



ResourceGroup:

Screenshot of the Microsoft Azure Resource Group Overview page for 'LogisticsRG'.

Overview

Resources (11 items)

Name	Type	Location
AzureFrontEndIP	Public IP address	East US
Logistics-VNet	Virtual network	East US
LogisticsAppTMPProfile	Traffic Manager profile	Global
LogisticsAzureLB	Load balancer	East US
VM2_key	SSH key	East US
VMWebServer-1	Virtual machine	East US
VMWebServer-2	Virtual machine	East US
VMWebServer-2-ip	Public IP address	East US
VMWebServer-2-nsg	Network security group	East US
vmwebserver-2377_z1	Network Interface	East US

Virtual Network:

Screenshot of the Microsoft Azure Virtual Network Overview page for 'Logistics-VNet'.

Properties

Resource group (move)	: LogisticsRG	Address space	: 10.0.0.0/16
Location (move)	: East US	Subnets	: 1 subnet
Subscription (move)	: Simplilearn HOL 60	DNS servers	: Azure provided DNS service
Subscription ID	: 72e1cd01-f24f-4581-939e-4bb07fc033fc	BGP community string	: Configure
		Virtual network ID	: 235b6e37-2ff3-41be-a83b-aa3be19371d1

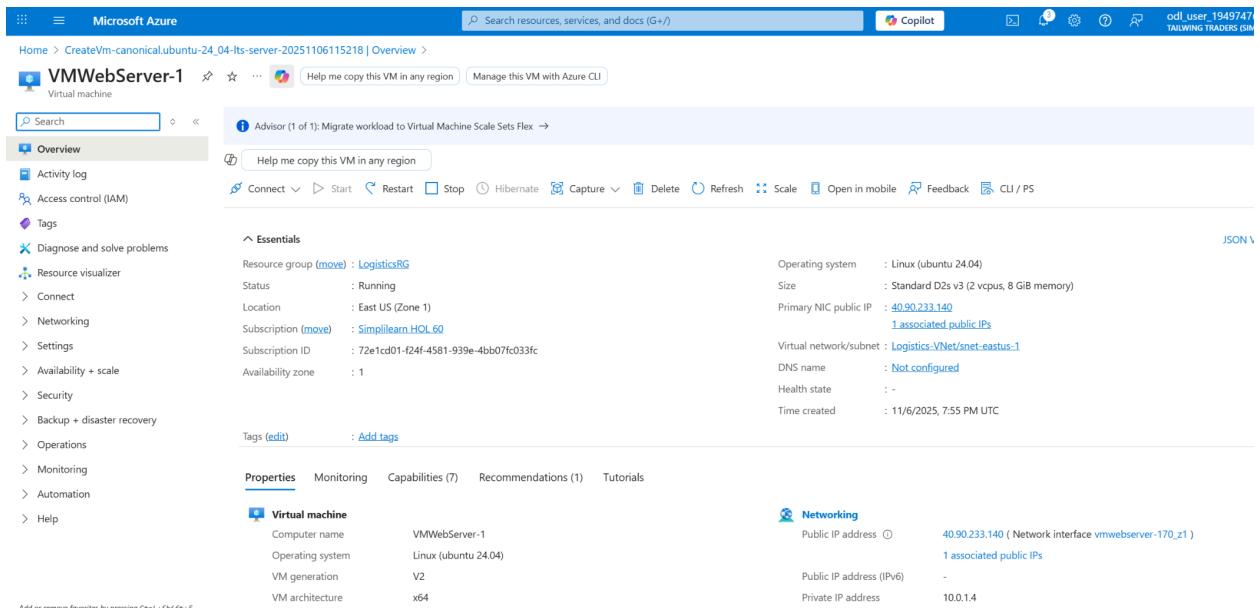
Network configuration

Address space	10.0.0.0/16	Encryption	Disabled
Subnets	1	DDoS protection plan	Configure
DNS servers	Azure provided DNS service		
Virtual network ID	235b6e37-2ff3-41be-a83b-aa3be19371d1		

