Exercise Sheet 4

Exercise 1   (Amazon Web Services)

1. What is the **Slashdot Effect** and how can it's negative outcome be avoided?

2. What is a **Region**?

3. What is an **Availability Zone**?

4. What is the maximum number of Instances, an **EBS volume** can be connected with?

5. According to which principle works the storage service **S3**?

   ☐ block-based storage service   ☐ object-based storage service

6. According to which principle works the service **EBS**?

   ☐ block-based storage service   ☐ object-based storage service

7. Which storage services require the user/customer to choose and deploy a **file system**?

   ☐ block-based storage service   ☐ object-based storage service

8. What is the purpose of the **Access Control List** at S3?

9. How can users/customers increase the **read and write performance** (MB/s) of EBS storage?

10. How can users/customers increase the **availability** of EBS storage?

Exercise 2   (Virtual Desktop in the Cloud)

Cloud infrastructure services like EC2 can be used to realize a virtual desktop in the Cloud.

1. Start an instance with the Linux (no matter which Linux distribution) operating system and another instance with Microsoft Windows (no matter which revision) in EC2 or in another cloud infrastructure service. Choose the infrastructure service you prefer.

2. Setup a remote desktop solution for both, the Linux instance and the Microsoft Windows instance. Different protocols and solutions exist. Examples for remote desktop protocols are Remote Desktop Protocol (RDP), Virtual Network

Computing (VNC), X Window System (X11) and NX NoMachine. Choose for both operating systems the remote desktop solutions you prefer.

3. Write down precise instructions with the steps you performed to build up the desired remote desktop solutions.

Be prepared to demonstrate one or both of your solutions live during the exercise session.

Exercise 3   (Virtual Infrastructure Design Aspects)

Imagine that you want to realize a cluster of virtual server instances in EC2.

1. You can place all instances in a single region or place them in different regions. What are the advantages and drawbacks?

2. You can place all instances in a single availability zone or place them in different availability zones. What are the the advantages and drawbacks?