

Highly Available Unified Communication Services with Microsoft Lync Server 2013 and Radware's Application Delivery Solution

The Challenge

Businesses that rely on Microsoft Lync Server must guarantee uninterrupted and top performing unified communication services to ensure productivity is not degraded and eliminate business loss. To address these business requirements, IT must ensure that the Microsoft Lync service is “always up” – today and in the future.

The Solution

Radware's ADC solution ensures 24x7 availability for Microsoft Lync Server through advanced intra site and inter-site redundancy schemes and smart load distribution. Radware ADC's embedded acceleration functionality enables faster application response time while increasing the efficiency of the Microsoft Lync Server infrastructure. Radware's ADC solution also provides seamless and easy Lync infrastructure scalability supporting current and future network capacity requirements in a cost effective manner.

Combined Solution Benefits

- Full availability of all Microsoft's unified communication services
- Improved productivity through uninterrupted and top responding communication all across the organization
- Superior scalability by allowing the transparent addition of servers to an existing MS Lync deployment while it is in production without any service interruption
- Pay-as-you-grow approach preventing overspending on the ADC solution by allowing purchase of only the required capacity for current needs
- Zero downtime upgrade: save on OPEX with seamless, fast and easy upgrade path

Radware's certified application delivery solution for Microsoft Lync Server ensures high availability, improves application performance and enables higher user productivity while reducing TCO.

The release of Microsoft's Lync Server 2013, an evolution of Microsoft's unified communication (UC) platform, now delivers complete presence, instant messaging, conferencing and enterprise voice capabilities through a single, easy-to-use interface that is consistent across PC, browser, and mobile devices.

By deploying Radware's certified application delivery controller (ADC) solution in conjunction with Microsoft Lync server, organizations can further enhance the benefits of their UC platform and enjoy uninterrupted service and faster response time – resulting in significant improvement in end user experience. Furthermore, Radware's certified ADC solution provides increased Lync infrastructure efficiency, leading to higher productivity as well as reduced TCO.

The Challenge: Ensure Continuous Communication Services and High Productivity

In today's competitive business landscape, the “always up” requirement from a UC service, such as Microsoft Lync Server, has a strong business justification. A planned conference call with a customer that was canceled due to communication issues or an important executive-level update that was delayed or prevented due to a failed communication service are just two examples of the high business impact of a failed communication service.

Additionally, the need to efficiently scale-up the UC solution to support additional services, increased capacity, and more concurrent users is a challenge that all IT organizations must address when planning and deploying a Microsoft Lync solution. Being a central and critical component which enables the organization's communication services, the Lync's services' availability and reliability directly impact the organization's ability to exchange information and execute business processes, thus affecting its overall productivity. In addition,

the organization's high productivity cannot be compromised even when the UC infrastructure is being upgraded, modified, or going through routine maintenance procedures.

Ensuring Application High Availability While Improving Performance and User Experience

Radware's certified ADC solution for Microsoft Lync Server is designed to provide organizations with a highly available UC service, fastest response time, and best user experience, through its intelligent load balancing algorithms, advanced application health monitoring, inter site load balancing and application acceleration functionality.

