# KEMP LoadMaster

Enabling Hybrid Cloud Solutions in Microsoft Azure

Introduction

An increasing number of organizations are moving from traditional on-premises datacenter architecture to a public cloud platform such as Microsoft Azure. They want to capitalize on efficiencies of scale and derive the economic benefits of deploying applications across on-premises and the cloud, regardless of where end users connect.
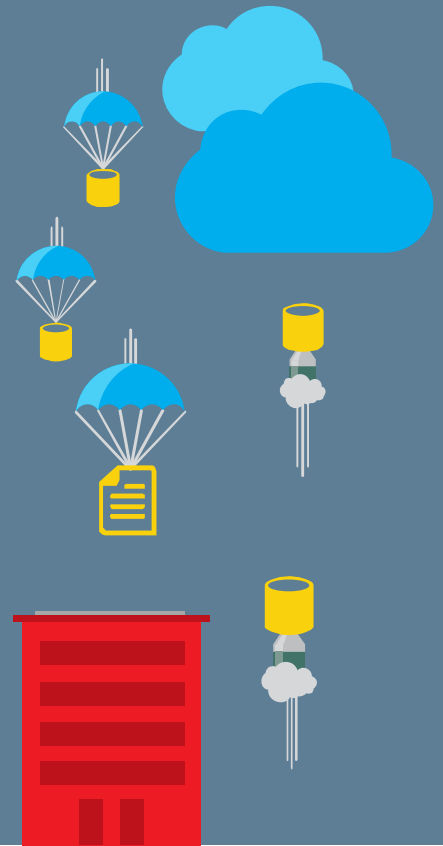
KEMP Technologies is committed to supporting organizations adopting hybrid cloud solutions. As the first application delivery controller (ADC) vendor to extend native load balancing and intelligent traffic steering support for Microsoft Azure, KEMP helps customers simplify and expedite their cloud adoption strategies.

Moving applications to a public cloud infrastructure can be a daunting undertaking. Because many legacy applications were not built for the cloud, they often require ADC services, especially when the cloud platform lacks the Layer 7 services that the application requires to operate successfully.

KEMP Technologies delivers the same core features and functionality regardless of platform or environment, making it unnecessary to re-architect the application for cloud deployment. KEMP's LoadMaster™ ADC enables businesses to achieve application delivery and security in the hybrid cloud, regardless of the cloud platform they choose to use.

This eBook describes four scenarios that illustrate how KEMP products enable hybrid cloud solutions for Office 365, SharePoint, Microsoft Remote Desktop Services (RDS), and SAP.

Learn more about LoadMaster for Azure

Office 365

Scenario

A company using Office 365 and leveraging Microsoft Active Directory Federation Services (ADFS) wants to provide continual access to Office 365 productivity tools, including Outlook Web App, for its employees. Using KEMP LoadMaster on-premises and KEMP Virtual LoadMaster for Azure (VLM-Azure) the company can failover to services hosted on the Microsoft Azure cloud if their on-premises environment goes down. In this way, the company's employees never lose access to Office 365 if a site failure occurs.

The on-premises environment has two ADFS servers that are load-balanced with Virtual LoadMaster running in a Hyper-V environment. The company has a site-to-site VPN connection between the on-premises datacenter and Microsoft Azure. The Azure environment contains a domain controller that extends on-premises Active Directory to the cloud. An additional ADFS server in Microsoft Azure creates site resilience. The on-premises VLM and the VLM-Azure are configured with KEMP's Global Server Load Balancing (GSLB) functionality, also known as GEO. When a client attempts to access ADFS, LoadMaster provides the IP address based on ADFS server availability or proximity.

Solution Benefits

KEMP LoadMaster enhances and complements Microsoft Azure's native application load balancing capabilities with true Layer 7 application delivery.

