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Карпатський національний університет
імені В.Стефаника

Факультет математики та інформатики
Кафедра інформаційних технологій

Інформатика і програмування

Лабораторна робота No 7

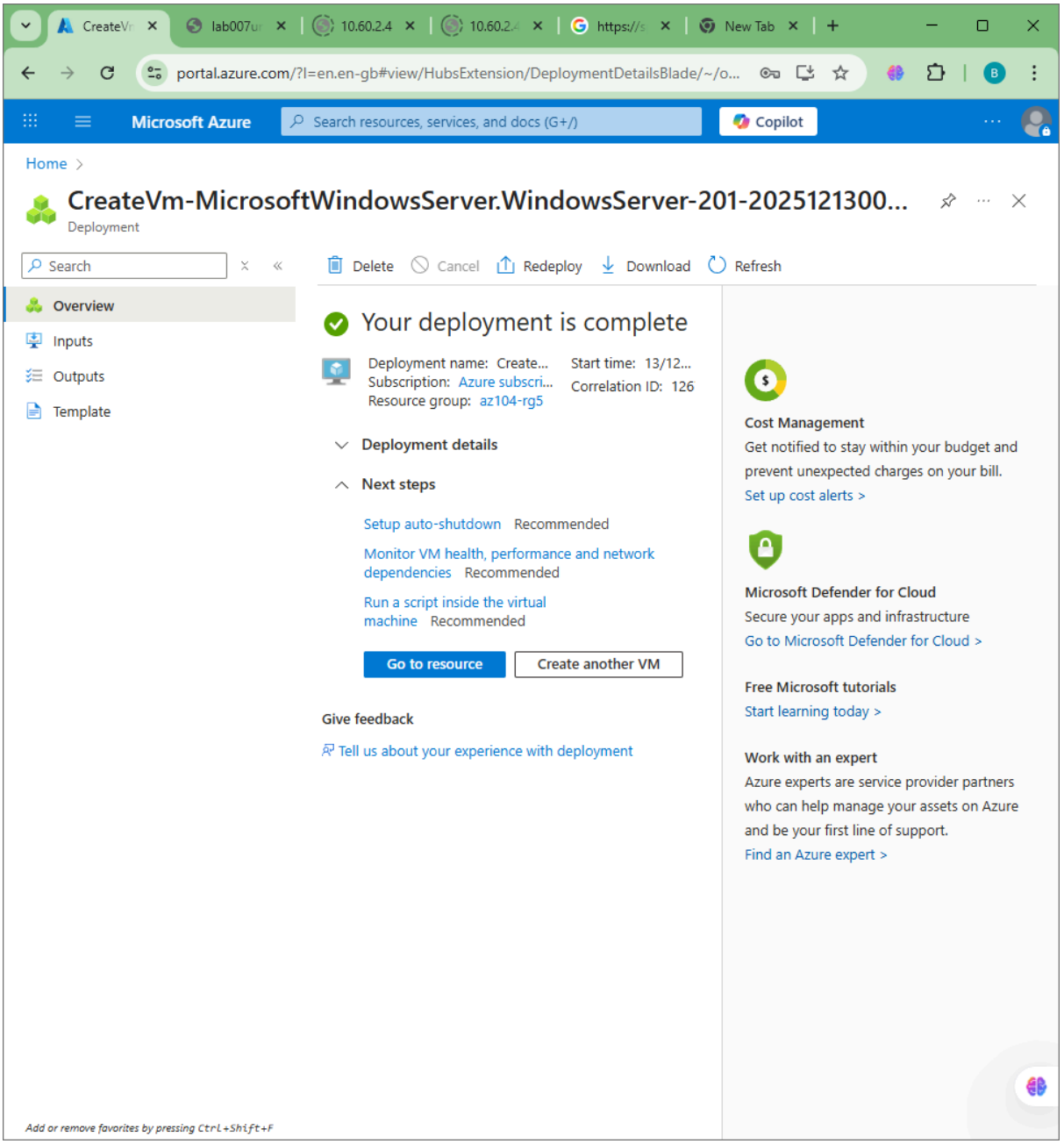
Тема: Implement Intersite Connectivity

Виконав: Прокутко В.В
Група ІПЗ-43
