CELEBAL TECHNOLOGY INTERNSHIP (CSI)

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Topic 1: - Hub to Spoke

What is a network topology?

Network topology is the way a network is arranged, including the physical or logical description of how links and nodes are set up to relate to each other. There are numerous ways a network can be arranged, all with different pros and cons, and some are more useful in certain circumstances than others.

What is called hub?

Hubs. A hub is a physical layer networking device which is used to connect multiple devices in a network. They are generally used to connect computers in a LAN.

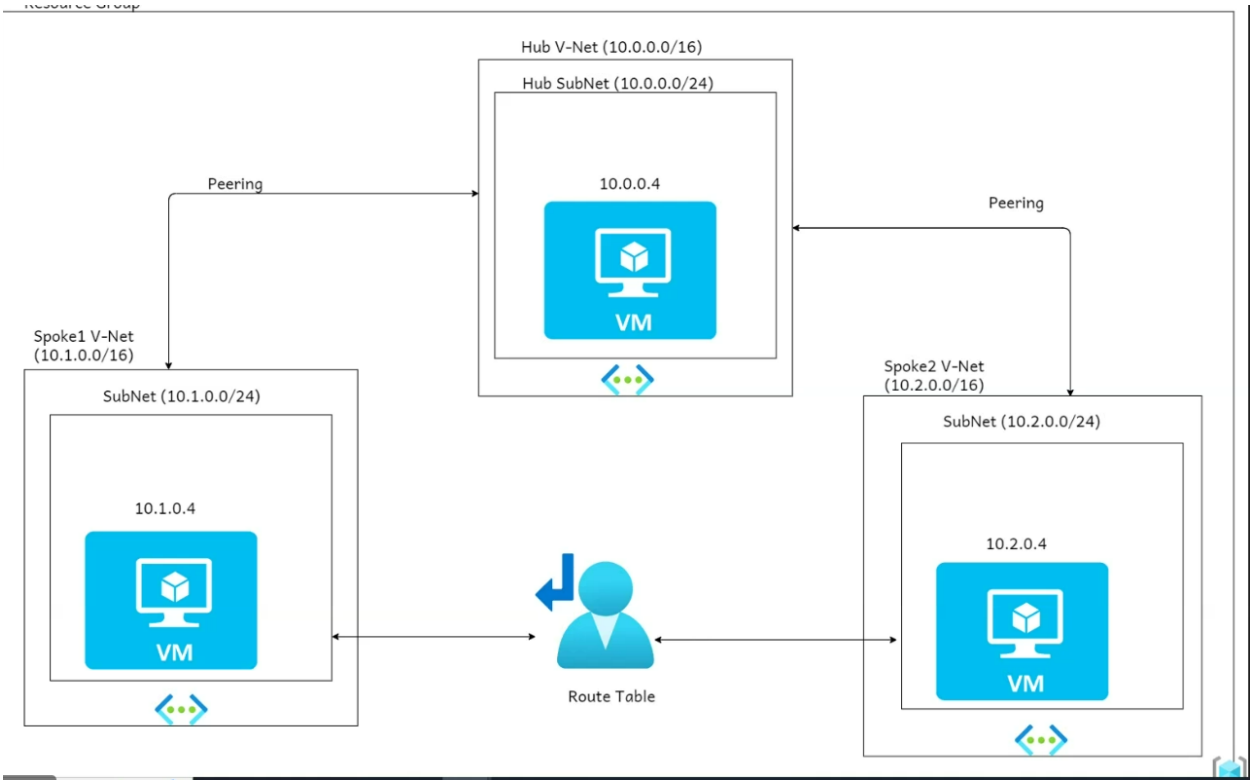
A hub has many ports in it. A computer which intends to be connected to the network is plugged in to one of these ports. When a data frame arrives at a port, it is broadcast to every other port, without considering whether it is destined for a particular destination or not.

What is Azure hub and spoke network?

