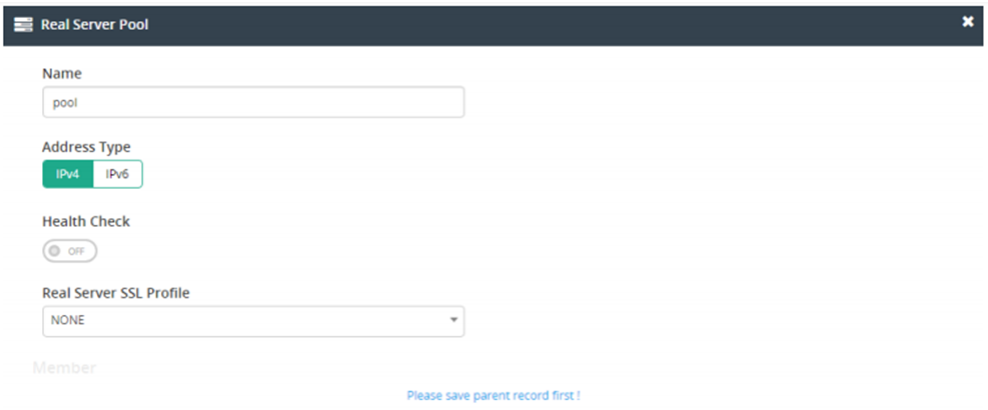
Go to **Server Load Balance > Real Server Pool**, and click the **Real Server tab**.



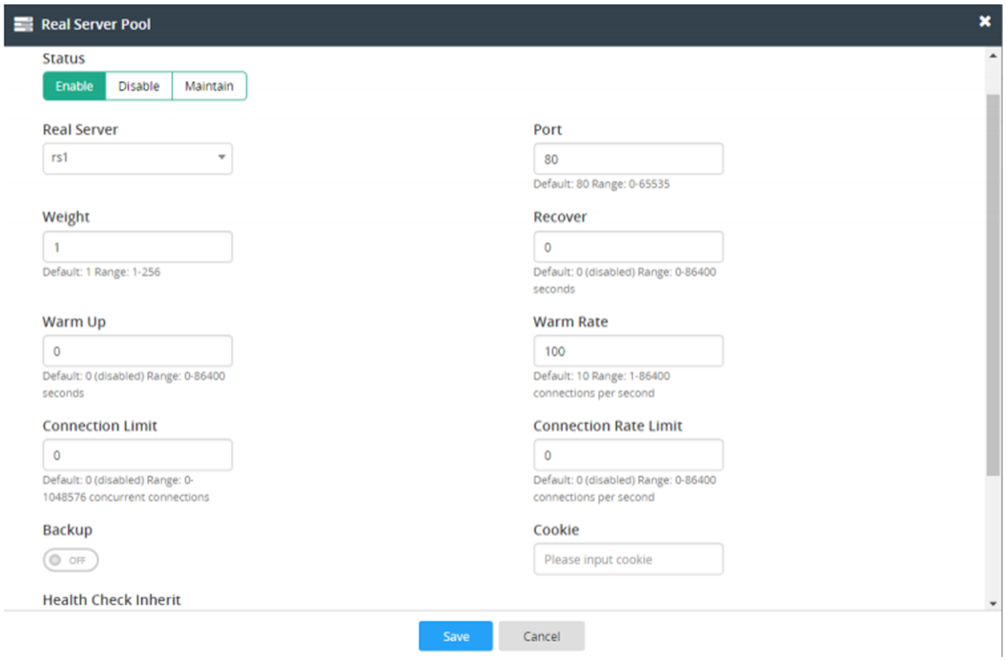
2. Configure a load-balance pool

Go to **Server Load Balance > Real Server Pool**, click the **Real Server Pool tab**.

- Set name, address type and Health Check as desired.
- If your real web server is using an http server, leave Real Server SSL Profile as NONE. If your real web server uses an https server, set Real Server SSL Profile as desired.