Дата: 12 грудня 2025
Викладач: Поварчук Д.Д

Івано-Франківськ – 2025

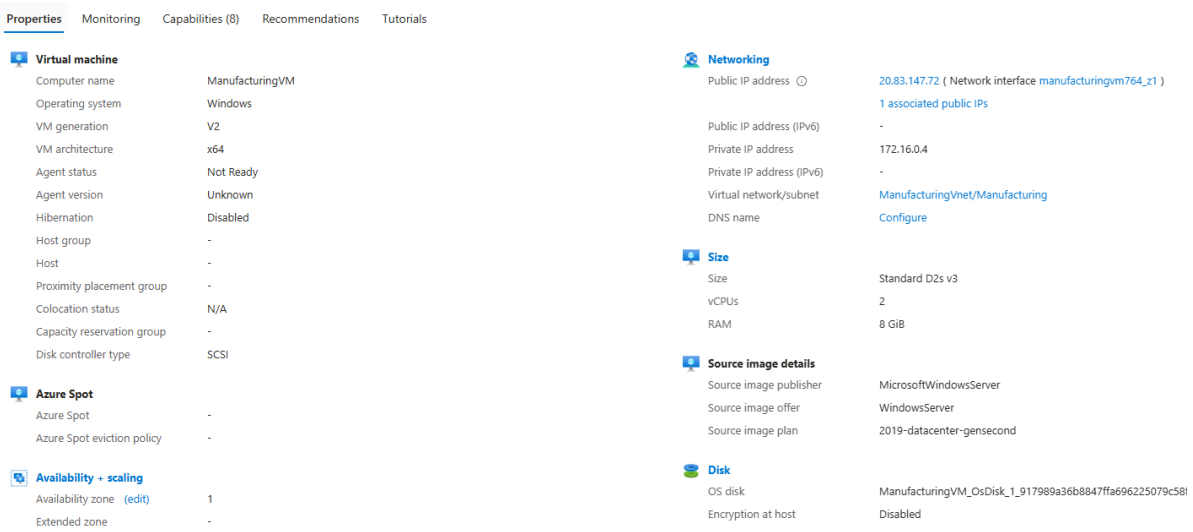
Task 1: Create a core services virtual machine and virtual network

In this task, you create a core services virtual network with a virtual machine.



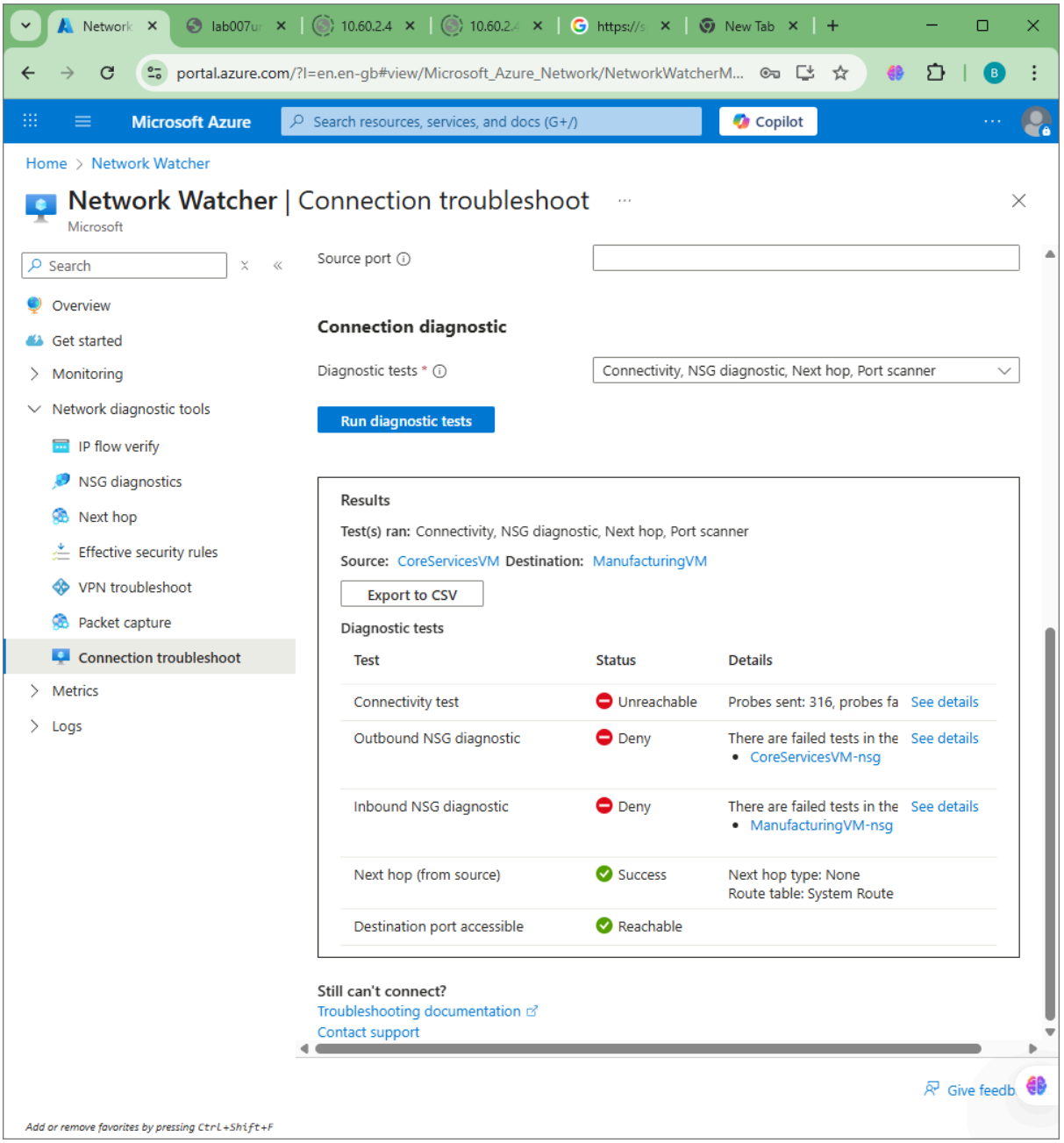
Task 2: Create a virtual machine in a different virtual network

