**Azure & Cloud Computing**

1: Desktop Computing

2: Client Server Computing

3: Cluster Computing

4: Grid Computing

4: Cloud Computing

**Cloud Computing**

Q: What is Cloud Computing?

Ans: NIST: Business Innovation

Amazon

World wide Data Center Open

A diagram of a cloud

Description automatically generated

**High Availability Through Azure's Availability Zone:**

**Region Architecture:**

A diagram of a network

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**Problem 1:** Deploy in only one server and server got down so all services also got down   
A diagram of a diagram

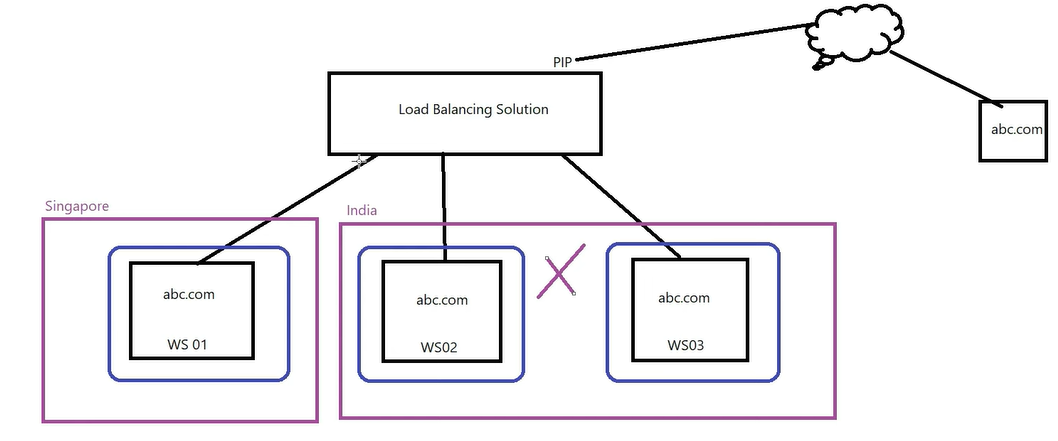
Description automatically generated

**Problem 2:** Deploy in only one data Center and all services deploy inside the data center and that data center got down by any reason like cooling or networking, Power and so the services also got down.

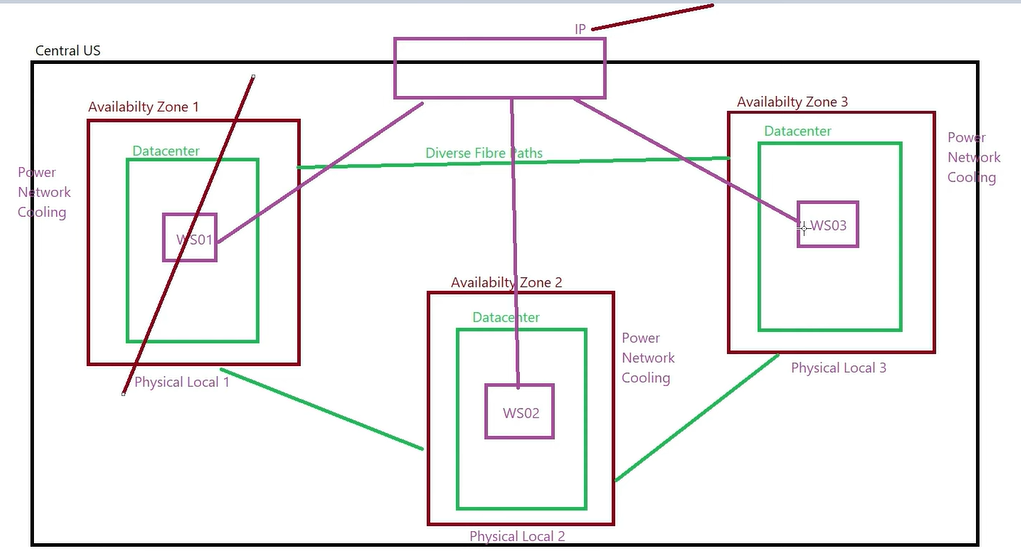
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**Solution 1:** deploy datacenter in different locations.



