Moving Oracle Legacy to the Microsoft Azure Cloud

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Introduction

This is a story about a customer – anonymous – with an Oracle legacy environment and a strategy to abandon their own datacenters, moving to the Microsoft Cloud.
The Legacy Environment consists (amongst others) of Oracle 10 databases (RAC) on Windows 2003.
In this presentation the challenges will be shared in getting this realized.

The project had to overcome a lot of hurdles with different foci. Technical issues were only a part of the complete challenge.

The Oracle Legacy environment

To give an idea of the starting point is:

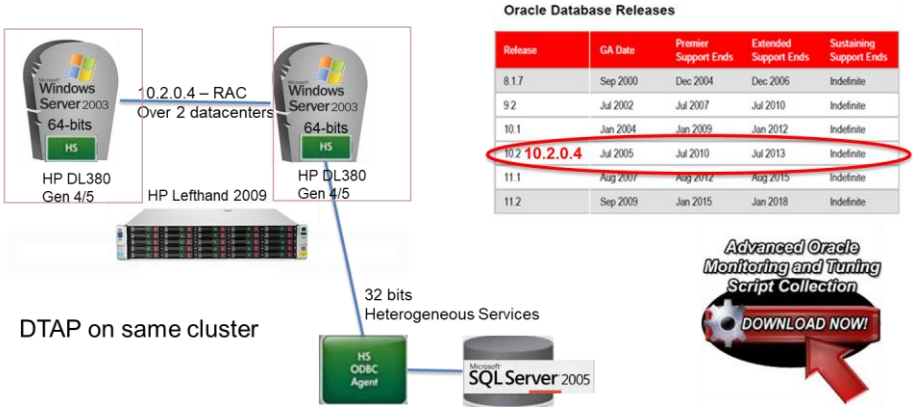

Illustration. 1: starting point server side

And as one of the clients, connected directly to the databases (guess what…) :

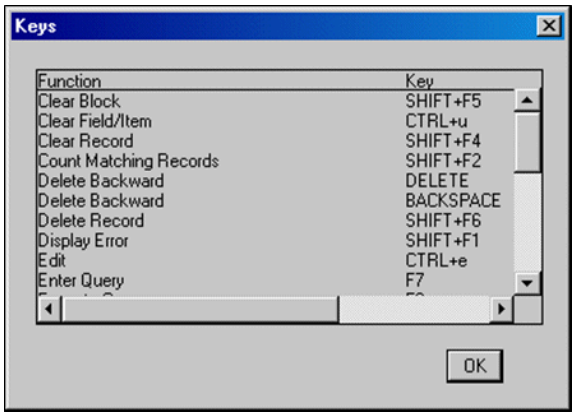

Illustration. 2: starting point part of the client side

The reasons of going to the cloud.

There are generally several reasons for going to the cloud, amongst them is flexibility, data security, costs, scalability.
In this case the business (the one who should fund this project and test the solutions) had no problem at all.

But the business was convinced in the end that they had a serious problem which needs to be solved.

Possible solutions of the acknowledged problem

There were numerous solutions of the problem. Going to the Cloud was one of them. Other solutions were also discussed, like new development, lift and shift to OracleVM, Oracle Database Appliance etc.

But when you decide that the Cloud is the way to go, which road to follow?
There are also various ways to go to the cloud: IaaS, PaaS, in one big migration step, or more fluently in two or three steps.

Design decisions

A lot of decisions had to be made while following the road to the cloud. Some of them were already chosen (Microsoft Azure with an ExpressRoute VPN in this case for example), but others are very important for the future of the environment.
As there were:

- Licenses – in Azure you get less vCPU's for your Oracle licences then on-premises. Is this a great influencer of the design.
- Which DB's in which VM's
- O.S. Windows / Linux / other?
- Which High Available solutions you choose. Oracle solutions (e.g. DataGuard) or the Azure Solutions (e.g. availability sets, GRS disks)

Hurdles

Some hurdles were related to Azure, some application-related, some organization-related.
A mix of those :

- Security issue with Windows
- Latency
- Network routings
- Knowledge
- Changing roles
- Disaster Recovery in the Cloud
- Percentage on / off

Status

What's the status of the project, did it pay-off, and what challenges lies ahead?

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