Security

BGP virtual network community	Configure
BGP regional community	-

Virtual Machine -1:

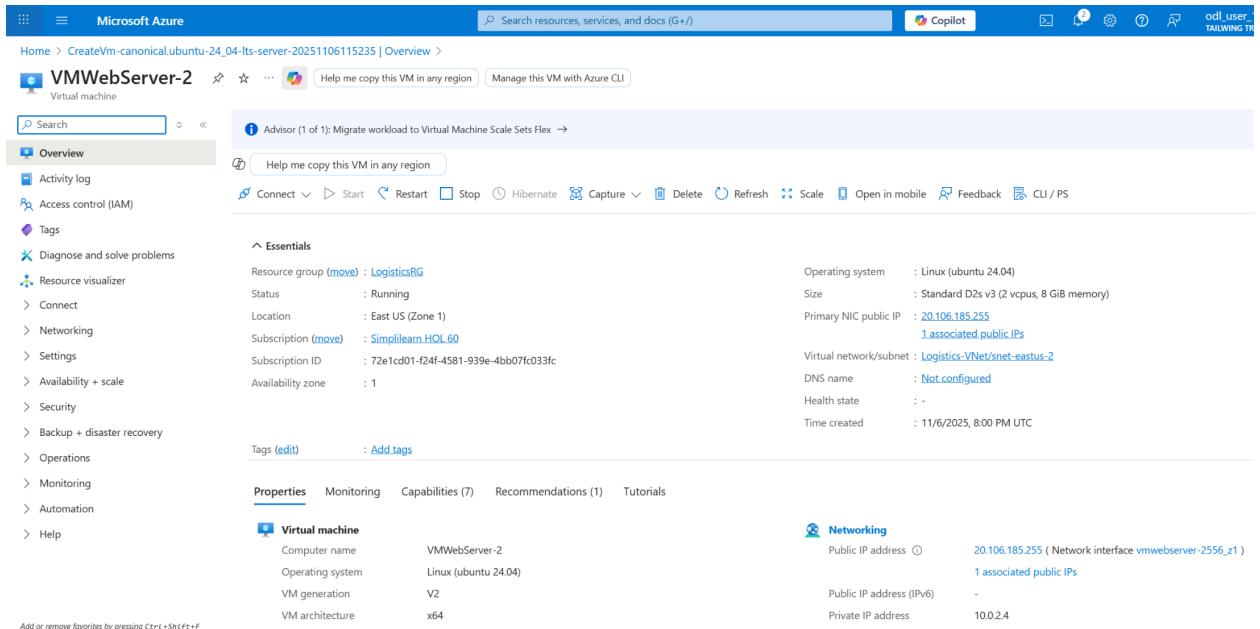


The screenshot shows the Microsoft Azure portal interface for a virtual machine named VMWebServer-1. The main content area displays the 'Overview' tab of the VM's configuration. Key details include:

- Resource group:** LogisticsRG
- Status:** Running
- Location:** East US (Zone 1)
- Subscription:** Simplilearn HOL 60
- Subscription ID:** 72e1cd01-f24f-4581-939e-4bb07fc033fc
- Availability zone:** 1
- Operating system:** Linux (ubuntu 24.04)
- Size:** Standard D2s v3 (2 vcpus, 8 GiB memory)
- Primary NIC public IP:** 40.90.233.140 (1 associated public IPs)
- Virtual network/subnet:** Logistics-VNet/snet-eastus-1
- DNS name:** Not configured
- Health state:** -
- Time created:** 11/6/2025, 7:55 PM UTC

The left sidebar lists various management options like Connect, Networking, Settings, and Help. The bottom navigation bar includes Properties, Monitoring, Capabilities (7), Recommendations (1), and Tutorials.

