

Cloud computing

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What is cloud computing?

- ❖ Cloud computing is a general term used to describe a new class of network based computing that takes place over the internet.
- ❖ Pay for use and as needed, elastic.
- ❖ The hardware and software services are available to general public, enterprises, corporations and businesses markets.
- ❖ Cloud computing is an umbrella term used to refer to internet based development and services.
- ❖ A number of characteristics define cloud data, applications service and infrastructure:
 1. remote hosted
 2. ubiquitous
 3. commodified

What is EC2?

- ▶ (Elastic compute cloud) EC2 is a web-service which aims to make life easier for developers by providing secure and resizable compute capacity in the cloud.



Can be integrated into
several other services



Easy in scaling up/down

Long-running applications require continuous computing resources.



Applications with specific server requirements or need complete control over the server environment.



Applications that require persistent storage and stateful operations.



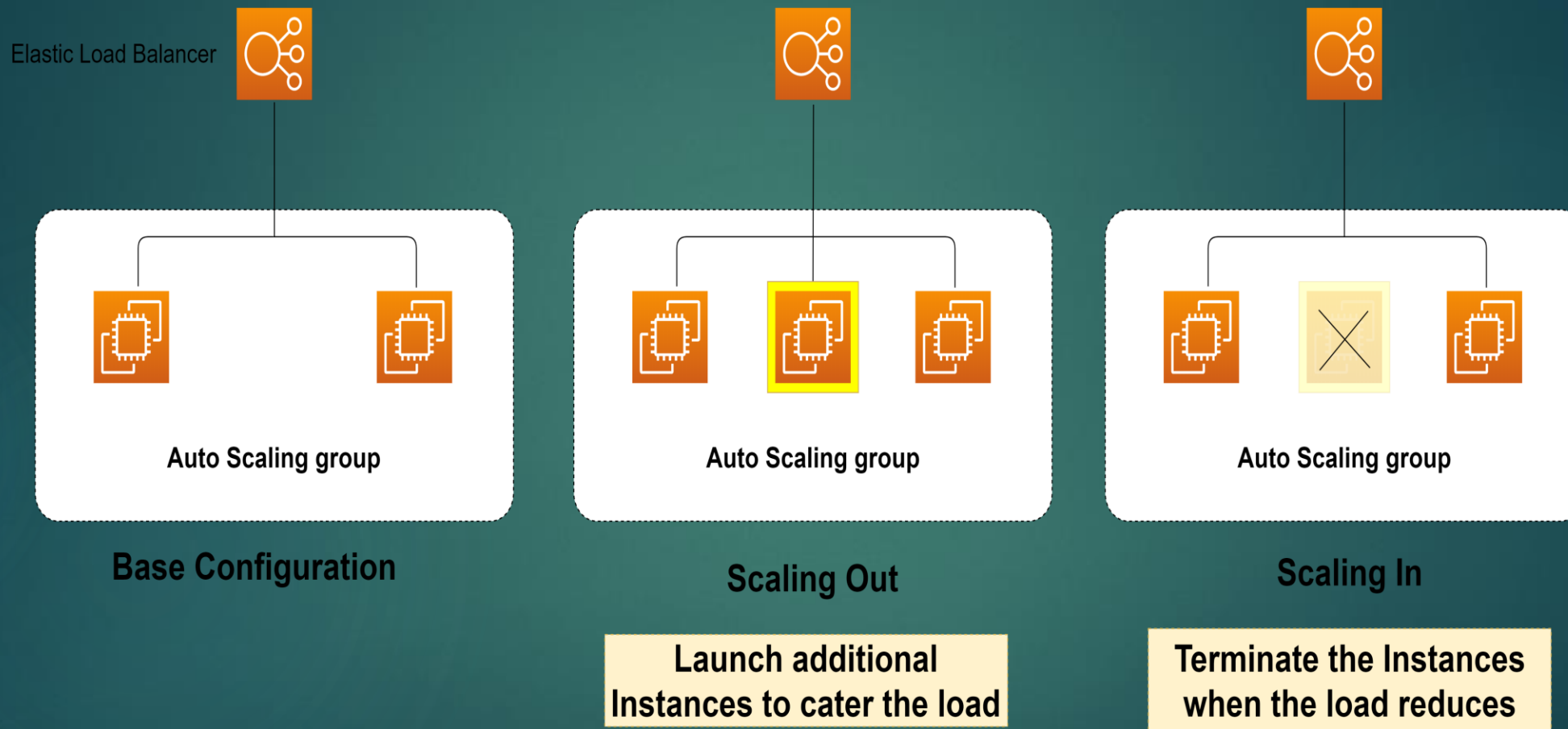
When to Use AWS EC2



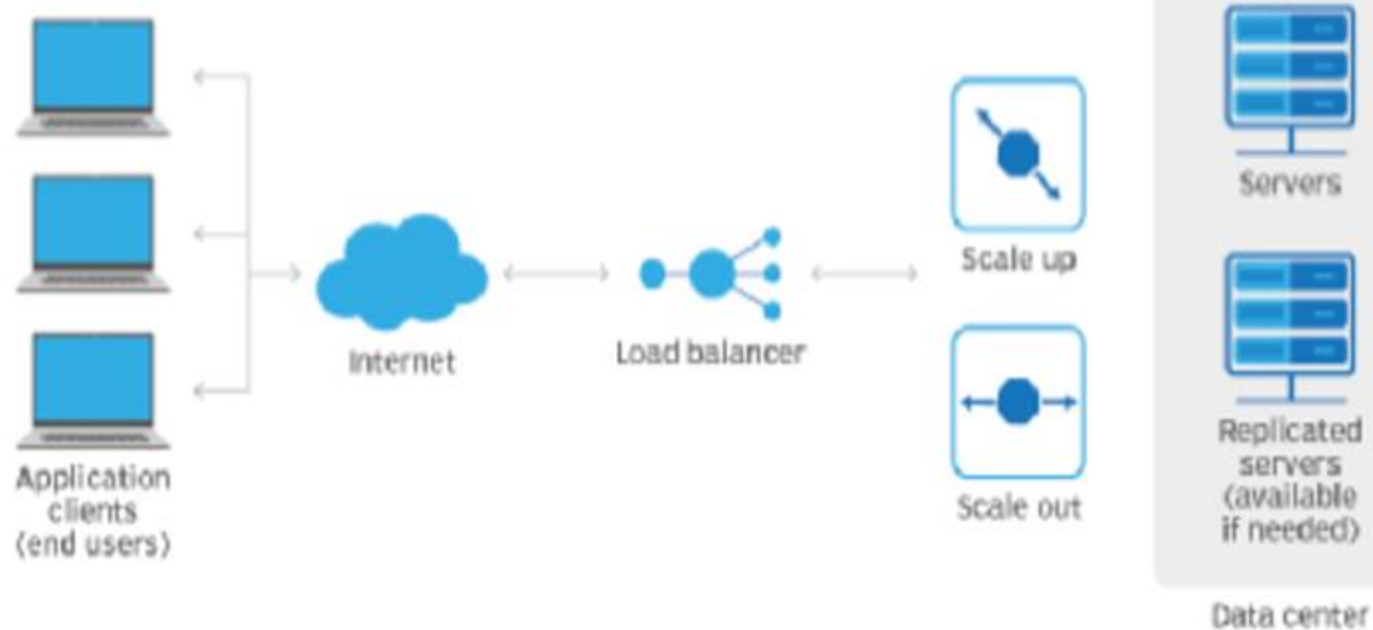
EC2 Pricing

- ▶ On demand : allow you to pay a fixed rate by the hour(or by the second) with no commitment.
- ▶ Reserved : provide you with a capacity reservation and offer a significant discount on the hourly charge for an instance 1 or 3 year terms.
- ▶ Spot : enable you to bid whatever price you want for instance capacity,providing for even grater savings if your applications have flexible start and end times.
- ▶ Dedicated hosts : physical EC2 server dedicated for your use. Dedicated hosts can help you reduce costs by allowing you to use your existing server-bonus of software license.

EC2 Auto Scaling



How autoscaling works



EC2: Do you need Auto-Scaling?