In this task, you create a manufacturing services virtual network with a virtual machine.



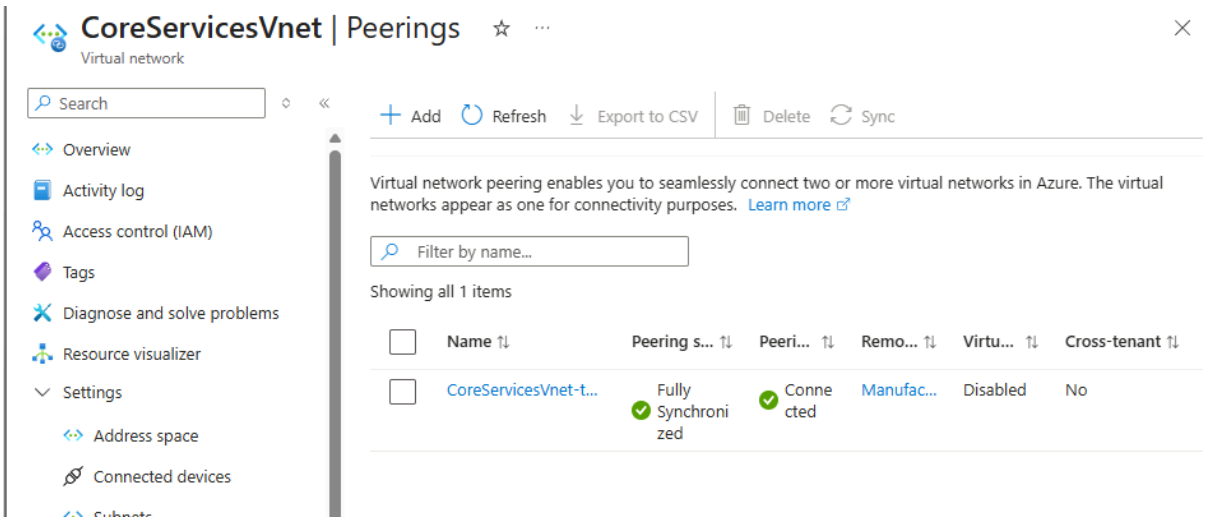
Task 3: Use Network Watcher to test the connection between virtual machines

In this task, you verify that resources in peered virtual networks can communicate with each other. Network Watcher will be used to test the connection. Before continuing, ensure both virtual machines have been deployed and are running.



Task 4: Configure virtual network peerings between virtual networks

In this task, you create a virtual network peering to enable communications between resources in the virtual networks.



