Central Dispatch™

Adaptive Load Balancing for Application Availability and Performance

Resonate Central Dispatch is the next generation in intelligent, cost-effective load balancing for modern enterprise web and network-based applications.

Featuring Active Intelligence technology, Central Dispatch is unparalleled in its ability to optimize customer experience for ALL applications, using an application-agnostic approach.
Resonate Central Dispatch
Active Intelligence – A New Approach to Application and Resource Management

The current generation of user-aware, interactive and multimedia applications have changed the rules for traditional enterprise load balancing. To ideally distribute traffic in today’s heterogeneous network and application environment requires much more intelligence… awareness not only of the applications, but of the server and network infrastructure that surrounds it.

Patented Resource-Based Scheduling
In traditional load balancing, node and application availability is determined by writing physical interactions between the load balancer and the application itself. This approach not only limits the number of applications that can be managed, but ignores the health of the server and network infrastructure.

While Central Dispatch can use this classic approach, our patented Resource-Based Scheduling technology allows routing decisions based on actual statistics and heuristics obtained from the server and network infrastructure itself. This application-agnostic approach allows for higher application availability, lower costs and improved customer experience.

Active Intelligence Concept of Operations
Client makes request to Virtual Web Server (CD Scheduler) for routing to web server(s)
Scheduler picks appropriate Server resources based on real-time analysis of every node
Web Server makes request for content to appropriate App Server, which retrieves content from Database Server
App Server returns content to Web Server
Web Server responds directly to Client, completing the transaction

Active Intelligence increases efficiency and maximizes availability of critical network and web-based applications.

At the heart of Resonate Active Intelligence are lightweight distributed software agents that collect detailed information such as CPU load and memory utilization. This information is correlated with network latency and other metrics obtained by the CD Schedulers and CDConsole to determine the most appropriate actions.

CDConsole™ – Ensuring Availability and Performance of Mission-Critical Applications
In many environments, application unavailability or degradation is simply not an option. With CDConsole, the health and performance of resources such as application and database servers can be taken into account simultaneously during the traffic management decision. This allows maximum application performance and service level conformance.

For example, if a web server is dependent upon a failed application server to provide a user response, traffic should not be scheduled to that server. Even though the web server is completely functional as far as the server load balancer is concerned. CDConsole helps in identifying issues such as:

- Web Server Unreachable/False/False/Overloaded
- Application Server Unreachable/False/False/Overloaded
- Database Server Unreachable/False/False/Overloaded
- Network Connectivity Lost/Overloaded

Central Dispatch Features
Scalability and On-the-Fly Provisioning
Central Dispatch allows multiple servers to act as a single, high availability system that scales linearly with no feature or performance degradation. It is also one of the only systems that allows administrators to bring up and take down resources on the fly, with no interruption to services.

Maximizing Performance, Value and Return on Assets
With hardware-based traffic management products, responsiveness is degraded and feature functionality is sacrificed as usage grows. Central Dispatch can run and scale on virtually any server type, allowing true scalability at a minimal cost. With Central Dispatch’s flexible N+1 architecture, any node can be used as a Scheduler or a Content Server… in smaller environments, they may even run on the same machine.

Diverse Scheduling and Load Balancing Policies
Central Dispatch features the industry’s widest array of Service and Resource-based scheduling rules, including IP, SSL3, HTTP and CGI persistence modes.

Central Dispatch also offers classic load balancing techniques such as Round Robin, as well as more advanced techniques based on CPU Load/Connections, Global and Per-rule policies, and custom policies. It also offers a full load balancing API for unique requirements.

Ease-of-Use and Management
With CD’s intuitive graphical user interface, even the most complicated of deployments can be learned in hours. Combined with its flexible reporting and real-time alarming capability, the administrator has little to do after initial configuration.

Ideal for Virtual Environments
Leveraging its application-agnostic software architecture, Central Dispatch ideal for virtual server environments. Instead of routing traffic across separate nodes across the network, all traffic stays local on the server without leaving the virtual switching backplane. Combined with its ability to provision servers and services without service interruption, and Central Dispatch becomes an all-in-one datacenter resource management tool.

Central Dispatch At-a-Glance

Application-agnostic Design
Active Intelligence allows Central Dispatch to fit easily into any application and network environment. This is ideal for complicated environments that host a mix of standard and custom applications.

Scalable and Cost-effective for Any Environment
Central Dispatch’s distributed architecture offers extreme system scalability and flexibility that layers easily onto the existing infrastructure.

Improved Availability and Reliability
Central Dispatch is able to assess application availability on what matters most… server and network health, as well as application response. The result is better performance, higher availability and a more positive user experience.

Dynamic Provisioning
Central Dispatch gives IT staff the ability to dynamically bring resources on and offline without disrupting services. It can also share resources across multiple applications and services.

Secure
Keeps sites accessible and highly available by guarding against many forms of DoS and application attack.