



Scale Caching with FortiADC and FortiCache

Load Balancing Multiple FortiCache Devices with FortiADC Application Delivery Controllers for Increased Content Caching Capacity

Fortinet's FortiCache high-performance web caching appliances are a great way to speed the delivery of content to web application users and generally can handle the needs of most organizations on a single appliance or VM instance. There are times however that an organization's needs extend beyond what a single device can offer. This is especially true for large organizations, such as ISP and hosting companies that support high volumes of traffic and large amounts of web content.

Multiple FortiCache devices can be configured using WCCP to provide load balancing of traffic and high availability. This process requires another device to be a WCCP server, such as a FortiGate NGFW, and each FortiCache to be a WCCP client. When requests from users come into the WCCP server, the server would then route the user to the appropriate FortiCache to deliver stored content.

This process is a workable solution, but does have its shortcomings. WCCP isn't as robust a protocol for load balancing traffic, and WCCP can prove difficult to implement and maintain to ensure traffic is routed correctly.

Load Balancing FortiCache with FortiADC

FortiADC's high-performance server load balancing and advanced health checks offer an easy way to manage a cluster of FortiCache devices to provide a seamless user experience and redundancy to ensure uninterrupted access to email services.

The setup for using FortiADC with FortiCache is based on simple Server Load Balancing principles. Each FortiCache is treated by FortiADC as a server in a server pool. Once configured, FortiADC checks the status of each FortiCache device and intelligently routes traffic to the best available unit in the cluster. It also maintains the user session to the correct FortiCache device using its session persistence feature.

FortiADC can be deployed in 2 ways with FortiCache:

- **Transparent Proxy mode:** Client sends traffic to a public web server (ex. www.cnn).

CHALLENGE

- Scale content delivery
- Extend FortiCache capacity
- Minimize deployment complexity

SOLUTION

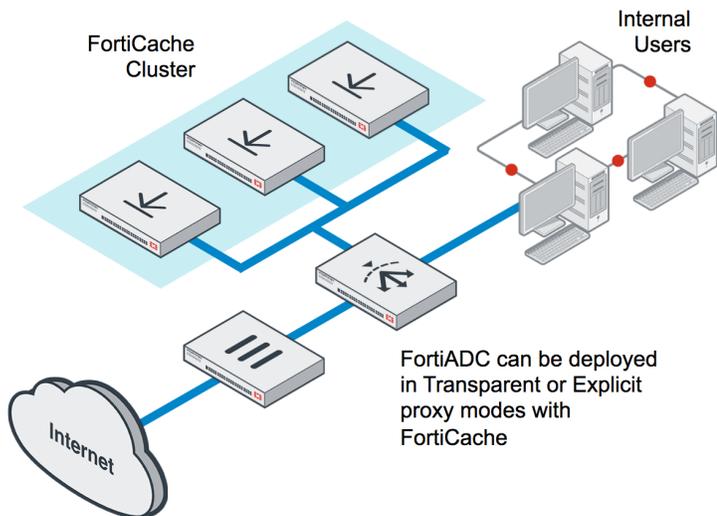
- FortiADC to load balance multiple FortiCache devices
- Improve user QoE and response time
- Real-time Health Checking
- Traffic load balancing with persistence

BENEFITS

- Simplified setup with no WCCP
- High-performance content delivery up to 50 Gbps
- Support for HTTP and HTTPS
- Single vendor, tested solution

com), FortiADC will intercept HTTP traffic (port 80 and 443) and redirects the traffic to a cluster of FortiCache units for caching and scanning.

- **Explicit Proxy mode:** Client with a predefined browser proxy setting (FortiADC virtual server IP: 8080) sends traffic to a public web server (ex. www.cnn.com), FortiADC will intercept the traffic (port 8080) and redirect the traffic to a cluster of FortiCache units for caching and scanning.



Benefits of Load Balancing FortiCache with FortiADC

- Highly redundant solution that avoids complicated policy based routing configuration on routers Delivers 99.999% FortiCache uptime with intelligent server load balancing
- Advanced traffic management (TCP, UDP, and more)
- Increase overall performance of FortiCache
- Improve FortiCache user QoE (quality of experience)
- Unparalleled deployment flexibility

Using FortiADC with FortiCache leverages the benefits of FortiADC's high-performance server load balancing, policy-based routing, QoS and SSL offloading to extend FortiCache's abilities outside of its hardware or VM limitations. In addition, you get a single vendor solution that's easy to manage and tested to ensure seamless interoperability when deployed together.

To read more about this solution, please download our [Load Balancing FortiCache with FortiADC Deployment Guide](#).

For more information on FortiCache and FortiADC, please visit our detailed product pages on [Fortinet.com](#):

[FortiCache Web Caching Appliances](#)

[FortiADC Application Delivery Controllers](#)

FortiCache Web Caching Appliances

The FortiCache High Performance Web Caching and WAN Optimization Appliances address bandwidth saturation, high latency, and network performance issues whilst enhancing security with web content filtering and antivirus protection. By caching popular internet content locally for carriers, service providers, enterprises and educational networks. FortiCache appliances reduce network bandwidth utilization, while increasing performance and end-user satisfaction by improving the speed of delivery of popular content.



FortiADC Application Delivery Controllers

FortiADC hardware and virtual Application Delivery Controllers provide unmatched Server Load Balancing performance whether to scale an application across a few servers in a single data center or serve multiple applications to millions of users around the globe. With included SSL Offloading, HTTP Compression, Global Server Load Balancing, Firewall and Link Load Balancing, they offer the performance, features and security needed at a single all-inclusive price.



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