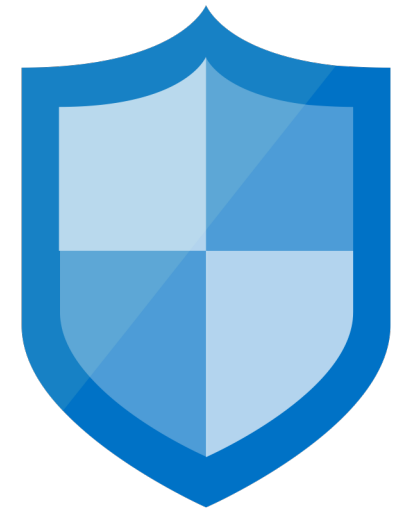


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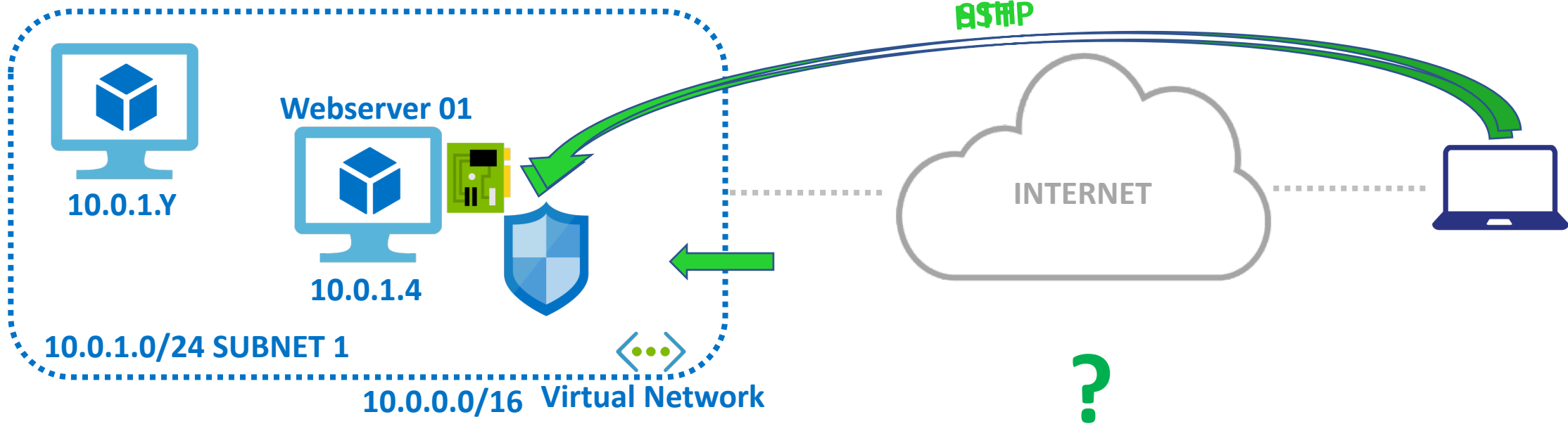
Azure Network and Application Security Groups Fundamentals 101

Network Security Groups (NSGs) Overview

- ❑ Azure Network Security Groups act as a virtual firewall for your VMs to control inbound (to VM) and outbound traffic (from VM)
- ❑ NSGs enforce security at the subnet or NIC card level; different VMs can have different NSGs applied
- ❑ In a NSG you add rules that control inbound traffic to instances and separate rules that control outbound traffic



