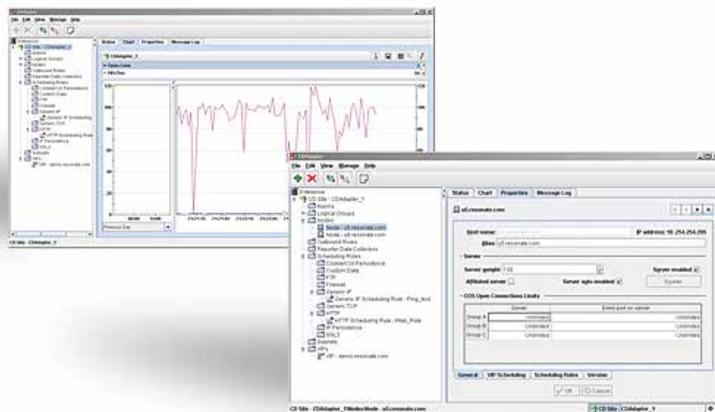


## Central Dispatch™

### 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.

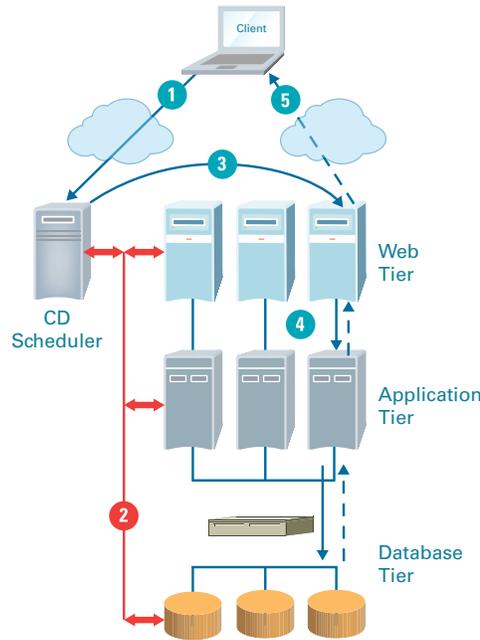
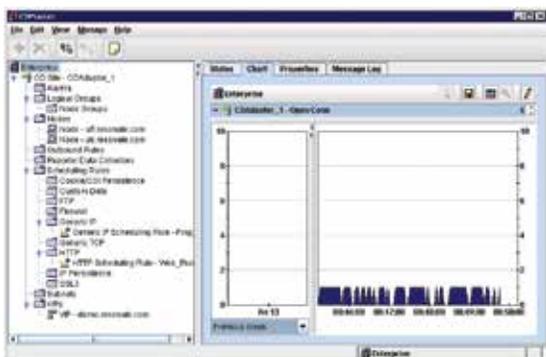
While Central Dispatch can use this classic approach, our patented Resource-Based Scheduling technology allows routing decisions based on actual statistics and heuristics obtained from the server and network infrastructure itself. This application-agnostic approach allows for higher application availability,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

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 ideal path for data flow. The result is a faster and more available service from the end-user perspective.

## 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.



## Active Intelligence Concept of Operations

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

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

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/Fails/Hangs/Overloaded
- ▣ Application Server Unreachable/Fails/Overloaded
- ▣ Database Server Unreachable/Fails/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.

### Small Site



### Mid-Size Site



### Large Site



## Fast Deployment... with a Professional Touch

While a resonate deployment can easily be done in less than an hour, we have a passionate focus on customer service. Thus every Resonate solution is tuned to fit the customer's network and application environment perfectly.

## 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.



*Simplifying complex networks*

## Specifications

### Platform Support

- ▣ Sun SPARC CPU line
- ▣ Intel CPU Family
- ▣ AMD CPU Family
- ▣ IBM PowerPC

### OS Support

Resonate Central Dispatch runs natively, in either homogenous or heterogeneous environments on:

- ▣ Sun Solaris
- ▣ Microsoft Windows Server
- ▣ Linux
- ▣ AIX

### Protocol Support

Complete Layer 4-7 load balancing, including all TCP and UDP protocols, FTP, POP3, SMTP, IMAP, HTTP/S, netbios, DNS and custom protocols

### Load Balancing Techniques/Policies

- ▣ Round Robin
- ▣ Weighted Round Robin
- ▣ Latency
- ▣ Load
- ▣ Latency/Load

### Persistence

Cookies, client network/IP, header match, custom

### Management

CLI, Web and Windows client. Solaris and Linux platforms. Customizable API

### Scheduling Rules

Service-based, Generic TCP, Generic IP, FTP, IP Persistence, Resource, HTTP URL, HTTP cookie/Persistence, CGI Parameter/Persistence, SSL3, Custom

### Reporting

Granular reporting on Nodes, Services and Site. Both real-time and elapsed time reporting capabilities. Can track historical performance and compare with current performance.

### Application Support

Resonate Active Intelligence provides an application-agnostic environment that provides interoperability with virtually any application, including:

#### Microsoft

- ▣ Internet Application Gateway
- ▣ Internet Security & Acceleration Server
- ▣ Sharepoint
- ▣ Outlook Web Access
- ▣ Windows Terminal Services
- ▣ Mobile Information Server
- ▣ .Net

#### Oracle:

- ▣ Siebel e-Business
- ▣ Application Server
- ▣ Collaboration Suite
- ▣ BEA Weblogic
- ▣ PeopleSoft Enterprise

#### Other:

- ▣ Citrix MetaFrame
- ▣ Apache /IIS
- ▣ Sun Java Enterprise System
- ▣ JBOSS / Tomcat
- ▣ IBM Websphere
- ▣ Lotus Domino/Notes
- ▣ SAP mySAP Business Suite
- ▣ Adobe ColdFusion
- ▣ Tivoli Access Manager
- ▣ RSA Security

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