Virtual Machine -2:



The screenshot shows the Microsoft Azure portal interface for a virtual machine named VMWebServer-2. The main content area displays the 'Overview' tab of the VM's configuration. Key details include:

- Resource group:** LogisticsRG
- Status:** Running
- Location:** East US (Zone 1)
- Subscription:** Simplilearn HOL 60
- Subscription ID:** 72e1cd01-f24f-4581-939e-4bb07fc033fc
- Availability zone:** 1
- Operating system:** Linux (ubuntu 24.04)
- Size:** Standard D2s v3 (2 vcpus, 8 GiB memory)
- Primary NIC public IP:** 20.106.185.255 (1 associated public IPs)
- Virtual network/subnet:** Logistics-VNet/snet-eastus-2
- DNS name:** Not configured
- Health state:** -
- Time created:** 11/6/2025, 8:00 PM UTC

The left sidebar lists various management options like Connect, Networking, Settings, and Help. The bottom navigation bar includes Properties, Monitoring, Capabilities (7), Recommendations (1), and Tutorials.

FrontEnd IP:

The screenshot shows the Azure portal interface for managing a Front End IP. The top navigation bar includes 'AzureFrontEndIP' (with a star icon), three dots, a gear icon, and two buttons: 'Can you check if my public Ip is highly available?' and 'How to ensure public Ip fault tolerance'. Below the navigation is a search bar and a toolbar with icons for Associate, Dissociate, Delete, Move, Refresh, Open in mobile, and Give feedback.

The main area is titled 'Overview' under 'Essentials'. It displays the following details:

Setting	Value
Resource group (move)	LogisticsRG
Location (move)	East US
Subscription (move)	Simplilearn HOL_60
Subscription ID	72e1cd01-f24f-4581-939e-4bb07fc033fc
DNS name	logisticsappazure.eastus.cloudapp.azure.com
Associated to	LogisticsAzureLB
Virtual machine	-

On the left sidebar, there are several sections: Activity log, Access control (IAM), Tags, Resource visualizer, Settings (Configuration, Properties, Locks), Monitoring, Automation, Help, and a 'See more' link. At the bottom of the sidebar are 'Tags (edit)' and 'Add tags' buttons.

Virtual Machines added in BackendPool:

The screenshot shows the Azure portal interface for creating a Backend pool. The top navigation bar includes 'Microsoft Azure', a search bar, and a Copilot button. Below the navigation is a breadcrumb trail: Home > Load balancing and content delivery | Load balancers > Create load balancer > Add backend pool.

The main form is titled 'Add backend pool'. It has fields for 'Name *' (set to 'AZBackendPool') and 'Virtual network' (set to 'Logistics-VNet (LogisticsRG)'). A note below the dropdown states: 'The dropdown only shows virtual networks in the same subscription and location as the load balancer. If you don't see the one you're looking for, it's either in another subscription or location or you don't have access to it.' There are two radio buttons for 'Backend Pool Configuration': 'NIC' (selected) and 'IP address'.

The 'IP configurations' section contains a table with two rows:

Resource Name	Resource group	Type	IP configuration	IP Address	Availability set
VMWebServer-1	LogisticsRG	Virtual machine	ipconfig1	10.0.1.4	-
VMWebServer-2	LogisticsRG	Virtual machine	ipconfig1	10.0.2.4	-

At the bottom of the table are 'Add' and 'Remove' buttons.

HealthProbe:

The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and a Copilot button. The main title is "LogisticsAzureLB | Health probes". On the left, there's a sidebar with navigation links: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Settings, and Frontend IP configuration. The main content area displays a table of health probes. The table has columns for Name, Protocol, Port, Path, and Used By. One entry is shown: AZHealthProbe, Protocol: Http, Port: 80, Path: /index.html, and Used By: AZ-LB-Rule.

