



SOFTWARE SOLUTIONS

Running BI in the Cloud – lessons learned from using Amazon AWS

Jonathan Clark
Staff Consultant
jclark@vlamis.com



VlamiS Software Solutions

- VlamiS Software founded in 1992 in Kansas City, Missouri
- Developed more than 200 Oracle BI systems
- Specializes in ORACLE-based:
 - Data Warehousing
 - Business Intelligence
 - Design and integrated BI and DW solutions
 - Training and mentoring
- Expert presenter at major Oracle conferences
- www.vlamiS.com (blog, papers, newsletters, services)
- Beta tester for OBIEE 11g
- HOL Coordinator for 2013 Collaborate Conference



About Me

- I have worked as both the Office Manager and as a Consultant with Vlami for over a dozen years.
- I am responsible for all Amazon Web Services management and training within our team.
- I have worked with clients with Oracle BI, Oracle OLAP, Application Express, and BI Publisher.
- I love giving training and answering questions.
- I am a regular performer with the Kansas City Renaissance Festival and various historical theatrical events and vaudeville.
- It is real. I use Clubman Mustache Wax. No, I do not use curlers.





Thank You Amazon AWS

A big THANK YOU to Amazon AWS, and especially Bruce Burns (bb@amazon.com) for sponsoring yesterday's hands-on labs and providing a rock-solid hosting environment for us to make use of.



Objectives

- Review several technical training environments and the challenges and benefits of each.
- Amazon Web Services (AWS) Overview
- Tips and Tricks for Computer Lab Classes
- Witness the ease of using a self-serve Oracle Business Intelligence server for on-demand and hands-on training.



Technical Training Environments - Challenges

- The bullet proof training environment must handle:
 - Hard Errors
 - Oops, I didn't follow the instructions
 - Vandalism - I was only trying to check FaceBook and...
- You must fit the hardware and labor of maintenance in the always strained training budget.
- The answer doesn't make your hair fall out, or worse, your manager's.



Technical Training Environment Examples

- Simulation Computer Based Training
- Cloned PCs
- Centralized Servers
- VMWare
- VirtualBox
- Oracle OnDemand
- Amazon Electronic Compute Cloud (EC2)



What works and what doesn't work?

- Simulation Computer Based Training
 - What Works:
 - Does not require internet connectivity
 - Total control
 - Secure
 - Vandal proof
 - What doesn't Work:
 - Expensive equipment and software
 - Limits class size
 - Does not allow for exploration or deviation from exercises



What works and what doesn't work?

- Cloning PCs and Centralized Servers
 - What Works:
 - Does not require internet connectivity
 - Total physical control
 - Secure
 - What doesn't Work:
 - Expensive equipment
 - Hard limits to class size
 - Time for cloning and setup
 - If something breaks during class, fixing it can be impossible



What works and what doesn't work?

- VMWare and VirtualBox
 - What Works:
 - Does not require internet connectivity
 - Total physical control
 - Secure
 - If something breaks during class, fixing it is often easy
 - What doesn't Work:
 - Expensive equipment
 - Limits class size
 - Time for cloning and setup



What works and what doesn't work?

- Oracle OnDemand and Amazon Electronic Compute Cloud (EC2)
 - What Works:
 - No expensive equipment.
 - Attendees can even bring their own laptops.
 - Easy fixes for in-class failures
 - Scriptable and dynamic tool sets
 - What doesn't Work:
 - Requires internet connectivity
 - No physical control
 - Security concerns if you use your own data



Amazon Web Services – What is it?

- EC2 - A large and responsive IT department that has a seemingly infinite hardware and software budget.
- Pre-installed Server operating systems on demand.
 - Windows Server 2008 and 2012
 - Various Linux Flavors
- Server duplication on demand.
- Entire server farm duplication on demand.
- Private and public cloud environments.
- S3 - Massive online storage
- Powers a significant amount of the internet.