Task 5: Use Azure PowerShell to test the connection between virtual machines

In this task, you retest the connection between the virtual machines in different virtual networks.

there is error, idk why

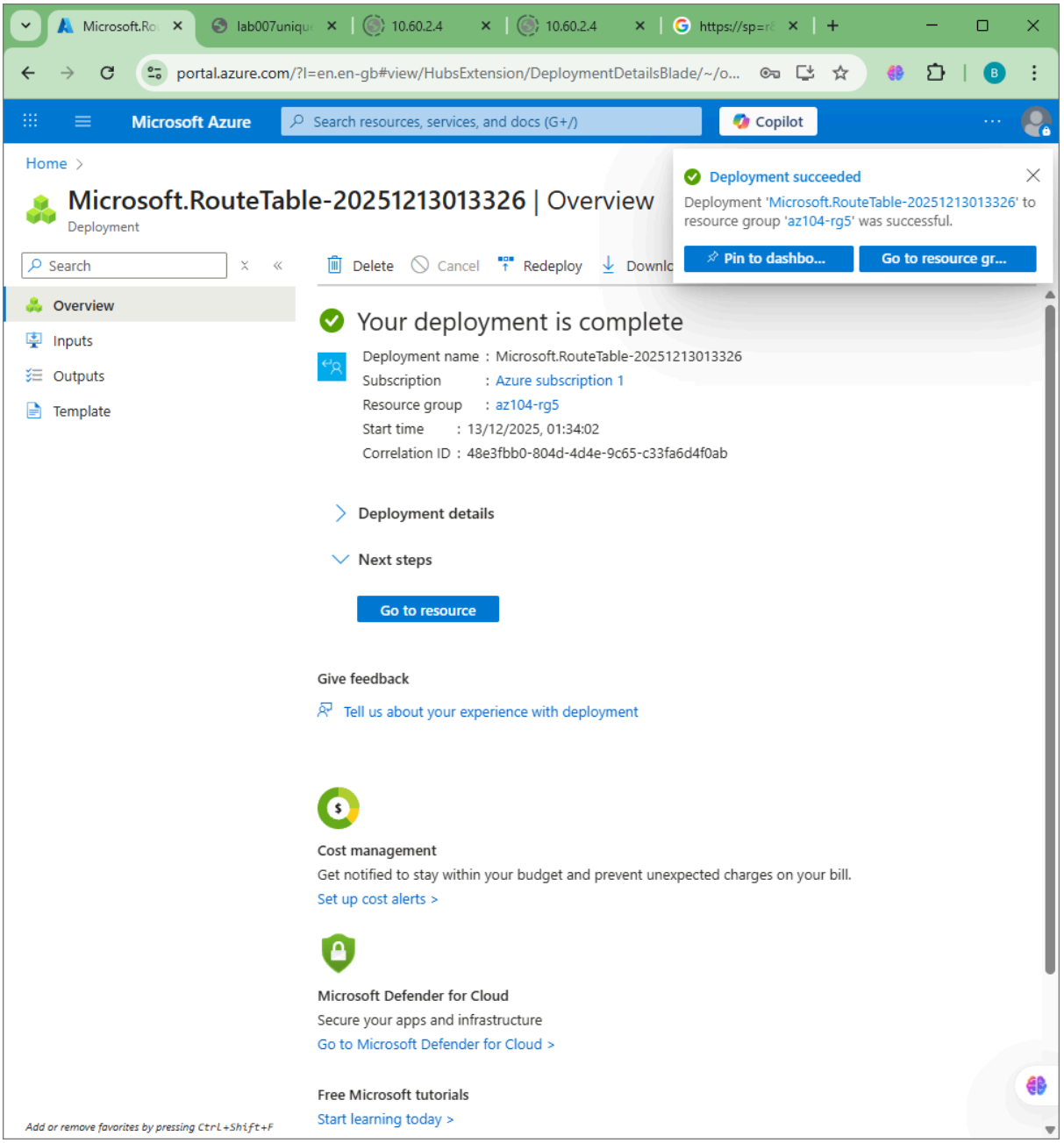
Output

```
WARNING: TCP connect to (10.0.0.4 : 3389) failed
WARNING: Ping to 10.0.0.4 failed with status: TimedOut


ComputerName            : 10.0.0.4
RemoteAddress           : 10.0.0.4
RemotePort              : 3389
InterfaceAlias          : Ethernet
SourceAddress           : 172.16.0.4
PingSucceeded           : False
PingReplyDetails (RTT) : 0 ms
TcpTestSucceeded        : False
```