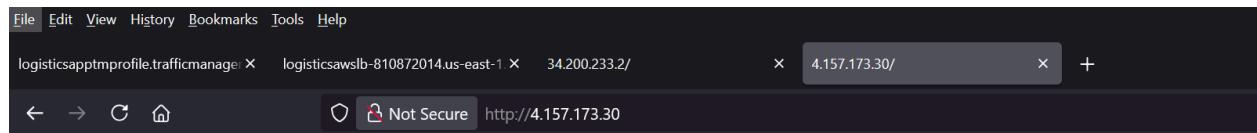
Name	Protocol	Port	Path	Used By
AZHealthProbe	Http	80	/index.html	AZ-LB-Rule

Load Balancer:

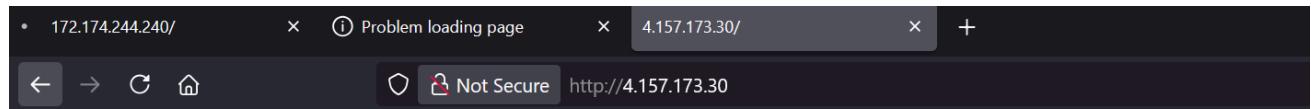
The screenshot shows the Microsoft Azure portal interface. The top navigation bar includes the Microsoft Azure logo, a search bar, and a Copilot button. The main title is "LogisticsAzureLB | Overview". On the left, there's a sidebar with navigation links: Overview, Activity log, Access control (IAM), Tags, Diagnose and solve problems, Resource visualizer, Settings, Monitoring, Automation, and Help. The main content area displays the load balancer configuration. It shows details like Resource group: LogisticsRG, Location: East US, Subscription: Simplelearn_HOL_60, Subscription ID: 72e1cd01-f24f-4581-939e-4bb07fc033fc, SKU: Standard, Tier: Regional, and Frontend IP address: 4.157.173.30 (AzureFrontEndIP). Below this, there's a section titled "Configure high availability and scalability for your applications" with three cards: "Balance IPv4 and IPv6 addresses", "Build highly reliable applications", and "Secure your networks".

Azure load balancer endpoint - 4.157.173.30 (AzureFrontEndIP)

Load Balancer Routing to Web Servers:



Welcome to the Logistics Web App from Instance 1 - Azure



Welcome to the Logistics Web App from Instance 2 - Azure



VPC:

Screenshot of the AWS VPC Details page for 'LogisticsVPC' (VPC ID: vpc-01f4485b06a6dc69b).

Details

VPC ID: vpc-01f4485b06a6dc69b	State: Available	Block Public Access: Off	DNS hostnames: Disabled
DNS resolution: Enabled	Tenancy: default	DHCP option set: dopt-0cc5f5681a533a25a	Main route table: rtb-0626a5ddc5a65821a
Main network ACL: acl-049c48240150f9579	Default VPC: No	IPv4 CIDR: 10.0.0.0/16	IPv6 pool: -
IPv6 CIDR (Network border group): -	Network Address Usage metrics: Disabled	Route 53 Resolver DNS Firewall rule groups: Failed to load rule groups	Owner ID: 311585951274

Resource map

```

graph LR
    VPC[VPC] --- Subnets[Subnets]
    Subnets --- us_east_1a_us_east_1b[us-east-1a  
us-east-1b]
    us_east_1a_us_east_1b --- PublicSubnet1[PublicSubnet1]
    us_east_1a_us_east_1b --- PrivateSubnet1[PrivateSubnet1]
    us_east_1a_us_east_1b --- PublicSubnet2[PublicSubnet2]
    us_east_1a_us_east_1b --- PrivateSubnet2[PrivateSubnet2]
    Subnets --- RouteTables[Route tables]
    RouteTables --- PrivateRouteTable[PrivateRouteTable]
    RouteTables --- PublicRouteTable[PublicRouteTable]
    RouteTables --- rtb_0626a5ddc5a65821a[rtb-0626a5ddc5a65821a]
    Subnets --- NetworkConnection[Network Connection]
    NetworkConnection --- LogisticsIGW[LogisticsIGW]
    
```

Internet Gateway:

Screenshot of the AWS Internet Gateways Details page for 'LogisticsIGW' (Internet gateway ID: igw-014da2f344dacf11f).

