

# An Approach to Devise Towards Developing Monitoring System for An Organization Level Security in FORCE.COM Platform

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**Abstract**—Today, Business is of all sizes across all industries, even though they are regulated most are stored in Salesforce. These data's may be accessed by thousands of Salesforce employee, chances that company data get misused. Previously salesforce user monitoring was impossible. So, by creating an object and saving all users data at one place and plotting those data on map in order to get location. The objective of the research work is to maintain authentication, validation and access control of users who have log into salesforce org. As a result the saved data will be available to Salesforce org Admin and it will be helpful for Admin to take action against the Users like Blocking and warning him by Email Alerts

**Keywords**-Security; Salesforce; Salesforce Security; Force.com; Salesforce Org Security; Irregular Activity Monitor; Login History; Security Governance;

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## I. INTRODUCTION

Salesforce cloud based CRM Company. Well known for the Customer Success Platform, mainly designed for the purpose of sell, service, market, analyse and connect with customers.

As Salesforce is Cloud Based you can run your business from anywhere. You can manage relationship and store your data securely in the cloud using standard products and features.

But the standard products and features are only at the initial stage. Salesforce also provide platform which allows you to customize and experience for your customer, partner and employee and easily extend beyond out-of-the-box functionality.

CRM Customer Relationship Management allows you to manage relationships with the customers and prospects and track data related to all your interaction and activity. CRM also helps to cooperate both internally and externally gather information from social media, via emails and other channels.<sup>[1]</sup>

Salesforce make CRM easy to use for small business as well as large business. That approach make Sales Cloud so much popular in the world. The CRM is not only one service they provide; they also provide platform for building fully native business to business (B2B) application as well as business to customer (B2C) application.

Salesforce do provide various cloud for setup and management of business the clouds are: Sales Cloud, Service

Cloud, Marketing Cloud, IOT Cloud, Community Cloud & App Cloud.

- **SALES CLOUD:** The Sales Cloud is a secure cloud based CRM system that can help every part of your Business<sup>[2]</sup>.
- **SERVICE CLOUD:** Service cloud provide amazing and instant customer service<sup>[2]</sup>.
- **MARKETING CLOUD:** Marketing cloud create one to one journey for customers<sup>[2]</sup>.
- **ANALYTIC CLOUD:** Revolutionized the way you understand the company data<sup>[2]</sup>.
- **COMMUNITY CLOUD:** Connects all of your customer partners and employees<sup>[2]</sup>.
- **APP CLOUD:** Single ecosystem for discovering, building and running all of the apps<sup>[2]</sup>.
- **IOT CLOUD:** Anyone can design the data and engaged with real time<sup>[2]</sup>.

Salesforce also provides a market named as AppExchange to host & publish developed native application and to host business category third-party application.

An AppExchange is an online application marketplace for hosting & publish third party application that run on Force.com platform<sup>[10]</sup>. Same as google play store, the google play store is an application marketplace to publish android application. In AppExchange application are available for free as well as subscription based

The rest of the paper is structured as follows. Section II present the Protect Salesforce Org Section III presents the

User Login Activity Monitoring FinallySection IV concludes with a discussion of critical outstanding issues

## II. PROTECT SALESFORCE ORG

The Salesforce security features help you empower your users to do their jobs safely and efficiently. Salesforce limits exposure of data to the users that act on it. Implement security controls that you think are appropriate for the sensitivity of your data. We'll work together to protect your data from unauthorized access from outside your company and from inappropriate usage by your users [4].

The organization is nothing but your Salesforce org. Salesforce says that organization wise security is the highest level of security that why the organization wise security is the top of application level security. At the highest level, you can secure access to your organization by maintaining a list of authorized users, setting password policies, and limiting login access to certain hours and certain locations [9].

- **Security Infrastructure:** Salesforce utilizes some of the most advanced technology for Internet security available today. When you access the application using a Salesforce-supported browser, Transport Layer Security (TLS) technology protects your information [5].
- **Security Health Check:** As an admin, you can use Health Check to identify and fix potential vulnerabilities in your security settings, all from a single page. A summary score shows how your org measures against the Salesforce recommended baseline [6].
- **Auditing:** Auditing provides information about use of the system, which can be critical in diagnosing potential or real security issues. The Salesforce auditing features don't secure your organization by themselves; someone in your organization should do regular audits to detect potential abuse.

To verify that your system is actually secure, you should perform audits to monitor for unexpected changes or usage trends [7].

## III. USER LOGIN ACTIVITY MONITOR

As mention in the above para the Auditing feature don't secure the organization themselves someone in the org need to Monitor the activity. So, taking this concept into mind and after reading some survey I would like to design User Login Activity Monitoring.

In Salesforce, each user is uniquely identified with a username, password, and profile. Together with other settings, the profile determines which tasks a user can

perform, what data the user can see, and what the user can do with the data [8].

Secondly would also map users with location in order to achieve the location of particular user from where he/she is accessing org . Consider a scenario

Think that you could have a button which can easily shows who is accessing your Salesforce data, but unfortunately such button is not enable in Salesforce Data.

Insight your threats, put your data at risk. You have to protect against,

1. Current Employee
2. Former Employee
3. An Employee whose Credential where Compromise.

Chances are your company has experienced incident where employee stock were misused, confidential data. Customer, Prospect, Supplier, Financial, Investor and Patient information can be downloaded without the detection. So, the tracking of data was impossible. So that the administration of the organization can be familiar with user activity. The objective behind developing this system is to maintain

- Validation: Either User is valid or invalid
- Authorization: User Attempt to login whether he is successful/failed.
- Access Control: If users is invalid or unauthorized then his/hers access should be denied. As Shown Below overview of implementation User Login Activity Monitoring.

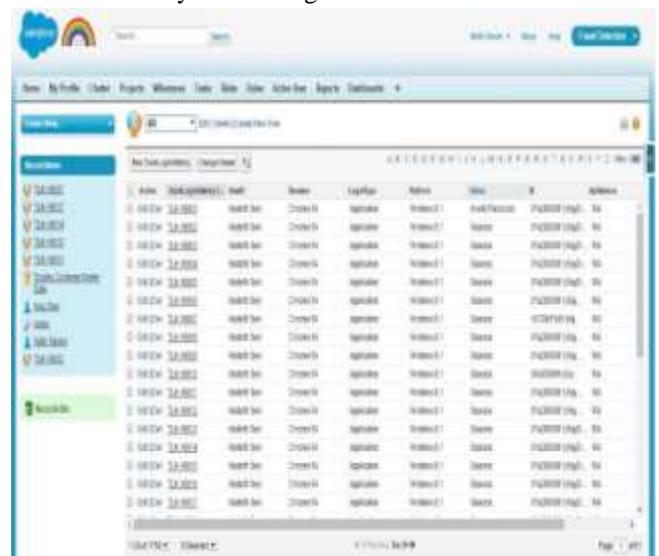


Figure 1: Showing User Login with Different User Id



Figure 2: Showing User have logged into Org how many times in week

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Figure 3: Shows how many times user have enter invalid password

#### IV. CONCLUSION

Salesforce is a very reputed industry in the field of cloud technology but there are some conflicts like how to track user activity and how to secure Salesforce org it main important think in this time. Due to we are living in the era of digital world hear every one wants to get connected with internet for that information leakage is a biggest issue. So, by designing this Login monitoring system Administrator will be able defined which user are performing activities in the organization. If any violation occurs than SA needs to take action against that users.

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