**Overview**

Cloud Portal Hub is a company that deals with online training and courses. They have a main office and 2 branch offices. Each office has around 1000 employees.

Current Environment

The company currently has the following on-premise setup

* An Active directory forest named cloudportalhub.com
* Domain controllers configured for the forest
* DNS servers to host the cloudportalhub.com DNS Zone
* Different departments – Logistics, IT and Support
* Each department has an organization unit defined in the domain
* All of the offices are connected via private links
* The offices also have a VPN device that is also configured as a firewall
* The following physical servers are in place
* Users are added to the group on an on-going basis

|  |  |  |
| --- | --- | --- |
| Physical server name | Type | Contains the following virtual machines |
| demoServerA | VMWare vCenter Server | demovm1 |
| demoServerB | Hyper-V host | demovm2 |

* The company also has 2 applications named “app1” and “app2”
* They also have an Azure subscription that contains the following resources

|  |  |
| --- | --- |
| Name | Type |
| demonetwork1 | Virtual Network |
| azurevm3 | Virtual Machine |
| azurevm4 | Virtual Machine |

Planned Changes

The following changes are required

* Migrate the virtual machines hosted on “demoServerA” and “demoServerB” to Azure
* Synchronize the on-premise Active Directory to Azure AD
* Migrate the applications “app1” and “app2” to Azure using the Azure Web app service
* Each application must scale automatically to 5 instances based on the load
* The URL of app2.azurewebsites.net should be accessed via the URL app2.cloudportalhub.com
* The virtual machine “azurevm3” must allow outbound connections over TCP port 8080 to the servers in one of the offices
* Azure Multi-Factor authentication must be enabled for the Support department only
* The main office must connect to the virtual network “demonetwork1” via an encrypted connection
* A workflow must be in place to send an email message when the settings of the virtual machine “azurevm4” are modified
* A custom Azure role named demorole must be created. This role would be based on the Reader role
* All costs must be minimized.