Microsoft Azure Fundamentals Essential Book

**Chapter 3**

Azure Virtual Machines supports Windows and Linux VM’s. Azure Virtual Machines will refer to the feature, while virtual machine or VM will refer to an instance of an actual compute node.

Azure Cloud Services difference is web and work roles with Azure Virtual Machines (control and persistence)

PaaS Web and worker roles generally are considered stateless (largely due to the lack of persistent disk but Azure VM’s are staeful servers and do feature persistent disks

**OS disk** – operating system housed

**Data disk** – application data resides and optional.

**Life & Shift** – move workloads from one on-premise datacenter to one or more azure regions

**Cloud service** – container for virtual machines. Provides DNS, network connectivity, security and unit of management. Can’t contain web/worker roles and Azure Virtual Machines

VM States:

* **Running** – VM is on and running normally. Billable
* **Stopped** – the VM is stopped but it is still consuming compute resources within Azure
  + Stopping VM’s at the portal level will put it in stopped (deallocated) state
  + To stop the VM but keep it allocated you would have to run a cmdlet: Stop-AzureVM -Name “az-essential” -ServiceName “az-essential” -StayProvisioned
  + Stopping the VM at the OS level will only stop the vm and won’t deallocate it.
  + Billable
* **Stopped (Deallocated)** – The VM is stopped, and it is not consuming compute resources within Azure. Not Billable

VIP’s belong to the cloud service. Each VM has it’s own DIP (Direct IP). If all VM’s are stopped VIP will be released. To preserve the VIP and DIP, you can stop the VM just don’t deallocate it. VM’s are assigned a Dynamic IP address. Using a static IP can be set by Powershell