# internal-load-balancers

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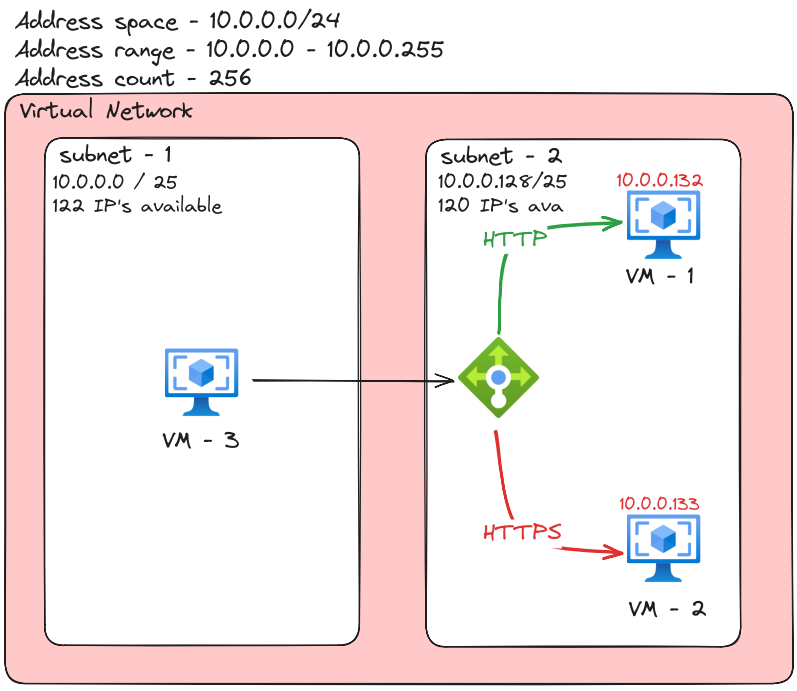
## Architecture




arc-internal-load-balancer

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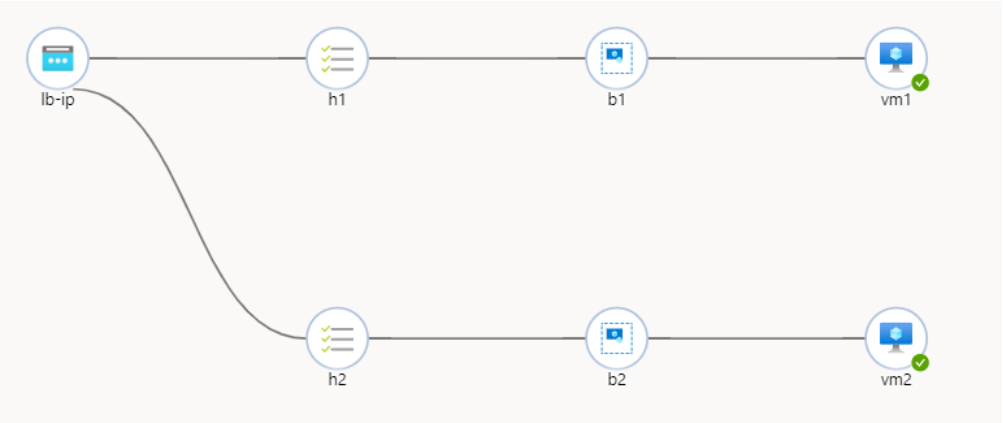
## Load-balancer analysis

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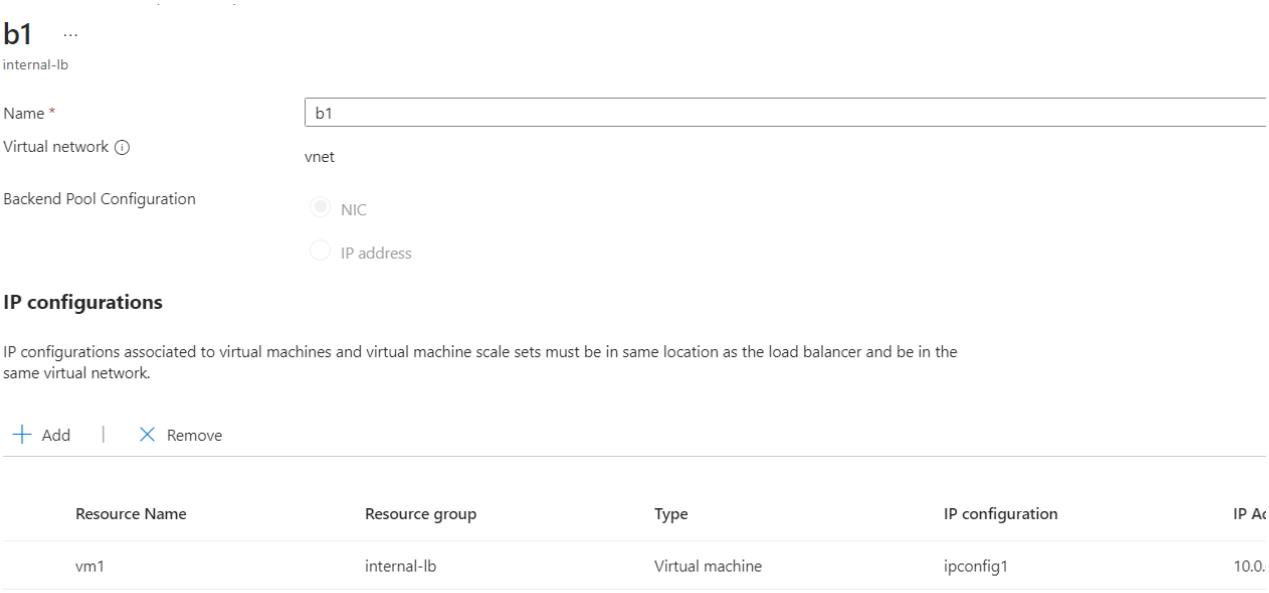
# IP-schema