How you can use AWS

- Training
- Testing
- Development
- Proof of Concepts
- Production Environments

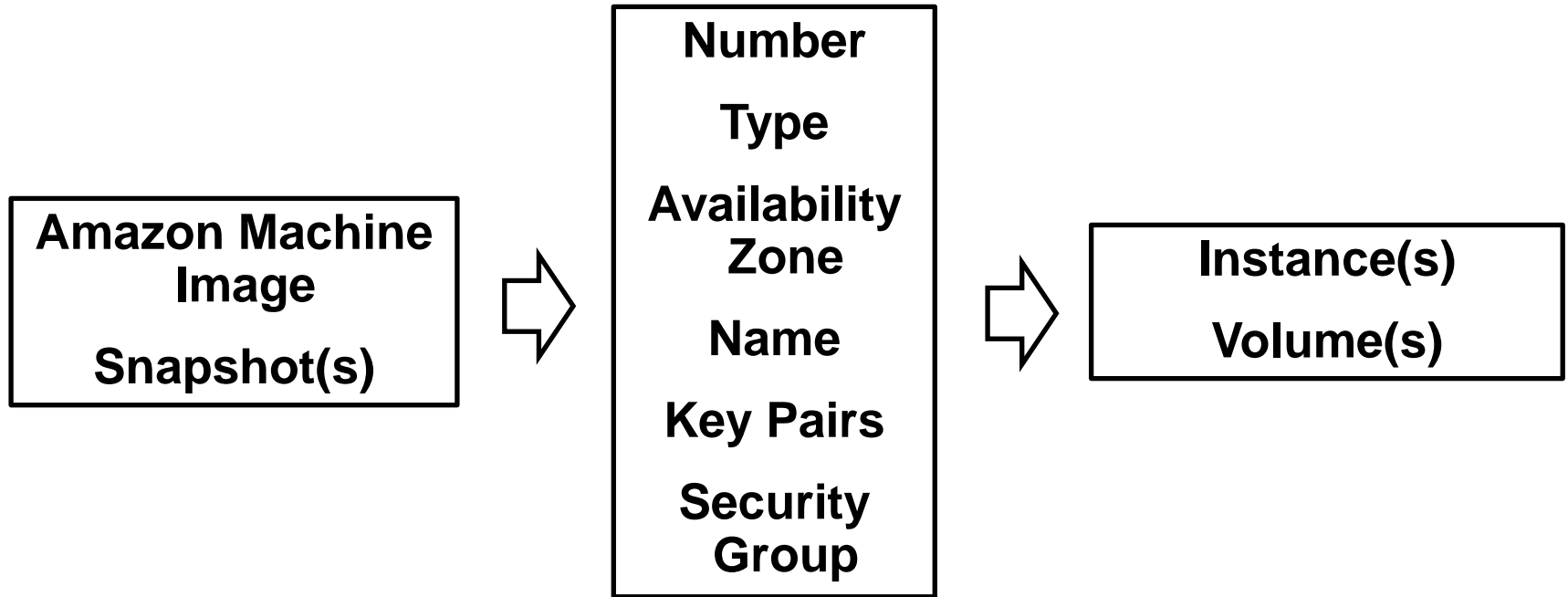


Electronic Compute Cloud Vocabulary

- Instances
 - Public / Private
- Amazon Machine Images (AMIs)
 - Quick Start
 - My AMIs
 - Community AMIs
 - AWS Marketplace
- Key Pair
- Security Group
- Elastic IPs
- Snapshots
- Volumes
- Types – Large, Extra Large
- Start / Stop / Terminate



