ELECTROSTYLE ELEVATORS

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ABSTRACT

The concept of automation has gained extensive popularity over the past few decades in every realm of a sophisticated world. Understanding an environment that requires minimal human intervention with zero compromise on quality could be a boon as well as a bane.

"Electrostyle Elevators" is a project that is aimed at facilitating the end to end process of Elevator Installation in the domestic market. Electrostyle project essentially comprises of two parts which include Sales Cloud and Service Cloud. This paper emphasises on Field Service Lightning (FSL), an emerging and fundamental part of service cloud. The project covers aspects such as analysis of causes for breakdown of elevators, insuring service of installations and allocation of available workforce based on geographical location and skill sets.

The prime focus of the project is to automate the entire process involved in the installation of elevators beginning from adding a new customer with relevant details on the system, comprehending requirements, allocation of man power to respective location along with a notification regarding the task that need to be completed, updating the status quo and generation of service report.

Keywords: SF (Salesforce), FSL (Field Service Lightning), CRM (Customer Relationship Management), SA (Service Appointment), WO (Work Order), Dispatcher Console

I. INTRODUCTION

Electro Style Elevators is a project carried on by Company XYZ to manage Sales and Service of Elevators using Force.com platform in Salesforce. It executes the Sales using CRM (Customer Relationship Management) with the new customer and provides services using Salesforce Service by extending it to Field Service Lightning for new installation, repair, modernization and services.

Sales include new prospect and contacting an entity until it becomes a customer of the company. Service with the help of a tool called Field Service Lightning includes servicing of the elevators of the customer by providing door to door service facility. This ensures customer relationship using Salesforce.

Dispatcher console is a facility where there is access to service appointments of labourers which could be viewed on a calendar and in addition enables viewing all labourers based on territories. This facility under Lightning captures the current location of labourers and appointments generated which could be viewed on a map of Field Service.

Field Service Lightning Mobile App is a mandate for Electro Style to be implemented in any market. This App receives the scheduled appointment for service requests from customers and notifies labourers about the same. Labourers could request for product replacement, generate reports and close the appointment with the particular customer via FSL App.

II. LITERATURE SURVEY

The automated process of prospect generation from lead and creating quotes, orders and auto generation reminders and the auto creation of work and assigning work for service persons and scheduling time and appropriate work for specific service persons according to their skills is the function of the system. The traditional system of managing sales and service do not support large companies with multiple

territories. Contemporary sales and service systems are only useful when the territories are small or limited number of territories. Such systems utilize time and money which increase the complexity of assigning work for technicians and the area in which they work, it does not provide the facility of tracking technicians and works to be carried out the person. Integrating the sales and service automated service will potentially tie the customers and the service providers.

One of the key failing aspects in the traditional system is the tracking of services that has to be carried out and assigning service persons to those service appointments.

III.   IMPLEMENTATION

The methodology that's been used to implement this project is the salesforce platform. Strategy of the Salesforce was taken by re-modifying the existing CRM. The main agenda of Customer Relationship Management (CRM) is to enhance the productivity of the company by directly involving in maintaining the relationship with the customers.

The salesforce mainly depends on different Licence and Permissions. The license used here are System administrator, Standard user, Community user.

The two main features that's been used here are sales cloud and service cloud.

- Sales cloud: In simple terms it is designed for the single start to end set up for the entire sales process.
- Service cloud: This module of salesforce supports customer in handling any sort of problems or query or request raised for the product.
- Field service lightning, the tool in service cloud is used to ensure the customer satisfaction by giving the services on their doorstep in a single Go.

To make use of FSL in salesforce below are the certain steps that needs to be taken on prior [2].

- Enable FSL on Salesforce
- Install the FSL Managed Package http://fsl.force.com/install
- Creating profiles such as Admin, Dispatcher and Resource.
- Enabling the permissions to grant/deny access in object and fields.
- Install the package to receive notification on to the phone

https://sfdc.co/MobileFieldServiceAndroidPackage

In this proposed system, the object needs to be filled initially to move on with the further process. Begin by creating a user with selecting the license and the permission .If he is an admin of FSL add FSL admin permission to the user. If he is an FSL Dispatcher add FSL dispatcher permission to the user. If he is a labour then use standard user or the customer community license as well needs to add FSL Resource permission to the user. Once the user is created add the user to service resource object. Service resource is used to add specific skills of the labour and can define whether labour is a capacity based (define number of works a labour can do for day/week). Skills should be defined at the beginning. Create an Operating hours so that we can define a labour working hour. Create a service territory (this is used to define where the labour belongs to) along with it add the operating hours to the territory. Add the created service resource to service territory by using service territory member object so the labour belongs to a particular territory. Next step is to define the different work types. Work types are work order templates that save your time and make it easier to standardize your field service work.

Whenever information is received regarding the Installation/Failure or modernisation of an elevator, we create a lead in FSL. During the creation of lead, certain fields such as company name, Region Company that belongs to, requirement such as new installation/service contract/repair/modernization and address are mandatory. Once the lead is converted it create an account to store the organization details, contact to store the person details and an opportunity is created to convert the prospect to a customer. Once the account is created appointment is created for a labour to visit the site and get the elevator details in case of repair/modernization/service contract.