## Load-balancer

- `Frontend-IP config`
  - `10.0.0.134`
- `Backend-pools`
  - `b1`

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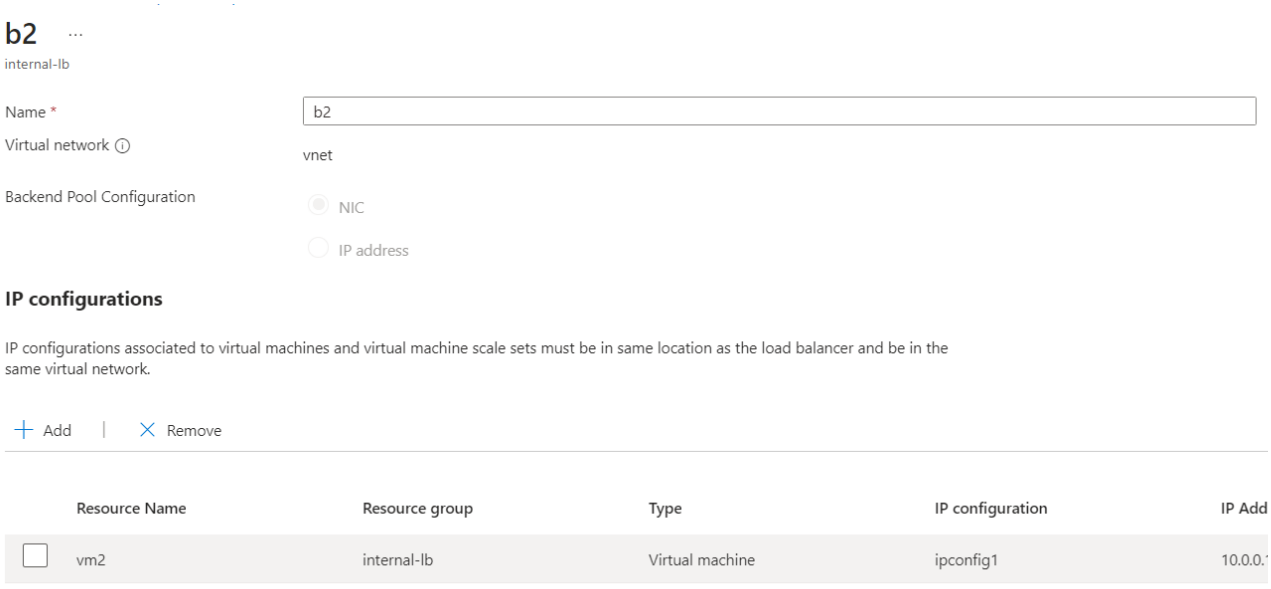
- `b2`

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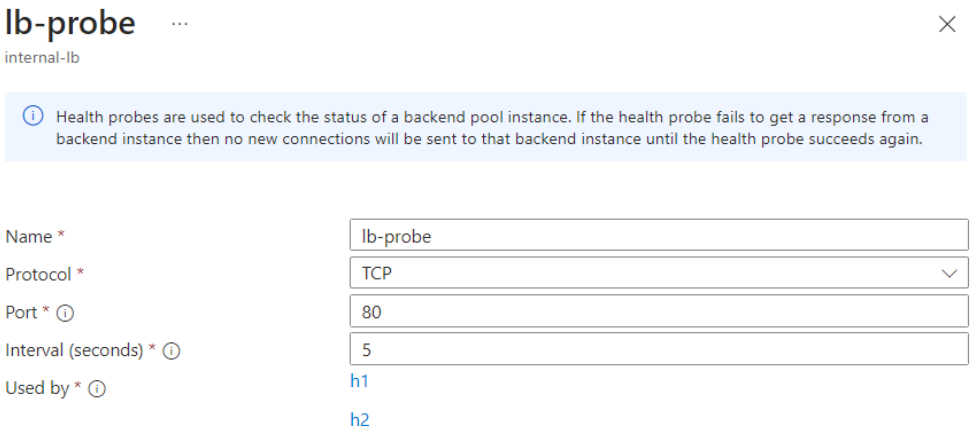
- ## Health-Probes
  - one for two.