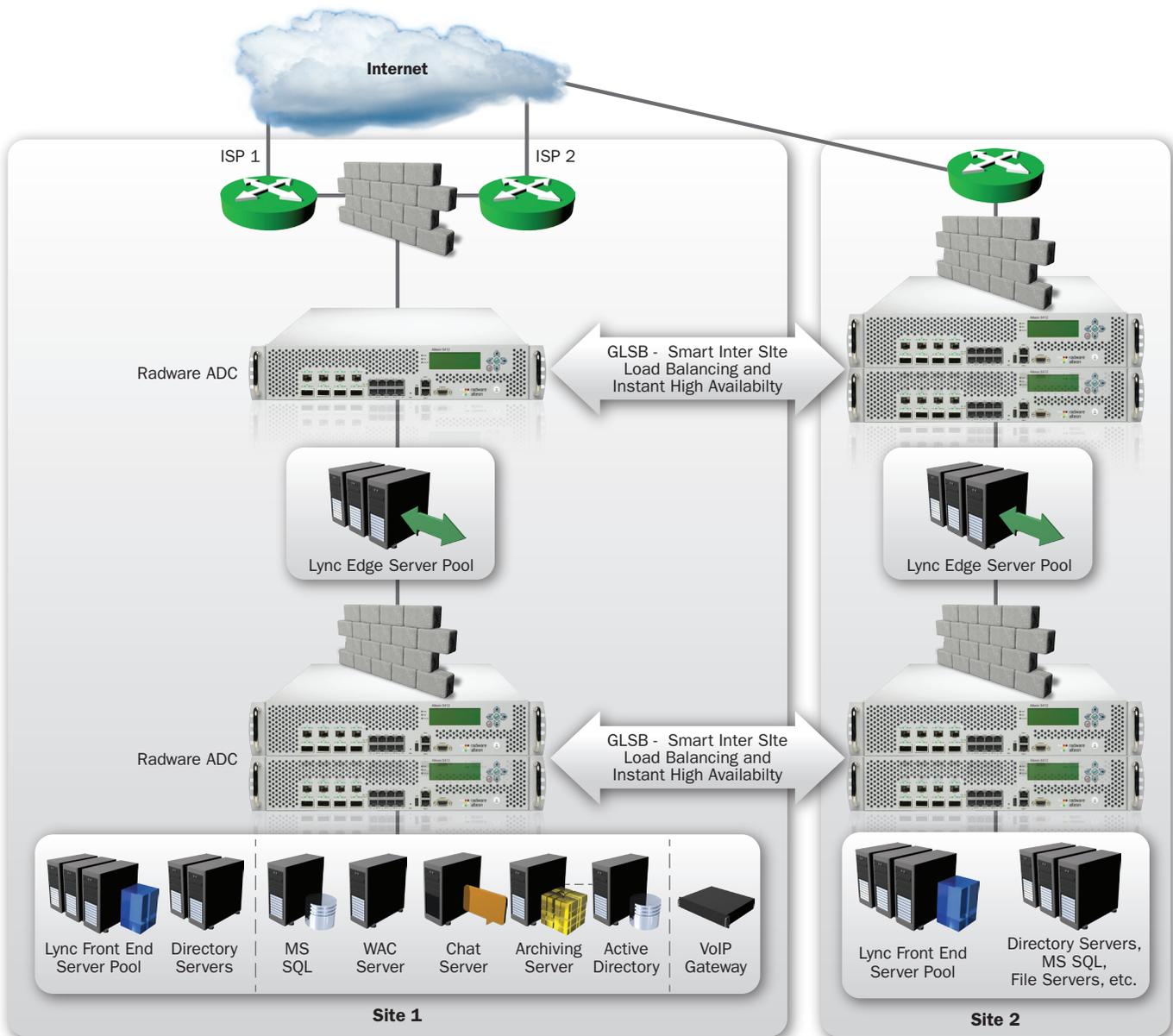


Figure 1 - Joint Microsoft Lync Server 2013 and Radware ADC Solution Diagram

Intelligent service load balancing: Radware's load balancing algorithms ensure optimized user experience under different network and infrastructure conditions and scenarios. By monitoring load, health and the response time of the different Lync servers, user sessions are redirected to the most available server, ensuring that the first server the client application will approach is available. The result is faster response time from the available application server resource pool, at any given time.

This functionality ensures seamless bypassing of server failures at the hardware layer, OS layer and application layer, without forcing the client application to approach failed servers before reaching available servers from the pool. By using Radware's ADC solution with intelligent load balancing, users can benefit from high availability with fast response time, even in case of server failure.

Advanced health monitoring: Using advanced application health monitoring of all consolidated Lync servers and consolidated edge servers, across the various application protocols, Radware's application delivery solution ensures clients are redirected and remain connected to the most available and responsive server.

