

# Master Thesis - Security Aspects in Virtual Networks

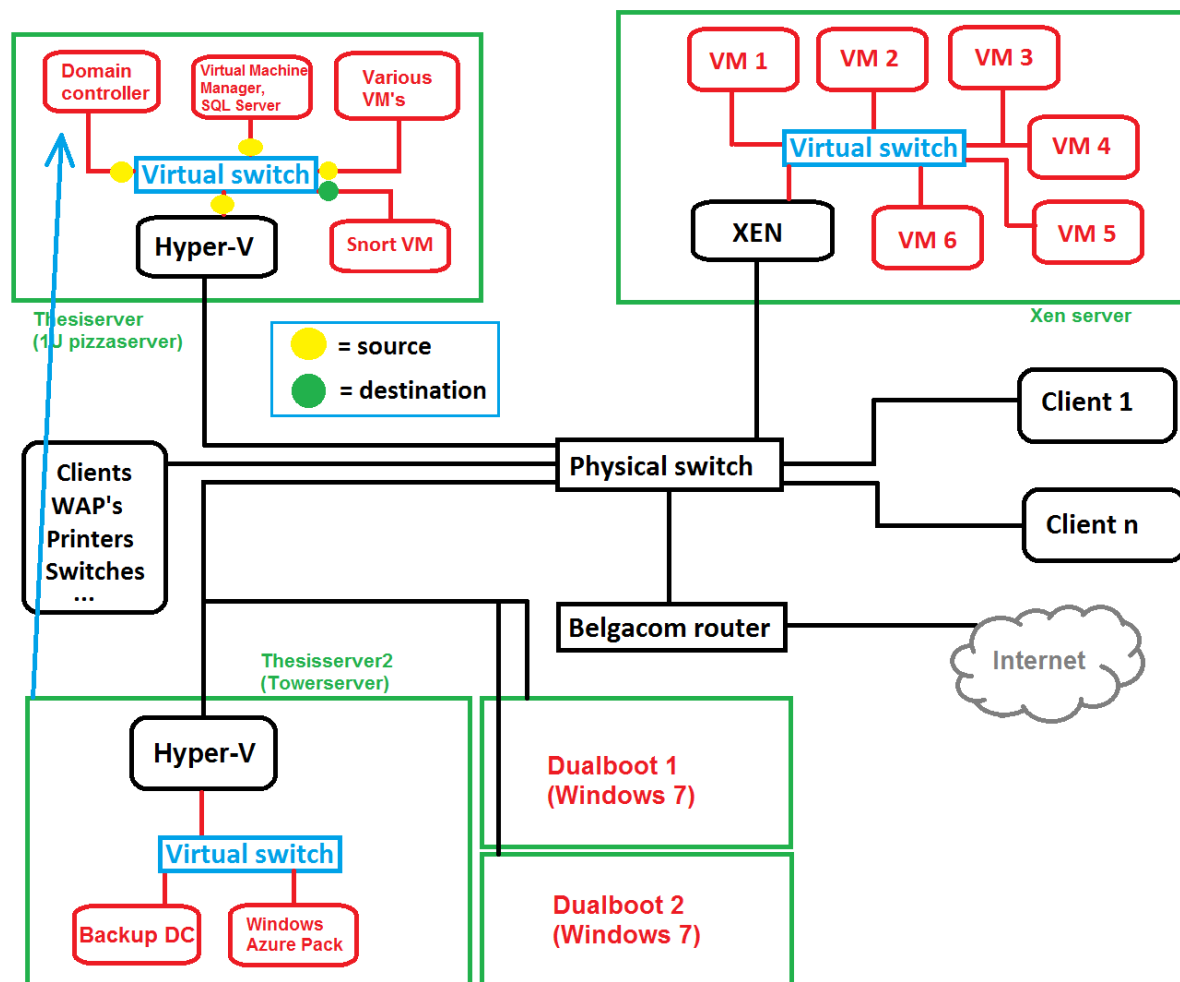
## SITREP 17

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### 1 Infrastructure