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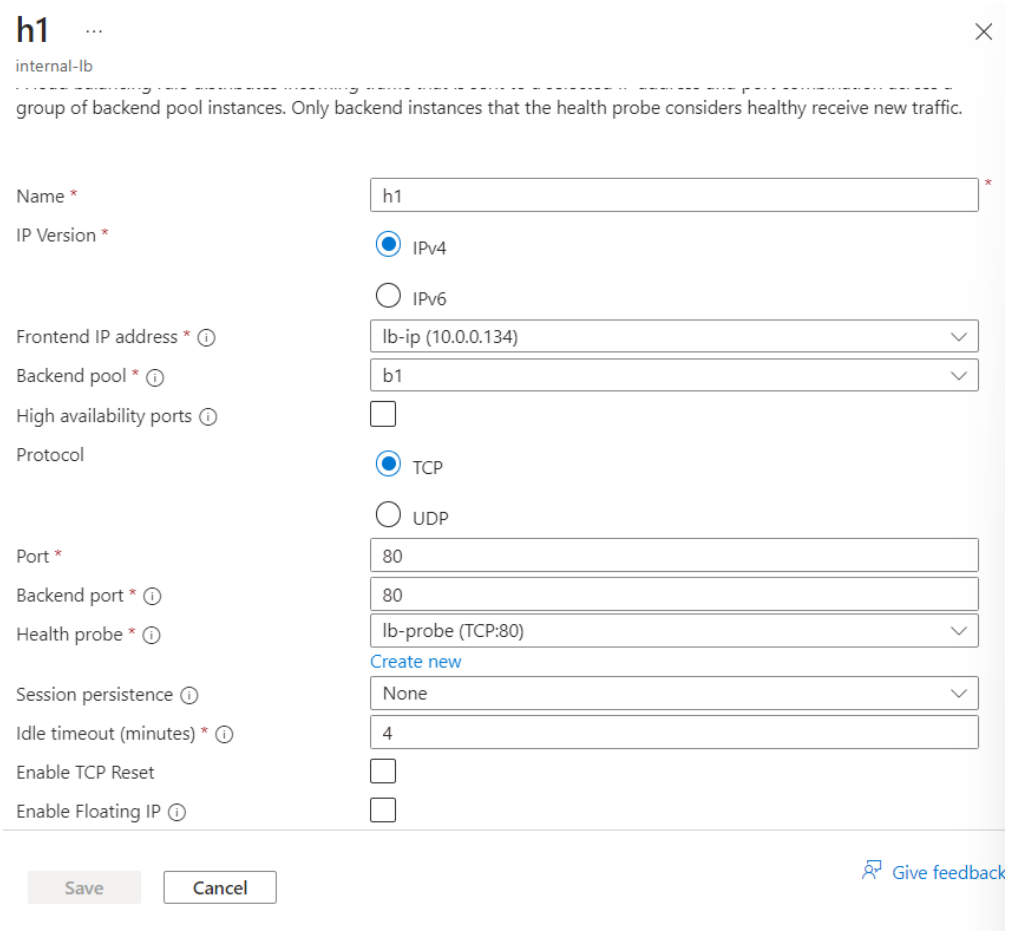
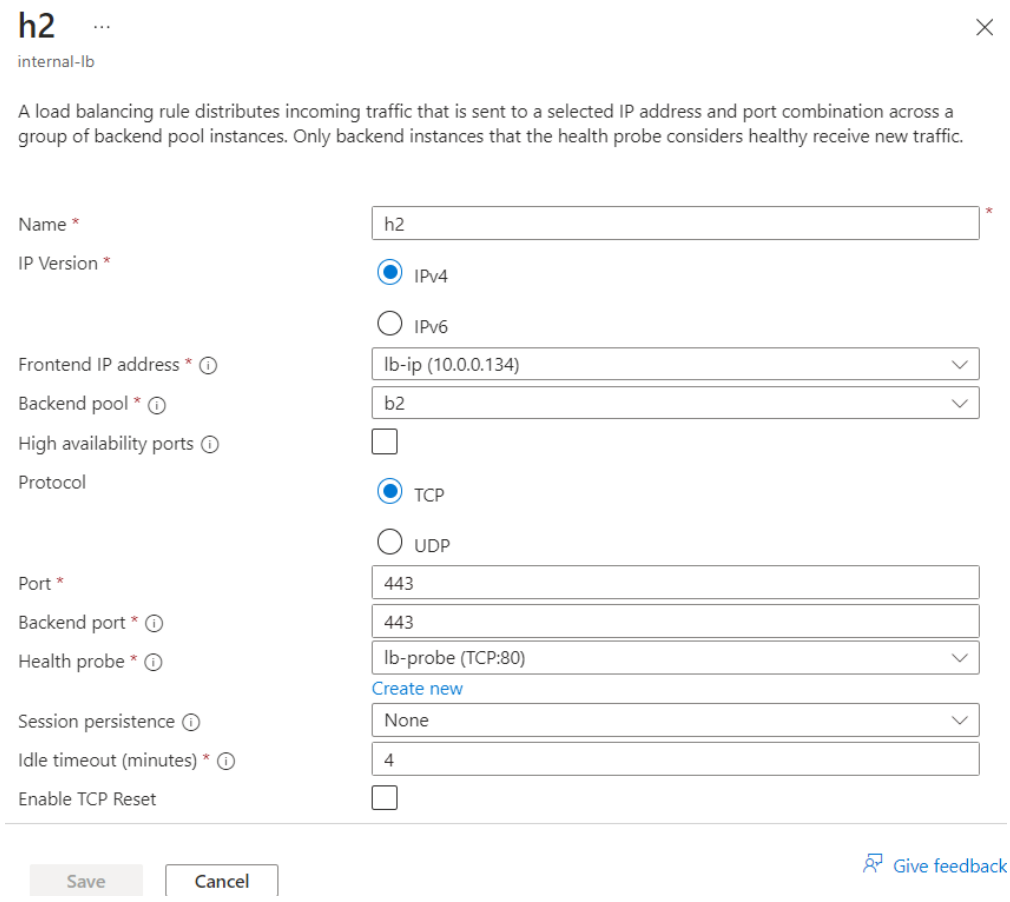
  - used by h1 and h2, which means the single health probe is used by two load-balancer rules