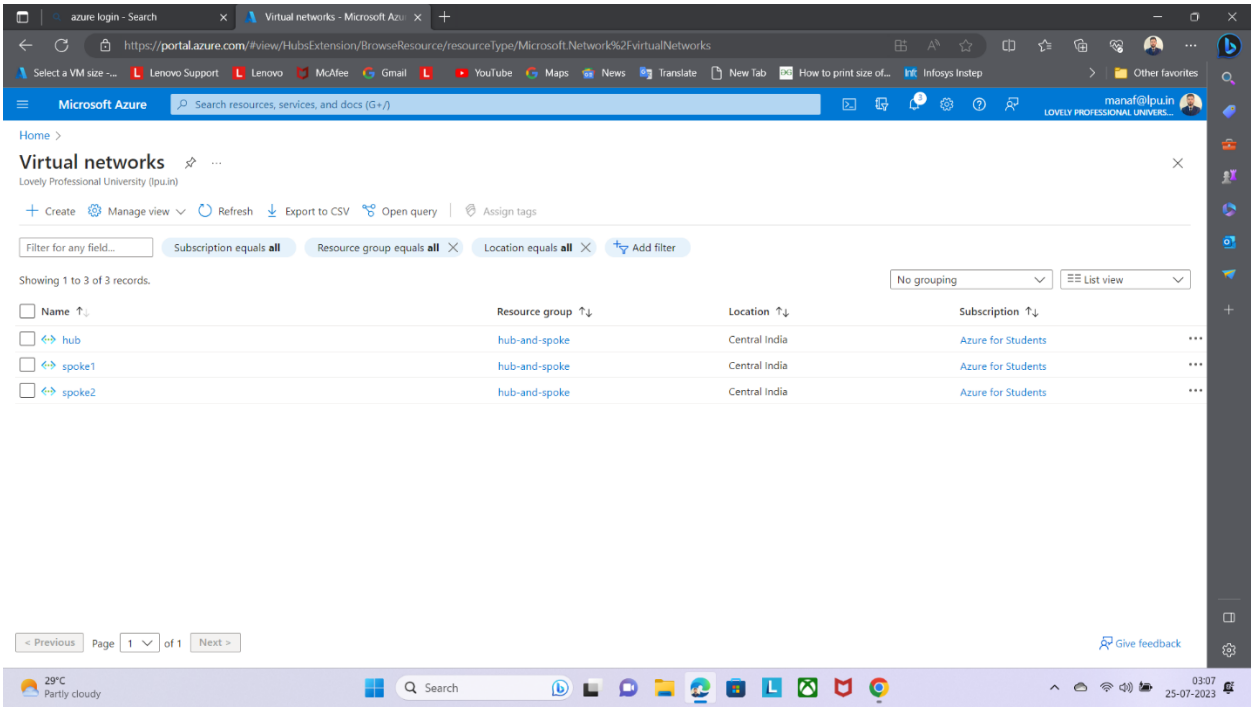
The hub is a virtual network in Azure that acts as a central point of connectivity to your on-premises network. The spokes are virtual networks that peer with the hub and can be used to isolate workloads. Traffic flows between the on-premises data center(s) and the hub through an ExpressRoute or VPN gateway connection.

- Lay out hub and spoke hybrid network reference architecture resources
- Create hub network appliance resources
- Create hub network in Azure to act as common point for all resources
- Create individual workloads as spoke VNets in Azure
- Establish gateways and connections between on premises and Azure networks
- Create VNet peering’s to spoke networks

