lob®

Balancing Power

In many corporate environments the scalability, reliability and redundancy of services are the key to providing a successful solution.

lob fits into this context as a software balancer, allowing you to split the load of network services based on TCP/IP.

Lob allows to increase flexibility and customization to suit the customer needs, compared to similar hardware products.

Design Features

TCP Load Balancing

Performs balancing of applications and services based on TCP connections (HTTP, HTTPS, SSH, SMTP, IMAP, POP3, etc.)

Scheduling algorithms

lob uses the most common balancing algorithms (Round Robin, Least Connection, Weighted Round-Robin, Weighted Least Connection)

Balancing with agents

The management of the balance can be maintained according to information gathered by the software agents installed on the nodes, allowing the maximum customization of the distribution of connections

Management tools

The administration is assigned to a command line console and/or a web interface, which allows monitoring and building standard configurations

Session persistence

Allows client-session persistence configuration applicable, for example, on web-based services

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Email alert on failure

In the event that a node is no longer available, together with the automatic disabling of the same, it is possible to send email to provide fast intervention

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Master/Backup synchronization

The runtime changes are applyed to both configurations, Master and Backup installation, in order to keep the system aligned

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TCP Health Check

Are implemented checks on the state of the balanced nodes, with automatic exclusion in case of failures

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Supported OS

Software agents are available for Linux, Windows, Solaris, HP-UX, FreeBSD and OS X

Siebel® Load Balancing

General

Given the characteristics above, lob can be an alternative to Resonate® balancer or other similar products, adding features that allow a subdivision load line with the power of hardware and give the possibility to virtualize the operating system with the versions of Siebel® not virtualization-compliant. (lob is compatible with Siebel® versions 6.x, 7.x and 8.x)

Technicalities

The operation of lob is based on the management of SISNAPI Siebel®. This feature allows you to manage configuration with proper communication between the balancer and Siebel® components.

Virtually, every process of lob balancer can be seen as a "farm" of an hardware balancer (see Cisco®). Therefore, each component has its Siebel® balancing process. In addition, the agents installed on servers allow lob to "understand" to which server has to dispatch the session, based on CPU load, number of sessions and number of tasks on the Siebel® component on each server.

The management is done via the command line and/or web interface.

Technology

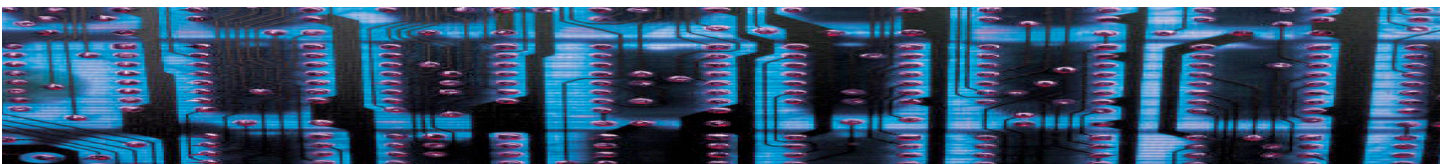The software is developed in C language to provide a final product lean, strong and powerful.

PHP was used to develop the web interface.

The connection management has two methods:
- ✓ *Process-fork (only for unix-like)*
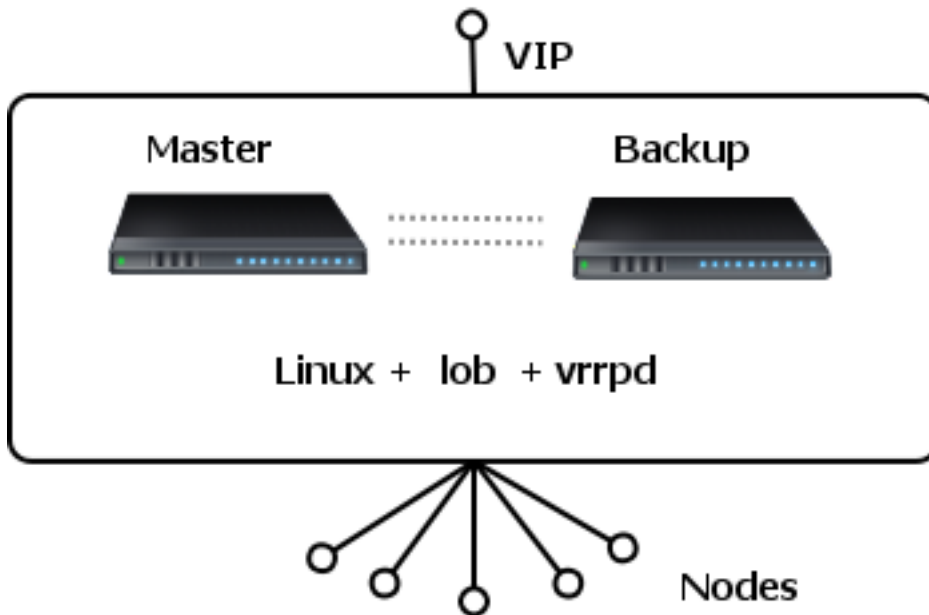- ✓ *Multi-thread*

