CRM BASED ISP COMPLAINT MONITORING AND RESOLVING SYSTEM

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ABSTRACT

Considering recent worldwide internet usage, it is concluded that nearly every person knows internet and its benefits either for personal or professional purpose. Internet serve services to users quickly but users may not able to utilize it in same manner because of unsatisfactory and unacceptable internet services.

Many times customers has perceived an unfavourable internet service experience. Nowadays internet users have strong demands for quick solution over their problems and hence it becomes essential for every internet service providers to not only obtain feedback from their users but also continuously monitor their problems till it resolved.

The user friendly CRM based ISP Complaint Monitoring and Resolving System is proposed to overcome the traditional approach of complaints handling. This android based system provides effective way to monitor and resolve various IPS complaints of authorized user. It maintain records of all system users and user complaints with their current status to recognize and track particular user problem in order to improve internet services.

KEYWORDS- ISP, CRM, ISP Consumers, Complaints, Complaint Handling, ISP Consumers Satisfaction

INTRODUCTION

The internet has become a vital service for both residential and commercial customers. Rapid growth of internet services increases challenges for Internet Service Providers (ISPs). Sometimes, customers become unhappy due to service performances are not up to their expectations and ISPs cannot resolve their issues.

Customer Relationship Management (CRM) is the continue learning process which defines strategies to solve customer's complaints in order to improve their reliability. As per customer's perceptions ISP must have to serve customer correctly and prevent them from unfavourable service experience. Customer complaints can help to learn about weaknesses in service quality.

Complaints should be considered at initial stage and need to be quick recovered in order to avoid migration of customers. Customer migration usually affects both current and future profitability through their negative experience. The improvement in an effective complaint handling and monitoring process achieves higher level of customer satisfaction and stops switching behaviour of customer.

REVIEW OF LITERATURE

Julia Meik, Christiain Brock and Markus Blut^[1] researched on "Complaining Customers as Innovation Contributors". This research combined both research areas customer complaint management and service innovation management to improve customer satisfaction

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Ms. Sneha Alve, Ms. Vishakha Babardesai, Ms. Sneha Bhosale, Ms. Siddhi Kapadi, Prof. Atul. B. Yadav^[2] proposed "Web Application for Complaint Tracking and Resolving". This web application handled various complaints in order to make complaints easier to coordinate, track and resolve. This application also keeps complaints data to work on problem areas and improve service.

Alina Filip^[3] worked on "Complaint management: A customer satisfaction learning process". The aim of the proposed work is to primarily focus an effective complaint management process to diagnose weaknesses.

Yooncheong Cho, Roxanne Hilz, Jerry Fjermestad^[4] investigated "An Analysis of Online Customer Complaints: Implications for Web Complaint Management", This investigation is carried out to find out sources and causes of online complaints and provide an effective ways of handling customer complaints.

Sunil Erevelles, Shuba Srinivasan, Steven Rangel^{[5],} analysed "Consumer Satisfaction for Internet Service Providers: An Analysis of Underlying Processes". The analysis is mainly done on consumer satisfaction by switching among ISPs using different satisfaction models to result out the satisfaction levels of ISP consumers and their expectations.

Osman Nasar, EnayatAlkhider^[6] invented "Online Complaint Management System". The aim of the complaints management system is to handle complaints easily and provide an effective tool to identify problem areas.

Jin-Lan Liu, Jiankang, Yin Bai, Xin Zhang^[7] surveyed on "The Study of Customer Complaints Management Based on System Dynamics: Modelling and Simulation". In this study, simulation results are plotted by analyzing & identifying the key factors of system.

PROBLEM STATEMENT

It is essential to propose a user friendly and authorized android based application for monitoring and resolving ISP's consumer complaints as early as possible in order to improve customer satisfaction and ISP services.

PROPOSED SYSTEM

The proposed CRM based ISP Complaint Monitoring and Resolving System is an android based application. The architecture of proposed system is as shown in Figure 1. It contains three system users, one is customer/user, second one is service engineer and another is administrator/admin. Users are the ISP consumers and each user has unique user ID for authorization. Only authorized users can post their complaints in user's space which is provided by the system. System provides unique complaint ID for each complaint posted by the user to easily track their complaint status.



