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Automation to Handle Customer Complaints in Banks Using BPM Tool

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Automation to Handle Customer Complaints in Banks Using BPM Tool

by

Gnana Sunny Antony

A Starred Paper

Submitted to the Graduate Faculty of

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Abstract

This project was implemented in a Leading Multinational Bank and Financial services corporation which concentrates on Consumer Banking, Corporate Banking, Finance and Insurance, Investment banking, mortgage loans, private banking, private equity, wealth management, credit cards and home equity products. This project was focused on developing a new customer centric application for automating Complaints mechanism throughout all platform. This project involved developing and testing the new application and focusing on being customer centric and to beat the growing demand of banking market.

Acknowledgements

This project document would not have been possible without the valuable guidance and support from many individuals and organization.

I would like to take this opportunity to thank Dr. Hiral Shah, Associate Professor, for Engineering Management Program, at St. Cloud State University without whose support, encouragement, and guidance this project would not have been a reality.

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Chapter I: Introduction

Introduction

In the present competitive world, Banking has become an important part of everyone's life. A success of a Bank can be determined by the customer-bank relationship. Complaints against banks are rising. Among them, Customer Complaints mechanism plays a vital role. The public perception of banks has been battered in recent years, but financial institutions have been working hard to repair the damage. A key tool in their strategy has been to improve customer service in a multichannel environment. It is a comprehensive approach to improving customer service requires banks to look far beyond traditional call center operations, as much of the interaction with banks is moving away from the telephone and towards digital channels.

A well planned design can provide bank task teams and clients alike with a variety of benefits such as reduced corruption, customer satisfaction, good service delivery and overall effectiveness and quality of the bank. keeping customers satisfied is critical now, since losing a customer in one business may also mean losing them in other business areas, such as wealth management.

Wealth management firms rely on repeat business and customer referrals. Responding to customer inquiries and complaints is an integral part of customer retention, and a high priority for these firms. By using your flexible client onboarding platform to automate complaint management as well, you can track and resolve customer inquiries and complaints quickly and professionally, building client loyalty. This extends the value of your client onboarding software, increasing your ROI and improving your core business processes.

Accountability plays an important role for operations departments who have shifted attention to customer service.

One challenge, firms has faced with was creating processes that allow customer service issues to be resolved quickly and efficiently while meeting compliance guidelines. To do this, firms needed an automated solution that would allow all inquiries and complaints to flow through a workflow, notifying predefined staff of an action item and moving it through the system until it is resolved.

Within the banking industry, ‘complaints management’ has become an integral part of business, both from a regulatory perspective and a customer service standpoint. Simply stated, complaints management is the formal process of recording and resolving a customer complaint. It means listening to dissatisfied customers and taking actions to remedy issues, where appropriate.

Complaints management is just one initiative under a larger strategy called customer experience management (CEM). By listening to customers, companies can develop service standards and delivery processes to meet these standards. In a transaction driven business such as banking, this represents a Herculean task, given that there are over 1.2 billion automated bank machine transactions alone annually (BankTechNews.com, n.d.).

The complaints management process also has a regulatory component. Over the years, a number of government and industry organizations have been created to help customers resolve complaints against the banks. All banks have formal complaints-handling practices in place. They encourage customers to deal with their local branch, or the business unit in which the problem originated. The bank’s goal is to resolve these complaints at the local level.

Usually, most banks have independent ombudsmen that customers can turn to. The ombudsman and staff record the details of all complaints and act as an independent arbiter in resolving cases. On a periodic basis, the ombudsman reports to the board of directors and chief executive officer on the nature of complaints handled by the office. Any Service organization believe in providing best customer service and customer satisfaction, hence this should be the primary target of any Banks. To retain old customers and to entertain new ones, quality service is highly needed (Customer Expressions Corporation, n.d.).