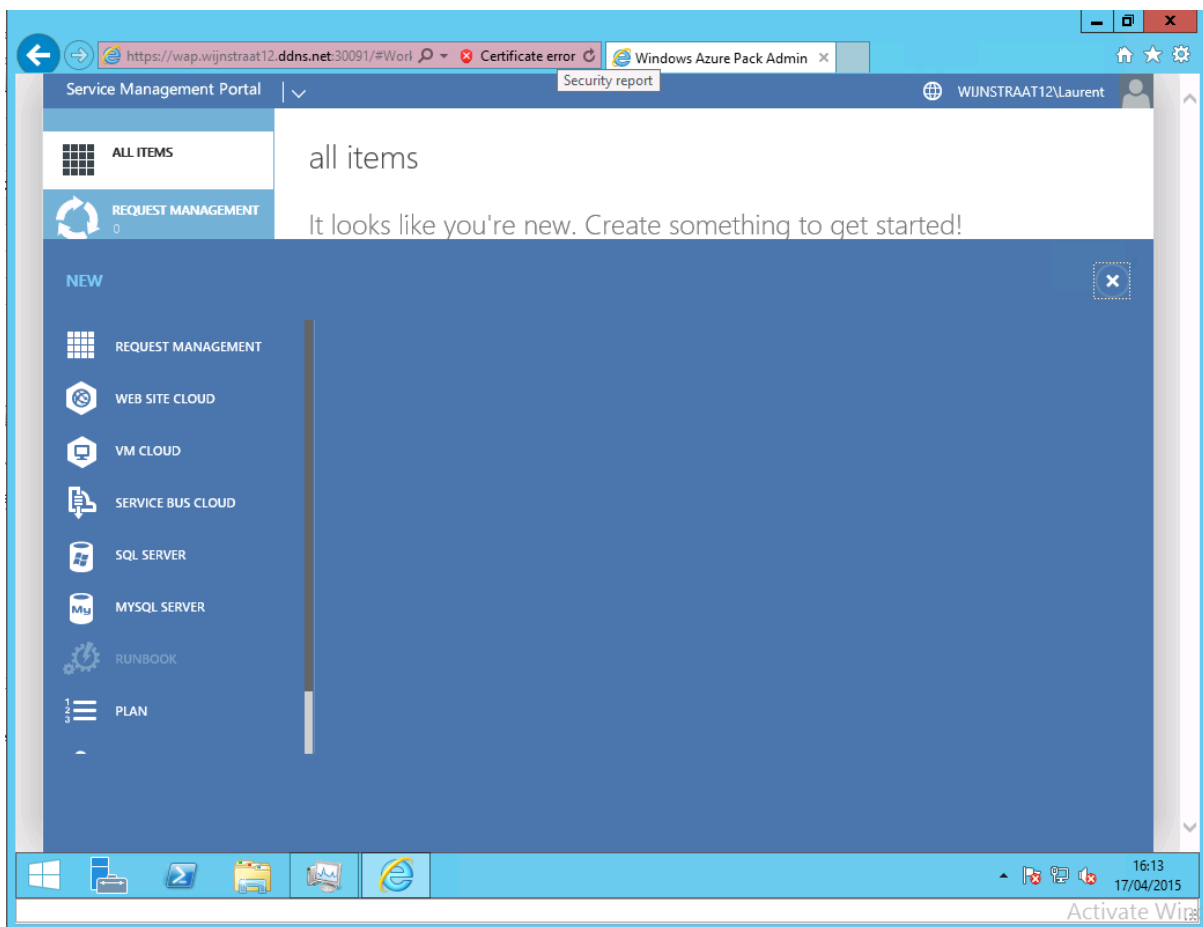


**Figure 1:** Current infrastructure. On the Windows Azure Pack VM, a dedicated MSSQL Server is installed, the SQL Server of the VMM VM is not re-used.

