# Business Report

## Costs/Benefits/ROI/BEO

We have come to our conclusion that the following server is a good machine to build the virtualization platform on. The machine is a HP ProLiant DL380p Gen8 with E5-2665 processor, 32 GB RAM. The price of a single machine is €4406,85 (tax not included). We have calculated and watched other business leaders and come to the conclusion that a single machine could support 8 customers.

For the future configuration we want to have enough servers for more than 50,000 customers. In this way you can still get new customers. That is an amount of 6,250 servers and costs 27.542820 euros which not includes network, hardware, installing costs and maintenance.

When a situation occurs that PlainTech UK needs additional capacity to support their customer’s needs. We offer to place extra hardware to support an additional 5,000 customers. This means that 625 machines needs to be placed of a total cost of €2.754.280,-

When PlainTech needs additional capacity, we offer to place extra server to support another 5,000 customers. This are 625 servers with a total price of 2,754.280 euros.

All servers will be written off in five years, after these five years a server is still worth around €661. This is calculated on a 15% share of the retail price.

We suggest that prices (tax not included) will be build modular:

* CPU: 1 core for €3,-
* RAM: 1 GB RAM for €5,-
* HDD: 25GB disk space for €2,-

If we install 6.250 servers we need a total of 323 switches which has 10 spare switches. We chose 48 ports layer 3 switches from HP with a price of 1871 euros. The total costs for the switches are 604.333 euros.

Every server can have 8 virtual machines with a maximum of 250 GB for 1 virtual machine. That’s 2TB for 1 server and the price of 1 HP SAN (MSA 1040) that can store 28.8 TB is 5.132 euro. We need for every 13 servers 1 SAN, so for 6.250 servers we need 480 SANS which costs 2.467.312 euro.

When suggested prices are maintained a single server should create a profit of €272,-. Outgoing from a situation where 50,000 servers are running this would mean €1.700.000 is generated every month.

In five years a server costs €3745,82 if the server is sold after five years. The return on investment is 14 months.

The total profit over five years with 50,000 customers is €61.200.000,-. Total profit could be lower when network hardware (cables/switches), labor costs and daily maintenance is included.

ROI (of the servers with 50,000 customers over 5 years): 61.200.000/27.542.820 = 2,22

Break-evenpoint

# Project costs

We have calculated that the project will take +/- 2000 labor hours. There are 5 people in our project team. Each person will work around 400 hours on the project. Each person will be working 40 hours a week on this project, than this project will be done in 10 weeks. The average salary of a system and network engineer is around 3250 euro per month. That makes a paycheck of €20,3 per hour. Which makes the labor costs per person around €8120,-, this excludes overhead off 20%.