Then add pool members.



For all detailed setting please check CLI reference config load-balance pool.

For Pool member weight, please see below:

Pool member weight	Assigns relative preference among members—higher values are preferred and are assigned connections more frequently. The default is 1. The valid range is 1 to 256. All load balancing methods consider weight. Servers are dispatched requests proportional to their weight, relative to the sum of all weights.

The following example shows the effect of weight on Round Robin:
RealServer1-weight: 1, RealServer2-weight: 2, RealServer3-weight: 3;
If there are in total 60 connections coming to thevirtual server, there should be 10 connections to RealServer1, 20 connections to RealServer2, 30 connections to RealServer3.

For other methods, weight functions as a tie-breaker. For example, with the Least Connection algorithm, requests are sent to the server with the least connections. If the number of connections is equal, the request is sent to the server with the greater weight.

Example

RealServer A, Weight 1, 1 connection

ReaServer B, Weight 2, 1 connection

The next request is sent to RealServer B.

3. Config load-balance Method. The system includes predefined configuration objects for all supported load balancing methods, and there is no need to create additional configuration objects. You may choose to do so, however, for various reasons.

Go to **Server Load Balance > application resources**, click the **LB Method tab.**

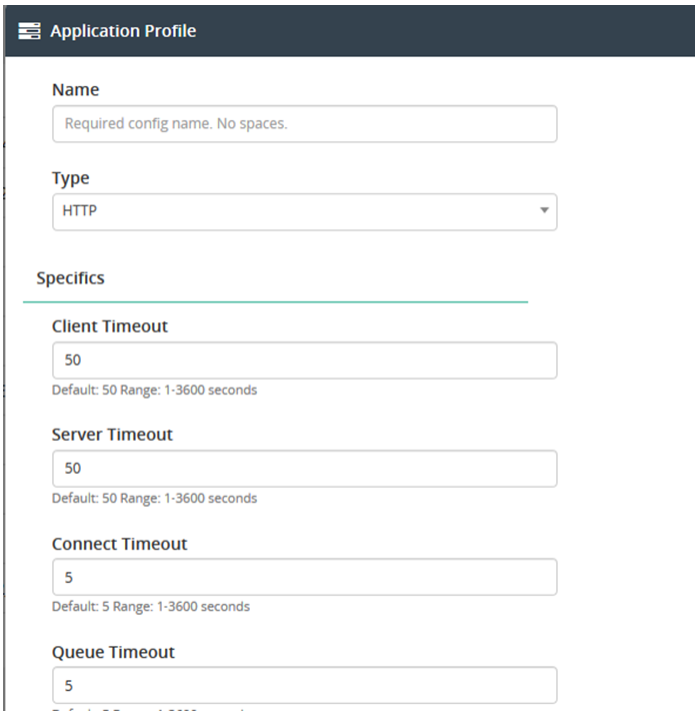
For detailed settings please check the CLI reference config load-balance method.

4. Configure a load-balance Profile.

A profile is a configuration object that defines how you want the FortiADC virtual server to handle traffic for specific protocols.

The system includes predefined configuration objects for all supported load balancing profile, and there is no need to create additional configuration objects. You may choose to do so, however, for various reasons.

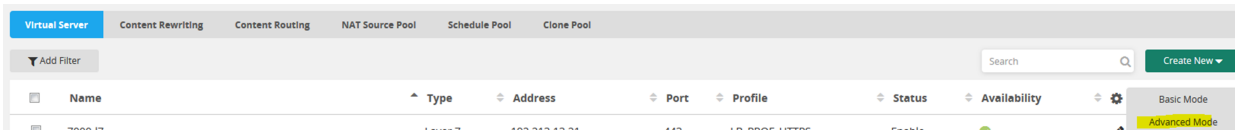
Go to **Server Load Balance > application resources**, click the **Application Profile tab**.