## 2 Work done

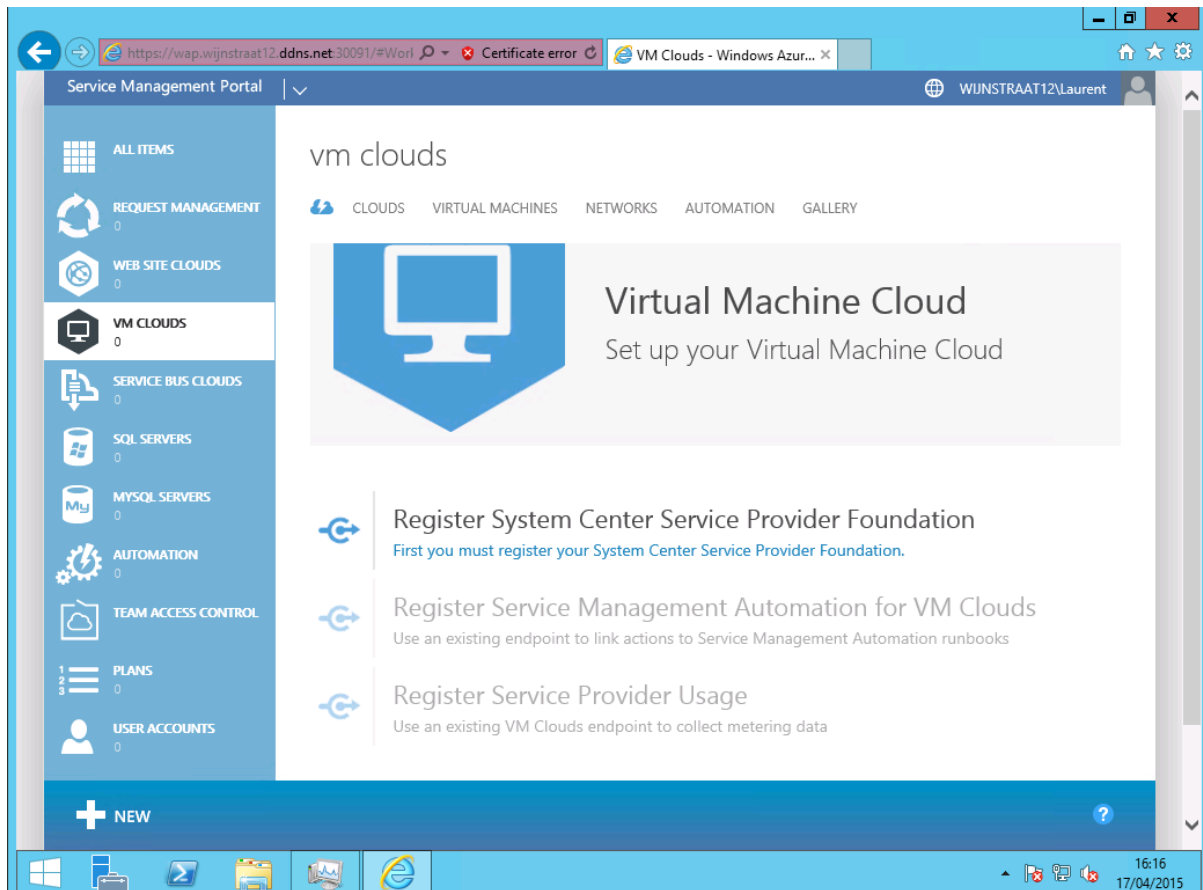
- Deployed the Windows Azure Pack on a dedicated VM. Therefore, I performed the following steps: installed IIS, installed some additional Windows Features, installed SCVMM Console, installed Service Provider Foundation, made some changes to the domain, made a certificate, installed MSSQL Server 2012 and finally Windows Azure using the Web Platform Installer.
- Created a VM cloud.
- Created a private plan. This is done for sakes of completeness. First, I configured some hardware profiles and VM templates in VMM.
- Registered myself on the Juniper website to obtain an appliance of their vSRX.

