



ResourceGroup:

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

Essentials

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)	: SimpleHOL60	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:

Home > CreateVm-canonical.ubuntu-24_04-lts-server-20251106115218 | Overview >

VMWebServer-1 Virtual machine

Search <> Help me copy this VM in any region Manage this VM with Azure CLI

Overview

Activity log Access control (IAM) Tags Diagnose and solve problems Resource visualizer

> Connect Networking Settings Availability + scale Security Backup + disaster recovery Operations Monitoring Automation Help

Advisor (1 of 1): Migrate workload to Virtual Machine Scale Sets Flex → Help me copy this VM in any region

Connect Start Stop Hibernate Capture Refresh Delete Scale Open in mobile Feedback CLI / PS

Essentials

Resource group (move) : LogisticsRG Status : Running Location : East US (Zone 1) Subscription (move) : 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

Tags (edit) : Add tags

Properties Monitoring Capabilities (7) Recommendations (1) Tutorials

Virtual machine

Computer name	VMWebServer-1
Operating system	Linux (ubuntu 24.04)
VM generation	V2
VM architecture	x64

Networking

Public IP address	40.90.233.140 (Network interface vmwebserver-170_z1) 1 associated public IPs
Public IP address (IPv6)	-
Private IP address	10.0.1.4

Add or remove favorites by pressing Ctrl+Shift+F

Virtual Machine - 2:

Home > CreateVm-canonical.ubuntu-24_04-lts-server-20251106115235 | Overview >

VMWebServer-2 Virtual machine

Search <> Help me copy this VM in any region Manage this VM with Azure CLI

Overview

Activity log Access control (IAM) Tags Diagnose and solve problems Resource visualizer

> Connect Networking Settings Availability + scale Security Backup + disaster recovery Operations Monitoring Automation Help

Advisor (1 of 1): Migrate workload to Virtual Machine Scale Sets Flex → Help me copy this VM in any region

Connect Start Stop Hibernate Capture Refresh Delete Scale Open in mobile Feedback CLI / PS

Essentials

Resource group (move) : LogisticsRG Status : Running Location : East US (Zone 1) Subscription (move) : 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

Tags (edit) : Add tags

Properties Monitoring Capabilities (7) Recommendations (1) Tutorials

Virtual machine

Computer name	VMWebServer-2
Operating system	Linux (ubuntu 24.04)
VM generation	V2
VM architecture	x64

Networking

Public IP address	20.106.185.255 (Network interface vmwebserver-2556_z1) 1 associated public IPs
Public IP address (IPv6)	-
Private IP address	10.0.2.4

Add or remove favorites by pressing Ctrl+Shift+F

FrontEnd IP:

AzureFrontEndIP Public IP address

Overview

Essentials

- Resource group ([move](#)) **LogisticsRG**
- Location ([move](#)) **East US**
- Subscription ([move](#)) **Simplilearn HOL_60**
- Subscription ID **72e1cd01-f24f-4581-939e-4bb07fc033fc**
- Tags ([edit](#)) [Add tags](#)

SKU **Standard**

Tier **Regional**

IP address **4.157.173.30**

DNS name **logisticsappazure.eastus.cloudapp.azure.com**

Associated to **LogisticsAzureLB**

Virtual machine **-**

Virtual Machines added in BackendPool:

Microsoft Azure

Home > Load balancing and content delivery | Load balancers > Create load balancer >

Add backend pool ...

Name * **AZBackendPool**

Virtual network **Logistics-VNet (LogisticsRG)**

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.

Backend Pool Configuration

NIC

IP address

IP configurations

IP configurations associated to virtual machines and virtual machine scale sets must be in same location as the load balancer and be in the same virtual network.