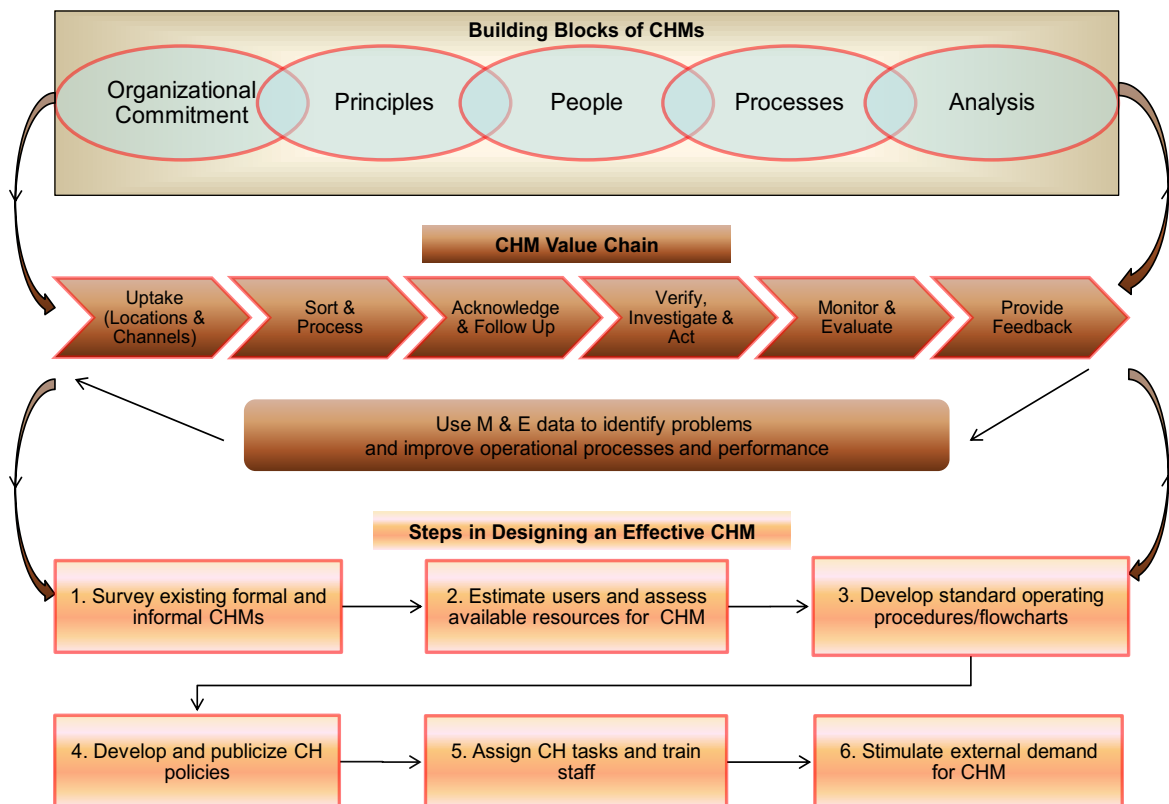


Figure 1: Designing a complaints handling mechanism.

Figure 1 shows how an organization can build or plan a CHM. There are several building blocks that are considered to plan a complete mechanism. It also highlights the value chain and steps involved to design an Effective CHM. It involves to identify problems and then improve the Performance. The design includes Survey, Estimate, Develop, Assign and then execute the plan.

Problem Statement

The Legacy complaint system used by the banks are unable to meet the present day demand. Due to Increase in customers has led to increase in customer complaints too. 3.5 million Complaints has been received by the bank every month. The legacy application started crashing as it was not able to handle the vast number of complaints received and hence a new system has to be implemented to efficiently handle high amount of complaints. Practical problems with internet and mobile banking are the most common source of problems, although they are comparatively easy for banks to resolve. Fees generate the second highest level of complaints, and are the area where customers are most likely to be left feeling dissatisfied. Operational issues, such as lost or stolen cards, are more likely to be addressed to customers' satisfaction.

