

## Overcoming the Challenges of SUSE Linux Audit Point for a Leading Engineering Company



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#### About our Client :-

The client is one of the, specialized Engineering R&D services provider, Which works across the entire spectrum of service support activities – from bid & warranty management to customer support and integrated asset management. We also consult with multiple businesses to give field servicing a 'smart overhaul'. Its ' readymade solutions for product configuration, machine inspection and realtime connected servicing have helped global conglomerates save millions.



**Problem Statement:** -The client is facing issue in day to day task, which our team is helping them to resolve ASAP. Client faced ongoing SUSE Linux OS audit point clearance issue.

#### Solution:-

AWS on cloud AWS Application Load Balancer CloudTrail Elastic Compute Cloud





**Cloud Trail:**- AWS CloudTrail is an AWS service that allows you to manage your AWS account's governance, compliance, operational, and risk auditing. CloudTrail records actions made by a user, role, or AWS service as events. AWS Management Console, AWS Command Line Interface, and AWS SDKs and APIs activities are all included in events.

When you create an AWS account, CloudTrail is activated. A CloudTrail event is created whenever something happens in your AWS account. When you create an AWS account, CloudTrail is activated. A CloudTrail event is created whenever something happens in your AWS account. By heading to Event history in the CloudTrail console, you can simply view events.

You can see, search, and export the last 90 days of activity in your AWS account using event history. You can also establish a CloudTrail trail to save, analyse, and react to changes in your AWS resources. A trail is a setting that allows events to be delivered to an Amazon S3 bucket that you define. With Amazon CloudWatch Logs and Amazon CloudWatch Events, you can also distribute and analyse events in a trail. The CloudTrail console, as well as the AWS console, can be used to build a trail.



**Cloud Watch:**- For DevOps engineers, developers, site reliability engineers (SREs), IT managers, and product owners, Amazon CloudWatch provides a monitoring and observability solution. To monitor your apps, respond to system-wide performance changes, and optimise resource use, CloudWatch offers you with data and actionable insights. CloudWatch logs, metrics, and events are used to collect monitoring and operational data. You obtain total visibility of your AWS resources, apps, and services running on AWS and on-premises, as well as a single picture of operational health. To keep your apps running smoothly, you can use CloudWatch to detect aberrant behaviour in your environments, trigger alarms, analyse logs and metrics side by side, take automated actions, troubleshoot issues, and find insights.

**Amazon Elastic Cloud Compute:** - Amazon Elastic Compute Cloud (EC2) is a part of Amazon's cloud-computing platform, Amazon Web Services (AWS), that allows users to rent virtual computers on which to run their own computer applications. EC2 encourages scalable deployment of applications by providing a web service through which a user can boot an Amazon Machine Image (AMI) to configure a virtual machine, which Amazon calls an "instance", containing any software desired. A user can create, launch, and terminate serverinstances as needed, paying by the second for active servers – hence the term "elastic". EC2 provides users with control over the geographical location of instances that allows for latency optimization and high levels of redundancy. In November 2010, Amazon switched its own retail website platform to EC2 and AWS.



#### Amazon Simple Storage Service (S3):-

Amazon S3, also known as Amazon Simple Storage Service, is an Amazon Web Services (AWS) service that provides object storage via a web service interface. Amazon S3 is built on the same scalable storage infrastructure as Amazon's e-commerce platform. Amazon S3 can store any form of object, making it ideal for applications including Internet storage, backups, disaster recovery, data archives, analytical data lakes, and hybrid cloud storage. Amazon S3 uses object storage architecture to handle data, with the goal of providing scalability, high availability, low latency, and high durability.