Details

Internet gateway ID: igw-014da2f344dacf11f	State: Attached	VPC ID: vpc-01f4485b06a6dc69b LogisticsVPC	Owner: 311585951274
--	-----------------	--	---------------------

Tags (1)

Key	Value
Name	LogisticsIGW

Subnets:

The screenshot shows the AWS VPC Subnets page. The left sidebar includes a 'VPC dashboard' section with 'Your VPCs' and 'Subnets' selected. The main content area displays a table titled 'Subnets (4) Info' with the following data:

Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR
PrivateSubnet2	subnet-085412494b8ffdc5e	Available	vpc-01f4485b06a6dc69b LogisticsVPC	Off	10.0.3.0/24
PublicSubnet	subnet-04e45a3de4f262fa5	Available	vpc-01f4485b06a6dc69b LogisticsVPC	Off	10.0.1.0/24
PublicSubnet1	subnet-04ea21dfa3718449d	Available	vpc-01f4485b06a6dc69b LogisticsVPC	Off	10.0.4.0/24
PrivateSubnet1	subnet-00c2ae2d693ddaf8c	Available	vpc-01f4485b06a6dc69b LogisticsVPC	Off	10.0.2.0/24

Route tables:

The screenshot shows the AWS VPC Route tables page. The left sidebar includes a 'VPC dashboard' section with 'Your VPCs' and 'Route tables' selected. The main content area displays a table titled 'Route tables (4) Info' with the following data:

Name	Route table ID	Explicit subnet assoc...	Edge associations	Main	VPC	Owner ID
PrivateRouteTable	rtb-04ad5447800fd76e1	2 subnets	-	No	vpc-01f4485b06a6dc69b Logi...	311585951274
PublicRouteTable	rtb-0faafc576163b854f	2 subnets	-	No	vpc-01f4485b06a6dc69b Logi...	311585951274
-	rtb-0626a5ddc5a65821a	-	-	Yes	vpc-01f4485b06a6dc69b Logi...	311585951274
-	rtb-08f9cc30208ed3ef6	-	-	Yes	vpc-0e579c80939999804	311585951274

Public RouteTable with IGW Route:

The screenshot shows the AWS VPC Route Tables page. The main title is "rtb-Ofaafc576163b854f / PublicRouteTable". The "Routes" tab is selected, displaying two routes:

Destination	Target	Status	Propagated	Route Origin
0.0.0.0/0	igw-014da2f344dacf11f	Active	No	Create Route
10.0.0.0/16	local	Active	No	Create Route Table

Public route table associated with public subnets:

The screenshot shows the AWS VPC Route Tables page. The main title is "rtb-Ofaafc576163b854f / PublicRouteTable". The "Subnet associations" tab is selected, showing two explicit subnet associations:

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
PublicSubnet	subnet-04e45a3de4f262fa5	10.0.1.0/24	-
PublicSubnet1	subnet-04ea21dfa3718449d	10.0.4.0/24	-

Private route table associated with private subnets:

The screenshot shows the AWS VPC Route Tables page. The route table ID is rtb-04ad5447800fd76e1. It has two explicit subnet associations: PrivateSubnet2 (subnet-085412494b8ffdc5e) and PrivateSubnet1 (subnet-00c2ae2d693ddaf8c). There are no edge associations.

EC2-Instance 1 launched in private subnet1 (az- us-east-1a):

The screenshot shows the AWS EC2 Instances page. The instance ID is i-00ddc53b3ad4a405f. The instance is running in a private subnet (PrivateSubnet1). The instance type is t3.micro and it is connected to the vpc-01f4485b06a6dc69b (LogisticsVPC).

