Overview

Resonate Central Dispatch

Virtual Load Balancing for Traffic Management with Dependable Performance and Responsive Application Delivery

Resonate Central Dispatch virtual Load Balancer (CDvLB) provides traffic management capabilities that ensure dependable performance and responsiveness for application delivery. CDvLB helps businesses meet the challenges of assuring a positive and productive remote user experience, by satisfying both end-user and IT personnel expectations with high availability and high performance traffic management.

Resonate CDvLB is deployed within a virtual environment to allocate multiple server resources, and efficiently load balance traffic among servers to accelerate responses to users downloading applications and requesting content. CDvLB supports VMware virtual platforms. For example, within VMware’s infrastructure API, CDvLB collects real-time information such as CPU, memory and traffic load, and combines this data with network performance statistics to intelligently manage traffic among the server pool. CDvLB works with the VMware Distributed Resource Scheduler (DRS) and vmotion, allowing administrators to configure triggers to start, shut down, or move virtual servers based on network performance metrics that are not monitored by VMware.

When used with DRS, CDvLB can trigger VMware to initiate additional resources when they are needed. When traffic decreases, CDvLB can trigger VMware to turn those server resources off. Administrators can also use custom scripts. For example, if CDvLB discovers a virtual server failure, a standby server can be activated, and then the failed server can be restarted.

Benefits:

⇒ Optimizes server and application availability to improve response times and ensure efficient application delivery
⇒ Proactively monitors server responses and availability to correct problems
⇒ Reduces the amount of servers needed to respond to user requests; lowers CAPEX
⇒ Automatically turns servers on and off as they are needed; lowers OPEX
⇒ Flexibly and automatically matches server resources to ease management
⇒ Consolidates rack space to optimize the data center footprint
⇒ Brings applications to market faster
⇒ Provides flexibility to run in any physical, virtual or cloud environment
As the number of servers increase, so does the management. Unfortunately, when using virtualization technologies, companies still deal with manual configurations and changes as they monitor and maintain systems to ensure optimal availability and performance. Resonate CDvLB monitors server health and performance, while automating the distribution of server resources, thus minimizing manual intervention.

The need for CDvLB

Server virtualization deployments have outgrown physical server installations, yet the ability to manage these resources can still be a challenge. Automated server resource management is critical to growing the use and value of data center virtualization. The automation and dynamic provisioning of server resources helps reduce costs and increase data center flexibility.

CDvLB provides financial benefits by maximizing server resources, and thus, reducing the amount of servers needed to respond to user requests. Beyond reducing capital costs, it also lowers power, cooling and management to achieve lower operational costs. These cost benefits, when combined with greater server and application availability and improved response times, help to ensure thriving and efficient application delivery.

To eliminate critical problems in advance, CDvLB proactively monitors server responses and availability, and automatically routes around performance and availability problems. The ability to both obtain information on the state of virtual machine instances and issue commands to virtual infrastructure, allows administrators to take full advantage of their virtual environment and the performance of server resources.

The benefits of using CDvLB

A key benefit of deploying Resonate CDvLB is the optimization of server arrays (for example, fewer service contracts, reduced maintenance and hardware costs). Virtualization enables the ability to put multiple virtual images on the best suited and most cost-effective physical server. The applications, operating systems and instances are all placed onto a single server. CDvLB improves on this effective use of resources by providing a single-point-of-control to ensure the optimal use of server resources in responding to the dynamic nature of user requests.

Hypervisor provisioning requires important decision making, as they enable multiple operating systems to run concurrently on a single physical server, allocating them to virtual machines. In a virtualized data center, problems can occur when multiple virtual servers share the same physical resources, specifically when the virtual servers are nearing capacity. CDvLB helps in the dynamic provisioning of virtual server resources to meet real-time traffic demands, intelligently balancing traffic load, based on each server’s performance. Enterprises need to ensure that virtual machines are fully utilized and managed based upon real-time traffic, in order to leverage the full potential of a virtual server solution, and gain the most out of their investments. Resonate CDvLB provides auto-provisioning of resources to give data center personnel complete control over all of their servers. CDvLB dynamically allocates appropriate levels of server resources to support dynamically changing traffic, enabling data center infrastructure to run efficiently, and provide users with fast and reliable application delivery.

CDvLB deployment in native and proxy modes

With CDvLB, enterprises can easily and flexibly scale their network performance as internal and external traffic demands increase. IT organizations achieve greater control by automating server resource allocation, and aligning server resources to meet business needs, such as scaling to meet growing traffic demands, ensuring business agility and disaster recovery, and improving application delivery performance.

Service and Cloud providers can create monthly “pay as you grow” revenue generating services. Additional on-demand CDvLB instances can be deployed by their customers to meet growing network traffic demands. Because of the cost-effective nature of deploying CDvLB, customers can provision a dedicated CDvLB to manage a specific application. CDvLB can be integrated into service offerings, either manually, or by using Resonate’s APIs, and bill customers based on metered usage. Service providers have complete control over their customer relationship, and are able to establish their own payment terms and pricing.

CDvLB in proxy mode

CDvLB for deployment in proxy mode requires no server agents, and comes with options for perpetual software licensing or annual subscription-based licensing. One year of product support is also included.

FREE CDvLB · Resonate offers a FREE (proxy mode) version of CDvLB that includes two content nodes and Community forum support.
This product comes with annual subscription-based licensing.

A single FREE CDvLB is available to support an enterprise and its subsidiaries. Cloud and service providers can use a single FREE CDvLB internally, but the product cannot be acquired by the provider to support their customers. Administrators can purchase additional “pay as you grow” CDvLB subscription licenses for three or more content nodes.

**CDvLB in native mode**

CDvLB for native mode deployments includes server agents for all nodes. Pricing is available for perpetual licensing, or annual subscription licensing. Product support is included for one year.

Additional CDvLB “Pay as you grow” perpetual or subscription licenses can also be obtained for adding new nodes.

**Summary**

To get the most out of their IT investments, enterprises, private clouds and public cloud operators need to ensure their servers and virtual machines are fully utilized. To be highly effective, virtual environments must be able to manage real-time traffic, and grow on-demand.

Resonate CDvLB provides cost-effective and highly scalable virtual server and load balancer provisioning, dynamically allocating appropriate server and load balancer resources to support dynamically changing traffic demands. To support business operations, CDvLB enables virtual environments to deliver applications fast and reliable.