

# Sizing Openbravo: choosing the right hardware

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Release Management Team  
Openbravo

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# Outline

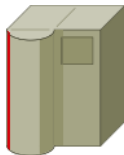
- 1 Overview and challenges
  - Problem
  - Definition
  - Solution
- 2 Creating the sizing tool
  - Key metrics
  - Guidelines
  - Sizing tool
- 3 3 use cases
- 4 Summary
- 5 Q&A

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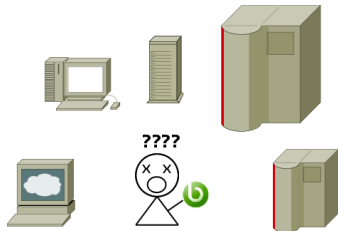
# Problem

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



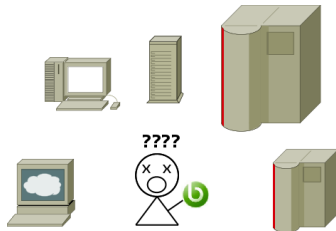
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- How do I know what hardware to choose?
- Am I aware of the possible consequences?
  - **Costs** ↑
  - Customer **satisfaction** ↓



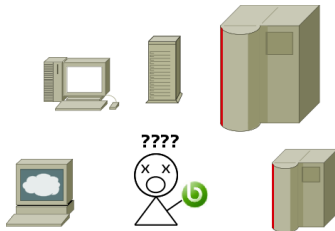
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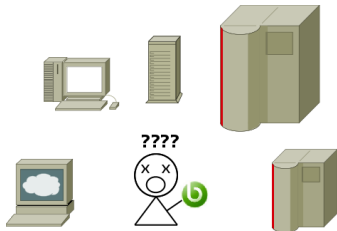
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- **Customize** Openbravo for a customer.
- Next you'd like to **deploy** it.
- **Sizing exercise**: select the right hardware.
- **Install** Openbravo and deploy your customizations.
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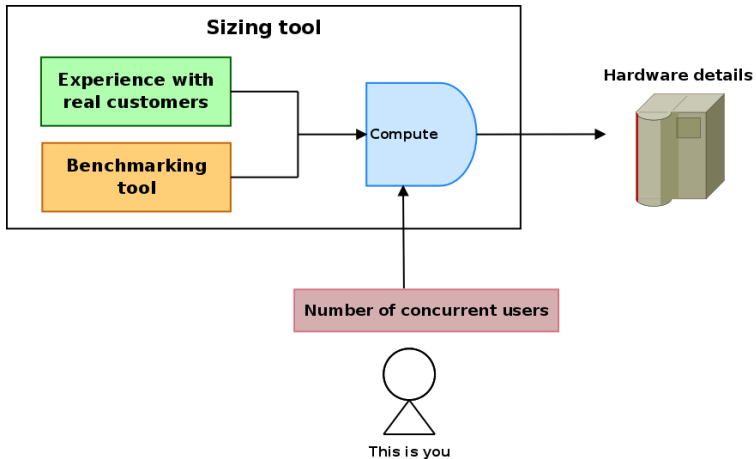
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# Definition

## Sizing

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

## Solution: overview



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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.
  - Clasify 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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## What are the sizing guidelines?

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

# Guidelines

ID	Topology	EC2 instance type (single server)	EC2 instance type (application server)	EC2 instance type (database server)	Database	Optimal concurrent users	Maximum concurrent users	Architecture	EC2 Compute Units (single server)	EC2 Compute Units (application server)
1	Single	m1.small			PostgreSQL	10	10	32-bit (x86)	1	
2	Single	c1.medium			PostgreSQL	20	20	32-bit (x86)	5	
3	Single	m1.large			PostgreSQL	20	20	64-bit (x86_64)	4	
4	Single	m1.large			Oracle	20	20	64-bit (x86_64)	4	
5	Single	c1.xlarge			PostgreSQL	20	20	64-bit (x86_64)	20	
6	Single	c1.xlarge			Oracle	20	20	64-bit (x86_64)	20	
7	Single	m1.xlarge			Oracle	20	20	64-bit (x86_64)	8	
8	Single	m2.xlarge			Oracle	20	20	64-bit (x86_64)	6.5	
9	Dual		m1.large	m1.large	Oracle/PostgreSQL	20	20	64-bit (x86_64)		4
10	Dual		m2.xlarge	m2.xlarge	Oracle/PostgreSQL	20	20	64-bit (x86_64)		6.5
11	Dual		m2.xlarge	c1.xlarge	Oracle/PostgreSQL	20	20	64-bit (x86_64)		20
12	Dual		n/a	n/a	Oracle	20	20	64-bit (x86_64)		n/a
13	Dual		c1.xlarge	c1.xlarge	Oracle	20	20	64-bit (x86_64)		6.5
14	Single	cc1.4xlarge			Oracle	20	20	64-bit (x86_64)	33.5	

# Sizing tool creation process

- 1 Select the key ERP flows.
- 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!

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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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### 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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### Conditions:

- I **don't** run standard Openbravo flows.
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### How to use the tool:

- 1 Open the sizing tool document and download the sizing tool.
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- Difficulty: **advanced**
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## Summary

- Sizing is an important exercise you really 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.

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# Questions?

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

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