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Versie: 1.1
Status: Concept
Datum: 20 november 2014

Versioning

Ver.	Status	Date	Author(s)	Changes
1.0				
1.1				

Approval

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Summary

In this document we have made all technical design aspects of project virtualization. This are the technical requirments that we are gonna fulfill for project virtualization. In the technical document we are gonna talk about the next subjects:

- Network design
- Network configuration
- System design
- System configuration

After this document you will get a idea of how the technical aspects of project virtualization is gonna be completed.

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1. Network design

In this chapter we let you see the basic network design voor project VIRT. It is a very simpel set up of the network design, As seen below we are using a http server for the hosting section. And debian virtual machine server for the hosting of the virtual servers for the client. The debian virtual machine server is only attainable if you are a authorized user of plaintech services. To make use of our services you have to be a registered user of plaintech. Or else you are a non authorized user and you can be band of our services.

2. Network configuration

2.1 Current network configuration

The current network configuration as been displayed in figure 1, is economically not reliably. The maintenance cost and labor cost fort his infrastructure are too high and the performance of the server are not optimal. The effiecient usage of the servers with this infrastructure can never be optimal. This are the main reasons for Plaintech to immigrate to a economically friendlier server solution.

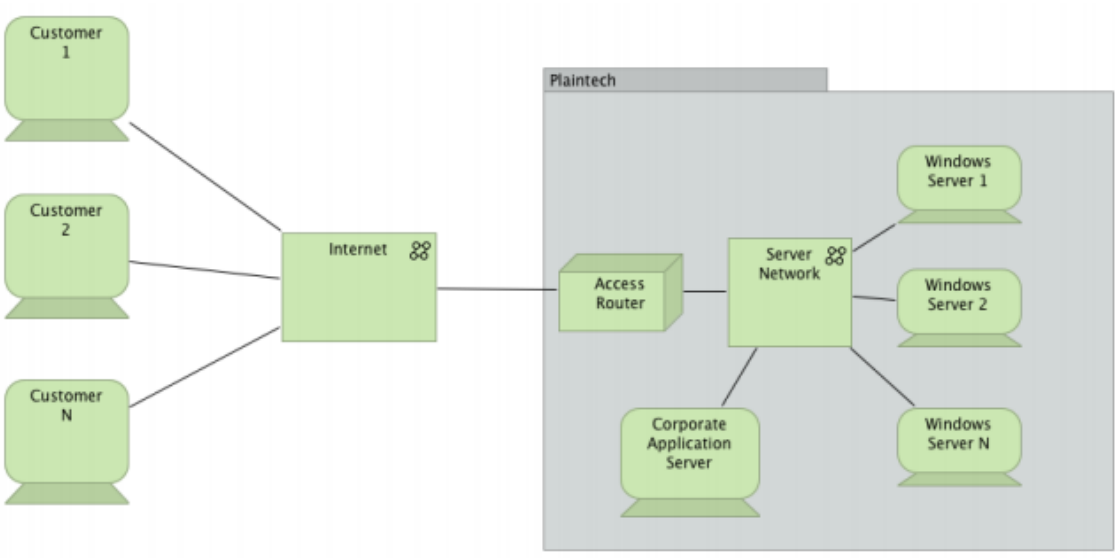


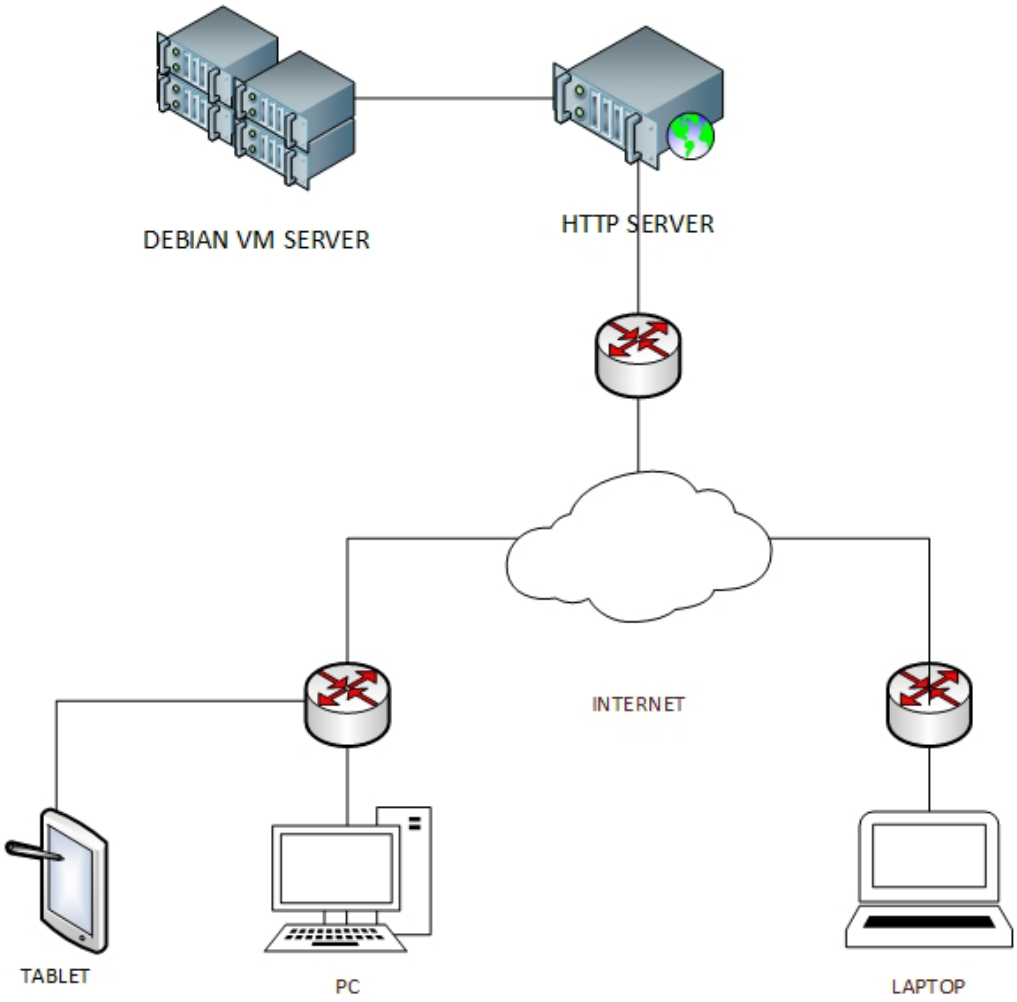
Figure 1

2.2 Desired network configuration