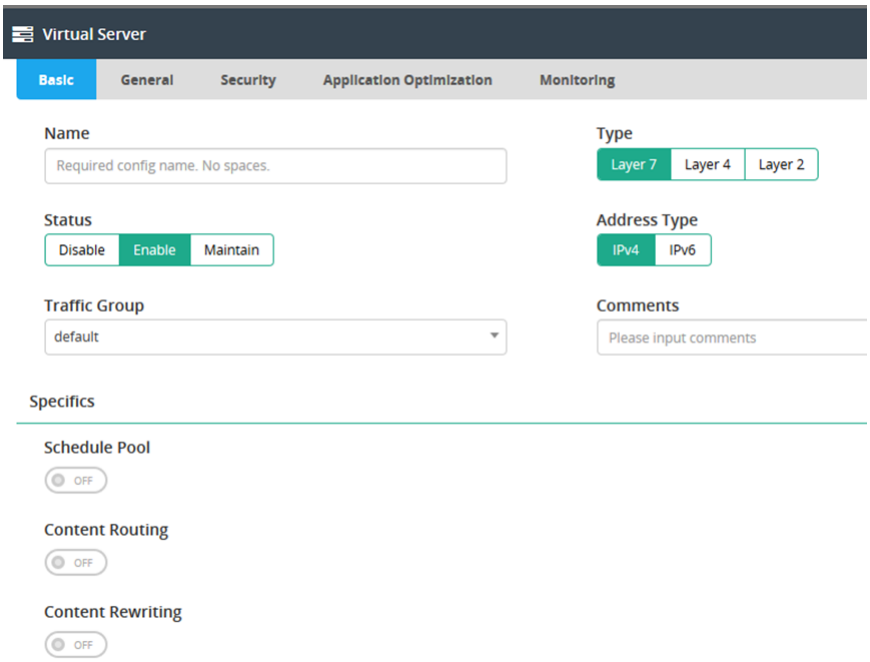


For all detail setting please check CLI reference config load-balance profile.

5. Configure a load-balance virtual server

Go to **Server Load Balance > Virtual Server > Virtual Server tab,** click **Create New** button, select **Advanced Mode**.





For detailed settings please check CLI reference config load-balance virtual-server. The document only provides the items that must be configured.

More information

For more information, see the following pages:

- Example for Layer 7 HTTPS virtual server

Please see “FortiADC Server Load Balance SSL Deployment Guide”:

https://docs.fortinet.com/document/fortiadc/5.3.0/server-load-balance-ssl-deployment-guide

- Example for Layer 4 virtual server

Please see “FortiADC SLB Layer 4 Deployment Guide”:

“https://docs.fortinet.com/document/fortiadc/5.3.0/server-load-balance-layer-4-deployment-guide/153989/introduction

- Example: NAT46 (Layer 7 virtual servers)

https://docs.fortinet.com/document/fortiadc/5.3.0/handbook/630669/using-source-pools

- Example: NAT64 (Layer 7 virtual servers)

https://docs.fortinet.com/document/fortiadc/5.3.0/handbook/630669/using-source-pools

Other deployment guide for advanced features

- L7VS Content Rewriting Deployment Guide: https://docs.fortinet.com/document/fortiadc/5.2.0/fortiadcdseriesfortiadcl7vscontentrewritingdeployment guide
- L7VS Content Routing Deployment Guide:

https://docs.fortinet.com/document/fortiadc/5.2.0/l7vs-content-routing-deployment-guide

- L7VS with SSO Authentication Relay Deployment Guide:

https://docs.fortinet.com/document/fortiadc/5.2.0/fortiadcdseriesfortiadcl7vswithssoauthenticationrelaydeployment guide

- L7VS Kerberos Deployment Guide:

https://docs.fortinet.com/document/fortiadc/5.2.0/fortiadcdseriesfortiadcl7vskerberosdeploymentguide

- L7SLB Virtual Server with AntiVirus Deployment Guide

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