

Azure Virtual Machines

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Lab Summary 2

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### Azure Virtual Machines

To create Azure virtual machines, the admins or users should create Azure resource groups. To create the resource group, the users choose a subscription, a name, and a region. In the lab, two virtual machines should be configured; each virtual machine should be able to communicate with each other.

### Virtual Machine Series/ Types

Azure supports different types of virtual machines, which would give users or administrators options. The first type of virtual machine is for general-purpose to provide CPU and memory in balance; these are the B-series, D-series, and A-series. The compute-optimized virtual machines (F-series) are to provide higher CPU with a lower memory ratio, which is used in medium traffic web servers or application servers. The third type is memory-optimized (E-series, G-series, and some of D-series) has higher memory than CPU to provide for medium to large caches and database servers. Storage optimized virtual machines (L-series) have high disk throughput and IO for Big Data, SQL, and NoSQL databases. GPU optimized VMs have high graphic performance for graphic-intensive and visualization workloads. Lastly, High performance computes hardware; this falls into H-series.

### Complication with communication

When communicating with each virtual machine, Windows PowerShell is used to utilize command line 'ping.' However, Azure virtual machines could not communicate with each other by default. To resolve this issue, NSG should allow inbound traffic by enabling any ICMP so that one virtual machine could ping the other. Another option is to use the command line netsh advfirewall firewall add rule name="ICMP Allow incoming V4 echo request" protocol=icmpv4:8,any dir=in action=allow.

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