AMI vs Instance

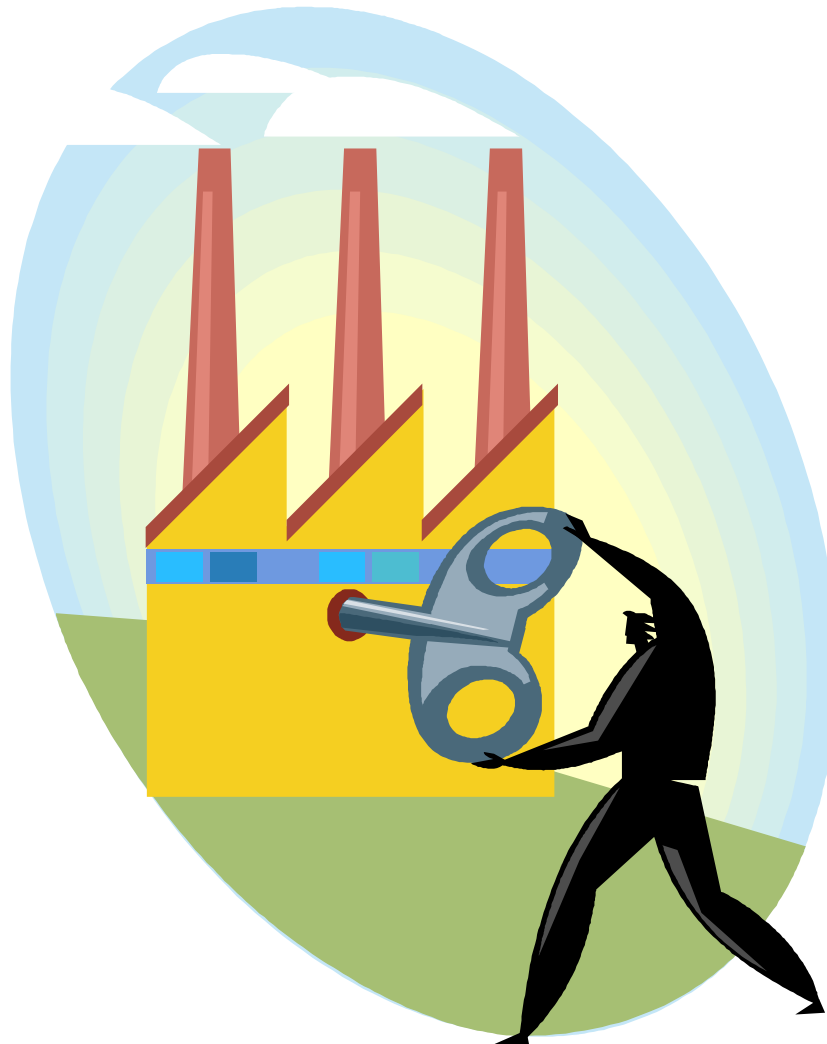




Classroom Tips and Tricks

- Build on a smaller instance than you use for production
- Test your environment with the lab materials
- Create AMIs frequently, storage is cheap!
- Create an AMI or Cloud Front for each of your classes
- Set save points by lesson in AMI
- Start an extra instance (or two!)
- Use VMs for client machines
- Print out lab material
- Have login information on the lab material
- Use Elastic IPs and your own domains
- Shut down Instances overnight to save money
- One server for multiple users or a server for each user!

Demonstration of AWS EC2 Control Panel





AWS And VlamiS

- Amazon Web Services (AWS) and VlamiS
 - How we use the AWS environment
 - VlamiS involvement in Test Drive
- Benefits of Test Drives
- VlamiS Test Drives
 - Signup Process Overview
 - OBIEE Test Drive
 - BI Publisher Test Drive
- Live Demonstration of AWS-EC2
- Questions and Answers



Benefits of Test Drives

- Completely free to the end user
- Fully configured training environment
- Backed by the power of the AWS EC2 environment
- Try it before you buy the Oracle software
- Repeatable
- Available 24/7, provisioned on demand in minutes



Vlami Test Drives

- <http://www.awstestdrive.com>

Oracle Fusion Middleware

Oracle Business Intelligence

This test drive will present a quick overview of OBIEE 11g and allow users to create reports and dashboards for themselves. The lab uses version 11.1.1.6 of Oracle BI and showcases the following features: adhoc reports, graphs, maps, and color-coding.



Powered by:
 **vlami**[™]
SOFTWARE SOLUTIONS

Oracle BI Publisher

This test drive covers using Oracle BI Publisher 11g to create simple reports based on Oracle Database. Also, it shows you how to create report layouts using the Layout Editor online, and how to schedule reports.



Powered by:
 **vlami**[™]
SOFTWARE SOLUTIONS

Excel Analysis of OLAP Data


This test drive allows you to see how easy it is to view and analyze data using Microsoft Excel from data from the Oracle database. Data is stored in cube objects in the Oracle database using the Oracle OLAP option. This data is accessed in Excel via the MDX Provider for Oracle OLAP from Simba Technologies.



Powered by:
 **vlami**[™]
SOFTWARE SOLUTIONS

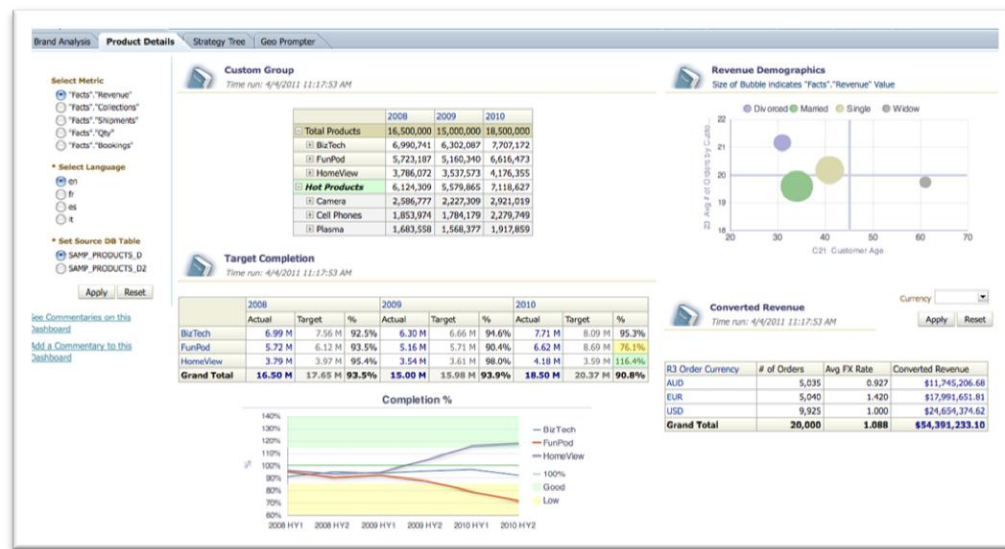


Signup Process Overview

- Visit AWS Oracle website or VlamiS.com
- Click on the Try it Now icon 
- Sign up
- Receive email with login information
- Directed to website with dedicated server connection information and hands on lab instructions
- Connect to Server with Remote Desktop
- Perform Test Drive