Virtual LoadMaster for Azure combined with KEMP's GEO functionality offers high availability across on-premises and cloud-based application pools, plus intelligent global traffic distribution. The result is highly resilient, scalable, and smart Office 365 deployment.
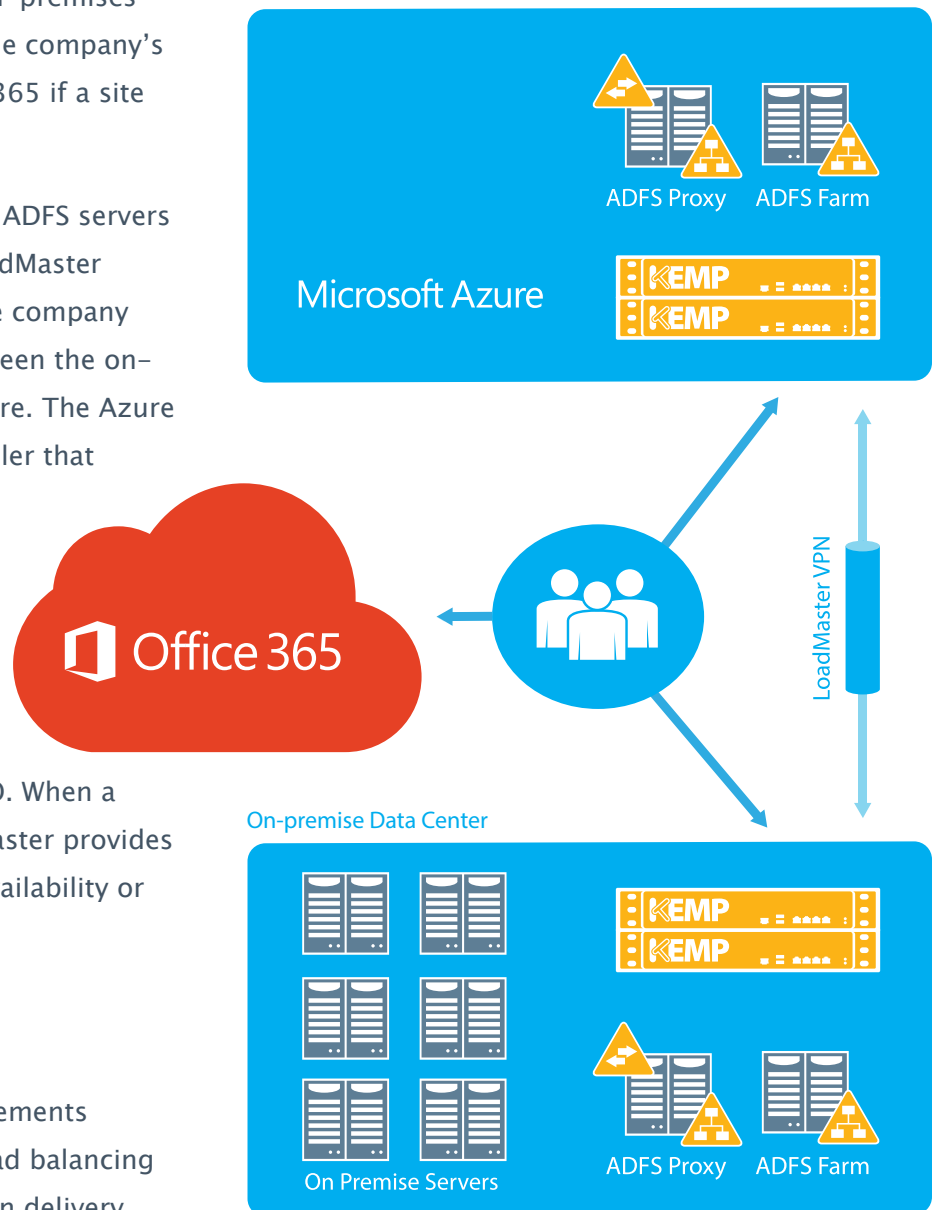
SharePoint

Scenario

Microsoft SharePoint provides a collaborative workspace to share ideas, publish content, build productivity apps, track projects, and keep teams connected in the workplace. More and more organizations either deploy their SharePoint farms entirely on the Microsoft Azure platform, or in a hybrid on-premises plus Microsoft Azure scenario.

High availability and disaster recovery for SharePoint deployments is a high priority. SharePoint performance and capacity are negated if servers are unavailable or cannot be recovered after an unexpected failure.

