Linux Administration:

* What are your day to day activities?
* What is command to check disk space? Partitions and mounts points etc.
* How to delete files older than 30 days using find command.
* How to search specific extention files using find command.

<https://www.bmc.com/blogs/devops-engineer-roles-and-responsibilities/> - Prepare from this prospective

<https://dzone.com> – Prepare from this prospective

* ***What are your day to day activities?***

I have a responsibility to automate the infrastructure provisioning and writing recipes for creating the necessary infrastructure needed for the application teams. He might also help in automating the patching process and also take part in the infrastructure refresh. And responsible to creating the delivery pipeline which will help to propagate the code from one environment to another. He will also play a support role in supporting the delivery pipeline and try to integrate more tools into the pipeline.

Creating the necessary dashboards for application and infrastructure monitoring and also creating the self-heal routines which are necessary to send in the proactive alerts to the necessary consumers.

 Automate and orchestrate workloads across multiple cloud platform

 support internal and external clients on cloud platforms

 The first point of contact in handling customer issues.

 Develop tooling system that improves the production time and the quality

 Work with the testing team

At my current role, I ensure agility and compliance through infrastructure code, release management automation and public cloud security. For the pass six months, I was able to:• Create a scalable service discovery platform powered by Consul. • Deploy an ELK stack into production using Chef and Docker. • Stabilize corporate internal network infrastructure. • Fabricate a new automation platform based on Ansible and Rundeck. • Setup continuous build environment with Jenkins to speed up deployments. • Architect and established an API gateway in front of our micro-services. • Enhance user experienced by developing a web caching service.

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**DevOps Architect Responsibilities**

* Analyzing, executing, and streamlining DevOps practices
* Automating processes with the right tools
* Facilitating development process and operations
* Establishing a suitable DevOps channel across the organization
* Setting up a continuous build environment to speed up software development and deployment process
* Architecting overall, comprehensive, and efficient practices
* Guiding developers and operation teams in case of an issue
* Monitoring, reviewing, and managing technical operations
* Ability to manage teams with a leadership mindset

**Must-Have Skills of a DevOps Architect**

* Years of experience building great software using updated tools
* Visionary skills
* Leadership mindset
* Excel communication
* Up-to-date knowledge about tools and technologies
* Solid understanding of concepts
* The inspirational approach to team management
* Strong operational experience
* Extraordinary cross-functional headship skills
* Effective problem-solving expertise
* Configuration management proficiency

The key to successfully implement DevOps at your organization is to create a culture. Look at something similar:

"We need to understand how this effort and the investment we're making in DevOps transformations is actually improving the bottom line of our business, and the way you do that is by looking at the data."   
- Tim Buntel, vice president of product at XebiaLabs.

**The Significance of Hiring DevOps Architects/Engineers**

The role of DevOps a engineer/architect is of prime importance in today’s job market. Due to the rise of rapid software development culture, effective communication and collaboration are the most preferred skills in any technology professionals.

Here are several factors behind its importance:

* They are skilled collaborators.
* They facilitate end-to-end communication.
* They have experience creating DevOps culture.
* They can look after infrastructure planning, testing, and development.
* They ensure security and rapidity across the organization.
* They encourage team for error-less and fast delivery of software products.
* They have a clear understanding of DevOps tools, structure, processes, and mindsets.
* They anticipate needs, accumulate resources, and plan accordingly.
* They inspect issues in automation, version control, and overall security and suggest necessary steps to solve those quickly.

============================================================

* ***What is command to check disk space? Partitions and mounts points etc.***

Shell Scripting:

* What is #!/bin/bash in shell script.
* How to send parameters to shell script.
* Different ways of sending parameters to shell script.
* How to count parameters which are sent to shell script.
* What is use of $? in shell script.
* How to replace letters in file lower case to upper case.

DevOps:

* What is DevOps and tools used devops?
* Previous experience in devops.
* What are Continues integration, Continues delivery, Continues Deployment and pipeline?
* What are your day to day activities as a devops engineer?

Docker:

* What is Docker How it works?
* What is difference between Virtual Machine and Docker container?
* How to attach to a Docker container.
* What is Dockerfile, How write it and explain its commands.

Ansible:

* What is ansible?
* How to execute playbook on only one server out of 10 servers.
* What is vault in ansible?
* How to execute playbook on 10 servers.
* What is handler in ansible?
* What are Inventory file, modules and ad hoc commands in anisible?

Git:

* What is git?
* How to revert back git changes which are committed or pushed.
* What is difference between git pull and git fetch.
* What is webhook in git?

