



AUTOMATIC MANAGED WEB HOSTING

Ketana Waghmare¹, Rutuja Kamthe², Ashutosh Rai³, Priyanka Mahale⁴,

Prof. Uzmamasrat Shaikh⁵

Department of Computer Engineering, Trinity College of Engineering and Research, Pune, India¹⁻⁵

Abstract: In current technical market, new small level startup are going towards automatic hosting and paying a lot of money to multiple hosting companies.

They don't have control over scaling up and down and quality of hosting. Now we are introducing a tool, which can help a startup to scale up their infrastructure as per different architectural setup. We are setting the startup setup over AWS cloud so that they can get the benefit of "pay as we go" model.

Now startup company would have full control over infrastructure as well as bills.

Keywords: AWS Cloud Computing, Access key, Secrete key, AWS CLI, Authorization, Authentication, MFA

I. INTRODUCTION

The need of our project in the market is something like that many new startups and other users come in industry but they don't have as such knowledge that how to host their websites and secure it from attacks. From this we as a team came up with an idea named as Automatic Managed Web Hosting in which we are providing a managed hosting to our clients. In the start we are providing 5 different kinds of hosting servers which are static, flask framework, Django framework, php & WordPress client can choose accordingly and provide the details of daily users load and further details and using these details in our backend we will be creating terraform codes which will be running according to the client input, create and host instance on cloud with the security and return with a DNS server which client can land as per his requirement.

II. PROBLEM STATEMENT

To create a platform which will provide new startups and other users a personalized and easy to host their websites in few minutes with minimum hosting costs.

Bare-metal hosting required high expenses. No elasticity and scaling. More initial Investment. Multiple Language Support and Complex Architecture.

OBJECTIVES :

1. Websites to be directly hosted on Cloud using secured environment.
2. A platform which led a user to host website by providing few information about it like credentials, region, project name etc.
3. We are providing different websites options available to client wishing to present content on the internet.
4. We can provide great security in AWS CLI i.e. Access Key and Secret Key

III. LITERATURE SURVEY

Author	Title	Aim	Finding
Ambika Gupta ¹ , Anjani Mehta, Lakshya Daver, Priya Banga (2020)	Implementation of Storage in Virtual Private Cloud using Simple Storage Service on AWS	This service sends an email on administrator's account regarding the log-in information of the user.	Data is stored in S3 using private key and accessed by public key. Security is not provided
L. R. de Carvalho and A. Patricia Favacho de Araujo (2020)	Performance Comparison of Terraform and Cloudify as Multi cloud Orchestrators	The literature review, complemented by a practical experiment, revealed that Terraform and Cloudify presents great affinity with Sky Computing scenarios.	Terraform meet the requirements for working with leading providers and provide mechanisms for their evaluation



- To host a website on the internet, an individual or company would need their own computer or server. As not all companies had the budget or expertise to do this, web hosting services began to offer to host users websites on their own servers, without the client needing to own the necessary infrastructure required to operate the website. The owners of the websites, also called webmasters, would be able to create a website that would be hosted on the web hosting service's server and published to the web by the web hosting service.
- As the number of users on the World Wide Web grew, the pressure for companies, both large and small, to have an online presence grew. By 1995, companies such as GeoCities, AngelFire and Tripod were offering free hosting
- Encryption is the procedure of changing over the information into a structure called cipher text that can be seen distinctly by the approved clients. Encryption is a proficient strategy for securing the information, however, has the deterrent that information will be lost when the encryption key is taken.
- T. Kamala Kannan et. al discussed the storage challenges in the cloud computing environment and to keep data secure .
- In an architecture for running WordPress using three virtual machines, one as a MySQL database server and the other two as Apache/PHP and WordPress application servers installed. For the proper functioning of this environment it was also necessary to configure the virtual interconnect resources (network, subnet, IPs, interfaces and routes) and security (firewall rules).
- Secure Network Architecture is attained by the network devices such as firewall which manages and controls the boundary of network. Traffic flow policies, access control list (ACL), is generated to control the flow of informational is approved by Amazon Information Security.
- Secure Access Point indicates that AWS has limited number of access points so as to perform proper monitoring of communication. The access points of customers are called API endpoints. These access points help in access of secure HTTP (HTTPS).Transmission Protection is the one can make connection to the AWS access point via HTTPS using SSL (Secure Socket Layer) protocol. This protocol provides many security services like protection against message forgery, tampering etc. Next is Amazon corporate segregation which means segregation of Amazon Production network from Amazon Corporate network by the network devices. The developer or manager cannot directly access the network devices even for maintenance.
- Cloud Computing was not a new idea, it was envisioned in 1960s by John McCarthy with the idea of providing it to the general public for profit and usefulness. The word "Cloud" in 1990s was used to represent large networks like the ATM network .Virtual Private Network (VPN) services were provided by telecommunication services with better quality and lower cost. Cloud Computing uses concepts and best practices which are already established, so it is an old concept. We maintain applications and data using remote servers and internet in Cloud Computing technology. In 2009, Pearson described privacy issues in cloud computing. Enisa presented cloud security risk assessment in 2009. Amazon released Amazon Web Services (AWS) that is based on Server Virtualization Technology in 2006-2007.