A company can achieve SharePoint high availability in the web tier by deploying multiple front-end servers to serve web pages and host web parts. The load balancer directs traffic across these servers, monitors health and ensures that the best possible target is used for individual requests. In response to application requests, KEMP LoadMaster uses data compression to reduce bandwidth. In addition, content caching reduces the number of requests directed to pool servers for static content. The result is improved application performance.
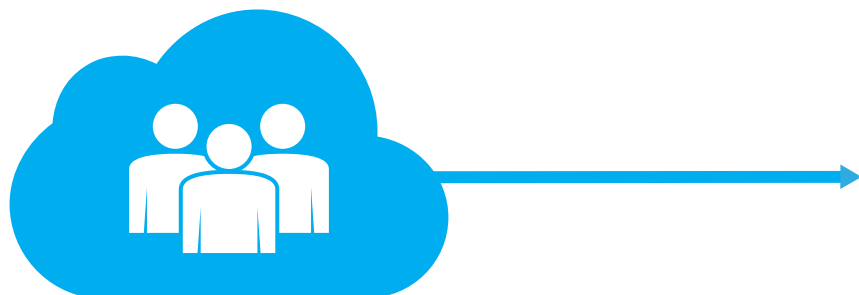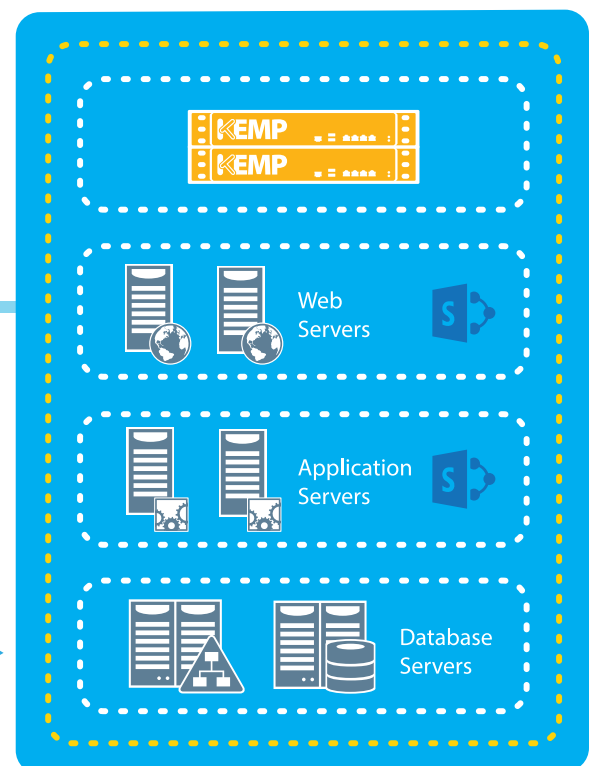
Solution Benefits

With SharePoint-specific health check, load balancing algorithms, and intelligent traffic management, KEMP LoadMaster for Azure enables the best SharePoint experience possible.

On-premise Data Center

KEMP
KEMP
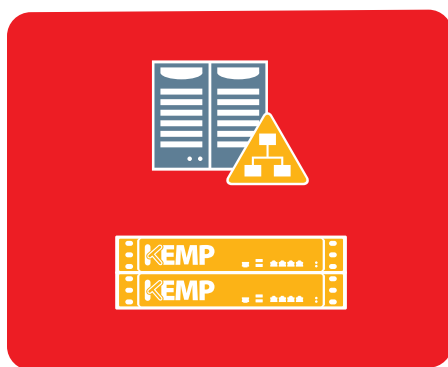
LoadMaster VPN

Microsoft Azure

KEMP
KEMP

Web Servers

Application Servers

Database Servers

Remote Desktop Services

Scenario

Remote Desktop Services (RDS) enables users to access Windows applications from any location, using a variety of devices both inside and outside the corporate firewall. If a business chooses to deploy RDS on Microsoft Azure for flexibility and cost effectiveness, KEMP can support this scenario.

Companies migrate RDS to the Microsoft Azure cloud to reduce the costs of an on-premises RDS deployment. They plan to publish and balance Remote Desktop Session Hosts (RD Session Host) and Remote Desktop Web Access (RD Web Access) instances. There are two HTTP channels (inbound/outbound) that must be routed through the same RD Gateway.

