Azure Load Balancer Overview

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Load balancing

By default, Load Balancer uses a 5-tuple hash composed of source IP address, source port, destination IP address, destination port, and IP protocol number to map flows to available servers

Standard load balancer

Standard Load Balancer has additional SKUspecific capabilities

Outbound connection

All outbound flows from private IP addresses inside your virtual network to public IP addresses on the internet can be translated to a frontend IP address of the Load Balancer.

Azure Load balancer

Using Azure load balancer, you can deliver highly available applications on Azure

Port forwarding

With Load Balancer, you can create an inbound NAT rule to port forward traffic from a specific port of a specific frontend IP address to a specific port of a specific backend instance inside the virtual network

Application agnostic and transparent

Load Balancer does not directly interact with TCP or UDP or the application layer, and any TCP or UDP application scenario can be supported.

Health probes

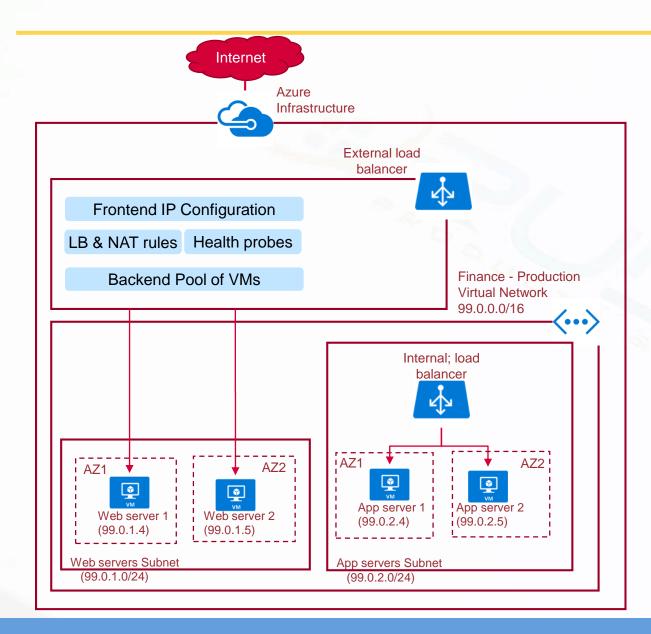
To determine the health of instances in the backend pool, Load Balancer uses health probes that you define.

Automatic reconfiguration

Load Balancer instantly reconfigures itself when you scale instances up or down.

Azure Load Balancer components





Front-end IP configuration

A Load balancer can include one or more front end IP addresses, otherwise known as a virtual IPs (VIPs). These IP addresses serve as ingress for the traffic.

Back-end address pool

These are IP addresses (DIPs) associated with the virtual machine Network Interface Card (NIC) to which load will be distributed.

Load balancing rules

A rule property maps a given front end IP and port combination to a set of back end IP addresses and port combination. A single load balancer can have multiple load balancing rules. Each rule is a combination of a front-end IP and port and back-end IP and port associated with VMs.

Probes

Probes enable you to keep track of the health of VM instances. If a health probe fails, the VM instance will be taken out of rotation automatically.

Inbound & Outbound NAT rules

NAT rules defining the inbound traffic flowing through the front end IP and distributed to the back end IP. Outbound rules will translate VM private IP to load balancer public IP.

Pricing tiers



Category	Basic	Standard
Backend pool	Virtual machines in a single availability set or virtual machine scale set.	Any virtual machine in a single virtual network, including blend of virtual machines, availability sets, virtual machine scale sets.
Health probes	TCP, HTTP	TCP, HTTP, HTTPS
Availability Zones	Not Available	Zone-redundant and zonal frontends for inbound and outbound, outbound flows mappings survive zone failure, cross-zone load balancing.
Outbound rules	Not Available	Declarative outbound NAT configuration, using public IP addresses or public IP prefixes or both
Multiple frontends	Inbound and outbound	Inbound only