Task 6: Create a custom route

In this task, you want to control network traffic between the perimeter subnet and the internal core services subnet. A virtual network appliance will be installed in the perimeter subnet and all traffic should be routed there.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portal.azure.com/?l=en.en-gb#view/HubsExtension/DeploymentDetailsBlade/~/o...
Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
Home
Microsoft.RouteTable-20251213013326 | Overview
Deployment
Deployment succeeded
Deployment 'Microsoft.RouteTable-20251213013326' to resource group 'az104-rg5' was successful.
Pin to dashbo...
Go to resource gr...
Search
Delete
Cancel
Redeploy
Downlo
Overview
Inputs
Outputs
Template
Your deployment is complete
Deployment name : Microsoft.RouteTable-20251213013326
Subscription : Azure subscription 1
Resource group : az104-rg5
Start time : 13/12/2025, 01:34:02
Correlation ID : 48e3fbb0-804d-4d4e-9c65-c33fa6d4f0ab
Deployment details
Next steps
Go to resource
Give feedback
Tell us about your experience with deployment
Cost management
Get notified to stay within your budget and prevent unexpected charges on your bill.
Set up cost alerts >
Microsoft Defender for Cloud
Secure your apps and infrastructure
Go to Microsoft Defender for Cloud >
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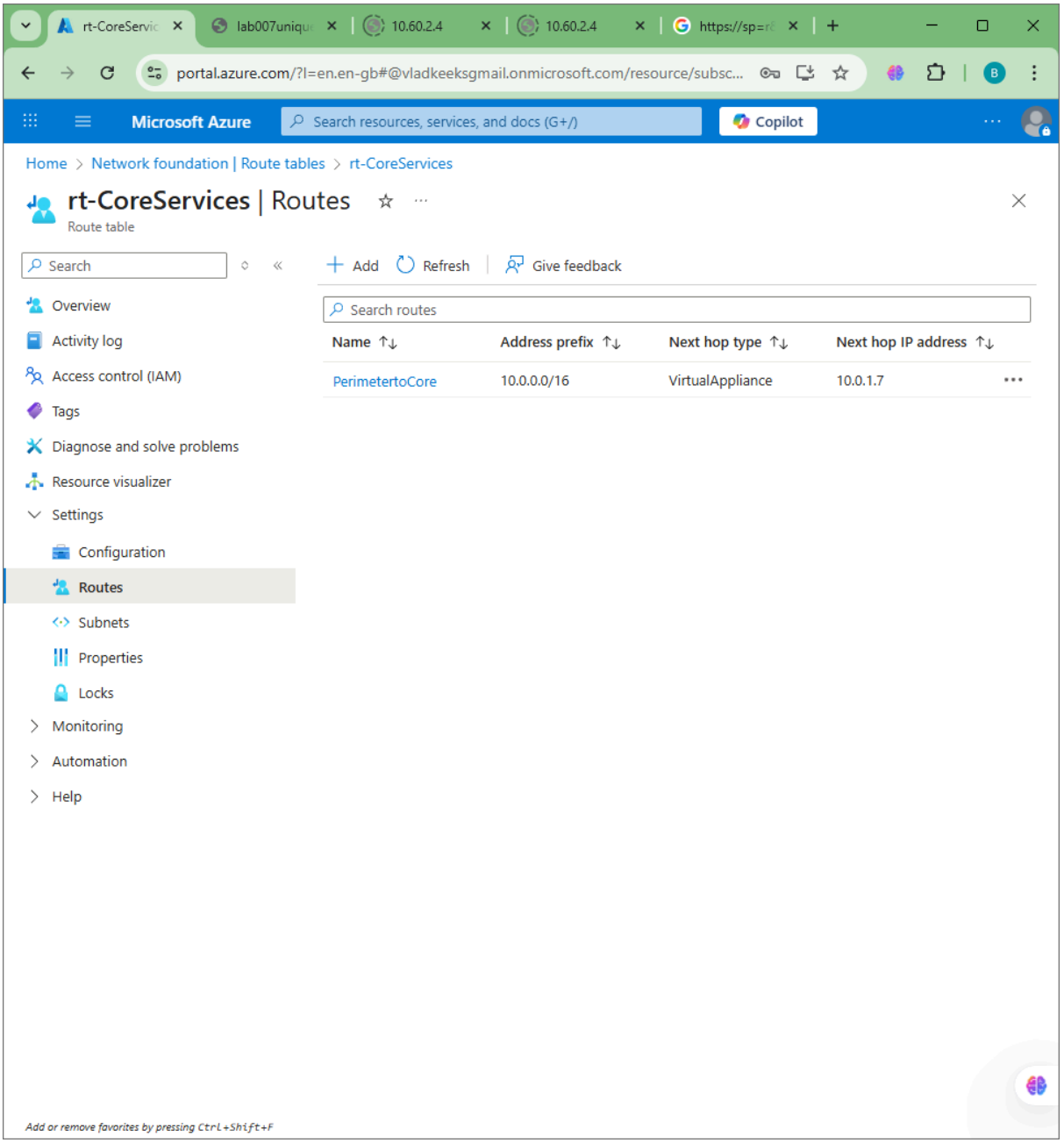
rt-CoreServic
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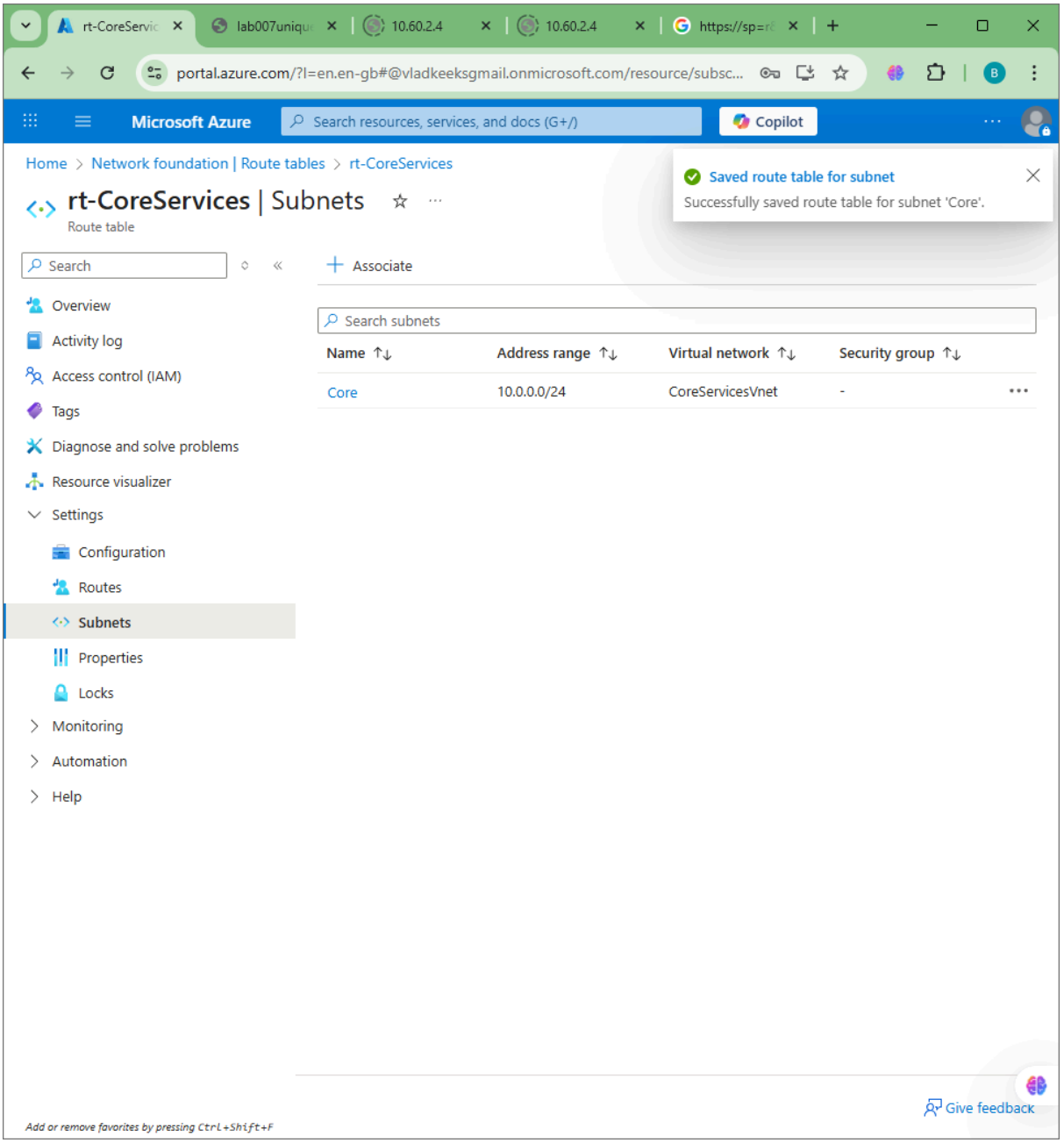
Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
Home > Network foundation | Route tables > rt-CoreServices
rt-CoreServices | Routes
Route table
Search
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Resource visualizer
Settings
Configuration
Routes
Subnets
Properties
Locks
Monitoring
Automation
Help
Add
Refresh
Give feedback
Search routes
Name
Address prefix
Next hop type
Next hop IP address
PerimetertoCore
10.0.0.0/16
VirtualAppliance
10.0.1.7
Add or remove favorites by pressing Ctrl+Shift+F