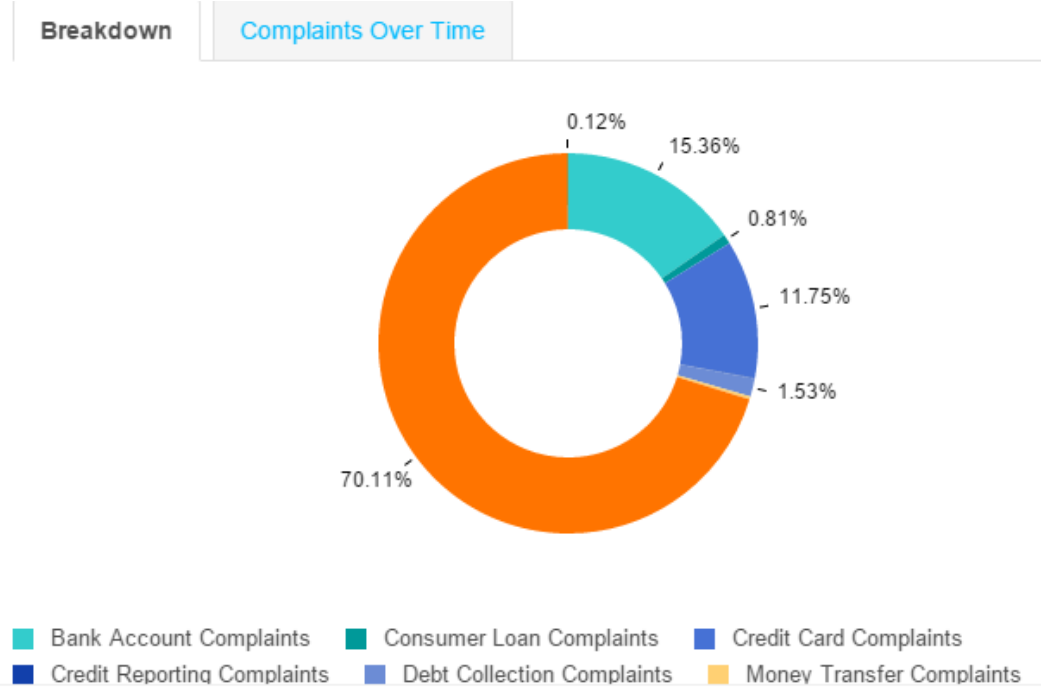


Figure 2: Complaints breakdown.

Figure 2 shows how the complaints were distributed across the Business. It highlights all the complaints that the Bank receives and the summary view of the same. It helps to design the application and to concentrate on specific Business.

Objectives

The objectives of the project were:

1. To create a system application to handle more than 3.5 millions of complaints.
2. To decrease the resolving time of the case (complaints) by 15%.
3. Decrease the Maintenance cost by 25%
4. Building an application which will be customer centric and easy to understand and apply.

5. To increase the quality of the complaint system thereby the bank reliability is strengthened.

Nature and Significance of the Problem

The Present complaint system at the Bank are not able to meet the requirements of the Customer. Faster delivery and quality are not met. Also, due to the increase in the number of Account holders, the number of complaints received has been drastically Increased, and the legacy systems are not able to handle the pressure and leading to regular shutdowns and server failures.

Customer experience is vital to customer attraction and retention, playing a stronger role in account opening and closing than fees, rates, location or convenience.

The fact that customers are more likely than ever to complain about unsatisfactory experiences, pass on their complaints to regulators, and publicize them via social media, means that complaint resolution should be a vital competency for European banks. There is also an upside to growing levels of complaint, namely, a growing appetite among customers for dialogue and conversation with their banks. Dealing with problems effectively is a powerful way for banks to build trust and advocacy. There is a direct link between satisfaction with problem resolution and advocacy. Among customers with a problem, satisfaction with complaint handling is more likely to make them advocates of their bank, rather than satisfaction derived from many other aspects of their service.

Challenges in complaint management systems. Several common institutional features make complaint management a challenging process for many banks. These include:

- **Silo-orientation**—which makes centralized monitoring and integration difficult and can lead to inconsistencies, such as confusing a complaint with an enquiry
- **Inadequate policies**—or a tendency to focus on meeting policies and standards rather than creating a satisfactory outcome for the customer
- **Lack of accountability**—with no one owning the process or taking responsibility for referral, escalation or keeping the customer informed
- **Inability to fix root causes**—when banks lack the mechanisms to identify and implement coordinated solutions, thereby preventing problems from recurring. Hence having a right complaint system Mechanism will help the Bank to soar high (Bannister, 2013).

Project Questions

1. System able to handle 3.5 million case?
2. What tools/parameters was considered to measure the changes/objectives?
3. What was the degree to which the performance has improved by using automation system by PEGA?
4. How much time was saved to solve a case when compared with the legacy system?
5. Was the can PRPC system be helpful in other application of the organizations?

