Scale and Reliability for Microsoft Applications with FortiADC

Solutions to Load Balance Microsoft Exchange and Skype for Business (Lync) with FortiADC Application Delivery Controllers

Microsoft is a leader in business communications platforms including email, calendaring, intranet, chat and voice. Its industry-leading solutions have been deployed in most organizations as either a on-premise solution in a data center or supported through managed service providers. Exchange and Skype for Business (formerly Lync) are the top platforms in use today with tens of millions of active users around the globe.

Each of these primary Microsoft products relies on servers. As with almost any hosted application, the servers they run on have their limitations ranging from simply the capacity of the number of users to redundancy issues should they go offline.

Years ago Microsoft provided simple tools to allow Exchange and Lync to expand across multiple servers. As user installations became larger and more complex, Microsoft changed its strategy to instead promote third-party load balancing and application delivery solutions to provide scale, reliability and redundancy to its platforms.

Fortinet’s FortiADC Application Delivery Controllers have been qualified by Microsoft for use with Exchange and Lync (Skype for Business).

For information on Microsoft’s Load Balancing Recommendations and Qualification Programs, please visit Microsoft TechNet website using the links below:

MS TechNet Load Balancing Microsoft Exchange
MS TechNet Load Balancing Microsoft Lync/Skype for Business

Microsoft

CHALLENGE

- Scale Exchange, Skype for Business (Lync)
- Add redundancy for increased availability
- Minimize deployment complexity and costs

SOLUTION

- FortiADC to load balance Microsoft Applications
- Qualified for MS Exchange and Lync
- High-performance throughput up to 50 Gbps
- High-capacity ASIC SSL offloading
- Included GSLB, WAF, Compression, Link Load Balancing, QoS at no extra cost

BENEFITS

- Proven solution set for MS Applications
- Reduced TCO for enterprise-grade capacities
- Improved quality of user experience
Load Balancing Microsoft Exchange with FortiADC

Exchange is one of Microsoft’s oldest business communications platforms with more installations than any other offering. The current versions supported are Exchange 2010, Exchange 2013 and Exchange 2016.

There are differences in these versions, especially between 2010 and 2013 where Microsoft dramatically simplified secure communications between Exchange servers. Enabling load balancing for Exchange 2010 required ADCs to handle secure traffic encryption/decryption between servers where in 2013 and 2016 that is done by the Exchange server itself. This has resulted in less strain on the load balancer in turn allowing it to become much more efficient in its handling of traffic.

All current versions of Exchange use the embedded Client Access Server (CAS) to ensure users are routed to the correct Exchange server. Placing a load balancer in front of the CAS array ensures that resources are used efficiently to provide the best user experience for both internal and external client access.

FortiADC is a complete high-performance solution for load balancing Microsoft Exchange with support for all the services that Exchange provides to users including Outlook Web Access (OWA), Outlook Anywhere (OA), ActiveSync, POP3/IMAP4, Remote Procedure Call Client Access (RPC CA) and SMTP.

![Diagram of FortiADC deployed to manage multiple Microsoft Exchange Client Access and Edge Transport Servers](image)

Figure 1: FortiADC deployed to manage multiple Microsoft Exchange Client Access and Edge Transport Servers

Fortinet offers detailed technical deployment guides to set up FortiADC and Exchange 2010 and 2013 that have been thoroughly tested and qualified by Microsoft.

Load Balancing Microsoft Skype for Business (Lync) with FortiADC

Microsoft Skype for Business (previously Lync Server and Microsoft Office Communications Server) is an enterprise real-time communications server, providing the infrastructure for enterprise instant messaging, presence, file transfer, peer-to-peer and multiparty voice and video calling, ad hoc and structured conferences (audio, video and web) and, through a 3rd party gateway or SIP trunk, PSTN connectivity.

Microsoft Skype for Business is a critical application for business continuity and must always be available, work quickly and be secured for remote or local users to communicate between them. At the core, Skype For Business runs on servers like any other application, however it offers many services that are unique especially when connecting voice calls through VoIP or PSTN lines. Skype for Business uses a front end “Central Management” server that controls many other back end servers behind it and edge-servers that manage external clients.

When a front end server or edge server needs to expand to provide additional capacity or needs redundancy, a hardware load balancer such as FortiADC is required.
In a front end deployment, FortiADC is deployed to load balance traffic from internal clients to the pool of front end servers to manage items such as user authentication, presence, contact cards, address books, IM and web conferencing. In an edge deployment, FortiADC is used to load balance inbound traffic from external clients for access to the servers, web conferencing and a/v conferencing.

![Diagram of FortiADC deployed to manage multiple Microsoft Lync Front End and Edge Pool Servers](image)

Figure 2: FortiADC deployed to manage multiple Microsoft Lync Front End and Edge Pool Servers

For both front end and edge server load balancing, FortiADC uses its advanced health checking, layer 7 load balancing, and persistence features to ensure users are directed and stay connected to the best performing Skype for Business servers.

FortiADC is a Microsoft qualified vendor for hardware load balancing for Microsoft Skype for Business (Lync) to extend front end and edge server capacities. A FortiADC deployment enables load balancing for server availability, quality of experience (QoE) improvement for fast response-times, and the best ROI when used with Skype for Business.

**Benefits of Load Balancing Microsoft Applications with FortiADC**

- Highly redundant solution for Microsoft Applications
- Delivers 99.999% application uptime with intelligent server load balancing
- SSL/TLS Offload to improve secure traffic performance
- Advanced traffic management (TCP, UDP, and more)
- Increase overall performance of Exchange and Skype for Business
- Additional security with WAF, IP Reputation and Stateful Firewall
- Improve user QoE (quality of experience)
- Unparalleled deployment flexibility

Using FortiADC with Microsoft’s core business applications leverages the benefits of FortiADC’s high-performance server load balancing, policy-based routing, QoS and SSL offloading to extend Exchange and Skype for business to meet the needs of large-scale environments. FortiADC also delivers near-100% uptime by enabling redundant server configurations for these applications.

With Microsoft you know you’re getting the best in business communications for your organization. With FortiADC, you get the best in extending those platforms for scale and reliability at all-inclusive prices that provide the features you need at low TCO.
To read more about Fortinet’s FortiADC solutions for load balancing Microsoft applications, please download our Microsoft Qualified deployment guides for Exchange and Lync:

Load Balancing Exchange 2010
Load Balancing Exchange 2013
Load Balancing Lync 2013

For more information on FortiADC, please visit our detailed product page on Fortinet.com:

FortiADC Application Delivery Controllers

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.