rt-CoreServic
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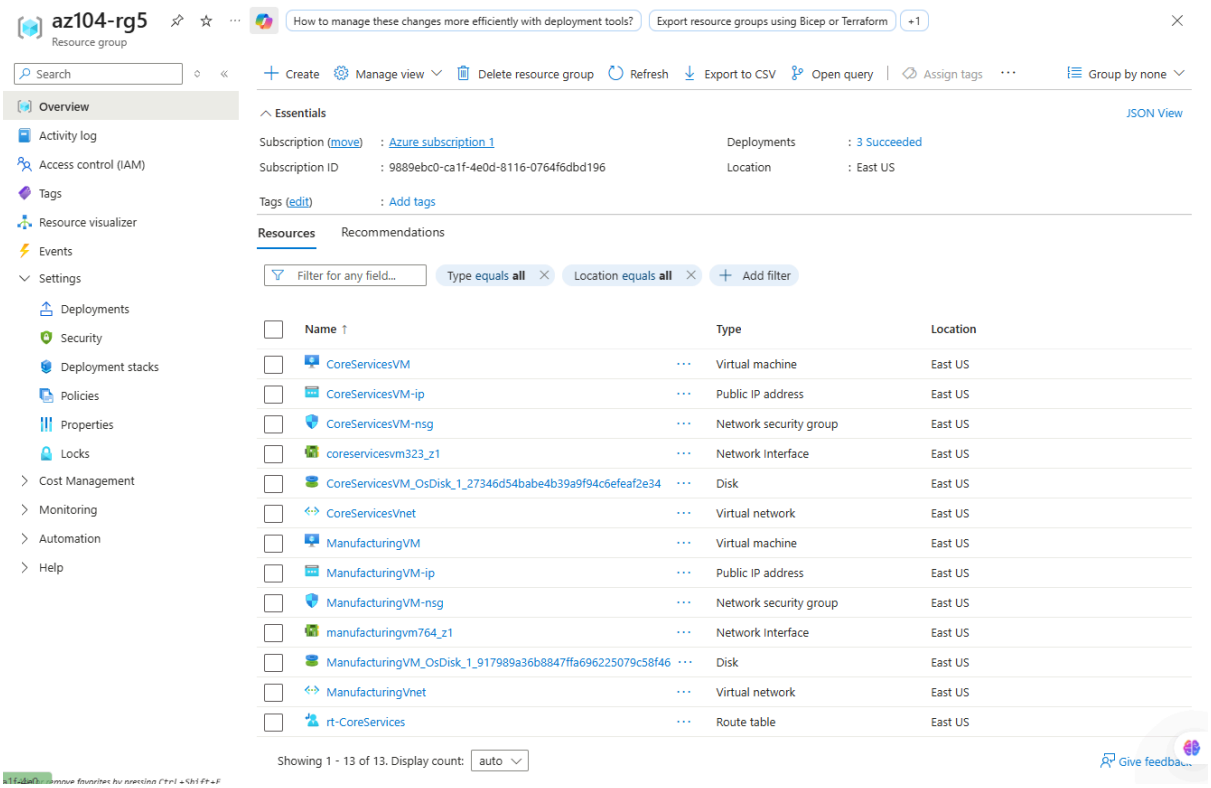
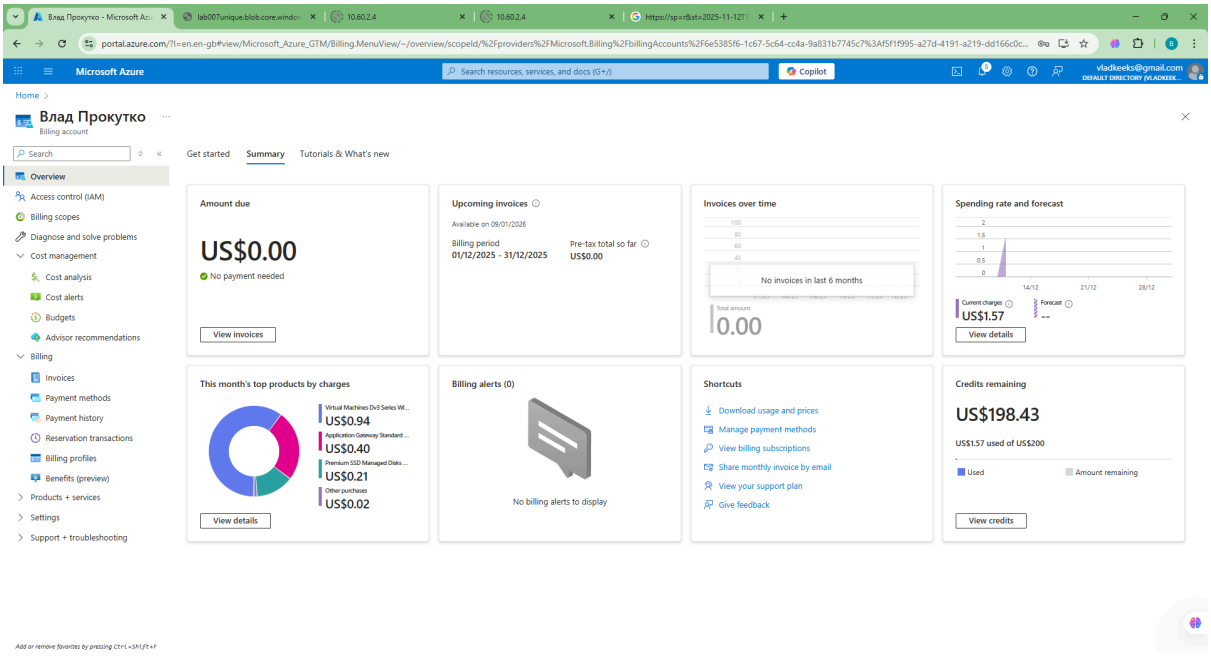
portal.azure.com/?l=en.en-gb#@vladkeeksgmail.onmicrosoft.com/resource/subsc...
Microsoft Azure
Search resources, services, and docs (G+/)
Copilot
Home > Network foundation | Route tables > rt-CoreServices
rt-CoreServices | Subnets
Route table
Saved route table for subnet
Successfully saved route table for subnet 'Core'.
Search
Associate
Search subnets
Overview
Activity log
Access control (IAM)
Tags
Diagnose and solve problems
Resource visualizer
Settings
Configuration
Routes
Subnets
Properties
Locks
Monitoring
Automation
Help
Name
Address range
Virtual network
Security group
Core
10.0.0.0/24
CoreServicesVnet
-
Give feedback
Add or remove favorites by pressing Ctrl+Shift+F