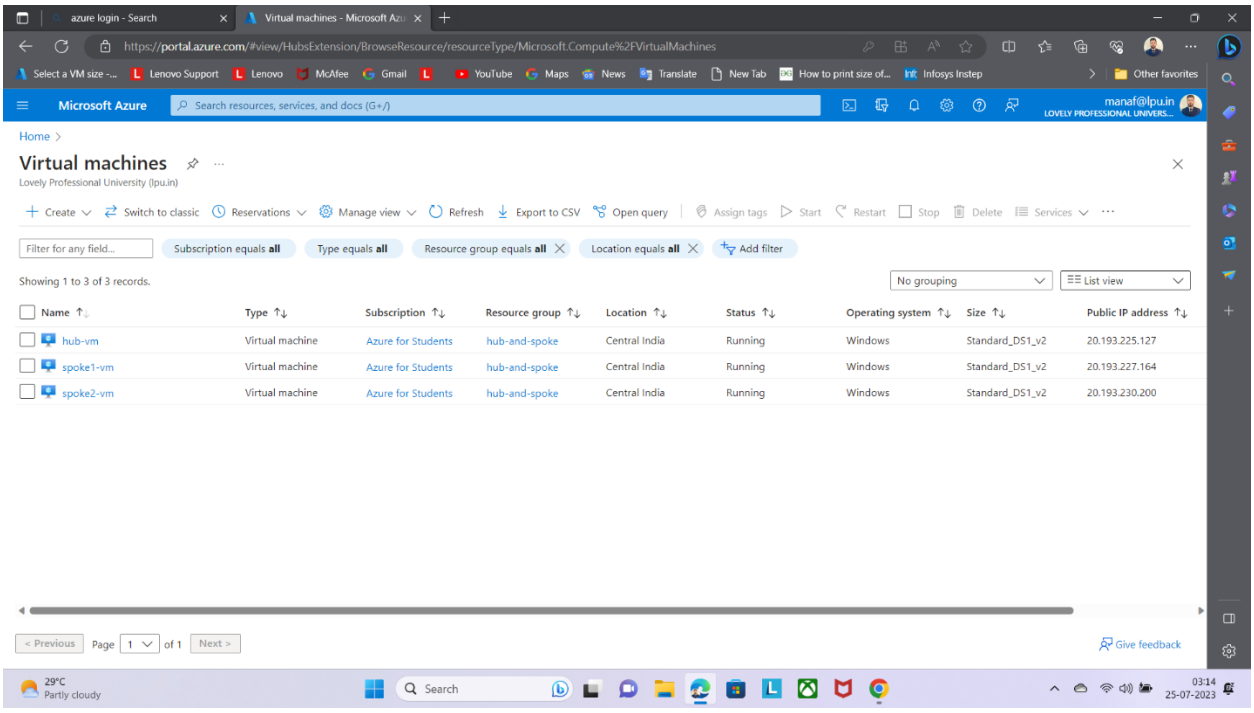
Hub and spoke model



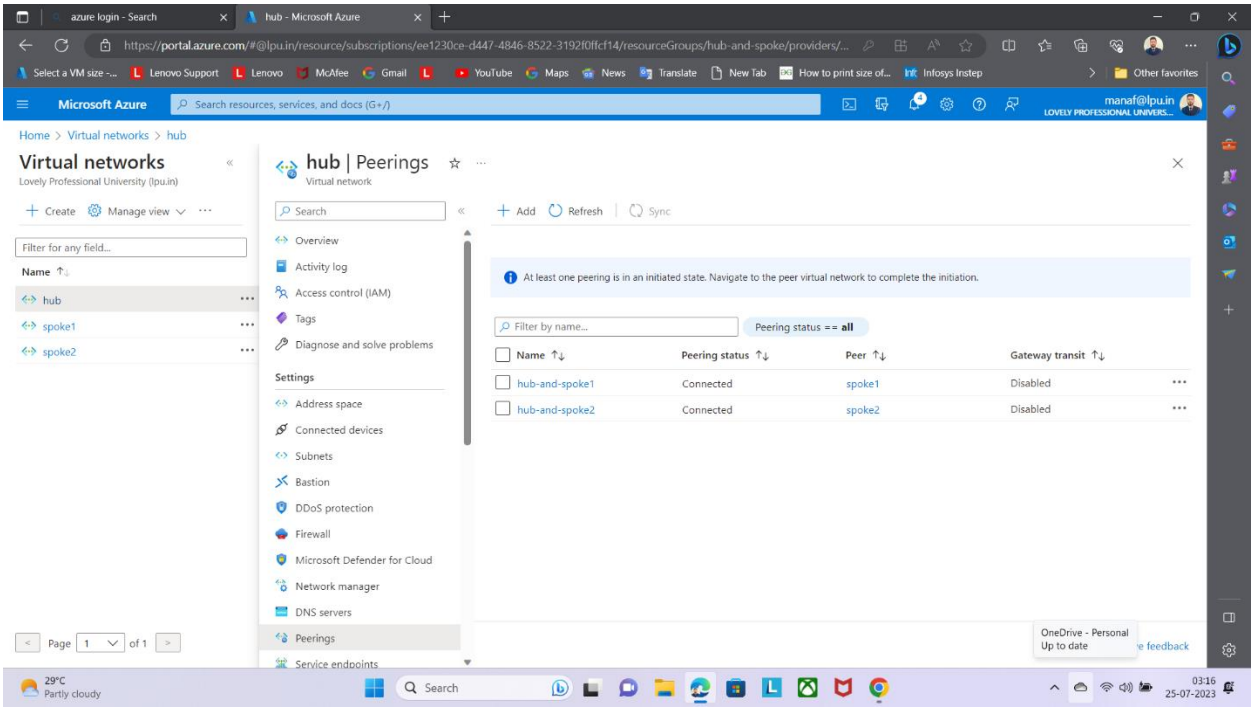
First, we have to create 3 separate vnets



