

# Amazon Web Services Integration with Netsuite

Raksha Singh<sup>1</sup>, Ramesh Solanki<sup>2</sup>

<sup>1</sup>P.G. Student, Dept. of M.C.A., VES Institute of Technology, Mumbai, Maharashtra, India

<sup>2</sup>Assistant Prof/, Dept. of M.C.A., VES Institute of Technology, Mumbai, Maharashtra, India

\*\*\*

**ABSTRACT:** In today's world of business, people are relying on cloud storage where Netsuite is a leading vendor of cloud computing. Netsuite store the data related to business's financials, operations and customer relations. Whereas Amazon web service is also cloud computing. To leverage the benefit of both is where integration comes into picture. NetSuite's application is based on a single customer record, so sales, support, billing, accounting, shipping, and business intelligence capabilities all access the same data. So, when we need to integrate with third party app or websites to process large data transaction and processing which can be done directly so we need a middle tier and here Amazon Web Service comes into picture. The web service handles the data appropriately without slowing it down.

**KEYWORDS:** Netsuite, AWS, RDS, DynamoDB, SuiteTalk, RESTlet, SOAP.

## 1. INTRODUCTION

Nowadays, client doesn't want to restrict to just to one software they want something which is more effective and reliable and want something that can mold into their business. NetSuite even though having their own API's but it will just restrict it. To make it open to other Software like Microsoft Visual or Android studio. Integration make it more reliable and efficient and can leverage more benefits of Netsuite. We can use transaction of sales of netsuite within the android app in a click of a button which can only be done through integration.

Developers, software vendors and customer can know use the NetSuite's tightly integrated cloud software with their own website or app easily and with AWS it easy to maintain the data more efficiently without loading the Netsuite web services. Since Netsuite is expanding more in integration it is know much more flexible to integrate with the existing software development tools. AWS can seamlessly have integrated with NetSuite, where customers can log in with their credentials and access their account details and other related documents.

NetSuite's usage of AWS is another milestone in the business process of Netsuite since customer can leverage the benefit of Netsuite and AWS both.

## I. THE STUDY

Before implementing it, we have done many research of it thoroughly. Netsuite and AWS integration is something which requires lot of research and understanding before integrating it is easy to understand two to them individually because both is having their own API's which can be easy to use but to use both of them together and then to integrate it with our Third-party application is something challenging. We had to research about both and then how can we implement with our software's languages like Java or PHP in Android Studio or Microsoft Visual Studio.

So, the first step was how to connect our software with AWS and then we can connect AWS with Netsuite. So, initially we started with connection of Android with AWS. We had to choose any of the web service and since Amazon provide one year free trial to use any of the web service so we opted with RDS (Relational Database System) which can be can connected to MYSQL and the we can easily store and retrieve data from our android app to RDS on cloud.

After App is connected to AWS RDS with the help of PHP scripts by having Netsuite credential and PHP toolkit provided by netsuite it can get connected to AWS RDS. And with these customers can easily access the netsuite with all data handling by AWS

## II. Netsuite

NetSuite is an online services provider for the small-scale business process providing it services to many companies which uses Netsuite for their client.

Netsuite is ERP business process that is much more scalable and convenient to use. With Netsuite customer can handle its entire business in much easier way without worry of data security. Netsuite can provide a small-scale business to

handle more efficiently and it is gaining more recognition after oracle has acquired it in Nov 2016. Netsuite can also be easily integrated with almost any developing tool and with SuiteTalk as webservice of netsuite it easy to communicate with other languages in more convenient way

### III. AWS RDS

Amazon RDS gives you flexibility to let amazon handles your data processing more securely and since AWS provides one year free trial we can use and then decide whether to continue or not so this is one of the plus point. AWS RDS is a relational database which doesn't requires any complexity so any one with basic knowledge can also access the AWS RDS

MYSQL is one of the popular open source database which AWS RDS uses which is more flexible, scalable and understandable to use. And with some command line use can easily access the MYSQL database. AWS RDS application development by managing time-consuming database administration tasks including backups, software patching, monitoring, scaling and replication.

### IV. The Integration

Integration of Netsuite and AWS can benefit many customers which want to leverage the benefit of ERP of Netsuite and Storage of Amazon Web Service. Both together can tackle many problems and achieve many benefits in business world

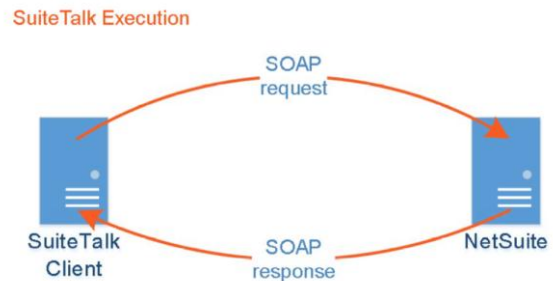
SuiteTalk is a Netsuite SOAP based web service that can make call to AWS RDS through PHP script which can then pass data from Netsuite to AWS RDS and then RDS will pass it to App and vice a versa without any load on app and can work seamlessly.

