

Load Balancing SIP – Quick Reference Guide

About This Guide

This guide provides a quick reference for setting up SIP load balancing using Loadbalancer.org appliances.

SIP Ports

| Port | Protocol |
|------|----------|
| 5060 | UDP |

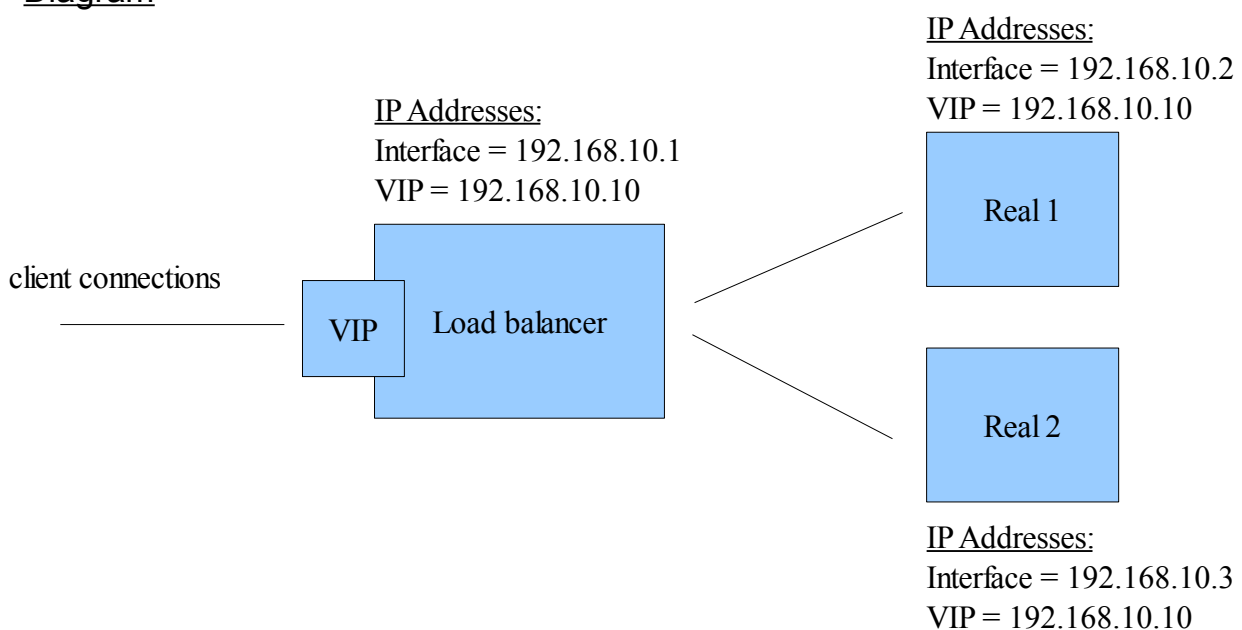
Load Balancer Configuration

Operation Mode

The load balancer is configured in single-arm layer 4 DR (Direct Return) mode. This mode offers very high performance since return traffic passes directly from the VMware Connection Servers to the clients and bypasses the load balancer.

DR mode works by changing the MAC address on the fly to match the real server. Since packets will still have the IP address of the VIP (Virtual Server), the Connection Servers must be configured to accept this traffic, but must also be configured to not reply to ARP requests for this address. For more details, see the section 'Solving the ARP Problem' later in this guide.

Diagram



Virtual Server Setup

Using the WUI, go to Edit Configuration > Layer 4 Virtual Servers > **[Add a New Virtual Server]** , create a new VIP as shown below:

| | | |
|---------------------------|--------------------------------------------------------|-------------------|
| Label | <input type="text" value="SIP"/> | ? |
| Virtual Server IP address | <input type="text" value="192.168.10.10"/> | ? |
| Virtual Server Ports | <input type="text" value="5060"/> | ? |
| Persistent | <input type="text" value="Yes"/> | ? |
| Persistence Timeout | <input type="text" value="300"/> | ? |
| Balance Mode | <input type="text" value="Weighted Least Connection"/> | ? |
| Fallback Server | <input type="text"/> | ? |
| Fallback Server Port | <input type="text"/> | ? |
| Check Type | <input type="text" value="ping server"/> | ? |
| Negotiate Check Service | <input type="text" value="SIP"/> | ? |
| Check Port | <input type="text"/> | ? |
| Check Command | <input type="text"/> | ? |
| Virtual Host | <input type="text"/> | ? |
| Login | <input type="text"/> | ? |
| Password | <input type="text"/> | ? |
| Secret | <input type="text"/> | ? |
| Protocol | <input type="text" value="One Packet Scheduling"/> | ? |
| Granularity | <input type="text"/> | ? |
| Request to send | <input type="text" value="check.txt"/> | ? |
| Response expected | <input type="text" value="OK"/> | ? |
| Email Alerts | <input type="text"/> | ? |
| Forwarding Method | <input type="text" value="Direct Routing"/> | ? |
| Feedback Method | <input type="text" value="None"/> | ? |

Key points -




persistence = yes (will default to caller-id when protocol is ops)




protocol = ops (UDP with one packet scheduling)

check type = ping (UDP cannot have a connect check)

Real Server Setup

Using the WUI, go to Edit Configuration > Layer 4 Real Servers > **[Add a New Real Server]** , add the SIP servers as shown below:

| | | |
|---------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|
| Label | <input type="text" value="Real1"/> |  |
| Real Server IP Address | <input type="text" value="192.168.10.2"/> |  |
| Weight | <input type="text" value="1"/> |  |
| Minimum Connections | <input type="text" value="0"/> |  |
| Maximum Connections | <input type="text" value="0"/> |  |
| <input type="button" value="Update"/> | | |

| | | |
|---------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------|
| Label | <input type="text" value="Real2"/> |  |
| Real Server IP Address | <input type="text" value="192.168.10.3"/> |  |
| Weight | <input type="text" value="1"/> |  |
| Minimum Connections | <input type="text" value="0"/> |  |
| Maximum Connections | <input type="text" value="0"/> |  |
| <input type="button" value="Update"/> | | |

Solving the ARP Problem

For Windows 2000, 2003 & 2008 a loopback adapter must be added to the connection servers to enable them to accept traffic destined for the VIP. For detailed steps on solving the ARP problem, please refer to quick start guide here : <http://www.loadbalancer.org/pdf/quickstartguideLBVMv7.pdf>

For Windows 2003 , pages 23-26

For Windows 2008 , pages 27-30

If you have further questions please don't hesitate to contact us at support@loadbalancer.org