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	-

HealthProbe:

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

Load Balancer:

Configure high availability and scalability for your applications

Create highly-available and scalable applications in minutes by using built-in load balancing for cloud services and virtual machines. Azure Load Balancer supports TCP/UDP-based protocols and protocols used for real-time voice and video messaging applications. [Learn more](#)

Balance IPv4 and IPv6 addresses

Native dual-stack endpoints help meet regulatory requirements and address the fast-growing number of devices in mobile and IoT. [Learn more](#)

[View frontend IP configuration](#)

[View backend pools](#)

Build highly reliable applications

Azure Load Balancer improves application uptime by routing traffic to healthy nodes. [Learn more](#)

[View health probes](#)

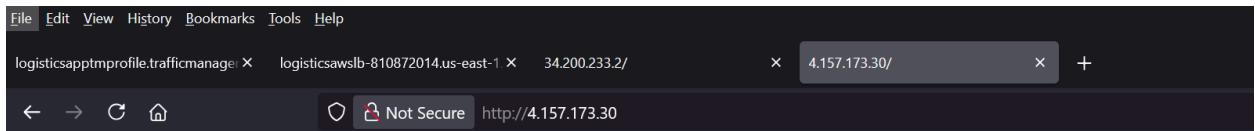
[View load balancing rules](#)

Secure your networks

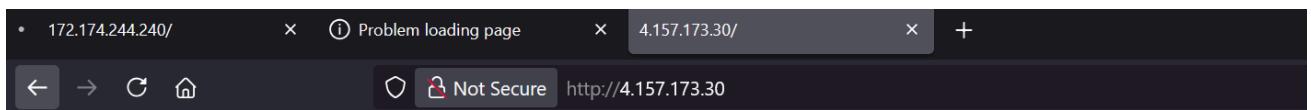
Control network traffic and protect private networks using built-in network address translation (NAT). [Learn more](#)

[View inbound NAT rules](#)

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:

The screenshot shows the AWS VPC Details page for the VPC `vpc-01f4485b06a6dc69b`. The main header displays the VPC ID and name. The left sidebar includes navigation links for VPC dashboard, AWS Global View, Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, NAT gateways, Peering connections, Route servers), Security (Network ACLs, Security groups), and PrivateLink and Lattice (Getting started, Endpoints, Endpoint services, Service networks, Lattice services, Resource configurations). The main content area is divided into two sections: 'Details' and 'Resource map'. The 'Details' section contains various configuration parameters such as VPC ID, State (Available), DNS resolution (Enabled), Main network ACL (acl-049c48240150f9579), IPv6 CIDR (Network border group) (-), Block Public Access (Off), DHCP option set (dopt-0cc5f56b1a533a23a), IPv4 CIDR (10.0.0.0/16), Network Address Usage metrics (Disabled), and Route 53 Resolver DNS Firewall rule groups (Failed to load rule groups). The 'Resource map' section provides a visual representation of the VPC structure, showing the VPC itself, four subnets (us-east-1a: PublicSubnet, us-east-1a: PrivateSubnet1; us-east-1b: PublicSubnet1, us-east-1b: PrivateSubnet2), three route tables (PrivateRouteTable, PublicRouteTable, rtb-0626a5ddc5a65821a), and a Network Connection to LogisticsIGW.

Internet Gateway:

The screenshot shows the AWS Internet Gateway Details page for the Internet gateway `igw-014da2f344dacf11f`. The left sidebar includes navigation links for VPC dashboard, AWS Global View, Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways), and DHCP option sets. The main content area displays the 'Details' section, which includes the Internet gateway ID (igw-014da2f344dacf11f), State (Attached), VPC ID (vpc-01f4485b06a6dc69b | LogisticsVPC), and Owner (311585951274). Below the details, there is a 'Tags (1)' section with a single tag named 'LogisticsIGW'.