Jenkins:

* What is Jenkins? how to setup CI CD pipeline in Jenkins.
* How many ways we can trigger build in Jenkins?
* What are plugins in Jenkins?
* What is build in Jenkins?
* Jenkins Master and agent explain.

**Daily routine task of DevOps and Aws cloud engineer**

Daily routine task of DevOps and Aws cloud engineer. This article is going to be very useful for fresher and those who want to change their profile from system admin to Cloud or DevOps Engineers. I will share here my own experience when I was trying to change my profile form Linux system admin to DevOps or Aws cloud Engineer.

I was rejected from lot of interviews and even become frustrated. Then I analyzed why I am getting rejected then I found I have only theoretical knowledge that is not enough. I think might be you have same problem. Remember if you have only theoretical knowledge and you are going to face interview.

[Then please](https://www.quora.com/What-are-the-day-to-day-tasks-that-you-do-as-a-Linux-system-administrator) don’t mind there are 90% chances you will become rejected in technical round. Because your interviewer will judge you in just 5 minutes. Now my question is how will you convince to your interviewer? There is only one way to convince your interviewer is you have to show you are really working on production environment. You have to explain your daily routine task  one by one.

Daily routine task of DevOps and Aws cloud engineer

Here I am going to tell you daily routine activity of three profile on which I have worked 3-5 years. These tasks are real time task that I was performing on daily basis.

I have worked on below profiles: –

* Linux System admin
* AWS cloud Engineer
* DevOps Engineer

Let discuses daily routine task of Linux System admin

* When I joined my first company than my first task was infra monitoring. So, you can say to interviewer you are monitoring your infra on daily basis and checking alert that I am getting from monitoring tool on my mail and working accordingly. Like If I will get alert of disk space from my server than I will clean unwanted space from that server mean working on alert accordingly. We are using Nagios monitoring tool. You can take any tool name in which you are good like Zabbix, Prometheus, Cloud watch etc. But in 90% company using Nagios. So, I suggest be ready with Nagios monitoring tool. Now read interview question of Nagios monitoring tool on internet.
* Our second task is very important because every engineer is performing this task. That is backup of all servers. You can say to interviewer I am taking our server backup like code backup, logs backup, db backup, on daily basic, weakly basis and monthly basis.
* About third task I think you know very well that is your installation part. You can say to interviewer if any new candidate joins in my company like in developer, Mobile and Hr. etc team then ready new machine with all required software is also part of my works.
* This is also very important task that you can tell interviewer that is doing  patch movement or you can say doing deployment of code on application server.
* If you have some knowledge of database then you can add this skill also like In my company I was executing query, triggers on database, taking db backup and restoring db backup, taking backup of table and resorting accordingly. I know this is db work but If you have such kind of skills that is your plus point.
* If you have knowledge of firewall you can add also like In my last company I was working on Fortinet 500 then my task was creating new user,password set reset, creating police, creating group, assign user in required group, managing tunnel, block unauthorized website like adult, marking, Social website etc. Taking firewall backup etc. etc.
* In my last company network troubleshooting is also my responsibility. Like suppose if our lease line become down then what will be step to resolve that? Not down all these steps because this is interviewer favorite question. So, you can say network troubleshooting is part of your daily routine task. Like in my office developer or other team member was facing internet issue then how to short out that issue was part of my work. Mind it you should aware about all step how to troubleshoot network issue.

Now we are going to discuss pre planned task

If you have more than 3 year of experience, then add these skills otherwise live it.

* To configuration and mange new server according to requirement. Be ready with full preparation with four or five servers like Apache server, Any application server (Jboss or tomcat), Samba, NFS and Nagios server configuration in details. Be ready in details with their port number, configuration file, version etc.
* Server upgradation from lower version to upper like today you are using Tomcat 9 version and they launched their latest version in the market. Then move to new version is also your responsibility.
* DNS mapping is also a senior system admin responsibly so you can add this skill, but you should be clear all parameter like A record, CNAME, TXT records etc.
* R&D is also part of your work. Like if new server launched in market like we have three monitoring tool Nagios, Prometheus, Zabbix doing R&D which once will be better for our environment is our responsibility.

Aws Cloud Engineer activity

I think everyone know about cloud computing trend in these days. Everyone want to move on cloud technology, and this is also mandatory because in a serve we found that 90% IT sector will move towards cloud technology up to 2025. So, I want to share with you daily routine activity of AWS cloud Engineers.