### 2.1 Deployment of Windows Azure Pack

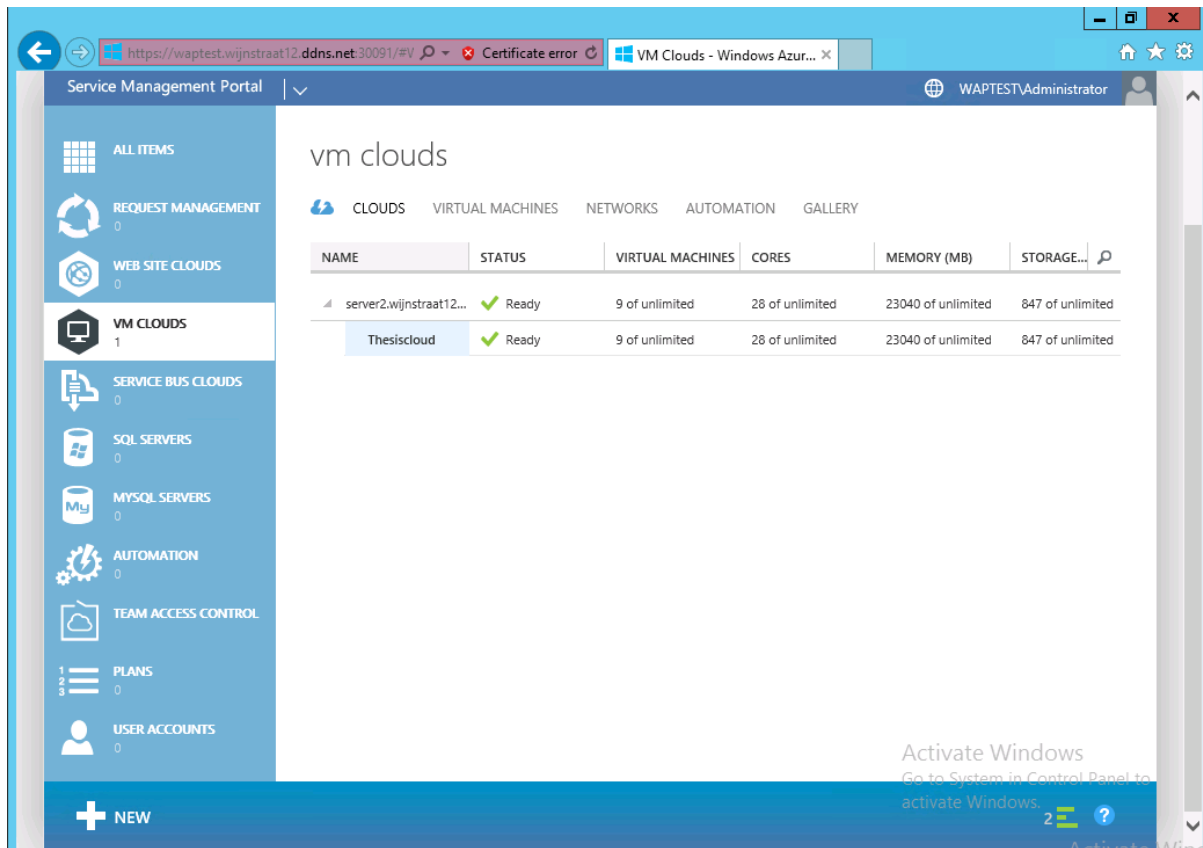


**Figure 2:** The installation of Azure has succeeded.

## 2.2 Creation of the VM cloud



**Figure 3:** First, the SPF Endpoint Provider must be registered before we can create a VM cloud.



**Figure 4:** The “Thesiscloud” in VMM is imported in Azure.

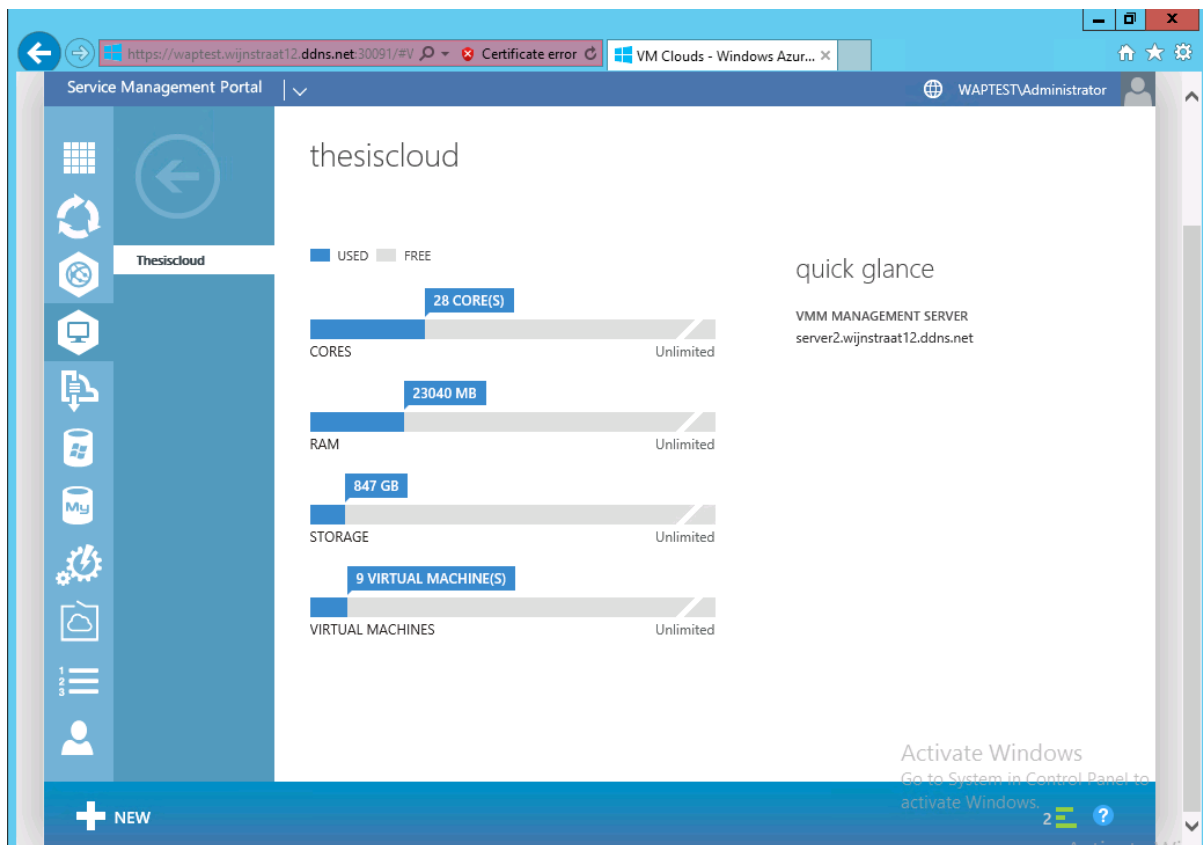


Figure 5: A brief overview.

## 2.3 Creation of the private plan

Library

- Templates
  - Service Deployment Configuratio
  - Service Templates
  - VM Templates