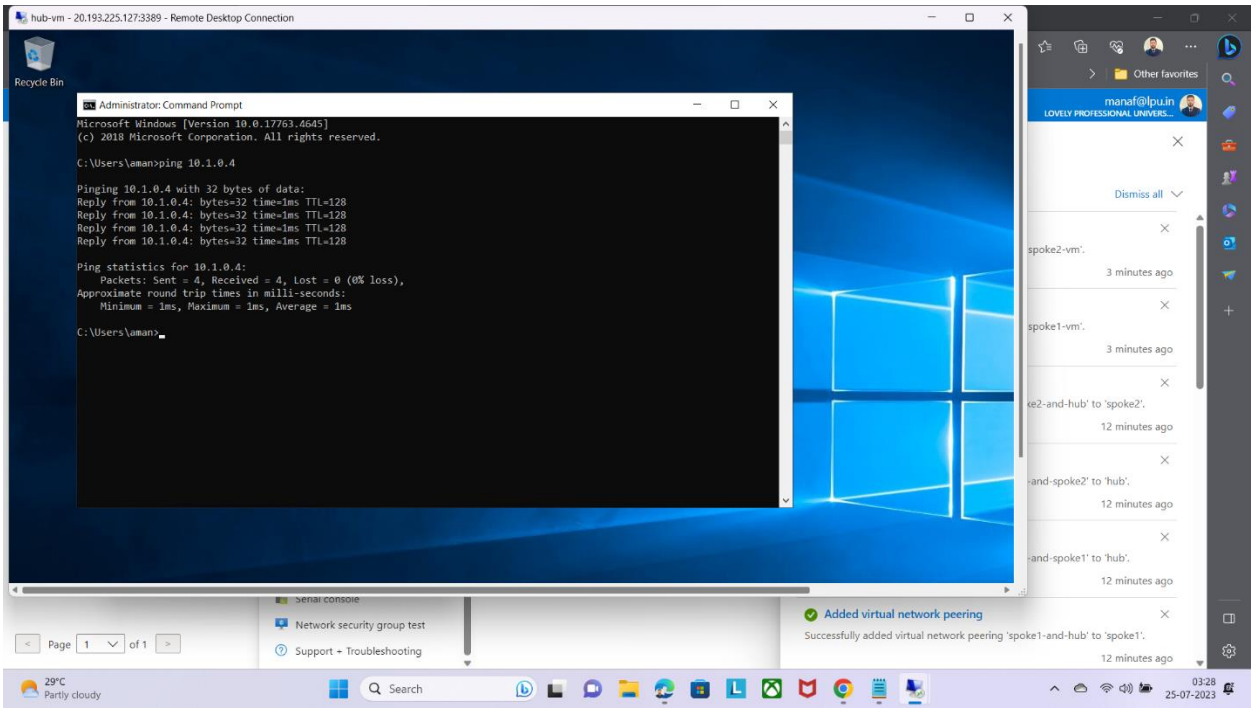
Then we have to create 3 separate vms



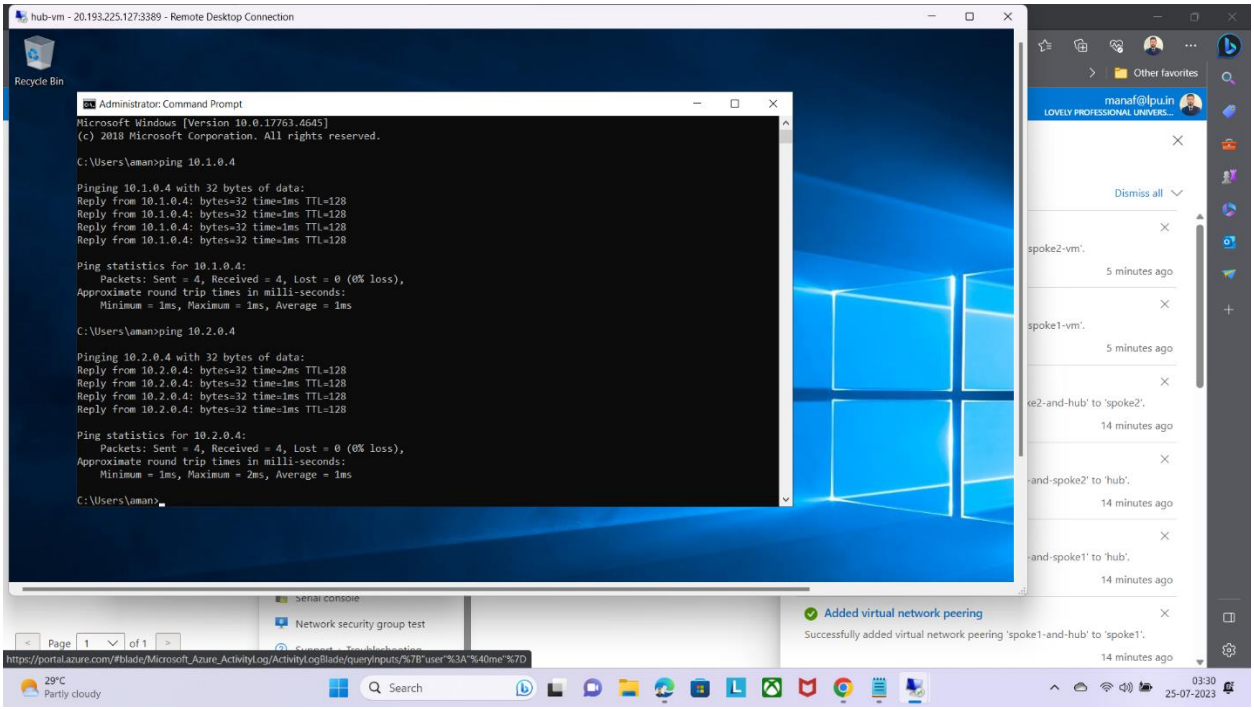
Then we have to create the peering



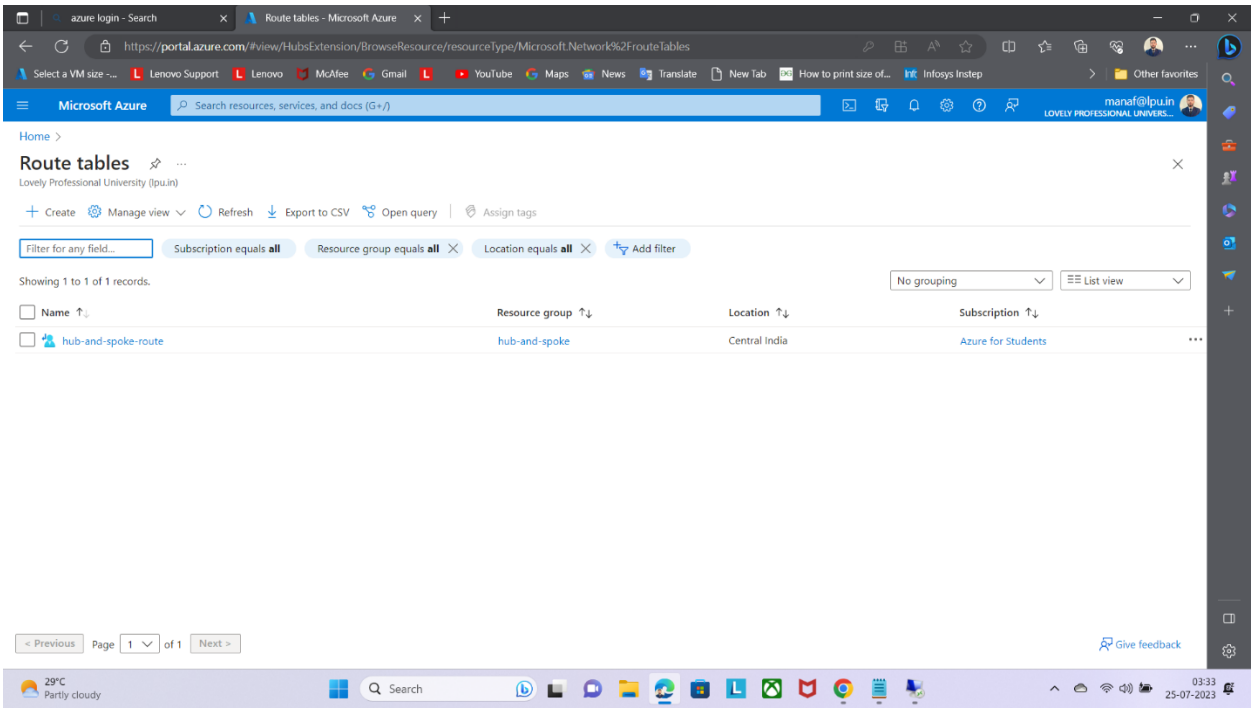
Then we will ping from hub to spoke 1