In opportunity add the required products to the quote and synch the quote to opportunity. Generate a quote pdf and send a pdf through mail to customer. If the prospect agreed with a quote then opportunity status will be closed won i.e prospect becomes a customer. When the opportunity is created an order will be created in case of new installation/repair and modernization. In case of service contract, a service contract will be created. Under service contract it create a maintenance plan for a service

(each month), quality audit (once in 2 month) and safety audit (once in a year).Each maintenance plan have a button called generate work order. Whenever you want to generate work order you can do with the help of generate button. Each work order will contain a service appointment with a specified work type. If the customer requirement is installation of elevator and the opportunity is closed an order will get created. When the order is activated a WO for an installation will be created along with service appointment. A WO is created based on the product that's been selected by the customer for the service like repair/ modernization that is opted by the customer.

Whenever there is chance of lift breakdown and the organization gets informed on it, organization fills the case object of the customer and accordingly WO is created with service appointment.

Dispatcher Console [1]: The Field Service Lightning Managed Package includes the Dispatcher Console, which is the main working space for dispatchers. All the appointments created will appear in the todo list of dispatcher console. The Gantt is located on the right side of the Dispatcher Console and contains the resource list, the schedule view, and additional features. The map displays the location of appointments from the service appointments List, the resource's home base, and the resource's last known position. All the scheduled appointments we can view on the Gantt calendar. You can select the appointment and schedule it automatically. It schedules the appointment based on availability of labour, territory he belongs to and the skills required for the appointment. You can manually schedule the appointment by drag drop option. The below Fig 1 shows the view of dispatcher console.
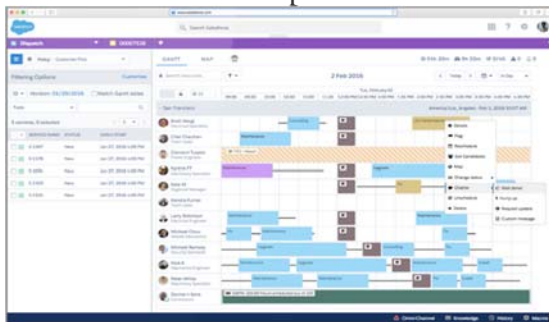

Fig. 1

There are different status in appointment such as None (created, ready to schedule), Schedule (Appointment is scheduled for a labour for specified time), Dispatch(scheduled appointment are dispatched for a labour), In progress (Labour started their work in field), Lift shutdown(Labour not able to repair a lift and kept the lift as shutdown),Temporary work(Labour unable to finish his work),Complete(When labour completes the work) and Part to be replaced(Request for the parts that need to be replaced).

The Fig 2 shows the map which displays the location of appointments from the service appointments List, the resource's home base, and the resource's last known position.
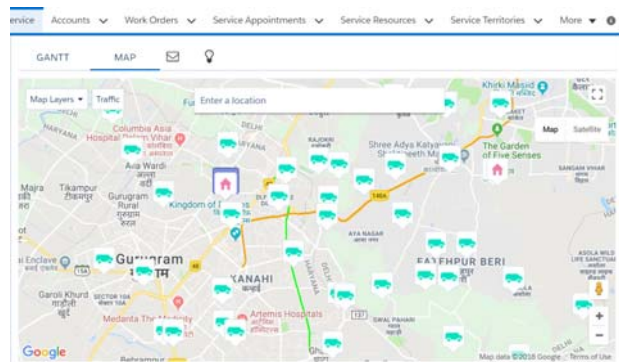

Fig. 2

The Field service Lightning app [4] is a hybrid Mobile app where the labour get the appointment and he can update the work status quo. FSL mobile app is available on the play store which can be downloaded and used. Only if the user having a credentials provided by the admin can use the app. When the dispatcher schedule the appointment labour will be notified. After the completion of work the labour can generate the service report by taking the signature from the customer through mobile app. The above process is show in the Fig 3.

Fig. 3

IV. CONCLUSION

In the existing system the administrator had to manually inform the labour about the work location and work schedule. Whenever the labour completes his assigned work he has to inform the administrator about the completion of the work, which was a tedious task. This task is been eliminated by "Electrostyle Elevators".

"Electrostyle Elevators" will automatically schedule and dispatch the work to the labour at single go. Notification will be sent about the work schedule to the labour and it will also help him to update his work status, which reduces the manual work carried out by the admin as well as labour.

REFERENCES

[1]. Complete Guide on Field service Lighting https://resources.docs.salesforce.com/206/latest/enus/sfdc/pdf/salesforce_field_service_implementation_guide.pdf

[2]. Trailheads on Salesforce https://trailhead.salesforce.com/en/home

[3]. Field Service Lightning IOS App https://help.salesforce.com/articleView?id=mfs_overview.htm&type=5

[4]. Field Service Lightning Android App https://help.salesforce.com/articleView?id=mfs_android_overview.htm&type=5