The management of the data stream can be performed with the following configurations:
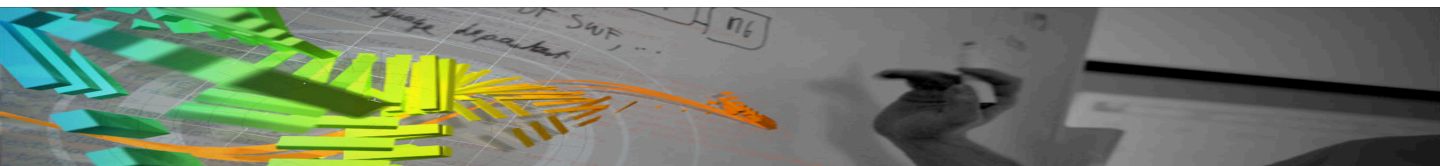- ✓ *I/O con syscall select*
- ✓ *I/O event-driven*

HA Solution

lob allows the creation of solutions High-Availability (HA), using dedicated hardware and the integration of software tools that implement the protocol VRRP (Virtual Router Redundancy Protocol).
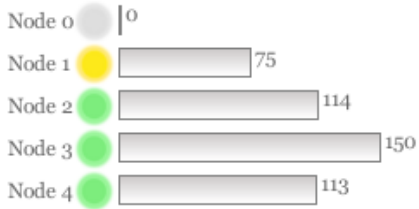

OS Linux configuration image

Screenshot

Monitor   Info   Options   Nodes   Logout

Service name: lob test environment
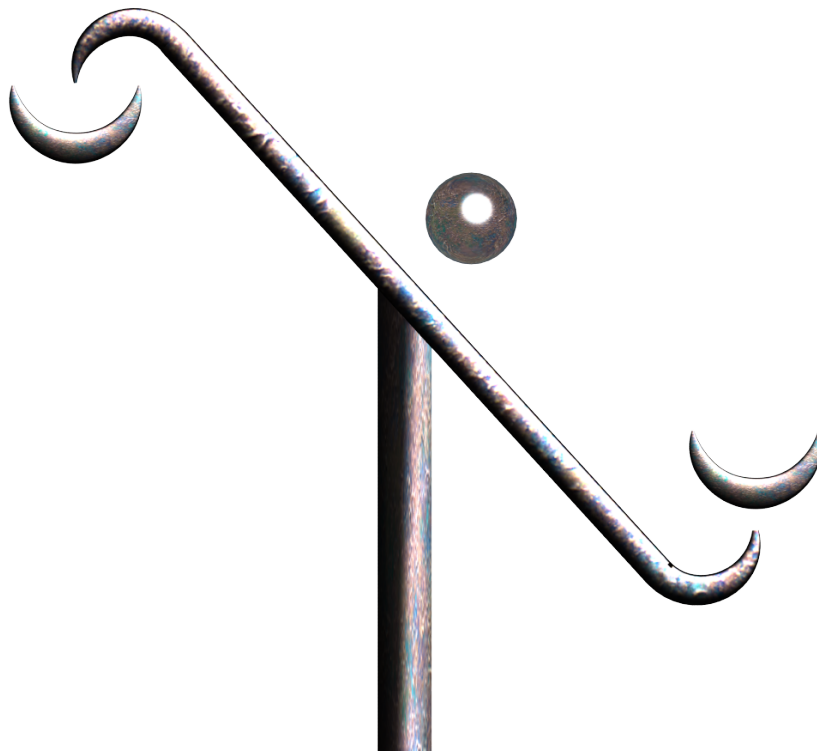*Enable auto-refresh* ✓, *auto-refresh interval*: 5 ▾ seconds

Current connections:

Node 0 ⚪ |0
Node 1 🟡 ▭ 75
Node 2 🟢 ▭ 114
Node 3 🟢 ▭ 150
Node 4 🟢 ▭ 113

Total connections:

Node 0	0
Node 1	150
Node 2	189
Node 3	150
Node 4	188

lob®

lob balancer *is part of the Enterprise Manager suite Neal*

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