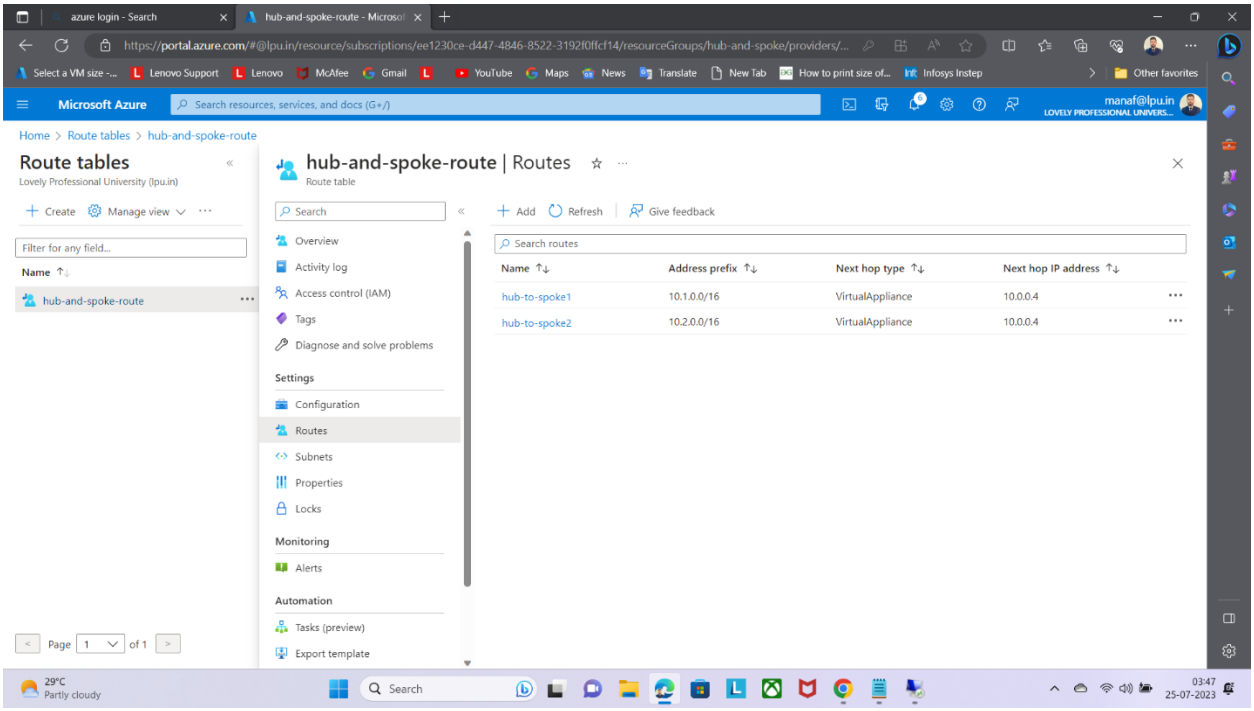


Then we will ping from hub to spoke 2



Then we will create routing to make it transitive in nature

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Subnets
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Monitoring