- ## Load-balancing rules
  - h1


h1
internal-lb
group of backend pool instances. Only backend instances that the health probe considers healthy receive new traffic.
Name *
h1
IP Version *
IPv4
IPv6
Frontend IP address *
lb-ip (10.0.0.134)
Backend pool *
b1
High availability ports
Protocol
TCP
UDP
Port *
80
Backend port *
80
Health probe *
lb-probe (TCP:80)
Create new
Session persistence
None
Idle timeout (minutes) *
4
Enable TCP Reset
Enable Floating IP
Save
Cancel
Give feedback

- 
- h2




# VM's

## VM-1 NIC

| Priority | Name | Port | Protocol | Source | Destination | Act |
|---|---|---|---|---|---|---|
| 300 | RDP | 3389 | TCP | Any | Any | All |
| 310 | AllowAnyHTTPInbound | 80 | TCP | Any | Any | All |
| 65000 | AllowVnetInBound | Any | Any | VirtualNetwork | VirtualNetwork | All |
| 65001 | AllowAzureLoadBalancerInBound | Any | Any | AzureLoadBalancer | Any | All |
| 65500 | DenyAllInBound | Any | Any | Any | Any | Den |

## VM-2 NIC

| Priority | Name | Port | Protocol | Source | Destination | Act |
|---|---|---|---|---|---|---|
| 300 | RDP | 3389 | TCP | Any | Any | All |
| 320 | HTTPS | 443 | TCP | Any | Any | All |
| 65000 | AllowVnetInBound | Any | Any | VirtualNetwork | VirtualNetwork | All |
| 65001 | AllowAzureLoadBalancerInBound | Any | Any | AzureLoadBalancer | Any | All |
| 65500 | DenyAllInBound | Any | Any | Any | Any | Den |

| Priority | Name | Port | Protocol | Source | Destination | Act |
|---|---|---|---|---|---|---|

- $ The Http traffic is hitting VM1 through the Firewall.
- ! The Https is not hitting VM2 through the Firewall, as the servers are configured for port number 80 (HTTP), not for 443 (HTTPs).
- Two backend pools are created, and each VM, VM1 and VM2 are attached to the backend pools.
- The two backend pools are connected to the same health probe which uses port 80 to send message packets to acknowledge the health status.
- ! The health status of VM2 degrades to 50%, because the web servers are not configured to HTTPS. To recover the health status, re-configure the load-balancer-rules from HTTPS to HTTP.
- source :
-