

# Firewalls and load balancers

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## need to prepare

- subnet delegation, can we add NSG's and route tables.
  - VPN gateways use route based or policy based.
  - In the NSG's we are not writing any outbound rules, how the traffic goes outside
  - `#ACL-Access_Control_List` in switches.
  - `#stateful_firewalls` (next gen firewalls) and `#stateless_firewalls`.
  - If we give an outbound, no need to give an inbound called *stateful firewalls*
  - the 3-way hand shake concept can be an example of stateful architecture.
  - IDS and IPS [source](#)
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## Azure firewall

- [source](#)
- We can use layer 3 Ip address rules in NSG's.
- We can also use IP, urls and main more as rules.
- L3-L7, we can inspect the traffic.
- 3 types of Azure firewalls
  - Basic
  - Standard
  - Premium
- need to do subnet delegation for firewall.
- AzureFirewallSubnet
- \26
- We have a public Ip for a firewall
- We can use NAT rules, Network rules, Application rules concepts using firewalls.

Home > Firewalls > AZ-FW > test-policy

test-policy | DNAT rules

Search: + Add a rule collection + Add rule Edit Delete

Rules are shown in the order of execution below. Network rules take precedence over application rules regardless of priority. Within the same rule collection type, inherited collection priority.

Rule Collection P...	Rule collection n...	Rule name	Source	Port	Protocol	Destination
Rule Collection Group: DefaultDnatRuleCollectionGroup with priority 100.						
<input type="checkbox"/>	100	Synapse	Power BI	1433	TCP,UDP	20.172.248.157
<input type="checkbox"/>	100	Synapse	SynapseServerless	1443	TCP,UDP	20.172.248.157
<input type="checkbox"/>	100	Synapse	serverless	80	TCP,UDP	20.172.248.157
<input checked="" type="checkbox"/>	100	Synapse	server	443	TCP,UDP	20.172.248.157
<input type="checkbox"/>	100	Synapse	server53	53	UDP,TCP	20.172.248.157
<input type="checkbox"/>	100	Synapse	reverseproxy	11004	TCP,UDP	20.172.248.157

Any changes you make here will be applied to all selected rules.

Name \*

Source Type

IP Group

Source IP Groups \*

power-bi

Destination IP addresses

20.172.248.157

Protocol \*

2 selected

Destination Ports \*

443

Translated Type

IP address

Translated Address \*

10.0.0.0/8

Translated Port \*

80

- SNAT, DNAT

## priority of DNAT, SNAT...

Rule collection Group

DNAT (more priority)

N/W (medium priority)

Application (less priority).

## Route table limitations

- cannot associated to a different subscription subnet.

## Load-Balancers

public-Load-balancers