- Profiles
  - Application Profiles
  - Capability Profiles
  - Guest OS Profiles
  - Hardware Profiles
  - Physical Computer Profiles
  - SQL Server Profiles

Profiles (4)

Name	Type	Owner
Low-end	Hardware Profile	WIJNSTRAAT12\Administrator
Mainstream	Hardware Profile	WIJNSTRAAT12\Administrator
High-end	Hardware Profile	WIJNSTRAAT12\Administrator
Mainstream-RAM	Hardware Profile	WIJNSTRAAT12\Administrator

Figure 6: First, hardware profiles have to be made ...

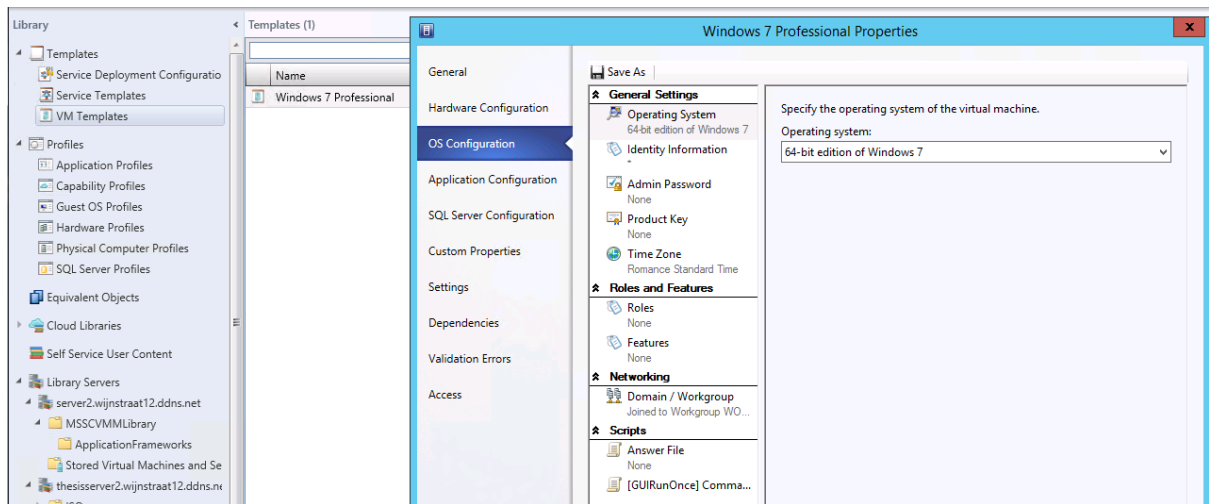


Figure 7: ... as well as VM templates.