Summary

This Chapter briefly concentrated on the problem, objective of the project and Project questions.

All these were addressed in the project and it is discussed at the end of the study. The next chapter covers the literature background knowledge associated with this project.

Chapter II: Background and Review of Literature

Literature Review

Introduction. This chapter focuses towards reviewing the literature of the problem, literature related to the methodology that has been implemented in the process of solving the problem and the background of Company and the issues related to it.

Background Related to Problem

This bank is a service provider all across the country and it is the leading bank in the world. The legacy system which was handling the Complaint system was failing with the increase in customers. It failed to manage the load as well as the quality of the bank was at stake due to the number of complaints getting delayed to get resolved. As a leading service provider the bank should hold a strong CHM to handle all its compliant system across all business. Hence a new application was needed in order to save the reputation.

Literature Related to the Problem

Business process management (BPM) is loosely defined, and its meaning is often tailored to specific goals. It typically involves automating and streamlining processes and workflows. In new initiatives, banks are finding emerging BPM tools beneficial in managing otherwise contradictory mandates, such as improving credit risk management through more accurate loan application process. New BPM tools use web delivery of data and other content to work across bank departments, allowing banks to achieve speedier processing for very different business functions simultaneously and in line with business rules. To reduce the time and increase the automation of the process Pega software is used which is developed by Pega

systems. Pegasystem develops, markets, licenses, and supports software, which allows organizations to build, deploy, and change enterprise applications.

Good problem resolution presents significant opportunities; ineffective complaint handling presents substantial risks. To meet the goals, banks need to strengthen or develop a range of key capabilities, such as Omni channel banking, behavioral segmentation, complaint handling, data analysis, staff empowerment and the effective use of social media (Cragg, 2011).

PRPC–PegaSystems. Pega System specializes in software development for Customer relationship management (CRM) and Business Process Management (BPM). This system enables strategic application that evolves to meet and adapt to the competitive business world, which changes regularly. This application helps to streamline the important business operations, connect enterprises to their customers in real time across the world. The Company provides consultation, training, and technical support services to the customer. The PRPC (PegaRules Process Commander) has a wide platform to build a huge enterprise application. There are about 2000 Global customers availing the services of Pegasystems. These customers are majorly from Financial, healthcare, insurance, communications, media and other sectors. Pegasystems developed the decision management engine, which the bank has licensed to be the heart of the strategy. The bank is integrating channel platforms to automate the steps between the data analysis and the message delivery. PNC has built a web services layer around the Pegasystems product to integrate with the channel systems.

The Pegasystems solution receives and analyzes customer data and the reason for that customer's contact, and makes a decision on the next action for that customer based on the transaction and personal data. That decision is delivered through the web services layer to the point systems that manage the creative and design for the content delivered to the different channels: on the website, PNC uses HTML and Java-based landing pages; ATM content is integrated into Diebold's campaign technology, and in the call center the bank uses Recommendation Advisor, a Pegasystems customer service product. Pegasystems describes its platform as a "brain" that automatically informs decisions during a financial process, such as steps during a mortgage loan process, or matching service queries to personalized marketing or sales. The software aggregates and inputs transaction and user data into its analytics engine, then configures the decision-making process uniformly for different kinds of decisions. This way the people underwriting a loan or handling customer service calls, for example, can use the same business rules to ensure continuity in workflow automation across the enterprise. An automatic data technique or form that has been automated for a loan application can also be used for customer service or security (PEGA, n.d.).

Literature Related to Methodology

Agile methodology. Agile development, part of the extreme programming methodology, aims to improve the quality and delivery time of projects. Agile Adoption by the Financial Services Industry Seeing a Greater Return on IT Investment Today's financial institutions are facing huge changes in technology platforms, payments processing systems, financial systems, asset and risk management systems, while attempting to deliver services in the way customers prefer. From m-payments and the ability to view and trade stock options

via mobile phones, to e-payment and trends towards an increase in digital and online banking, to the need to rapidly process and keep track of accounts, balances, interest rates and identify financial trends, while reducing financial risk, the platforms and business applications banks and other financial firms use have evolved enormously in recent years, and are continuing to do so at a rapid rate. Traditionally, software development projects used the "waterfall" system for producing code, where testing and end-user acceptance are conducted only once the analysis, design and development phases of a project have been completed (The Agile Movement. n.d.)