**Solution 2:** By using Azure's Availability Zone, where IP is Internet protocol (Load balancer).



Now Check how to create a Virtual Machine:

A screenshot of a computer

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A screenshot of a computer

Description automatically generated

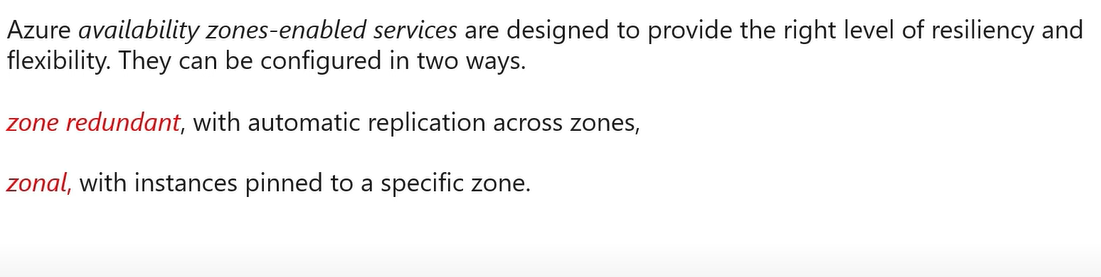
A diagram of a server

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Availability Zone only configure some few locations only.

A screenshot of a computer

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A diagram of a network

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**Azure Architecture:**

**A diagram of a diagram

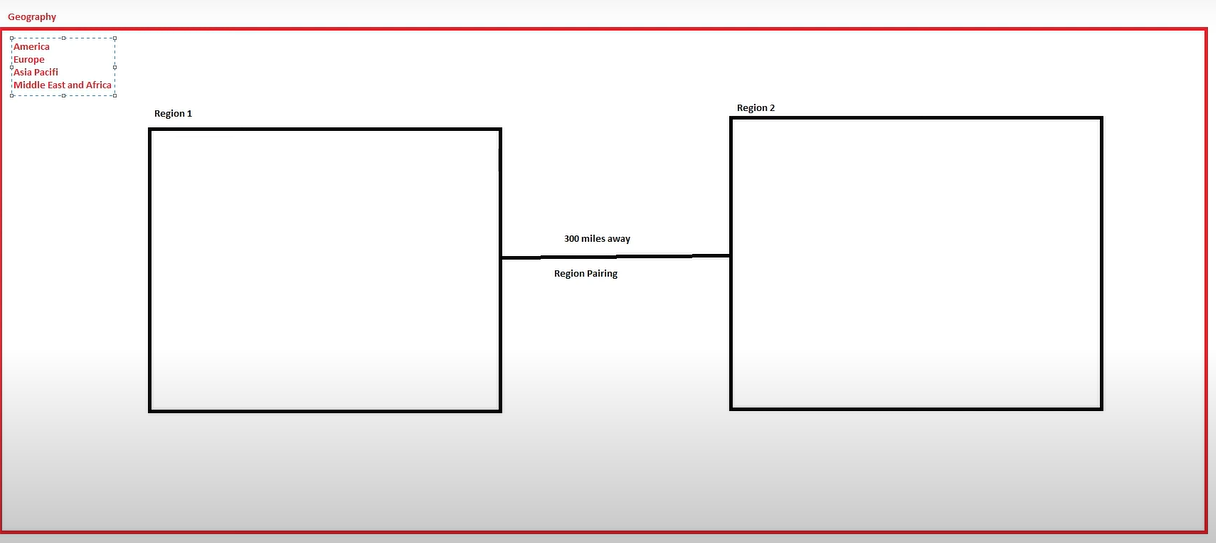
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**If Region is failed, then what?**

**Then Azure will provide the solution of this**

**Region Pair: Distance between 2 region is 300 miles away.**

**Geography>>Region>>Availability Zone >> Data Centers**

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**A screenshot of a computer error

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**Availability Zone option available in site**

**A close-up of a list of countries/regions

Description automatically generated**

**Azure Virtual Machine (VM):**

**A diagram of a computer application

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**This is the traditional Technique but in this we have lots of drawbacks.**

**1: Buy Server**

**2; Buy Operating system**

**3: Configuration costing because we have bought the full ownership pack of server**

**Solution: Azure**

**A diagram of a cloud computing system

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**Create Windows Based Azure VM:**