Amazon S3's basic storage units are objects that are arranged into buckets. A unique, user-assigned key identifies each object. Buckets can be managed through Amazon S3's console, programmatically through the AWS SDK, or through the REST application programming interface. Objects can be as large as five gigabytes. Requests are permitted via an access control list associated with each object bucket, and versioning is supported by default. Because buckets in other systems are often the size of an entire file system mount, this access control approach is extremely coarse-grained. To put it another way, unique access controls aren't possible.A BitTorrent feed can be created from any item in a bucket. Any BitTorrent client can retrieve the file from the Amazon S3 store. which can operate as a seed host for a torrent. This can substantially minimise the cost of bandwidth for popular item downloads. A bucket can be set up to save HTTP log information to a sibling bucket, which might be useful for data mining. For Unix-like operating systems (for example, Linux), there are a number of User Mode File System (FUSE)-based file systems that can be used to mount an S3 bucket as a file system. Because the semantics of the Amazon S3 file system differ from those of a POSIX file system, it may not perform as expected.



#### Route 53:-

Route 53 is a scalable and highly available Domain Name System (DNS) service from Amazon. It is a part of Amazon's cloud computing platform, Amazon Web Services, and was released on December 5. 2010. The name could be a reference to US Routes, and "53" is a reference to TCP/UDP port 53, which is used to send DNS server requests. Route 53 allows AWS clients to route users to non-AWS infrastructure and monitor the health of their application and its destinations in addition to routing users to other AWS services, including EC2 instances. Route 53's servers are located all over the world. Over IPv6. Amazon Route 53 enables full end-to-end DNS resolution. On IPv6 networks, recursive DNS resolvers can use either IPv4 or IPv6. Customers build "hosted zones." which serve as a container for up to four name servers. The name servers are distributed over four different top-level domains (TLDs). Any DNS records in a customer's hosted zones can be added, deleted, or changed. Through Route 53, Amazon also provides domain registration services to AWS clients. Amazon guarantees that the service will be available at all times.

#### Lambda:-



AWS Lambda is Amazon's event-driven, serverless computing technology, which is part of Amazon Web Services. It's a computing service that runs code in response to events and maintains the computing resources needed by that code autonomously. It was released in November of 2014. As of 2018, Node.js, Python, Java, Go, Ruby, and C# (via. NET) are all officially supported. AWS Lambda received custom runtime support[4] in late 2018. By calling out from a supported runtime like Node.js, AWS Lambda can run native Linux executable. AWS Lambda was created to handle tasks like uploading images or objects to Amazon S3, updating DynamoDB tables, responding to website clicks, and reacting to sensor readings from an IoT device. AWS Lambda can also be used to automatically provision back-end services in response to bespoke HTTP requests, as well as "spin down" such services when they are not in use to save resources. AWS API Gateway, which may also manage authentication and authorization in conjunction with AWS Cognito, is used to configure these bespoke HTTP queries. AWS Lambda is metered by rounding up to the closest millisecond with no minimum execution duration. unlike Amazon EC2. which is billed by the hour but metered by the second.

#### AWS IAM: -

AWS Identity and Access Management (IAM) is a web service that allows you to manage access to AWS services in a secure manner. IAM allows you to manage who is authenticated (signed in) and allowed (granted permissions) to access resources. When you first create an AWS account, you get a single sign-in identity with full access to all of the account's AWS services and resources. This identity is known as the AWS account root user, and it may be accessed by entering the email address and password you used to create the account. We strongly advise you not to utilise the root user for any of your daily duties, including administrative ones. Instead, stick to the best practise of just creating your account as the root user.



# **ABOUT ACC**

ACC is an AWS Advance Partner with AWS Mobility Competency. Awarded The Best BFSI industry Consulting Partner for the year 2019, ACC has had several successful cloud migration and application development projects to its credit.

Our business offerings include Digitalisation, Cloud Services, Product Engineering, Big Data & Analytics and Cloud Security. ACC has developed several products to its credit. These include Ottohm – Enterprise Video and OTT Platform, Atlas API – API Management and Development Platform, Atlas CLM – Cloud Life Cycle Management, Atlas HCM – HR Digital Onboarding and Employee Management, Atlas ITSM – Vendor Onboarding and Service Management and Smart Contracts – Contract Automation and Management.



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