[[Click & Read: – Aws architecture overview for beginners](https://linuxdady.com/aws-architecture/)]

* In all company backup is must thing. So, you can include Schedule backup of Instances or its volumes as per requirement.
* User creation and managing their permission using IAM service.
* Launch EC2 instance according to required.
* Modify the resources of instances like CPU, RAM or Disk as per user requirement. For example, if I am using r5.large instance according to my project need when need become fulfill then migrate this instance type to smaller instance like t2.small or t2.micro according to requirement.
* Adding or removing instance from ELB (Elastic load balancer). Note It’s depended on requirement.
* DNS mapping if you are using Route 53
* Setting cloudwatch monitoring.
* On call – Provide 24×7 support to our client for AWS infrastructure.
* Managing storage space like S3, Glacier, EBS etc.

One time activity

* Architecture designing like create VPC and it regarding parameter such as SG( security group), IGW( Internet Gateway), Route table, etc.
* Doing automation like auto scaling, lambda function
* Bucket creation and managing their permission
* To mange billing and cost optimization.
* To configure replica or clustering according to need.

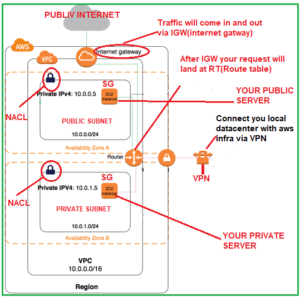
# Aws architecture

If you are working on Aws cloud, then It became must for you that you have knowledge of **Aws architecture**. If you have knowledge of**Aws architecture**, then it will become easy for you to identify issues in your aws infra. In this article we are going to discuss about **Aws architecture** and Aws functioning mean how to Aws work in back end side.

How to end user request land on your aws application or server. How to reach user up to Aws data center over the internet. All such kind of doubt will discuss here.

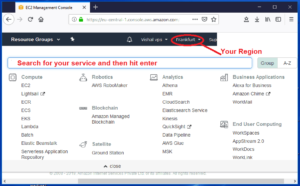
## Overview of AWS Architecture and it’s component

In given figure we are going to explain flow of end user request when user hit a request from his browser. How to his request reach up to [Aws](https://aws.amazon.com/blogs/architecture/) application. Let’s explain all component one by one in details.



## Web portal (AWS user end or front end)

Aws web portal is the inter-mediator between Aws services and users means by this portal user can use all Aws services. Or you can say that Aws web portal is the interface of Aws that shows the GUI of AWS service on the browser and connect the user to AWS services over internet. Let’s go throw the figure for better understanding.



## Region

Region is a geographical area where amazon put their physical data center. Still there are 17 regions over all the world where amazon put their data center and providing services. In future might be there count will increase from 17 to more. Remember one thing while using Aws service choose your nearest region for better speed and performance.

## Availability zones

The aim of availability zone is providing high availability means try to provide higher up time of your infra. When you create your infra with Aws then amazon automatically create same cluster of your infra into more than one availability zones. Let’s take example to understand better. Let’s suppose you have created you infra into Mumbai region and there are two availability zone let’s suppose first in east Mumbai and second in west Mumbai. When you create your infra in east Mumbai amazon will automatically create your infra cluster into west Mumbai. Benefit of doing this is when your one zone is down your infra will automatically migrate to another zone.

## Internet gateway

When user hit a request from his browser for using our application first his request land at IGW (Internet Gateway). Mean Internet gateway is attached with your VPC that provide the way to incoming and outgoing traffic. All traffic will come in or out by IGW. Remember one thing we can attach only one IGW with VPC at a time.

## Route Table

When your traffic land at Internet gateway (IGW) then next step will come in scenario is your route table. Route table will decide which one traffic will go into your public subnet and which one traffic will go into private subnet. Means it will route traffic according to rules.

## NACL (Network Access Control List)

Network ACL is called subnet level security means when your route table route the traffic towards public or private subnet then Network ACL comes in scenario. If your traffic is allowed from here, then traffic can reach up to next step otherwise Network ACL will not allow that traffic. Remember one thing that when you create a new Network ACL then everything is allow from inbound and outbound of Network ACL and one more thing you can use one network ACL more than one subnet.

## SG (Security Group)

SG (Security Groups) is called your server level security means when your traffic is passed from network ACL then it will land at SG. You can say that your SG is hardware firewall in the back end where we will allow or deny traffic. Remember one thing when create a new SG all traffic is deny by default from inbound but all traffic is allowed by default from outbound.

## EC2 (Elastic Cloud Compute)

When your traffic is passed from SG then next step is it will reach up to your EC2 instance. Here your application will be running. Then request will connect with your EC2 instance. This was the compete follow of **Aws architecture** how to traffic reach up to your application from outside. While returning this traffic from EC2 instance to end user it flows same reverse process.

## Aws services

Aws provide the different-different product as a service. We are using that product according to our requirement.[Aws](https://www.udemy.com/aws-certified-solutions-architect-associate/) provide many services like: – EC2, S3 storage, SNS storage, Auto scaling many more.