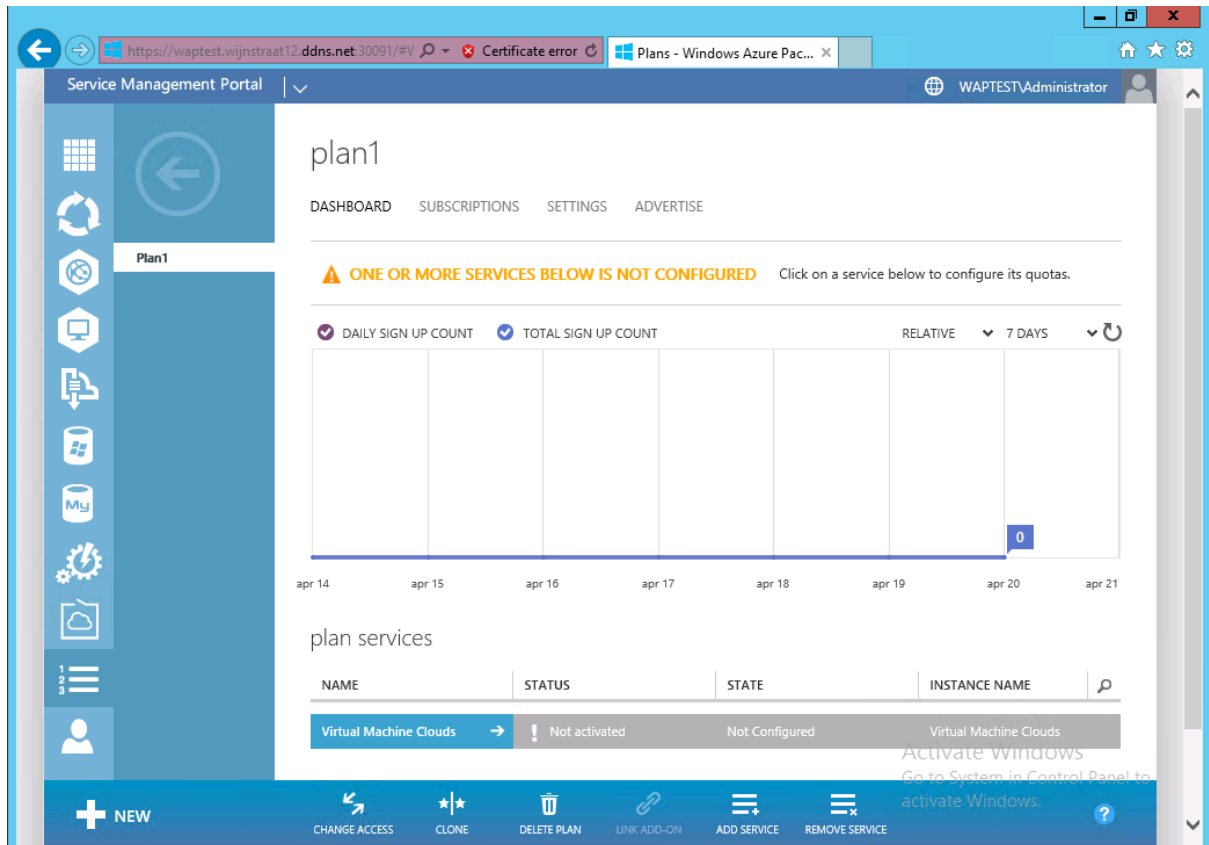


Figure 8: The raw, unconfigured plan.