The KEMP LoadMaster L4-7 reverse proxy combined with the KEMP Web Application Firewall (WAF) enables seamless publication of both RD Session Host and RD Web Access roles, increasing security and high availability. KEMP's affinity options ensure that both HTTP channels are routed through the same RD Gateway. With single sign-on and ADFS integration, the KEMP solution enables a user experience equivalent to an on-premises deployment.
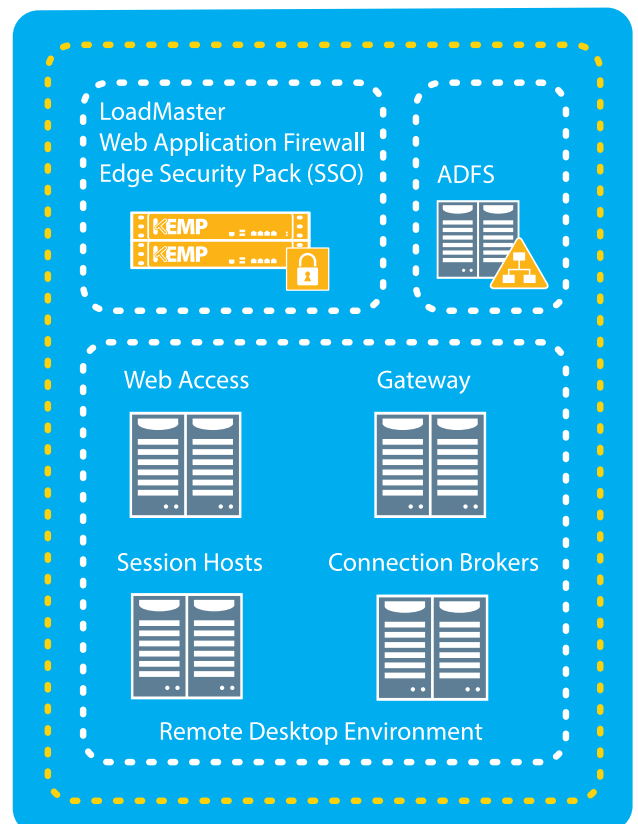
Solution Benefits

KEMP LoadMaster improves RDS deployments by providing high-speed load balancing, content switching, data compression, content caching, and

SSL offload/acceleration. Servers are not overloaded with connections because of KEMP's intelligent distribution mechanisms to RD Session Host, which help ensure that users performing resource-intensive tasks obtain the needed resources.

RDS functions enabled on LoadMaster for Azure means that users can maintain persistence even when there is no Session Broker or Connection Broker. LoadMaster for Azure application-level awareness of RDS communication flows ensures that users get the best experience possible.

Microsoft Azure

LoadMaster
Web Application Firewall
Edge Security Pack (SSO)

ADFS

Web Access   Gateway

Session Hosts   Connection Brokers

Remote Desktop Environment

SAP

Scenario

SAP role-based platforms are designed to improve business operations and business efficiencies. They are deployed either on-premises, in the public cloud, or in hybrid environments. KEMP LoadMaster is SAP certified and supports SAP key solutions.

Typical use cases for access to SAP systems include:

- End users who are using different browsers to work interactively in SAP systems.

- Application integration scenarios where SAP and non-SAP applications connect via web-services or RESTful application program interfaces (APIs) to an SAP back-end system.

- Integration of new SAP cloud-based solutions that SAP applications users run in on-premises datacenters.

In an example of SAP deployment, the SAP CRM represents SAP Business Suite components, which run in the SAP Advanced Business Application Programming (ABAP) environment. The SAP Portal is an example of a component running on a Java platform, and the SAP Business Object Explorer is representative of an SAP Business Intelligence solution. Other SAP ABAP or Java-based applications may be similarly configured.

Customers interested in test driving KEMP's integration with SAP can do so through the Azure Marketplace, where KEMP's Virtual LoadMaster (VLM) is available along with several SAP solutions.

Solution Benefits

For a consistent and highly available user experience of applications, KEMP ADCs, serving as reverse proxies, distribute HTTP traffic among the SAP servers while ensuring secure web access both for remote users and applications.

KEMP LoadMaster for Azure efficiently distributes user traffic for the SAP workloads so that users get the best performance experience possible. Also, high availability and high capacity scale-out deployments of SAP solutions are complemented from the network technology side.

Microsoft Azure