

# How to Create an Environment for Web Production

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## Projects inside DAPA

DAPA offer two different solutions for developing projects and that requires a production environment (Web Server).

1. Instance in Amazon Web Services.
2. Instance in CIAT IT department.

This document will let you know only the process of acquiring a server on the cloud through Amazon Web Services (AWS). If have decided to acquire a server with the IT area please contact Help Desk [ciat-mesadeayuda@cgiar.org](mailto:ciat-mesadeayuda@cgiar.org). Otherwise please read carefully this document and answer the questions at the end in order to get an instance in AWS.

Amazon currently is offering 2 different types of instances: previous and current generation. We recommend you to focus on the current generation instances.

To select the type of instance you will need, please follow up these steps:

1. Identify the technical requirements for the application to be developed
2. Review the following table and identify what type of instance you will need.
3. Define if you are going to hire the server on-demand (you will pay at the end of the month only what you used), at 1 year or 3 years.  
Note that 3 years instances may represent up to 65% savings compared to the value that you would pay on-demand.

## Creation Time Production Environment

Once you send the Project requirements, the creation and implementation time is 2 working days. The leader of the project will be given a **user/password** with their respective privileges for each request.

## Budget

The cost of each instance could vary depending on each project. Below you will find estimated values for each type of instance. There are one table for instances on demand, one for 1-year reserved instances and another for 3-year reserved instances.

## Support

At administrative level, includes support in the creation, implementation and development of the instance; AMI installation (Amazon Machine Image) that contains the operative system and some already pre-configured applications.

## Technical Specifications on AWS Instances

Those are the options we have on Amazon:

	Performance Measurements							
	Instance size	Instance type	Processor	CPUs virtuales	Memory (GB)	Storage (GB)	Network Performance	Operative System
Previous Generation	Large	m3.large	2.9 GHz Intel Xeon - 32/64 bits	2	7.5	SSD 1 x 32	Moderate	Linux/Windows
Previous Generation		c3.xlarge	2.9 GHz Intel Xeon - 32/64 bits	4	7.5	SSD 2 x 40	Moderate	Linux/Windows
Previous Generation		m1.large	2.9 GHz Intel Xeon - 32/64 bits	2	7.5	2 x 420	Moderate	Linux/Windows
Current Generation		c4.xlarge	2.9 GHz Intel Xeon - 32/64 bits	4	7.5	-	Moderate	Linux/Windows
Current Generation		r3.large	2.9 GHz Intel Xeon - 32/64 bits	2	15.2	SSD 1 x 32	Moderate	Linux/Windows
Previous Generation	Medium	m1.medium	2.9 GHz Intel Xeon - 32/64 bits	1	3.7	1 x 410	Moderate	Linux/Windows
Previous Generation		m3.medium	2.9 GHz Intel Xeon - 32/64 bits	1	3.7	SSD 1 x 4	Moderate	Linux/Windows
Previous Generation		c1.medium	2.9 GHz Intel Xeon - 32/64 bits	2	1.7	1 x 350	Moderate	Linux/Windows
Current Generation		t2.medium	2.9 GHz Intel Xeon - 32/64 bits	2	4	-	Low	Linux/Windows
Previous Generation	Small	m1.small	2.9 GHz Intel Xeon - 32/64 bits	1	1.7	1 x 160	Low	Linux/Windows
Current Generation		t2.small	2.9 GHz Intel Xeon - 32/64 bits	1	2	-	Low	Linux/Windows

## Prices

				3 years All Upfront Reserved	1 year All Upfront Reserved
Operative System: <b>Linux</b>	Instance Name	On-demand hourly cost		One-time payment	One-time payment
PG	Large	m3.large	\$ 0.154	\$ 1,410.3	\$ 751.0
PG		c3.xlarge	\$ 0.231	\$ 2,172.6	\$ 1,102.3
PG		m1.large	\$ 0.193	\$ 1,598.4	\$ 835.0
CG		c4.xlarge	\$ 0.255	\$ 2,383.8	\$ 1,303.6
CG		r3.large	\$ 0.193	\$ 1,674.3	\$ 813.0
PG	Medium	m1.medium	\$ 0.087	\$ 772.0	\$ 413.0
PG		m3.medium	\$ 0.070	\$ 687.0	\$ 372.0
PG		c1.medium	\$ 0.130	\$ 1,312.4	\$ 671.0
CG		t2.medium	\$ 0.052	\$ 607.0	\$ 302.0
PG	Small	m1.small	\$ 0.044	\$ 399.0	\$ 206.0
CG		t2.small	\$ 0.026	\$ 303.0	\$ 151.0

Storage monthly cost\*: 50 GB USD \$2 + Backup = USD \$8

PG: Previous generation

CG: Current generation

				3 years All Upfront Reserved	1 year All Upfront Reserved
Operative System: <b>Windows</b>	Instance Name	On-demand hourly cost		One-time payment	One-time payment
PG	Large	m3.large	\$ 0.266	\$ 3,576.2	\$ 1,150.0
PG		c3.xlarge	\$ 0.376	\$ 6,233.8	\$ 2,554.3
PG		m1.large	\$ 0.299	\$ 4,139.4	\$ 1,773.3
CG		c4.xlarge	\$ 0.398	\$ 6,432.9	\$ 2,753.4
CG		r3.large	\$ 0.300	\$ 4,111.9	\$ 1,864.6
PG	Medium	m1.medium	\$ 0.149	\$ 1,985.6	\$ 844.0
PG		m3.medium	\$ 0.133	\$ 1,752.4	\$ 749.0
PG		c1.medium	\$ 0.210	\$ 3,245.1	\$ 1,343.2
CG		t2.medium	\$ 0.072	\$ 859.0	\$ 455.0
PG	Small	m1.small	\$ 0.075	\$ 960.0	\$ 419.0
CG		t2.small	\$ 0.036	\$ 430.0	\$ 232.0

Storage monthly cost\*: 50 GB USD \$2 + Backup = USD \$8

## Requirements

In order to justify the instance acquirement on AWS or CIAT we need you to answer the following questions please:

1. What is your target audience?
2. Who are the main users of the application?
3. Who are and where are located the administrators of the application?
4. Document that describes the application.
5. Type of instance to hire?
6. Contracting period of time
7. Cost Center

These responses will be sent to CIAT IT department in order to validate and obtain an authorization.

Please send your answers to the following e-mails:

- Dolly Gómez ([d.m.gomez@cgiar.org](mailto:d.m.gomez@cgiar.org))
- Jorge Cardona ([j.cardona@cgiar.org](mailto:j.cardona@cgiar.org))
- Paola Camargo ([p.a.camargo@cgiar.org](mailto:p.a.camargo@cgiar.org))