Subnets:

VPC > Subnets

Subnets (4) Info

Last updated less than a minute ago

Actions Create subnet

Find subnets by attribute or tag

VPC: vpc-01f4485b06a6dc69b X Clear filters

Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR
PrivateSubnet2	subnet-085412494b8ffd5e	Available	vpc-01f4485b06a6dc69b LogisticsVPC	Off	10.0.3.0/24
PublicSubnet	subnet-04e45a3d4e4f262fa5	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-002ae2d693ddaf8c	Available	vpc-01f4485b06a6dc69b LogisticsVPC	Off	10.0.2.0/24

Route tables:

VPC > Route tables

Route tables (4) Info

Last updated 3 minutes ago

Actions Create route table

Find route tables by attribute or tag

Name	Route table ID	Explicit subnet associ...	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:

VPC dashboard < **AWS Global View** **Filter by VPC**

Virtual private cloud

- Your VPCs
- Subnets
- Route tables**
- Internet gateways
- Egress-only internet gateways
- Carrier gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- NAT gateways
- Peering connections
- Route servers [New](#)
- Security

rtb-Ofaafc576163b854f / PublicRouteTable

Details **Info**

Route table ID rtb-Ofaafc576163b854f	Main <input checked="" type="checkbox"/> No	Explicit subnet associations subnet-04e45a3de4f262fa5 / PublicSubnet	Edge associations -
VPC vpc-01f4485b06a6dc69b LogisticsVPC	Owner ID 311585951274		

Routes **Subnet associations** **Edge associations** **Route propagation** **Tags**

Routes (2)

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

Actions

Public route table associated with public subnets:

VPC dashboard < **AWS Global View** **Filter by VPC**

Virtual private cloud

- Your VPCs
- Subnets
- Route tables**
- Internet gateways
- Egress-only internet gateways
- Carrier gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- NAT gateways
- Peering connections
- Route servers [New](#)
- Security

rtb-Ofaafc576163b854f / PublicRouteTable

Details **Info**

Route table ID rtb-Ofaafc576163b854f	Main <input checked="" type="checkbox"/> No	Explicit subnet associations 2 subnets	Edge associations -
VPC vpc-01f4485b06a6dc69b LogisticsVPC	Owner ID 311585951274		

Routes **Subnet associations** **Edge associations** **Route propagation** **Tags**

Explicit subnet associations (2)

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

Subnets without explicit associations (0)

The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
------	-----------	-----------	-----------

Actions

Private route table associated with private subnets:

You have successfully updated subnet associations for rtb-04ad5447800fd76e1 / PrivateRouteTable.

rtb-04ad5447800fd76e1 / PrivateRouteTable

Details Info

Route table ID rtb-04ad5447800fd76e1	Main <input checked="" type="checkbox"/> No	Explicit subnet associations 2 subnets	Edge associations -
VPC vpc-01f4485b06a6dc69b LogisticsVPC	Owner ID 311585951274		

Routes Subnet associations Edge associations Route propagation Tags

Explicit subnet associations (2)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
PrivateSubnet2	subnet-08541249b8ffdc5e	10.0.3.0/24	-
PrivateSubnet1	subnet-00c2ae2d693ddaf8c	10.0.2.0/24	-

[Edit subnet associations](#)

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

Instance summary for i-00ddc53b3ad4a405f (EC2-WebSrv1)

Updated less than a minute ago

Instance ID i-00ddc53b3ad4a405f	Private IPv4 address 34.200.233.2 [open address]	Private IPv4 addresses 10.0.2.168
IPv6 address -	Instance state Running	Public DNS -
Hostname type IP name: ip-10-0-2-168.ec2.internal	Private IP DNS name (IPv4 only) ip-10-0-2-168.ec2.internal	Elastic IP addresses -
Answer private resource DNS name -	Instance type t3.micro	AWS Compute Optimizer finding <small>User: arn:aws:iam::311585951274:user/odl_user_19 is authorized to perform: compute-optimizer:GetEnrollmentStatus action</small>
Auto-assigned IP address 34.200.233.2 [Public IP]	VPC ID vpc-01f4485b06a6dc69b (LogisticsVPC)	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-00c2ae2d693ddaf8c (PrivateSubnet1)	Managed false
IMDSv2 Required	Instance ARN arn:aws:ec2:us-east-1:311585951274:instance/i-00ddc53b3ad4a405f	

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

Instance summary for i-097439a10db2db4d3 (EC2-WebServer2) [Info](#)