Service Management Portal | WAPTESTAdministrator

## virtual machine clouds

basic

VMM MANAGEMENT SERVER: server2.wijnstraat12.ddns.net

VIRTUAL MACHINE CLOUD: Thesiscloud

usage limit

RESOURCES	AVAILABLE	USE ALL AVAILABLE	USAGE LIMIT
VIRTUAL MACHINES	UNLIMITED	<input type="checkbox"/>	4

**Figure 9:** The configuration of the plan - step 1.

Service Management Portal | WAPTESTAdministrator

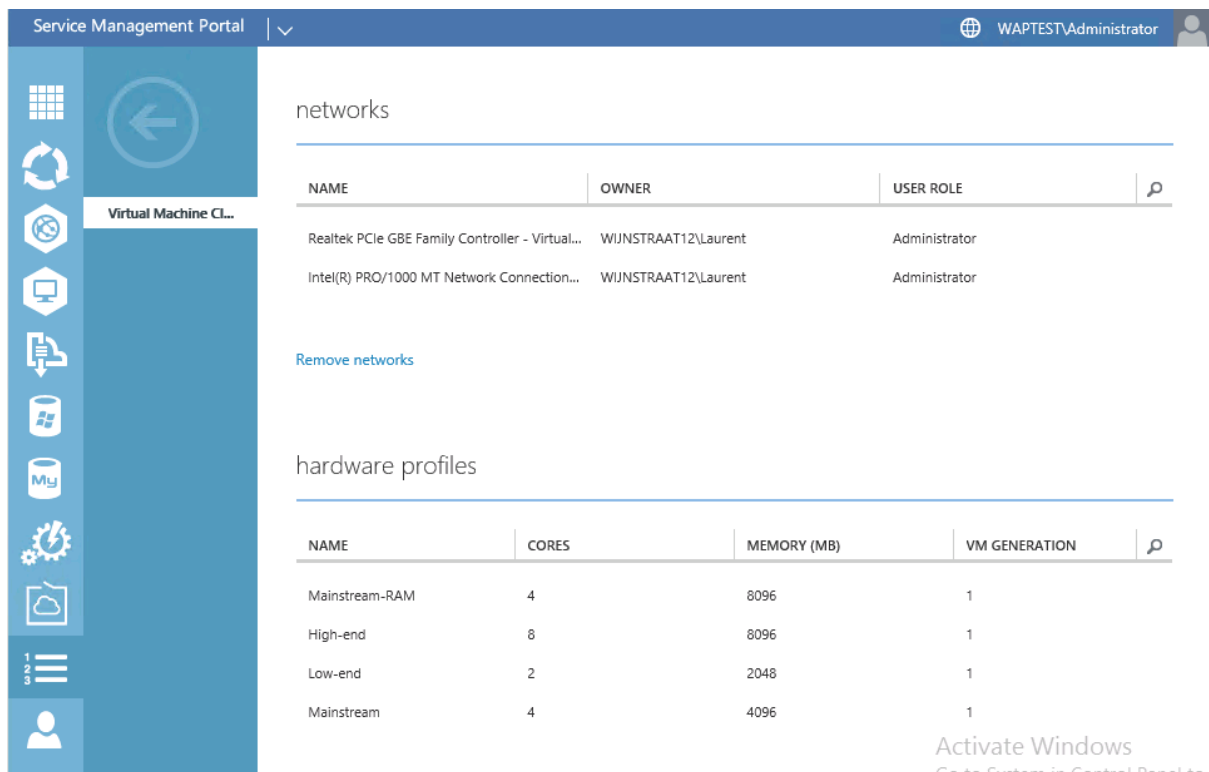
## virtual machine clouds

usage limit

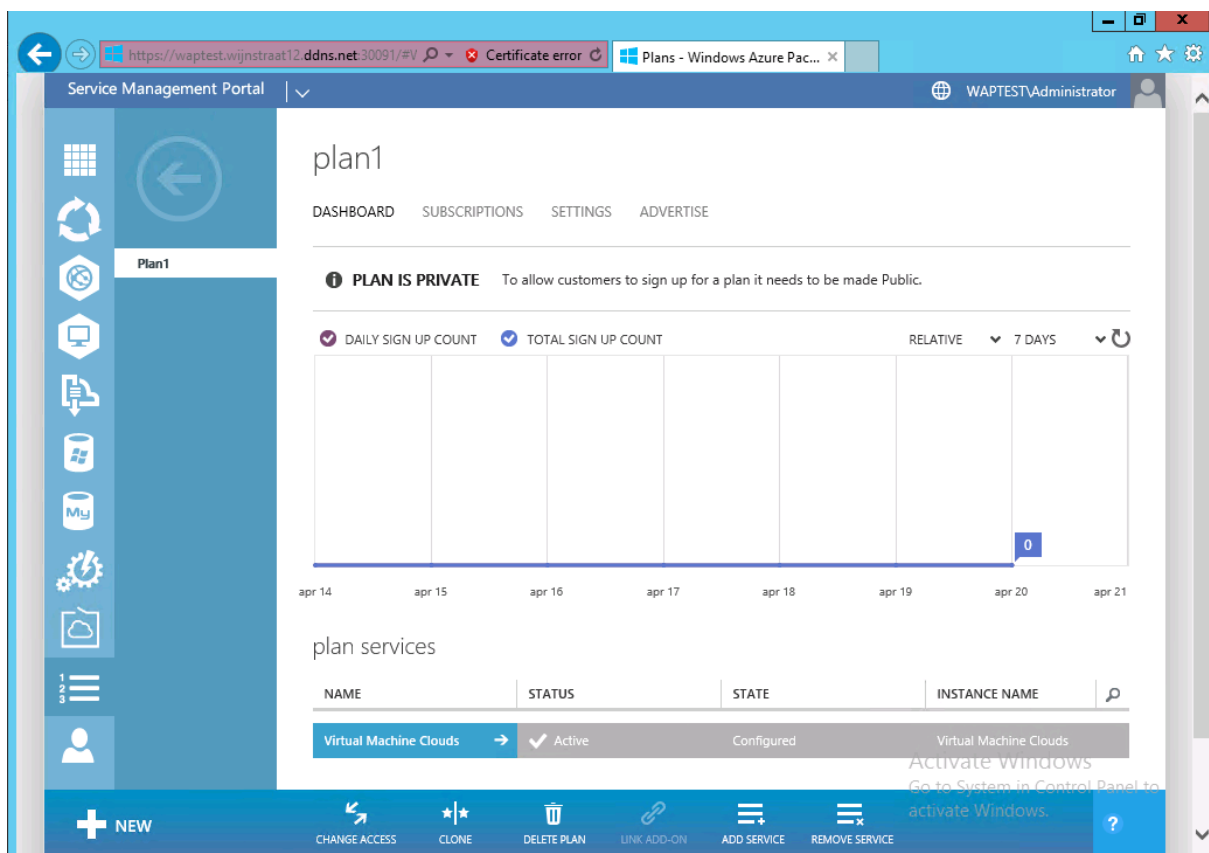
RESOURCES	AVAILABLE	USE ALL AVAILABLE	USAGE LIMIT
VIRTUAL MACHINES	UNLIMITED	<input type="checkbox"/>	4
CORES	UNLIMITED	<input checked="" type="checkbox"/>	Unlimited
RAM (MB)	UNLIMITED	<input checked="" type="checkbox"/>	Unlimited
STORAGE (GB)	UNLIMITED	<input checked="" type="checkbox"/>	Unlimited
VIRTUAL NETWORKS	UNLIMITED	<input checked="" type="checkbox"/>	Unlimited
Mb/sec/network in	Unlimited	<input checked="" type="checkbox"/>	Unlimited
Mb/sec/network out	Unlimited	<input checked="" type="checkbox"/>	Unlimited
Site-to-site VPNs per network	99	<input checked="" type="checkbox"/>	99

networks

**Figure 10:** The configuration of the plan - step 2.



**Figure 11:** The configuration of the plan - step 3.



**Figure 12:** The configured final plan.



## **Planning**

With the vSRX appliance downloaded, I will begin testing the virtual firewall.

## **Problems**

The first time I deployed the Windows Azure Pack, I ran into an issue I could not resolve. So I threw away the VM and started over. This time, the same error occurred again, but I was able to resolve it after a long-lasting search in the Event Viewer.

## **Issues**

## **Assistance**

While deploying the Windows Azure Pack and creating additional VM's, I ran short of memory, so I had to squeeze down some VM's in order to ensure the deployment of Azure.

However, I already mailed Fei and she will order 16GB of RAM.