StackZone

Machine Learning
Blueprint

Hello!

In this document, you will learn how to improve your AWS cloud infrastructure by aligning to the **Machine Learning industry Blueprint with StackZone's Cloud Management Platform.** This blueprint was designed based on the industry best practices as well as our customer's feedback. **Because we built this CMP with our customer feedback: our mission is to make it easy for businesses to run their workloads and at the end of the day, they can focus on selling their product.**

By implementing the following Blueprint, you will take to the next level your AWS Workload, putting special focus on **data security, access management and Cost Optimization.**

StackZone's Machine Learning Setup includes the necessary components enabled to support and build compliance according to workloads using ML/AI Ops.

For the core accounts **(Shared Services, Log-Archive, and Management)** we build a default compliant Amazon VPC, an Amazon S3 bucket with a lifecycle policy to store logs for up to 7 years and we delegate some security services administration to the Security account.

We also enable the following services on the **security account:**

A Global Centralized Amazon GuardDuty and Macie aggregation for all your accounts within your StackZone Organization. That gives your SecOps team full visibility of findings. Any new account gets invited to the centralized Amazon GuardDuty Detector and Amazon Macie.

Once StackZone has been deployed, we build a number of **Service Control Policies (SCPs)** for you to apply to the accounts once StackZone has been deployed specifically tailored for **ML Services.**

Also, we deploy a number of **AWS Lambda** functions and **SNS Topics** that will help with the deployment of the features further on.

These functions will help you simply manage and monitor your Organization, but what about the accounts and environments where you will be running your workload?

Well, on every account and region we deploy the following **Baseline Services:**

> CloudTrail Multi-Region

It allows you to track every change made to your AWS infrastructure and activity on it.

> 7 CloudWatch Alarms per Region

Remain up to date and get notifications on every change and/or threat on your workload with StackZone CloudWatch alarms.

> AWS Service Catalog Network, Security and SageMaker Portfolios

Launch compliant, secure, and optimized workloads simply and fast, by doing it through our Service Catalog portfolios.

> **AWS Config and Global and Local Aggregators**

We deploy 27 AWS Config Rules and 7 Remediations. AWS Config rules ensure you actively monitor your Resources configuration which is translated into continuous monitoring of the security and compliance of your resources. The auto remediation rules ensure deviations are automatically solved.

> **EBS Optimizer**

The StackZone EBS Optimizer will automatically optimize your Amazon EBS Volumes and exchange older generation gp2 volumes with the newer and more cost-efficient gp3 volumes. This will bring a lower cost to your organization too.

> **CloudWatch Logs**

CloudWatch Logs enables you to centralize the logs from all of your systems, applications, and AWS services that you use, in a single, highly scalable service. It can be used to monitor, store, and access your log files from Amazon Elastic Compute Cloud (Amazon EC2) instances, AWS CloudTrail, Route 53, and other sources.

So far we have covered the most important and general services and tools StackZone provides our customers when applying the **Machine Learning Blueprint.**

As always this is just the first step because as part of the **StackZone** community you will receive continuous updates that will allow you permanently improve your AWS cloud Workload. We do so based on best practices updates and based on our customer's feedback. **This means you will be able to request the features you need, and our commitment is to evaluate them and add them to our road map.**

Do you want to know in detail all that we deploy by implementing this blueprint to decide to adopt it, or try to do it manually? Access to https://help.stackzone.com/article/stackzone-aws-machine-learning or simply book a call with us and take your AWS workloads to the next level in just 2 hours of human intervention!