Updated less than a minute ago

Instance ID	3.87.9.254 open address	Public IPv4 address	10.0.3.129 open address
IPv6 address	-	Instance state	Running
Hostname type	IP name: ip-10-0-3-129.ec2.internal	Private IP DNS name (IPv4 only)	ip-10-0-3-129.ec2.internal
Answer private resource DNS name	-	Instance type	t3.micro
Auto-assigned IP address	3.87.9.254 [Public IP]	VPC ID	vpc-01f4485b06a6dc69b [LogisticsVPC] Edit
IAM Role	-	Subnet ID	subnet-085412494b8ffdc5e (PrivateSubnet2) Edit
IMDSv2	Required	Instance ARN	arn:aws:ec2:us-east-1:311585951274:instance/i-097439a10db2db4d3
Operator	-		

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

LogisticsAWSLB

Details

Load balancer type	Status	VPC	Load balancer IP address type
Application	Active	vpc-01f4485b06a6dc69b Edit	IPv4
Scheme	Hosted zone	Availability Zones	Date created
Internet-facing	Z35SXDOTRQ7X7K	subnet-04e45a3de4f262fa5 us-east-1a (use1-az1) subnet-04ea21dfa3718449d us-east-1b (use1-az2)	November 5, 2025, 14:45 (UTC-08:00)

Listeners and rules

Listeners and rules (1) [Info](#)

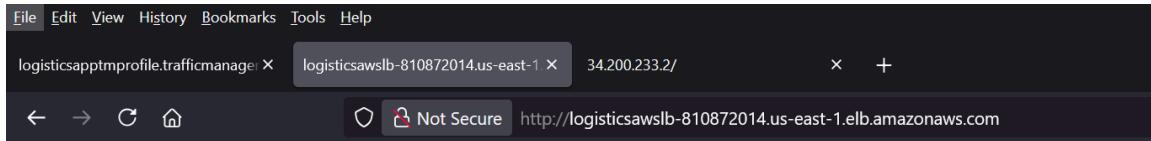
A listener checks for connection requests on its configured protocol and port. Traffic received by the listener is routed according to the default action and any additional rules.

Protocol:Port	Default action	Rules	ARN	Security policy	Default SSL/TLS certificate	mTLS
HTTP:80	Forward to target group LogisticsTargetGroup : 1 (100%) Target group stickiness: Off	1 rule	ARN	Not applicable	Not applicable	Not applicable

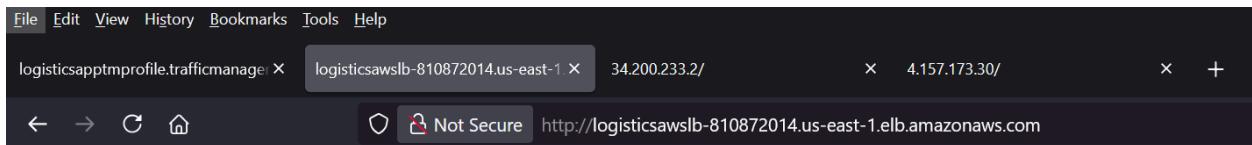
AWS Load Balancer Endpoint:

<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. The left sidebar shows the navigation path: Home > LogisticsAppTMProfile_176238996482 | Overview >. The main content area is titled "LogisticsAppTMProfile" and shows the "Overview" tab selected. It displays basic profile information: Resource group (LogisticsRG), Subscription (Simplilearn HOL 60), Status (Enabled), Location (global), and DNS Name (http://logisticsapptmprofile.trafficmanager.net). The "Essentials" section also lists Monitor Status (Online), Routing Method (Weighted), and Endpoints (2). Below the overview, there are links for "Get Started", "Tutorials", and "Tools + SDK". A note at the bottom 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 endpoint availability and quick responsiveness." At the bottom, there are four cards: "Azure Traffic Manager Documentation", "Add endpoint", "Traffic view", and "Configuration".