Alerts
Automation
Tasks (preview)
Export template
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Refresh
Give feedback
Search routes
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Next hop type
Next hop IP address
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10.1.0.0/16
VirtualAppliance
10.0.0.4
hub-to-spoke2
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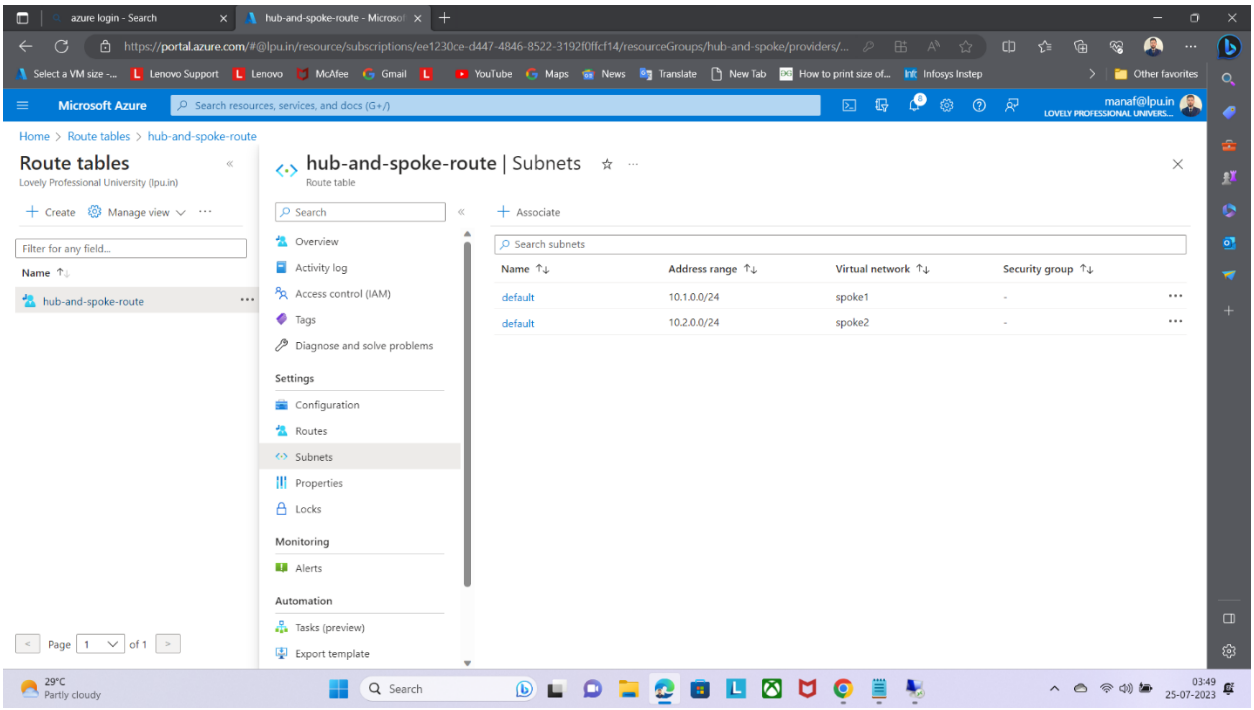
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Settings
