

Overview

Contos is an online training provider.

On-Premise Environment

Currently contos has a set of applications running on their on-premise environment. The applications are hosted on Virtual machines hosted on a VMware environment managed by vCenter server 6.5.

- The Virtual Machines are all part of an Active Directory forest named contos.com
- All of the virtual machines run Windows Server 2016
- The Mumbai office has a virtual machine named demo-virtual that has the vSphere console installed

The company currently has the following offices with their associated IP address spaces

Office Location	Address space
Mumbai	10.0.0.0/16
Hydrebad	10.10.0.0/16

- The offices are connected by using a VPN connection.
- Each office also has one Azure ExpressRoute circuit. This provides access to Azure services and Microsoft Online Services

Azure Environment

The following resources have been setup in Azure

Name	Type	Region
contos-rec1	Azure Recovery Services Vault	East US
contos-rec2	Azure Recovery Services Vault	West US
contos-gateway1	Azure Application gateway	East US
contos-gateway2	Azure Application gateway	West US
contos-er	ExpressRoute	East US
contos-er	ExpressRoute	West US

- contos-gateway1 has 2 backend pools named PoolA and PoolB.
- contos-gateway2 has 2 backend pools named PoolC and PoolD.

Planned Changess

- Virtual Machines from the Mumbai office need to be migrated to the East US Azure region using Site Recovery
- An Azure Web app named contos-app needs to be deployed
- Capacity planning needs to be carried out for the Virtual Machines that would be migrated from on-premise to Azure
- The Application gateway contos-gateway1 must balance incoming traffic as shown below

http://contos.com/video/* will be load balanced across PoolA

http://contos.com/images/* will be load balanced across PoolB

- The Application gateway contos-gateway2 must balance incoming traffic as shown below

http://contos-quiz.com/ will be load balanced across PoolC

http://contos-forum.com/ will be load balanced across PoolD

- An Azure function named contos-function will be deployed. This application must be able to connect directly to the private IP addresses of the Azure virtual machines. The app function must also automatically process uploaded blobs immediately with no delays.
- All costing aspects should be kept to a minimum