For the desired network configuration as seen below. The use of KVM for our serverpark is the solution for opensource virtualization. By using virtual servers instead of each client his own server, makes the serverpark more economically friendly for Plaintech by using less for more. The main reason is that the server makes effiecent use of resources without wasting anything. This will make in long time periode not only more economicaly benefits for the organization, but will use less energy what is also good for the invironment.

Working of the new infrastructue for plaintech is as follows:

- The users access through his device the internet
- User visits the plaintech website for information of our services or ordering our services.
- After he order a server through the plaintech website, the website sends the information to the server and the new server for the user will be ready for use.



3. System design

3.1 System architecture

Our system design is based on the usage of the this the following hardware usage. Dell server with the following hardware configuration:

Server spec:

Architecture	64-bit
Number of CPU's	4 (2x Dual-Core Xeon-5150 @ 2.66GHz)
RAM	8 GB RAM @ 667MHz (8x1GB)

Allocated storage:

Raid Type	Size
Raid 0	1 x 160GB @7200RPM

Operating system partitions

Partition	Size	Type
1	60 GB	OS
2	100 GB	Back-up

Network

DNS	VLAN	Ip
145.92.14.250	VIRT7	145.92.14.70 t/m 145.92.14.79

Required installed software

Software	Version	
Debian	Latest	
Ubuntu	12.XX	
Windows	server 2012 R2	

Backup

Partition	Frequency	Timeframe	
2	Once every 24 hour	06:00	

3.2 Coding requirments

3.2.1 Website coding

For the development of the website for www.plaintech.nl we are gonna use the following development program Eclipse IDE. Also the following coding platform are allowed to use for developing in project VIRT.

- HTML/HTML5
- CSS
- Java
- Javascript
- Dojo

3.2.2 Server coding

For the development of the server for project VIRT. We are gonna make use of the folllowing development program Eclipse IDE.Also the following codig platform are allowed to use for developing in project VIRT.

- HTML/HTML5
- CSS
- Java
- Javascript
- Dojo

3.2.3 Server Software packet

For the making of the virtual server park, we are gonna make use of the following software pakket.

- Linux Debian
- Linux KVM
- Linux libvirt
- MySQL database server
- Apachte Tomcat
- Apache Velocity

4. System configuration