IV. SYSTEM ARCHITECTURE

Firstly, user will interact with server with the help of website. We have many option for user for their website as Flask Framework, Static, Django, Php and WordPress. Consider the user chooses for Flask Framework where user provide SSL certificate for his/her website. Then our website will visit our server where user detail is provided as login id, type of website, website pages, security last but not least the SSL certificate. Then user authenticated tab is already created by server, so server create session of Flask. There are template provided by our server like flask, WordPress etc.

As user website type is of flask so flask template, website pages, security, SSL and a instance is warped in box called "Terraform". Terraform is an open source infrastructure as code tool use for interaction with cloud. Terraform is launch on cloud with the instance of T2M (limit of 2000 user), flask website i.e. templates, security group i.e. interaction with 80 user only and SSL certificate is attached. After launching of instance in a cloud , then URL is provided by cloud to us

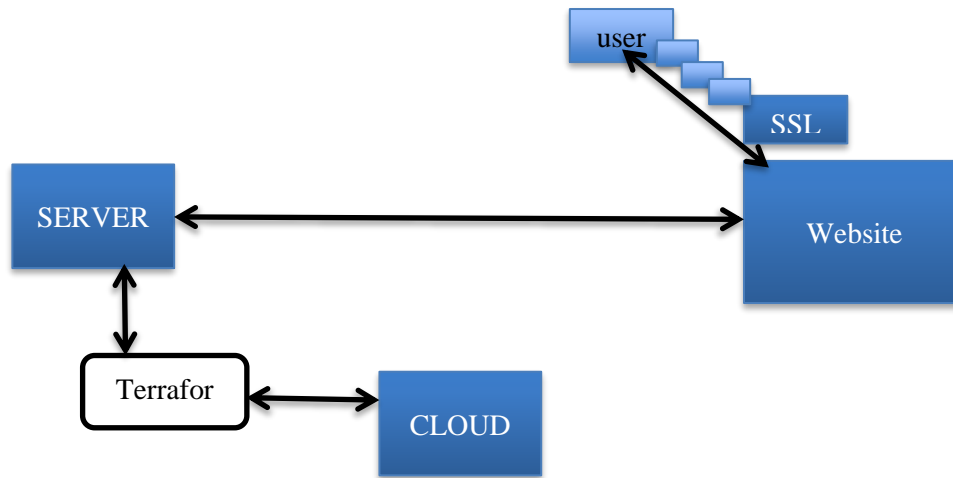


Fig. Methodology

V. CONCLUSION

Web hosting is the backbone of your website, and provides complete resources on which your website runs. It is very important to choose the right web hosting provider to ensure that your website never goes down and always performs error-free whenever someone visits it.

In future Latency will be minimize so that work will be easy to convey. We can host website in a minute.

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