Global server load balancing (GSLB): For globally dispersed Lync server solution deployments - such as global organizations with geographically dispersed branch offices or even multiple data centres - Radware's patented GSLB technology increases UC availability, as well as optimizes performance per user via fastest transaction completion.

Each site with Lync server resources and Radware's ADC solution shares health check and load information with the other sites, so that in case of a complete Lync service outage in one of the sites, Radware's GSLB technology ensures service continuity, by seamlessly redirecting users to the remaining organization's sites which provide Lync's UC services.

Radware's GSLB technology also performs smart user traffic load sharing among the global resources, while taking into consideration the proximity of each user to the site it is redirected to, as well as the site's load, number of connections and Lync server's health, to further reduce the latency and shorten the response time of the Lync service requested.

Application Acceleration: Radware's ADC solution also provides several technologies for application acceleration which are specifically applicable for Microsoft Lync, and result in improved application server performance and efficiency. By caching and compressing session information, users can experience faster response time (especially if users are connected from behind slower WAN links), while reducing the load on the Lync servers.

Also, one of the most CPU intensive tasks for applications such as Microsoft's Lync is SSL termination of user sessions. Radware's ADC solution is a purpose-built appliance, optimized for SSL session termination processing, and hence offload this task from the access and web conferencing services, running on the Microsoft Lync edge servers. By offloading the SSL processing from the Lync edge servers, more processing resources remain available on the servers, to take on additional users and functionality, resulting in a more cost effective, responsive unified communication infrastructure.

Scalability: As the UC usage grows, Microsoft Lync needs to provide a growing number of services to a growing number of users, hence additional infrastructure capacity must be added to support this growth. Adding more capacity to the Lync infrastructure can be finalized in minutes, by informing Radware's ADCs of the new resource available. New user session requests are instantly routed to the newly added Lync server resource, without requiring any modification to the network infrastructure, application infrastructure and most importantly – without having to change the end-user client devices software and configuration and without causing a second of downtime.

Furthermore, Radware ADC solution provides organizations with the ability to seamlessly scale up the ADC supporting the Microsoft UC solution. By leveraging Radware's industry-unique "Pay-as-you-Grow" approach, no forklift upgrade is required to support growing Lync server capacity requirements, thus eliminating downtime by providing a seamless, easy and quick upgrade path. This creates more savings on OPEX and enables organizations to pay for the exact throughput capacity they need today on their ADC solution, and scale on demand when they need more, through a simple license key insertion. This eliminates any costly upgrade projects and associated downtime.

Features and Benefits

Using Microsoft Lync Server and Radware ADC solutions, customers can receive the following key business benefits:

- A complete highly available and highly-performing UC solution - by leveraging Radware ADC solution capabilities, such as server health monitoring and smart load balancing
- Seamless multi-site load balancing through Radware's patented global server load balancing functionality, enabling transparent disaster recovery fail over and active-active site backup
- The combined Radware Microsoft solution can support larger number of users with smaller and more cost-effective infrastructure, by offloading resource intensive server tasks to the Radware ADC, such as SSL termination and thus supporting more users per server
- By using the Radware ADC with its content caching and compression features in conjunction with the Microsoft Lync Server, end-users connected over slow speed WAN connections (such as over cellular networks), can benefit from faster response time and a noticeably improved Quality of Experience (QoE)
- Seamless scalability – Radware's "Pay-as-you-Grow" approach enables adding more capacity to the solution, with no service interruption or system reconfiguration, via Radware's On-Demand Switch platforms
- A [Microsoft certified solution](#), fully tested and validated. A technical integration guide providing step-by-step configuration guidelines can be found on the [Radware website](#).

About Radware

Radware, the global leader in integrated application delivery solutions, assures the complete availability, performance and security of business-critical applications for more than 10,000 enterprises and carriers worldwide. With Radware's comprehensive APSSuite suite of application front end, access and security products, companies can drive business productivity, improve profitability, and reduce IT operating and infrastructure costs by making their networks "business-smart."

About Microsoft

Founded in 1975, Microsoft (NASDAQ "MSFT") is the worldwide leader in software, services and solutions that help people and businesses realize their full potential.