EC2-Instance 2 launched in private subnet 2 - (az- us-east-1b):

Instance summary for i-097439a10db2db4d3 (EC2-WebServer2)

Public IPv4 address: 3.87.9.254 | [open address](#)

Instance state: Running

Private IP DNS name (IPv4 only): ip-10-0-3-129.ec2.internal

Instance type: t3.micro

VPC ID: vpc-01f4485b06a6dc69b (LogisticsVPC)

Subnet ID: subnet-085412494b8ffdc5e (PrivateSubnet2)

Instance ARN: arn:aws:ec2:us-east-1:311585951274:instance/i-097439a10db2db4d3

ApplicationLoadBalancer launched in Public subnet (us-east-1a, us-east-1b):

LogisticsAWSLB

Details

Status: Active

VPC: vpc-01f4485b06a6dc69b

Availability Zones: subnet-04e45a3de4f262fa5 (us-east-1a), subnet-04ea21dfa3718449d (us-east-1b)

Load balancer ARN: arn:aws:elasticloadbalancing:us-east-1:311585951274:loadbalancer/app/LogisticsAWSLB/412f72dbd7671338

DNS name info: LogistcsAWSLB-810872014.us-east-1.elb.amazonaws.com (A Record)

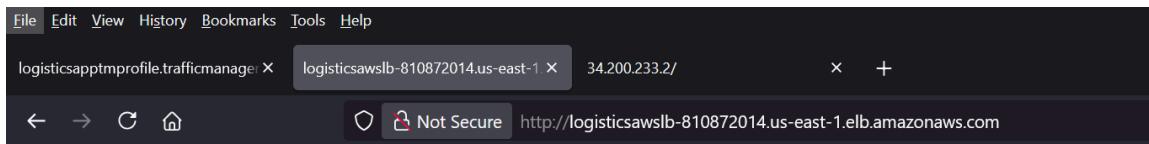
Listeners and rules (1)

Protocol:Port	Default action	Rules	ARN	Security policy	Default SSL/TLS certificate	mTLS
HTTP:80	Forward to target group LogisticsTargetGroup	1 rule	ARN	Not applicable	Not applicable	Not applicable

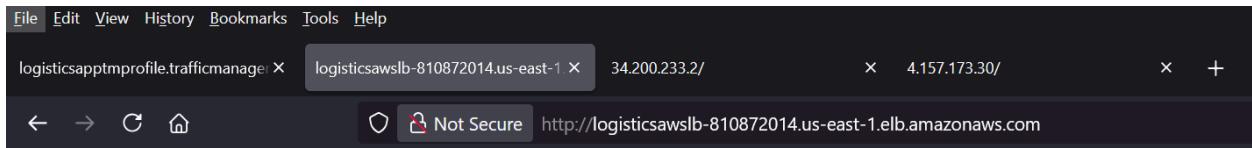
AWS Load Balancer Endpoint:

<http://logisticsawslb-810872014.us-east-1.elb.amazonaws.com/>

ELB routing to EC2 instances:



Welcome to the Logistics Web App from Instance 2 - AWS



Welcome to the Logistics Web App from Instance 1 - AWS

Traffic Manager Profile:

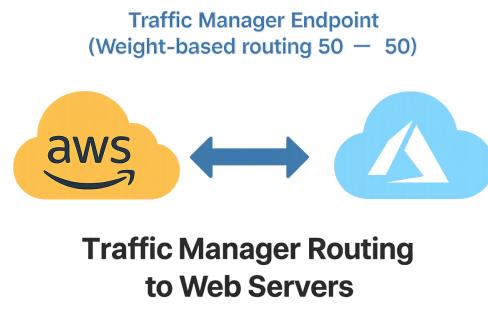
A screenshot of the Microsoft Azure portal showing the "LogisticsAppTProfile" Traffic Manager profile. The "Overview" tab is selected. Key details shown include:

- Resource group: LogisticsRG
- Subscription: Simplilearn HOL 60
- Subscription ID: 72e1cd01-f24f-4581-939e-4bb07fc033fc
- Status: Enabled
- Location: global
- Tags: Add tags
- DNS Name: http://logisticsapptprofile.trafficmanager.net
- Monitor Status: Online
- Routing Method: Weighted
- Endpoints: 2

The "Get Started" button is highlighted. Below the main details, a note states: "Azure Traffic Manager is a DNS-based traffic load balancer. This service allows you to distribute traffic to your public facing applications across the global Azure regions. Traffic Manager also provides your public endpoints with high availability and quick responsiveness." There are four buttons at the bottom: "Azure Traffic Manager Documentation", "Add endpoint", "Traffic view", and "Configuration".

