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Інформатика і програмування

Лабораторна робота No 6

Тема: Implement Network Traffic Management

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Task 1: Use a template to provision an infrastructure

In this task, you will use a template to deploy one virtual network, one network security group, and three virtual machines.

The screenshot shows the Microsoft Azure portal interface for the resource group 'az104-rg6'. The left sidebar contains navigation links for Overview, Activity log, Access control (IAM), Tags, Resource visualizer, Events, Settings, Deployments, Security, Deployment stacks, Policies, Properties, Locks, Cost Management, Monitoring, Automation, and Help. The main content area shows the 'Overview' tab with a search bar and a list of resources. The resources are listed in a table with columns for Name, Type, and Location. The resources include three network interfaces (az104-06-nic0, az104-06-nic1, az104-06-nic2), one network security group (az104-06-nsg1), three virtual machines (az104-06-vm0, az104-06-vm1, az104-06-vm2), three disks (az104-06-vm0_disk1, az104-06-vm1_disk1, az104-06-vm2_disk1), and one virtual network (az104-06-vnet1). All resources are located in the East US region.

Name	Type	Location
az104-06-nic0	Network interface	East US
az104-06-nic1	Network interface	East US
az104-06-nic2	Network interface	East US
az104-06-nsg1	Network security group	East US
az104-06-vm0	Virtual machine	East US
az104-06-vm0_disk1	Disk	East US
az104-06-vm1	Virtual machine	East US
az104-06-vm1_disk1	Disk	East US
az104-06-vm2	Virtual machine	East US
az104-06-vm2_disk1	Disk	East US
az104-06-vnet1	Virtual network	East US

Task 2: Configure an Azure Load Balancer

In this task, you implement an Azure Load Balancer in front of the two Azure virtual machines in the virtual network. Load Balancers in Azure provide layer 4 connectivity across resources, such as virtual machines. Load Balancer configuration includes a front-end IP address to accept connections, a backend pool, and rules that define how connections should traverse the load balancer.

az104-lb - Microsoft Azure

portal.azure.com/?l=en.en-gb#@vladkeeksgmail.onmicrosoft.com/resource/subscriptio...

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Home >

az104-lb Load balancer

Check performance for my Load Balancer Analyze traffic flow through this load balancer +1

Search

Move Delete Refresh Give feedback

Overview

- Activity log
- Access control (IAM)
- Tags
- Diagnose and solve problems
- Resource visualizer
- Settings
- Monitoring
- Automation
- Help

Essentials JSON View

Resource group (move)	Backend pool
az104-rg6	az104-be (2 virtual machines)
Location (move)	Load balancing rule
East US	-
Subscription (move)	Health probe
Azure subscription 1	-
Subscription ID	Inbound NAT rules
9889ebc0-ca1f-4e0d-8116-0764f6dbd196	-
SKU	Outbound rules
Standard	-
Tier	Frontend IP address
Regional	4.157.227.243 (az104-lbpip)
Tags (edit)	
Add tags	

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

Add or remove favorites by pressing Ctrl+Shift+F

az104-lb - Microsoft Azure

4.157.227.243

Not secure 4.157.227.243

Hello World from az104-06-vm1

Task 3: Configure an Azure Application Gateway

az104-appgw - Microsoft Azure

4.157.227.243

portal.azure.com/?l=en-en-gb#@vladkeeksgmail.onmicrosoft.com/resource/subscriptio...

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Home > Microsoft.ApplicationGateway-20251212183940 | Overview > az104-rg6 > az104-appgw

az104-appgw | Backend health

Application gateway

Search

Refresh

Feedback

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Resource visualizer

Settings

Monitoring

Alerts

Metrics

Diagnostic settings

Logs

Advisor recommendations

Insights

Backend health

Connection troubleshoot

Automation

Help

Backend health

By default, Azure Application Gateway probes backend servers to check their health and whether they're ready to serve requests. You can also create custom [Health Probes](#) to mention a specific hostname and path to be probed or a response code to be accepted as Healthy.

The Backend health report is updated based on the respective probe's refresh interval and doesn't depend on the page refresh.

All

4 out of 4

Healthy

4 out of 4

Search backend health

Server (backend...↑↓	Status	↑↓	Port (Backend s...↑↓	Protocol	↑↓	Details
10.60.2.4 (az104-app...	Healthy		80 (az104-http)	Http		Success. Recei code
10.60.1.4 (az104-app...	Healthy		80 (az104-http)	Http		Success. Recei code
10.60.2.4 (az104-vid...	Healthy		80 (az104-http)	Http		Success. Recei code
10.60.1.4 (az104-ima...	Healthy		80 (az104-http)	Http		Success. Recei code

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