The agile approach, part of a wider programming methodology known as extreme programming, is iterative, so testing and user acceptance occurs continually throughout development of the project. The idea is for a project to be split into small chunks which were presented to users on a regular basis as completed pieces of functionality. The benefit of the approach was that the business was able to provide continual feedback. It also means that the business can decide how much functionality it requires without having to wait for the full application to be developed. This can reduce the development effort if certain functions are no longer needed by the business.

Firms in the financial sector also face other challenges combining this with the difficult market conditions in the past few years, and the need to sustain revenue growth and retain market share in an increasingly competitive landscape, and IT departments within financial firms are feeling increasing pressure to improve efficiency and speed, while at the same time maintaining controls on cost and capital outlays. Agile development methods met many of these requirements. The trend to Agile adoption by other business sectors has been

driven by the need to deliver high value, create software that actually meets end user goals, and to reduce risk when business applications are developed (Waters, 2007).

Scrum is the most popular way of introducing Agility due to its simplicity and flexibility. Because of this popularity, many organizations claim to be “doing Scrum” but are not doing anything close to Scrum’s actual definition. Scrum emphasizes empirical feedback, team self-management, and striving to build properly tested product increments within short iterations. Doing Scrum as it is actually defined usually comes into conflict with existing habits at established non-Agile organizations.

For successful and Incremental Software development, agile development phrase is widely used as the Methodology. It has replaced the traditional methodology and has proven successful. The highlight of this Methodology is it emphasizes on people empowerment, team collaborations, adaptive planning, team decisions, early delivery, continuous planning, testing and integration, continuous improvement, flexible response to changes. Adaptive Software Development replaces the traditional waterfall cycle with a repeating series of speculate, collaborate, and learn cycles. This dynamic cycle provides for continuous learning and adaptation to the emergent state of the project (Agile Methodology, n.d.).

The first software development methodologies were hardly methodologies at all, but a free-for-all as organizations struggled to profit from new computer-related technologies. The methodology that has dominated software development projects for decades is called waterfall. One of the most important differences between the agile and waterfall approaches is that waterfall features distinct phases with checkpoints and deliverables at each phase, while agile methods have iterations rather than phases. Agile methodologies embrace iterations.

Small teams work together with stakeholders to define quick prototypes, proof of concepts, or other visual means to describe the problem to be solved.

1. Inception:

- Active stakeholder participation
- Obtain funding and support
- Initial requirement envisioning
- Setup environment

2. Construction:

- Collaborative development
- Model storming
- Confirmatory testing
- Evolve documentation
- Internally deploy software

3. Transition:

- Final system testing
- Finalize documentation
- Pilot test the release
- Train end user and production staff
- Production deployment

4. Production:

- Operate the system
- Support the system

- Identify defects and enhancements

5. Retirement

- Remove the final version of the System-Data conversion
- Migrate users
- Update enterprise models

Summary

This chapter briefly covered the background and literature of the problem. It also highlighted the methodology used for the project—Agile Methodology. It also explained the various phases in the Agile methodology.

The next chapter concentrated on Project Methodology.

Chapter III: Methodology

Design of the Study

In order to obtain value from a complaints management process, there are key areas that must be considered. These include:

- Classify Customer Complaints
- Analyze & Report Trends
- Take Management Action
- Improve Complaints Process

Classify customer complaints. As individual complaints are recorded, the nature of the complaint, along with the product or service the complaint is about, requires classification. In the banking sector, complaints that violate federal laws, or internal bank policies and procedures, should be classified separately from other customer service issues.

Analyze and report trends. Once complaints are classified, the data should be analyzed and reported on a regular basis. The goal of analysis is to identify themes or trends that occur with front-line service delivery. This is done with an eye toward both regulatory matters, and those that help improve customer experiences. Given that many bank Ombudsmen report to their chief executive and board of directors on a semi-annual basis, this ensured complaints management activities receive senior executive attention and accountability.

Take management action. With issues identified, actions were taken to improve front-line service delivery. This may include updating customer service standards, improving communications, or providing additional training to staff on products/services. Actions should

remedy systemic issues. Changes should be monitored closely to ensure actions result in fewer customer complaints.

