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Poster First Draft

Information Leakage and Security Issues in Cloud Computing

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Summary

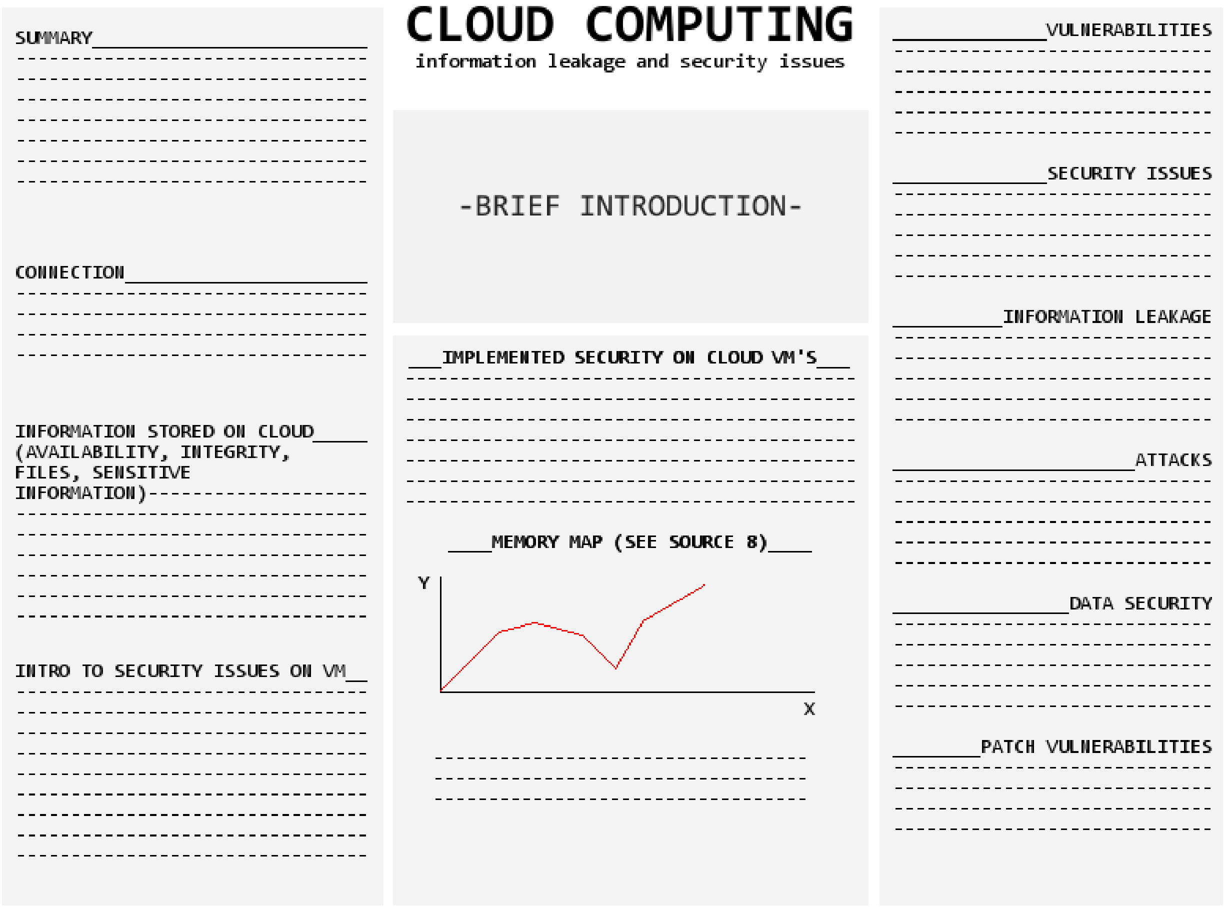
Cloud computing has proven to be a very valuable asset in the computer industry. It allows users to access a different, possibly more powerful computer to calculate, work, or connect to through the internet. The benefit here is that we have access to other operating systems and computers just using an application. We can store files on the cloud and access them from anywhere, giving us freedom and incredible accessibility to anything we store on the cloud.

However, it also seems to be very vulnerable. We must use secure virtual machines on a secure network to protect our privacy, sensitive information, and files. The security attacks on a computer is already immeasurable, and since these cloud computing machines are accessed through a network, the security vulnerabilities double. Attackers can initiate man-in-the-middle attacks, viruses, worms, and many others to secure files and keys that will be used for malicious deeds.

To connect to a virtual machine on the cloud, users must first download an application that allows them to emulate the virtual machine desktop. Next, the user must authenticate to connect to the virtual machine. Next, it must validate the user’s credentials to allow them to access their files through the network. Finally, after a connection has been established, the user has access to all their files on the cloud. Depending on how the user setup their files on the virtual machine, it could be encrypted and needing an encryption key to decrypt the files.

All those steps are needed to make sure that the user is valid. Unfortunately, all those steps are also possible ways for a hacker to attack a virtual machine, without including how there exists information leakage in virtual machines. This poster will highlight how virtual machines connect and work, security that has already been planted in these virtual machines, and vulnerabilities that exist within the system.

Rough Outline of Poster



CLOUD COMPUTING

information leakage and security issues

SUMMARY____________________

CONNECTION__________________

INFORMATION STORED ON CLOUD_____
(AVAILABILITY, INTEGRITY,
FILES, SENSITIVE
INFORMATION)

INTRO TO SECURITY ISSUES ON VM__

-BRIEF INTRODUCTION-

___IMPLEMENTED SECURITY ON CLOUD VM'S___

____MEMORY MAP (SEE SOURCE 8)____

____________VULNERABILITIES

____________SECURITY ISSUES

_________INFORMATION LEAKAGE

___________________ATTACKS

______________DATA SECURITY

_______PATCH VULNERABILITIES