AWS y VPC

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AWS.

Amazon Web Services (AWS) it's a platform in the cloud that includes over 175 services of data centers globally today is the biggest company in cloud, this services provide to their clients some efficient infrastructure technologies like storage and databases even emerging technologies like artificial intelligence, internet of thing analysis.

AWC categories:

Cloud computing: everything you need to create instances and their maintenance.

Databases: different types of databases can be used in the cloud through the Amazon RDS service, includes different databases like: MySQL, PosgreSQL, Oracle, SQL Server and Amazon aurora or Amazon DynamoDB for NoSQL.

Virtual networks creation: allows the creation of virtual networks in the cloud.

Business applications: Amazon WorkMail it's the service of business email that Amazon offers.

Storage and content managers: different types of storage, whether for files with regular, infrequent access or even as an archive. Amazon S3 is the main service, although others such as Amazon Glacier or Amazon EBS complement the offer.

Business Intelligence: Analysis systems for business data and others services for data flow management.

Mobile applications management: tools like Amazon Mobile Hub allows the management, creation, testing and maintenance of mobile applications through the cloud.

Internet of things: to establish connections and analysis of all devices connected to the internet and the data collected by them.

Developers tools: to store code, deploy it automatically, or even publish software using a continuous delivery system.

Security and access control: Multi-step authentications can be established to protect access to your internal systems, whether in the cloud or installed locally on your premises.

VPC.

Amazon Virtual Private Cloud it´s a network layer for Amazon EC2

Amazon Elastic Cloud (Amazon EC2) provides scalable computing capacity in the amazon web services (AWS). The use of EC2 eliminates your need to invest in hardware, so you can develop and deploy application faster. It´s also allows deploy virtual servers many as we need, configure security and networking, and manage storage.

Amazon Virtual Private Cloud (VPC) it's a service that allows to the user provision an isolated section of the AWS cloud in a logic way, where you can launch resources from the AWS in a virtual network. This service can control all the aspects of a virtual network as the creation of subnets, routing tables configuration and network gateways. Can also be used IPv4 as IPv6 in a VPC.

VPC key concepts.

VPC: virtual network dedicated to AWS.

Subnet: range in IP addresses

Routing tables configuration: set of rules, that are used to determinate where network traffic is directed.

Internet gateway: gateway that associates the PCV to enable the communication between VPC resources and internet.

VPC access points: allows you to privately connect the VPC to the AWS services that are compatible and PrivateLink-enabled VPC endpoint services without the need for an internet gateway, NAT device, VPN connection, or AWS Direct Connect connection.

Amazon VPC access.

This tool let us create, access and manage VPC with any of these interfaces:

AWS manage console: provides a web interface which allows us access to the VPC.

AWS command line interface (AWS CLI): provides commands for a lot of AWS services, includes amazon VPC and it's compatible with Windows, Mac and Linux.

AWS SDKs: provides specific APIs in every language and the take care of many connection details like, request retry handling and error handling.

Query API: provides low-level API actions that are called via HTTPS requests.