Improve complaint process. Although a complaints management process may exist, it is important to know how well it is working. Ask key questions of customers who use the system, including whether or not they view the process as accessible, easy to use, and fair. This will identify areas for improvement. Since research indicated that complaints handled professionally and in a timely manner which resulted in customers continuing to do business with a company, it was essential that customers who complained were also satisfied with the complaint management process. This has not only helped to retain business, but also reduced the damage that negative 'word of mouth' had with existing or potential customers.

(Resolving Customer Complaints and Inquiries ...-doxim.com, n.d.)

Description of the process. First, the complaint is received into the system. The complaint may be received through a Phone call, Email, Online or by walking into the bank. Once the Complaint is created, it is assigned a case ID and given to a particular representative. An acknowledgement call is done to the customer to verify all the details. First checkpoint is cleared and submitted. This is again reviewed with the proposed resolution for the problem and sent to second checkpoint. After thorough checkup, the second checkpoint is submitted and then reviewed. Once the resolution is completed, a resolution call is made to the customer. It is then followed up with a resolution letter to acknowledge the closure of the case. Costs to wealth management firms due to heightened regulatory requirements continue to climb. With access to a comprehensive solution that guides every account related activity through the entire workflow, financial services firms are able to reduce their overall

Intake Involves the direct customer interaction. It also involves assigning the Complain to specialist. Research involved the QA part, wherein the complaint is analyzed and solution is suggested. Resolve phase includes the customer notification and complaint closure.

Table 1

Specialist Involved for the Application Creation

Default	Name		
<input checked="" type="radio"/>	Developer		
<input type="radio"/>	ConfigurationAdmin		
<input type="radio"/>	ComplaintManager		
<input type="radio"/>	ComplaintSpecialist		
<input type="radio"/>	IntakeManager		
<input type="radio"/>	IntakeAssigner		
<input type="radio"/>	IntakeSpecialist		
<input type="radio"/>	QAManager		
<input type="radio"/>	QASpecialist		
<input type="radio"/>	ReadOnlyUser		

Add portal

Table 1 shows all the specialist roles involved for a complaint case. The complaint is system is designed in such a way that, each associate has his own role. This include roles and covers all three phases–Intake, QA and Resolve phase.

Intake specialist and Intake Manager were involved in Intake phase. Complaint specialist, complaint manager was associated with the research phase. The QA specialist and QA manager are associated with Research as well as closure/resolve Phase.

Flow 1: Collect complaint information.

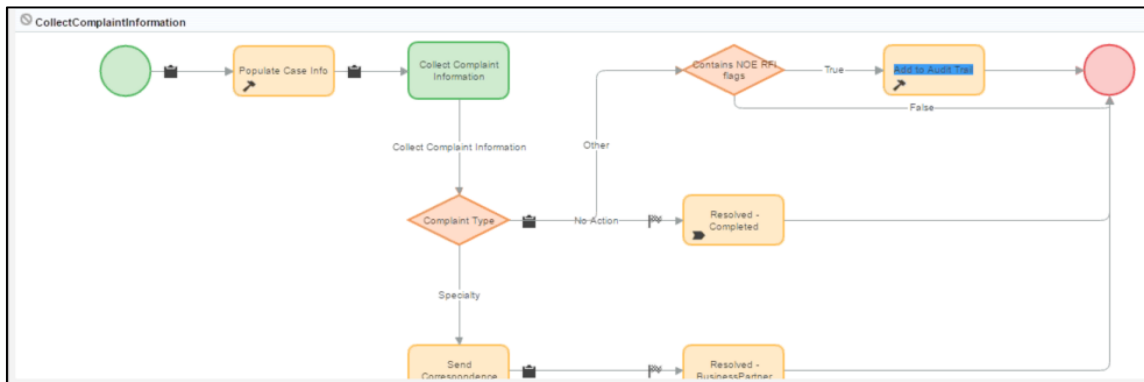


Figure 4: Collect complaint information.

Figure 4 explains the flow which involves the Intake specialist, wherein the complaints are received from the customers. The information involves all the customer information, Complaint type and subtype.

The complaints which can be solved at first instance itself/by the representative is also included in the flow.

The Intake specialist is responsible to identify the complaint and see if he can resolve at his end first, if not the complaint is taken, and assigned.