Configuration
Routes
Subnets
Properties
Locks
Monitoring
Alerts
Automation
Tasks (preview)
Export template
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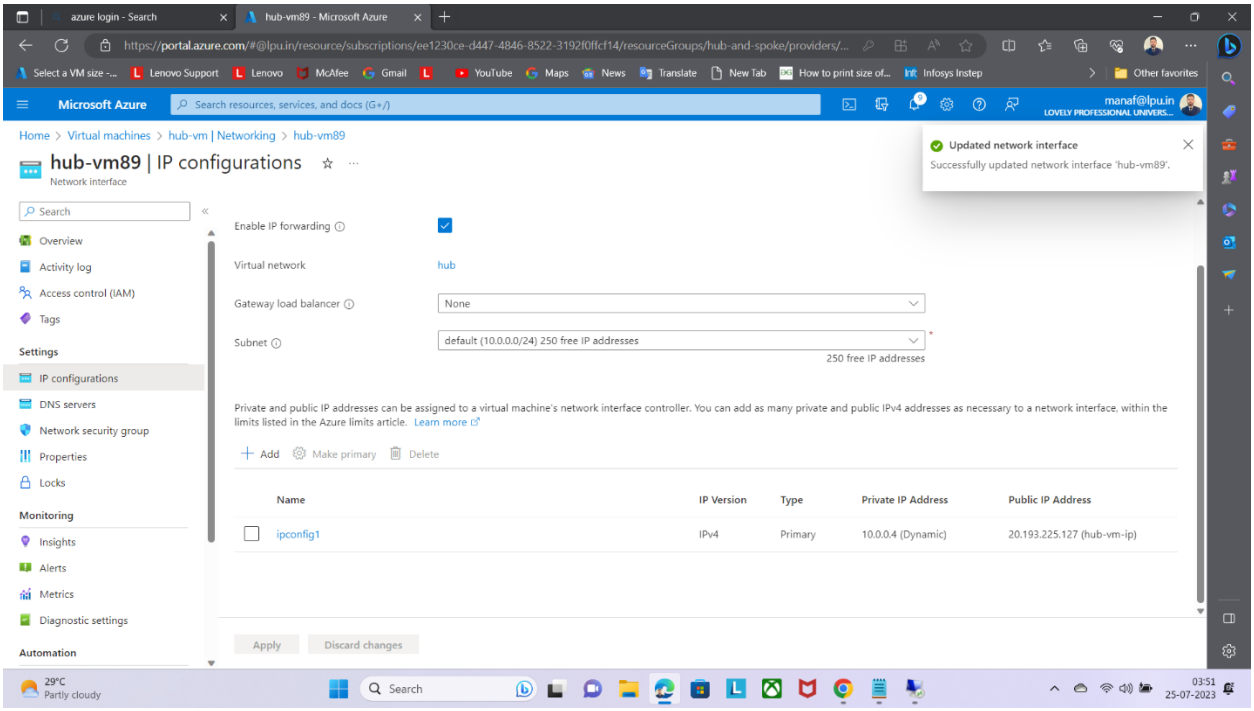

After that will ping again from spoke 1 to spoke 2