## Discuss type of aws cloud computing services

Amazon company lunched their AWS(amazon web services) cloud computing platform in 2006 and started to provide computing services. This is providing model of three services.

1. IaaS (Infrastructure as a Service)
2. PaaS (Platform as a Service)
3. SaaS (Software as a Service)

**IaaS PaaS**&**SaaS** are three **AWS Cloud computing** models popular in the market. Depending upon the requirement a user can opt for any of the three models. Here we will try to explain **IaaS, PaaS**&**SaaS** model in the easy way so that even a beginner can understand and differential among them. Let’s start

### IaaS (Infrastructure as a Service)

IAAS is most basic type of [cloud computing](https://en.wikipedia.org/wiki/Amazon_Web_Services). Near about 90% companies is using this cloud computing. Under this computing service you can take IT infrastructure on rent like servers, virtual machines, storage, networks and operating systems. This is working on the model of pay-as-you-go means you have to pay as you utilize your resources.

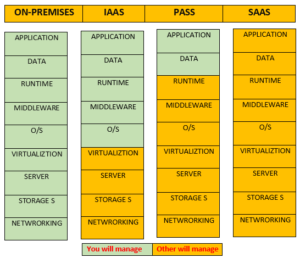
### PaaS (Platform as a Service)

PAAS is second most useful type of cloud computing. This service will provide you developer’s tool to build and host web applications. This is designed to give users access to the components they require to quickly develop and operate web or mobile applications over the Internet.

### SaaS (Software as a Service)

This is the third most popular type of cloud computing. Which is used to provide web-based application. SaaS is a method for delivering software applications over the Internet where cloud providers host and manage the software applications.

Let’s explain by diagram will be better to understand



[**[Click & Read:–  How to configure aws cli in Ubuntu]**](https://linuxdady.com/how-to-install-aws-cli-in-ubuntu/)  
[**[Click & Read:–**](https://linuxdady.com/how-to-convert-pem-to-ppk-file-via-putty/)[**How to install s3cmd in Linux]**](https://linuxdady.com/install-s3cmd-in-linux/)

## Let’s discuss all type of cloud

I think you are well known about **aws cloud computing** IAAS, PAAS, SAAS service model. Now we will discuss type of cloud. Basically, in market you will see three type of cloud.

1. Private cloud
2. Public cloud
3. Hybrid cloud

### Private cloud

Private cloud is a type of [cloud computing](https://www.udemy.com/cloud-computing-with-amazon-web-services-part-1/) in which specific person can access your resources like your company employ, your client. But remember on thing they can access it only from you company premises not from public.

### Public cloud

This is very famous type of cloud with the help of this cloud we can access our resource publicly. Like AWS you can assess your server from your desire location no need to be in your office.

### Hybrid cloud

Hybrid cloud is the combination of private cloud and public cloud means you can share your data and application between your private and public cloud. To understand more in detail you can say your local company infra can connect with your public cloud infra like aws.

## Now question is why we should use aws cloud computing?

### Advantage

* **Flexibility**: – Cloud computing allows your employees to be more flexible – both in and out of the office. Employees can access files using smartphones, laptops and notebooks.
* **Scalability: – Scalability means you can downgrade or upgrade your resources as you required.**
* **Cost effective: – you can customize your cost accordingly.**
* **Security**: — Your security is in your hand you can manage according to your requirement.

### Disadvantage

* 100% dependency on internet.
* Totally security model depends on your intelligence.
* Resources limitation like ec2 instance, security group etc.

DevOps Engineers activity

First you should know what DevOps term is.  Because this term is very popular currently. Acutely DevOps is the combination of two word, or you can say two team Development and Operations means doing or automating development team task with the help of operation team (Admin team).



[[Click & Read: – How to create VPC in aws](https://linuxdady.com/how-to-create-vpc-in-aws/)]

* If you are move towards DevOps, then you can include both above task System admin + Cloud engineers + Below mention task.
* Testing of automation tools and implanting them into our environment. Purpose of doing this is to make developer task easier with the help of these tool like Jenkins, Ansible, Maven, Bitbucket, Git, ELK etc.
* If your are going to move in this filed before facing interview be strong with one language Python or if you are working Linux environment then with Bash shell scripting.

Conclusion

[In this article](https://www.edureka.co/blog/duties-of-a-linux-administrator/) I have tried to explain ***daily routine task of DevOps and Aws cloud engineer***. If you can add some extra things you can add from your end that will defiantly help you in interview. Still if you have any doubt or I forget to mention anything you can add by commenting in comment box. Keep supporting to each other by sharing knowledge because in over field no one is perfect. So, keep commenting and sharing your knowledge.