Flow 2: Assign.

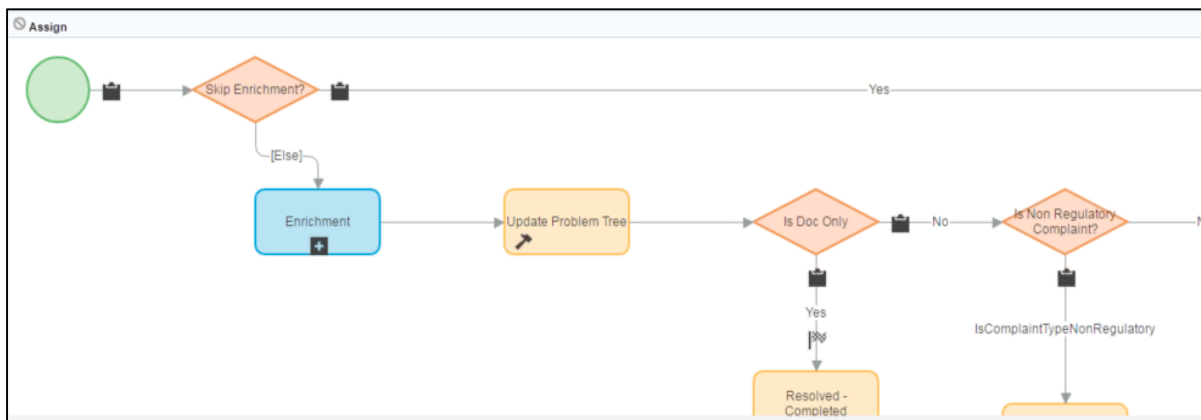


Figure 5: Assign.

Figure 5 explains the Assign Flow. The Complaint is then automated to the respective department/specialist to resolve the case.

This is assigned per the complaint type/subtype.

Flow 3: Investigate complaint.

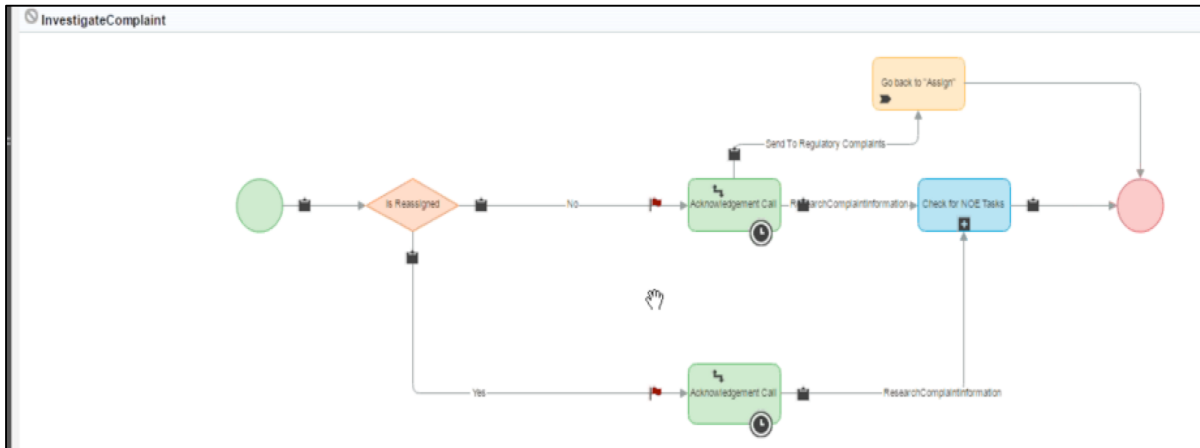


Figure 6: Investigate complaint.

Figure 6 explains the investigate complaint flow. The Complaint is thoroughly Investigated by the specialist. Acknowledgment call is performed to customer on the complaint. This gives specialist the insight on the problem and the customer is also assured that his/her complaint is being taken care. Based on the analysis the tasks are assigned to resolve the case.