SuiteTalk webservices makes it easy and convenient to design a complex website or mobile application with the knowledge of SOAP and PHP. Developer can easily then develop mobile app with their own cloud storage access

Within SuiteTalk Netsuite webservice it has variety of way to access the other services. SuiteTalk uses the SOAP based webservices which is already well know so we don't have to separately learn SuiteTalk. With the knowledge of SOAP is fair enough to understand SuiteTalk.

The SuiteTalk platform provides access to NetSuite data and business processes through an XML-based application programming interface (API). The SuiteTalk provides easy call to AWS RDS through PHP script within the PHP Toolkit

provided by Netsuite. With SuiteTalk we also have other option like RESTlet provided by netsuite which is same as REST Webservices



**Fig.1 SuiteTalk Execution** [3]

Since SuiteTalk is SOAP based we can easily use it in developing tools like MS Visual Studio or Android

### V. AWS RDS and EC2 Server

Amazon Elastic Compute Cloud (Amazon EC2) is a web service that provides secure, and elastic resizable data capacity and with their elastic bean stake it is easy to increase the capacity of the data . It is designed to make web-scale cloud computing easier for developers. On EC2 server we can locate RDS. Amazon EC2's simple web service interface allows you to obtain and configure capacity with minimal friction. Amazon EC2 is integrated with most AWS services such as Amazon Relational Database Service (Amazon RDS), and Amazon Virtual Private Cloud (Amazon VPC) to provide a complete, secure solution for computing, query processing, and cloud storage across a wide range of applications.

And to that we need to use ubuntu or putty which is Linux software through which we can connect our EC2 server with MYSQL and after that we just should locate the RDS key on the EC2 server and then RDS can handle all MYSQL database.

### VI. Command-line EC2 connection of MYSQL

```
ssh -i ERP.pem ubuntu@h-1.compute.amazonaws.com
```

Where SSH is use connect remotely between client and the ec2 server and ERP.pem is a key generated by AWS EC2 is a key which provides Authentication for that server.

```
root@ip-172-31-13-77:/home/ubuntu# sudo apt-get install mysql-server php-mysql phpmyadmin
```

It will then connect to ec2 server then we can install phpmyadmin for mysql so that we can connect mysql on EC2.

```
root@ip-172-31-13-77:/home/ubuntu# mysql -h
ederp.c8ofb8pbtqvb.ap-south-1.rds.amazonaws.com
```

Here we connect our RDS on EC2 server through the RDS endpoint.

With the database created on RDS can be visible on MYSQL Server. So, the Storage space is provided by the AWS RDS and data is safe on cloud without and worries.

With these we have effectively connected RDS with MYSQL now we can use any language or developing tool to just connect RDS MYSQL with any developing tool like Android or Visual Studio of any programming languages.

One of the most important thing in RDS is the "Database Instance" created in RDS. It is where the database is created and whatever table you make will be then securely stored on the cloud. So, whatever tables is created from MYSQL is actually on the cloud in RDS database which is created at the time of launch of RDS instance. RDS database can be accessed from command line or PhpMyAdmin.

## VII. AWS-RDS integration with Netsuite

Now the connection of RDS with Netsuite is done with PHP Script. The PHP Toolkit is provided with Netsuite which can be downloaded where in the config file we need to provide configuration details like Application ID, Password, Secret Key, Passport Token Based Authentication which is generated on the registered Netsuite ID. With all these details in the php file we just need to edit php.ini file to openssl so that ec2 can connect to netsuite.

The integration of both help the customer to use benefits in their existing system and to mold according to their use.

AWS also provide other services like DynamoDB and AWS S3 which can also be used for integration with Netsuite but it is little costly. So, RDS is one of the best solution.

With a development platform of NetSuite's Suite Cloud, Suite Storage connector is built to integrate Amazon and NetSuite.

This offers NetSuite customers the user interface created for retrieving and storing data on Amazon RDS. This means the

netsuite client can easily access the AWS benefit with their netsuite usage.

Amazon RDS offers a secure, scalable and low-cost services to its customer with more data storage and security which is much needed in today's business world

## VIII. Security

Security wise both Netsuite and Amazon Web Service provide crypto level security with AWS Cognito it has three level verification if used for Mobile App development where we can register and login with provided security like OTP and email verification and data of that is stored in cryptographic format in AWS Cognito and since the data centers of Netsuite and AWS is located in different sections of country which is very difficult to hack by the intruder

## IX. Conclusion

After going through all the application architecture to implement External Server in which we can use Amazon Web Service(AWS) the point where external server is the most needed integrator for the mobile app. Amazon Web Service's is to minimize the data loading and provide robustness to the system. Amazon Web Service offers **RDS** database service known for scalability, robustness and easy data processing and handling.

It is very much flexible to integrate netsuite and RDS with website or mobile app.

With these integration customers can leverage the benefit of ERP and Storage from both services in their existing application.

## X. References

<http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/Welcome.html>

<http://www.netsuite.com/portal/press/releases/nlpr04-15-10a.shtml>

[http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP\\_MySQL.html](http://docs.aws.amazon.com/AmazonRDS/latest/UserGuide/CHAP_MySQL.html)

<http://www.softype.com/netsuite-product-overview/>