"I've got instances serving a business-impacting application"

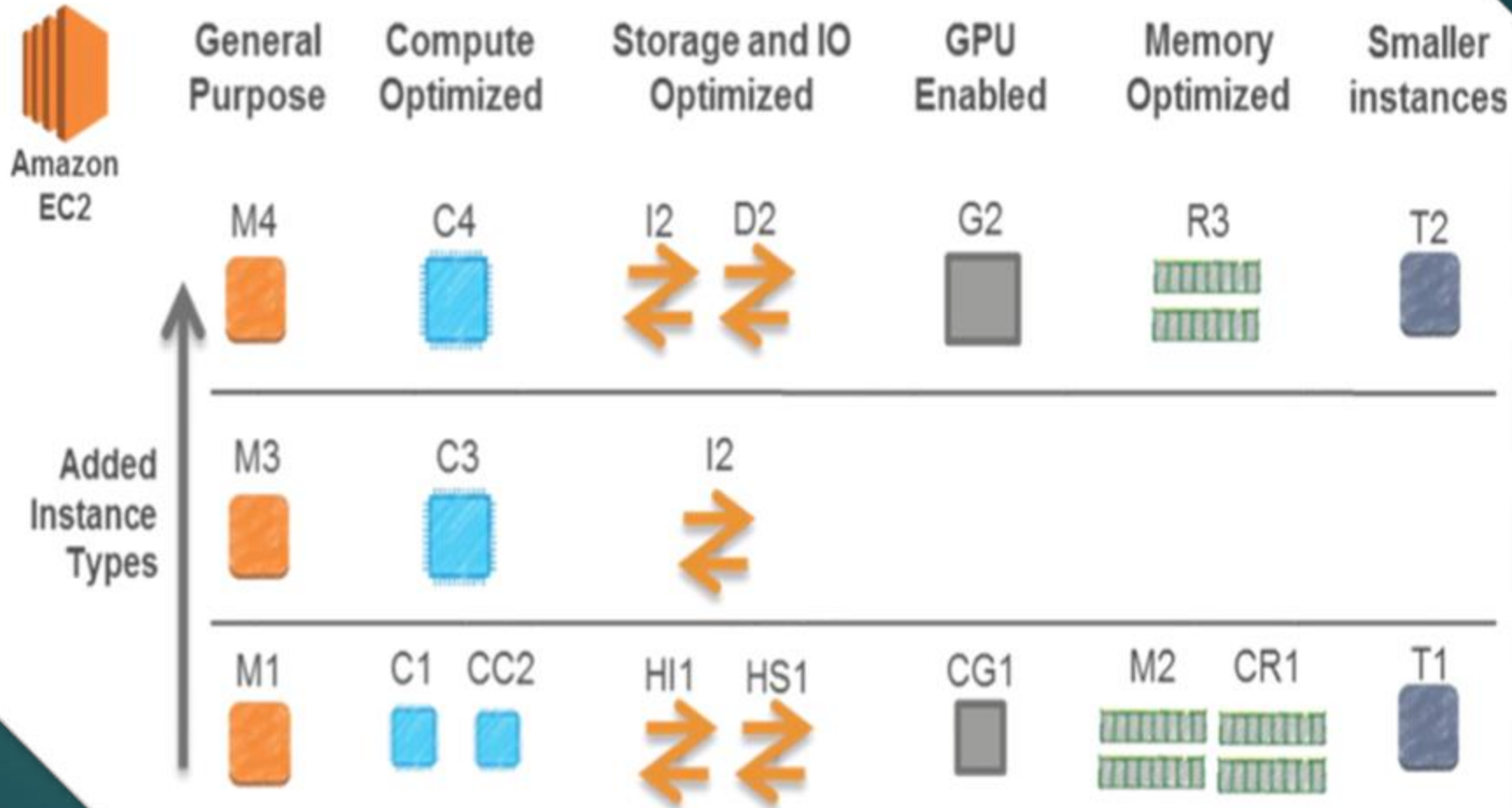


"If my instances become unhealthy, I'd like them replaced automatically"




"I would like my instances distributed to maximize resilience"

Amazon EC2: Instance Types



Access Amazon EC2

- ❖ **Amazon EC2 console** : A simple interface to create and manage amazon EC2 instances and resources. If you've signed up for an AWS account,you can access the amazon EC2 console by signing into the AWS management console and selecting EC2 from the console home page.
- ❖ **AWS command line interface** : Enables you to interact with services using commands in your command-line shell.it is supported on windows,mac,linux.you can find the amazon EC2 commands in the AWS CLI command reference.
- ❖ **AWS cloudformation** : Amazon EC2 supports creating resources using aws cloudformation.you create a template in JSON or YAML format that describes your AWS resources and you can reuse those templates to provision the same resources multiple times.

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- ▶ **Query API** : Amazon EC2 provides a query API. These request are HTTP or HTTPS requests that use the HTTP verbs GET or POST and a query parameter named ACTION.

THANK YOU!