Added AWS Load balancer endpoint

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

as external endpoint in Azure Traffic Manager Policy using Weight-based routing

Home > LogisticsAppTMProfile_1762378996482 | Overview > LogisticsAppTMProfile

LogisticsAppTMProfile | Endpoints

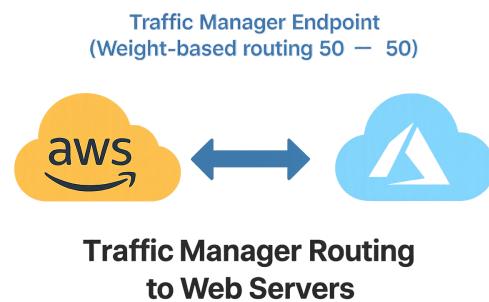
Traffic Manager profile

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

Search endpoints

Endpoints

- Overview
- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Settings
 - Locks
 - Configuration
 - Real user measurements
 - Traffic view
- Endpoints
- Properties

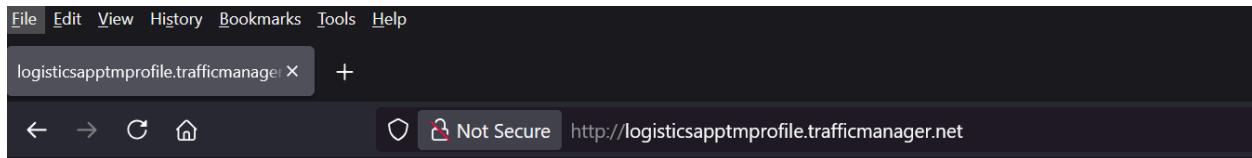


TrafficManager Endpoint: -

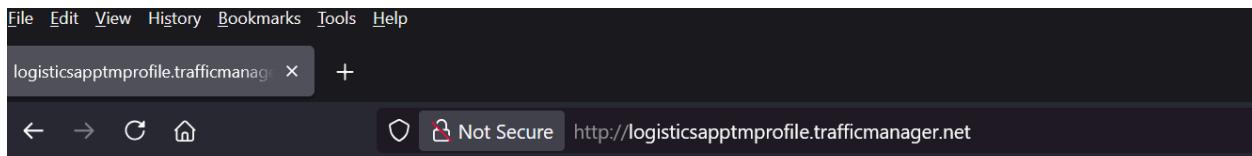
<http://logisticsapptmprofile.trafficmanager.net/>

Testing:

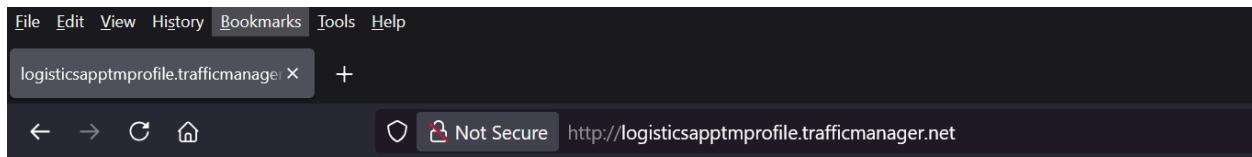
- Simulated failure of Azure LB by stopping both VMs - Traffic Manager rerouted to AWS
- Simulated AWS ALB failure - Traffic Manager rerouted to Azure frontend IP.



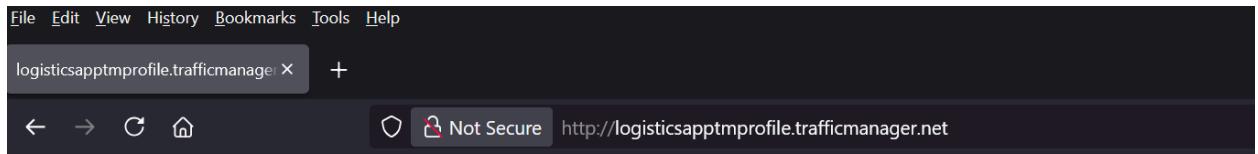
Welcome to the Logistics Web App from Instance 1 - AWS



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