Sizing Openbravo: choosing the right hardware

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Openbravo

October 28, 2010
Outline

1. Overview and challenges
   - Problem
   - Definition
   - Solution

2. Creating the sizing tool
   - Key metrics
   - Guidelines
   - Sizing tool

3. 3 use cases

4. Summary

5. Q&A
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5. Q&A
Problem

- 1 system integrator.
- 1 Openbravo ready to be deployed.
- 1 customer.
More problems

- How do I know what hardware to choose?
- Am I aware of the possible consequences?
  - Costs ↑
  - Customer satisfaction ↓
More problems

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  - Customer **satisfaction** ↓

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release management team, openbravo
sizing openbravo: choosing the right hardware
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Customize Openbravo for a customer.

Next you’d like to deploy it.

Sizing exercise: select the right hardware.

Install Openbravo and deploy your customizations.

The customer goes live.
Problem

- **Customize** Openbravo for a customer.
- Next you’d like to **deploy** it.
- **Sizing exercise**: select the right hardware.
- **Install** Openbravo and deploy your customizations.
- The customer goes **live**.
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Sizing

An **approximation** of the **hardware resources** required to support a specific software implementation, given certain **requirements**
Solution: overview

Sizing tool

Experience with real customers

Benchmarking tool

Compute

Number of concurrent users

This is you

Hardware details
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Key metrics

- Concurrent number of users.
- Database: PostgreSQL, Oracle.
- Other requirements, e.g. large attachments.
Key metrics: concurrent users

- Most fundamental input from the system integrator.
- How do I get the right number? → **User profiling**:
  - Number of employees.
  - Number of potential ERP users.
  - Classify these users depending on their usage.
  - Analyze your customer’s ERP workflows.

**Beware**

Take your time analyzing the requirements. It’s worth the time invested!
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Guidelines

1. Analyze some key customers: concurrent users and hardware.
2. Openbravo’s extensive experience in Amazon EC2.
3. With these two elements combined: **sizing guidelines**.

What are the sizing guidelines?

A table where you can find a hardware - concurrent users relationship.
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### Guidelines

<table>
<thead>
<tr>
<th>ID</th>
<th>Topology</th>
<th>EC2 instance type (single server)</th>
<th>EC2 instance type (database server)</th>
<th>Database</th>
<th>Optimal concurrent users</th>
<th>Maximum concurrent users</th>
<th>Architecture</th>
<th>EC2 Compute Units (single server)</th>
<th>EC2 Compute Units (application server)</th>
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2. Write JMeter tests.
3. Write a dataset generator.
4. Run the benchmarks with different hardware and concurrent users.

The big test
The tool and the guidelines matched in the results!
Sizing tool creation process

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Case 1

**Conditions:**
- I run standard Openbravo flows.
- Estimated number of concurrent users. Example: 20

**How to use the tool:**
1. Open the sizing tool document and look up for the table.
2. See the hardware required for 30 concurrent users:
   - *Amazon EC2:* c1.medium instance.
   - *Real hardware:* Core 2 Duo 2GHz, 3 GB RAM, disk 10000 rpm.

- The most common case.
- Difficulty: simple!
- Time required: 5 minutes
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- Difficulty: **simple**
- Time required: **5 minutes**
Case 2

Conditions:

- I run standard Openbravo flows.
- Estimated number of concurrent users. Example: 50.
- I want to validate existing hardware against this configuration.

How to use the tool:

1. Open the sizing tool document and download the sizing tool.
2. Follow the instructions to run the tool.
3. Learn to interpret the results.

- Difficulty: moderate
- Time required: 2-4 hours.
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- **Time required:** 2-4 hours.
Case 3

Conditions:
- I don’t run standard Openbravo flows.
- I’ve estimated the number of concurrent users. Example: 100.

How to use the tool:
1. Open the sizing tool document and download the sizing tool.
2. Learn how to write JMeter tests, based on the ones already developed.
3. Run the sizing tool against your hardware.

- Difficulty: advanced
- Time required: 1-2 weeks.
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Summary

- Sizing is an important exercise you rally want to do.
- Using this tool optimizes your customer’s real needs.
- You’ll potentially avoid increasing costs.
- In 90% of the cases it will take $< 1h$ of your time.
Thank you.
Questions?

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http://jpabloae.wordpress.com
IRC:iarwain(Freenode)

Article about the sizing tool: http://ln-s.net/7zde