Added AWS Load balancer endpoint
[\(http://logisticsawslb-810872014.us-east-1.elb.amazonaws.com/\)](http://logisticsawslb-810872014.us-east-1.elb.amazonaws.com/)
as external endpoint in Azure Traffic Manager Policy using Weight-based routing

Name	Status	Monitor Status	Type	Weight
AzTMEndpoint	Enabled	Online	Azure endpoint	50
AWSLBEndPoint	Enabled	Online	External endpoint	50

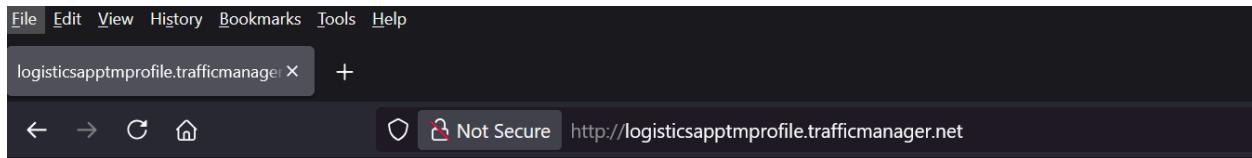


TrafficManager Endpoint: -

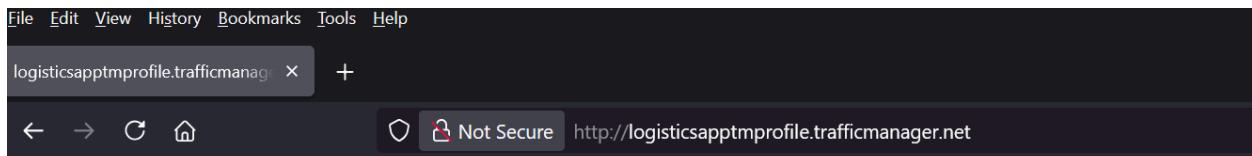
<http://logisticsapptmprofile.trafficmanager.net/>

Testing:

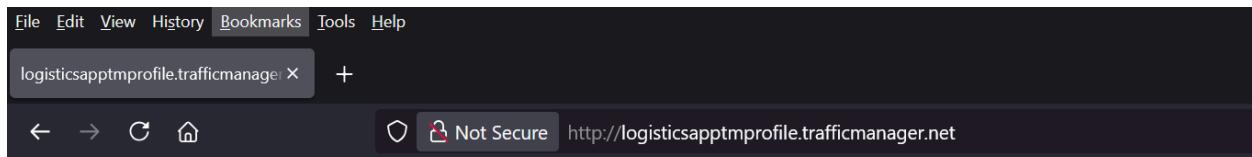
- Simulated failure of Azure LB by stopping both VMs - Traffic Manager rerouted to AWS
- Simulated AWS ALB failure - Traffic Manager rerouted to Azure frontend IP.



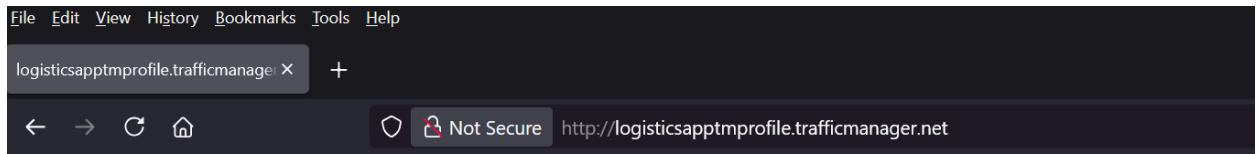
Welcome to the Logistics Web App from Instance 1 - AWS



Welcome to the Logistics Web App from Instance 2 - AWS



Welcome to the Logistics Web App from Instance 2 - Azure



Welcome to the Logistics Web App from Instance 1 - Azure