#### load balancers

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#### 4 types

- Azure load balancers (Regional load balancer)
  - only for HTTP
- Application load balancers (Regional load balancer)
  - only for HTTPS
- Front door + CDN (Content Delivery Network) (Global)
  - HTTPS
- Traffic manager (Global)
  - HTTP

We can utilize the Application and traffic manager using WAF

#### **Notes**

- used 5-tuple hash algorithm.
  - Source IP
  - Source Port
  - Destination IP
  - Destination Port
  - Protocol
- Does not interact with a payload
  - No SSL inspection or HTTP/HTTPS header rewrite.

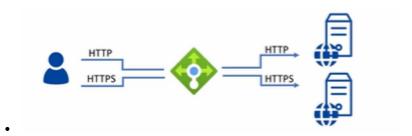
## **Select a Load Balancer Solution**

• Basic Load Balancers allow:

- 1. Port Forwarding
- 2. Automatic Reconfiguration
- 3. Health Probes
- 4. Outbound connections through source network address translation (SNAT)
- 5. Diagnostics through Azure Log Analytics for public-facing load balancers.
- Standard Load Balancers support all basic features and allow:
  - 1. HTTPS Health Probes
  - 2. Availability Zones
  - 3. Diagnostic through Azure Monitor, for Multidimensional Metrics
  - 4. High Availability (HA) Ports
  - 5. Outbound Rules
  - 6. A guaranteed SLA (99.99% for two or more virtual machines in different zones)

## **Distribution modes**

- Client IP (2-tuple) -
  - Sessions from a client IP are handled by the same backend instance
- Client IP and Protocol (3-tuple)
  - Sessions from a client IP and protocol are handled by the same backend instance



## **Health Probes**

- Standard SKU
  - TCP
  - HTTP
  - HTTPS
- Basic SKU
  - TCP

• HTTP

Tests the availability of the servers in the backend pool.

# Links

public-Load-balancers
internal-load-balancers