NSGs – Inbound Security Rules



Inbound port rules

Outbound port rules

Application security groups

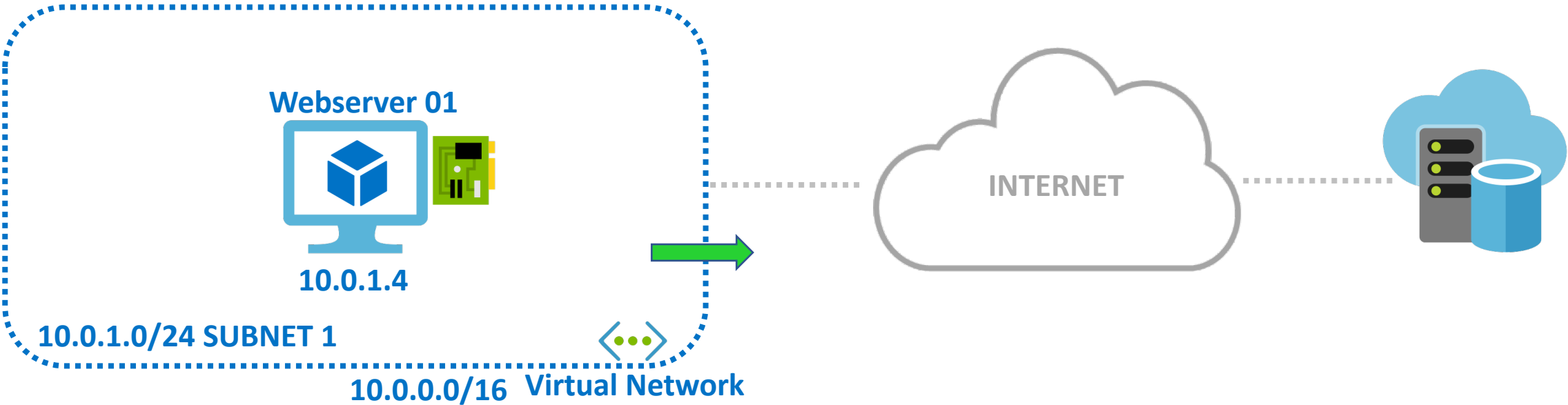
Load balancing

Network security group **Webserver01-nsg** (attached to network interface: **webserver01228**)
Impacts 0 subnets, 1 network interfaces

Add inbound port rule

Priority	Name	Port	Protocol	Source	Destination	Action	
300	🚨 SSH	22	TCP	Any	Any	✅ Allow	...
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	✅ Allow	...
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	✅ Allow	...
65500	DenyAllInBound	Any	Any	Any	Any	❌ Deny	...

NSGs – Outbound Security Rules



[Inbound port rules](#) **Outbound port rules** [Application security groups](#) [Load balancing](#)

Network security group **Webserver01-nsg** (attached to network interface: **webserver01228**)
Impacts 0 subnets, 1 network interfaces

Add outbound port rule

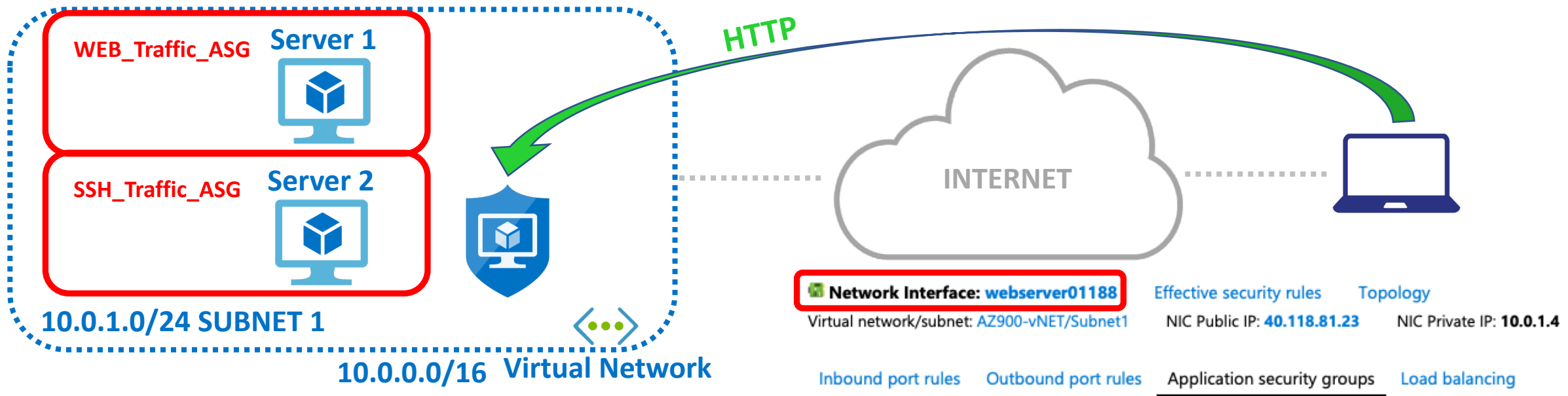
Priority	Name	Port	Protocol	Source	Destination	Action	
65000	AllowVnetOutBound	Any	Any	VirtualNetwork	VirtualNetwork	✔ Allow	...
65001	AllowInternetOutBound	Any	Any	Any	Internet	✔ Allow	...
65500	DenyAllOutBound	Any	Any	Any	Any	✖ Deny	...

Application Security Groups (ASGs) Overview

- ❑ Application Security Groups allow you to group virtual machines and define network security policies based on those groups
- ❑ In an ASG you add rules that control inbound traffic to instances and separate rules that control outbound traffic
- ❑ Logic is the same !



ASGs Use Case Example



Inbound port rules Outbound port rules Application security groups Load balancing

Network security group **Webserver01-nsg** (attached to network interface: **webserver01188**)
Impacts 0 subnets, 1 network interfaces

[Add inbound port rule](#)

Priority	Name	Port	Protocol	Source	Destination	Action	
100	Allow_HTTP_80	80	Any	Any	WEB_Traffic_ASG	Allow	...
65000	AllowVnetInBound	Any	Any	VirtualNetwork	VirtualNetwork	Allow	...
65001	AllowAzureLoadBalancerInBound	Any	Any	AzureLoadBalancer	Any	Allow	...
65500	DenyAllInBound	Any	Any	Any	Any	Deny	...

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Thank you