OBIEE Test Drive

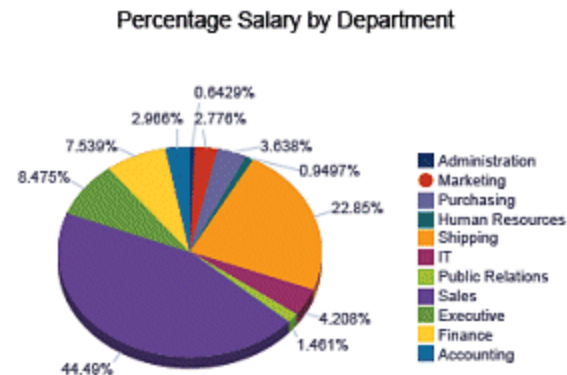
- Quick overview of OBIEE 11g
- Create Reports
- Create Dashboards
- The lab uses version 11.1.1.6.2 BP1 with SampleApp v207 of Oracle BI and showcases the following features:
 - Adhoc reports,
 - Graphs
 - Maps
 - Color-coding





BI Publisher Test Drive

- This test drive covers using Oracle BI Publisher 11g to create simple reports from the Oracle Database.
- Create data connections to multiple sources
- Create data models
- Create report layouts using the Layout Editor online
- Schedule reports



Excel Analysis of OLAP Data Test Drive

- This test drive allows you to see how easy it is to view and analyze data using Microsoft Excel from data from the Oracle database.

ec2-54-242-125-103.compute-1.amazonaws.com - Remote Desktop Connection

Microsoft Excel

PivotTable Tools: Options, Design

File Home Insert Page Layout Formulas Data Review View

Clipboard Font Alignment Number Styles Cells Editing

Calibri 11

General Conditional Formatting Format as Table Cell Styles

Insert Delete Format Sort & Find & Filter Select

A6 fx Cameras and Camcorders

OracleOLAP

PivotTable Field List

Choose fields to add to report:

Σ Values

☐ Cross Over Best Fit Fcst

☐ Cross Over Linear Regression

☐ How Is Sales Ytd

☐ Pct Of 2008

☐ Product Alert

Drag fields between areas below:

Report Filter: Sales Channel

Column Labels: Calendar

Row Labels: Standard

Σ Values: Sales

☐ Defer Layout Update

Update

	CY2007	CY2008	CY2009	Grand Total
Sales Channel	All Channels			
Sales	Column Labels			
Row Labels				
Computers	\$96,378,266.08	\$112,123,808.09	\$127,906,615.22	\$336,408,689.39
Cameras and Camcorders	\$8,854,901.64	\$10,572,098.22	\$12,393,248.54	\$31,820,248.40
Cameras and Accessories	\$4,786,410.84	\$6,056,792.62	\$7,058,155.94	\$17,901,359.40
Cameras	\$1,218,495.10	\$1,737,862.74	\$2,149,738.81	\$5,106,096.65
Camera Accessories	\$3,567,915.74	\$4,318,929.88	\$4,908,417.13	\$12,795,262.75
Camcorders and Accessories	\$4,068,490.80	\$4,515,305.60	\$5,335,092.60	\$13,918,889.00
Camcorder Accessories	\$3,696,516.40	\$4,023,098.00	\$4,655,537.60	\$12,375,152.00
Camcorders	\$371,974.40	\$492,207.60	\$679,555.00	\$1,543,737.00
Portable Music and Video	\$15,102,590.70	\$16,264,253.09	\$17,919,235.69	\$49,286,079.48
Grand Total	\$120,335,758.42	\$138,960,159.40	\$158,219,099.45	\$417,515,017.27



Demonstration and Walkthrough





Questions?





Handy Links / References

- Amazon AWS
 - <http://aws.amazon.com>
- Our Blog
 - <http://www.vlamis.com/blog>
- Test Drives on AWS
 - <http://awstestdrive.com>



Jonathan Clark
Staff Consultant
jclark@vlamis.com
816-781-2880