Figure 1 : Architecture of CRM based ISP Complaint Monitoring and Resolving System

The service engineer is a problem solver who can view user complaints and provide a solution over user complaints as quick as possible. The system admin is the main controller of system who can view all the users as well as service engineers details and monitor user complains and their status. Admin have authority to take action against the service engineer according to customer ratings in order to resolve it.

The implementation of proposed system is based on functionality of three major system users as-

FUNCTIONALITY AT USER SIDE:

- 1. Open ISP based Complaint Monitoring and Resolving application
- 2. Login with username and password from user option.
- 3. Reset password
- 4. Post their complaints.
- 5. Check status of the complaint by using complaint ID.

FUNCTIONALITY AT SERVICE ENGINEER:

- 1. Open ISP based Complaint Monitoring and Resolving application
- 2. Register new service engineer
- 3. Login with username and password from user option.
- 4. Reset password
- 5. View posted user complaints.
- 6. Provide solution to the complaints
- 7. Send notification regarding to the complaint resolution to the system which is then transferred to the user.

FUNCTIONALITY AT ADMIN SIDE:

- 1. Open ISP based Complaint Monitoring and Resolving application
- 2. Login with username and password.
- 3. Reset password
- 4. Add users and service engineers.
- 5. View users and service engineers details.
- 6. Monitor posted complaint and the solution given for it.
- 7. Take action against the service engineer in order to resolve user complaint.
- 8. Update complaint status if complaint is resolved.

RESULTS AND DISCUSSION

The proposed system is works according to the type of system user. The system starts form login window where user can log into android application by selecting appropriate user type. The user type provides three options- user (ISP consumer), service engineer (complaint solver), and admin (system controller) as shown in Figure 2. This window also provides link for forgot password to reset new password.

Figure 3 shows admin dashboard window. This window contains four sections- first section is add user to register new user in to the system by filling its user details as shown in Figure 4, second section is add service engineer to register new service engineer in to the system by filling its details as shown in Figure 5, third section is complaints section. In this section admin can view list of all complaints that is posted by users as well as detail view of particular complaint as shown in Figure 7 and last section is notify, this section holds all notifications regarding user, service engineer, and system.

Figure 4 and Figure 5 is the registration window which is handle by system admin. To register a new user or new service engineer admin have to fill all its details like- Name, Email, Mobile No, Address, Password, Confirm Password.

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← Add new user	← Add new service e
	← Add new service e
lame	Name
enter full name	enter full name
mail:	Email:
email	email
lobile No.	Mobile No.
Mobile number	Mobile number
ddress	Address
Address	Address
assword:	Password:
Password	Password
onfirm Password:	Confirm Password:
confirm password	confirm password
ADD	ADD

Figure 4 : Add New User

Figure 5 : Add New Service Engineer

Figure 6 shows home window of user. In this window user can add its complaints by selecting complaint option at the top-right corner of window. All complaints that are added by user get posted on home window in list form according to timestamp. The status of complaints are change by system admin if it is resolve by service engineer.

E al al S	S 1000 9:47	E		3
Home	COMPLAINT	←	Complaint Detail	
2019-02-27 21:46:16 Net is not working properly!	in process	2	piy 2019-02-27 13:02:26	
2019-02-27 13:02:26 Internet slow	resolved		ription net slow	resol
			ments -02-27 21:42:35	
		kun	art the WiFi and login you	ur id in
		write co	omment here	

Figure 6 : Home Window (User)

Figure 7 : Complaint Details Window

Whereas Figure 7 complaint details window shows, full details of specific complaint along with timestamp, complaint description, comments or solutions provided by service engineer to resolve the problem

CONCLUSION

From results and discussion it is concluded that "CRM based ISP Complaint Monitoring and Resolving System" provides user friendly platform to solve the problems of ISP consumers. This system gratefully handles and resolves complaints in short period by taking continuous follow up of complaints. So ultimately this system facilitates ISP services and customer loyalty

In short, the proposed system overcomes problems of the existing CRM based complaint handling system and delivers an excellent technique to monitor and resolve ISP's consumer complaints as early as possible in order to improve customer satisfaction and ISP services.

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