az104-rg5
Resource group
How to manage these changes more efficiently with deployment tools?
Export resource groups using Bicep or Terraform
+1
Search
Overview
Activity log
Access control (IAM)
Tags
Resource visualizer
Events
Settings
Deployments
Security
Deployment stacks
Policies
Properties
Locks
Cost Management
Monitoring
Automation
Help
Create
Manage view
Delete resource group
Refresh
Export to CSV
Open query
Assign tags
Group by none
Essentials
JSON View
Subscription (move) : Azure subscription 1
Subscription ID : 9889ebc0-ca1f-4e0d-8116-0764f6dbd196
Deployments : 3 Succeeded
Location : East US
Tags (edit) : Add tags
Resources
Recommendations
Filter for any field...
Type equals all
Location equals all
Add filter
Name
Type
Location
CoreServicesVM Virtual machine East US
CoreServicesVM-ip Public IP address East US
CoreServicesVM-nsg Network security group East US
coreservicesvm323_z1 Network Interface East US
CoreServicesVM_OsDisk_1_27346d54babe4b39a9f94c6efeaf2e34 Disk East US
CoreServicesVnet Virtual network East US
ManufacturingVM Virtual machine East US
ManufacturingVM-ip Public IP address East US
ManufacturingVM-nsg Network security group East US
manufacturingvm764_z1 Network Interface East US
ManufacturingVM_OsDisk_1_917989a36b8847ffa696225079c58f46 Disk East US
ManufacturingVnet Virtual network East US
rt-CoreServices Route table East US
Showing 1 - 13 of 13. Display count: auto
Give feedback

Costs: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Billing scopes
Diagnose and solve problems
Cost management
Cost analysis
Cost alerts
Budgets
Advisor recommendations
Billing
Invoices
Payment methods
Payment history
Reservation transactions
Billing profiles
Benefits (preview)
Products + services
Settings
Support + troubleshooting
Amount due
US$0.00
No payment needed
View invoices
Upcoming invoices
Billing period
01/12/2025 - 31/12/2025
Pre-tax total so far
US$0.00
Invoices over time
No invoices in last 6 months
0.00
Spending rate and forecast
US$1.57
View details
This month's top products by charges
US$0.94
US$0.40
US$0.21
US$0.02
View details
Billing alerts (0)
No billing alerts to display
Shortcuts
Download usage and prices
Manage payment methods
View billing subscriptions
Share monthly invoice by email
View your support plan
Give feedback
Credits remaining
US$198.43
US$1.57 used of US$200
Used
Amount remaining
View credits