Flow: 4: Check point 1:

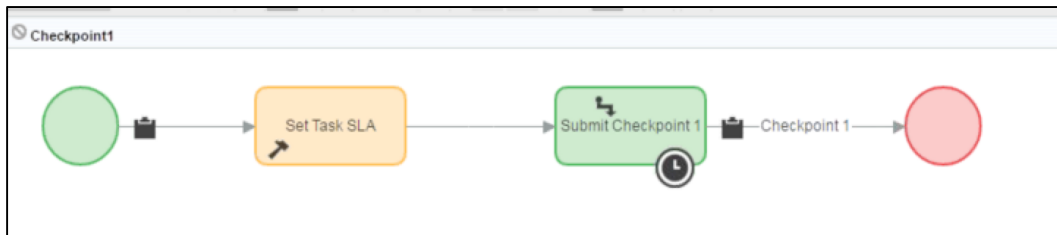


Figure 7: Check point 1.

Figure 7 explains the Check point flow 1. The first check point is a QA task, where in the analysis/resolution performed by the complaint specialist is checked by a QA. An SLA is assigned and this is thoroughly analyzed.

Flow 5: Review check point 1 submission:

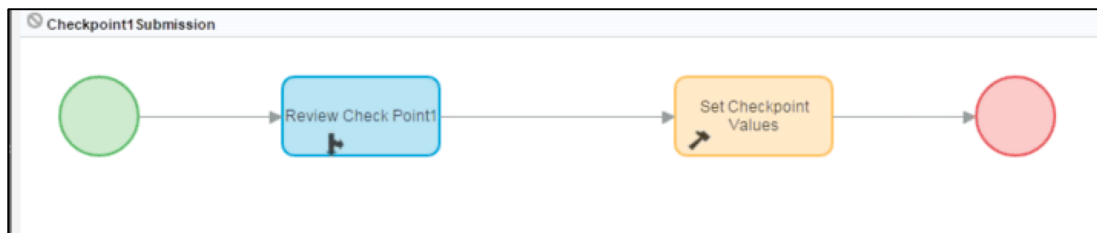


Figure 8: Review check point 1 submission.

Figure 8 explains review check point 1 flow. The QA submits his analysis, which is again analyzed by QA managers. The values are assigned to the checkpoint based on the QA reports.

Flow 6: Check point 2 submission.

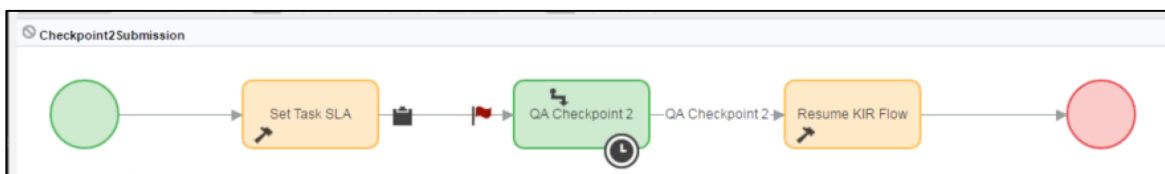


Figure 9: Check point 2 submission.

Figure 9 explains checkpoint 2 Submission flow. Second set of resolution analysis is done here. The QA managers analyze the check point values for the Second set of QA reports on the resolution. This helped to resolve the case completely as the case is seen by different set of eyes, which in turn also helped in closing the case.

Flow 7: Check point 3.

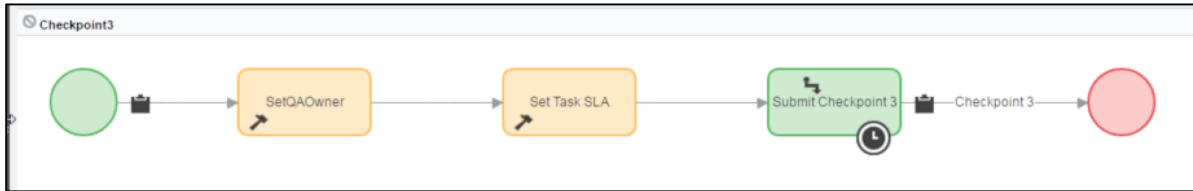


Figure 10: Check point 3.

Figure 10 explains the check point 3 flow. Third QA was assigned. This is mostly done for complicated cases. Where in the multiple analysis is needed. The QA reviews the case as well as the resolution suggested by the Complaint specialist. He also reviews the QA values done before him. And then submits his values.

Flow 8: Resolution call.

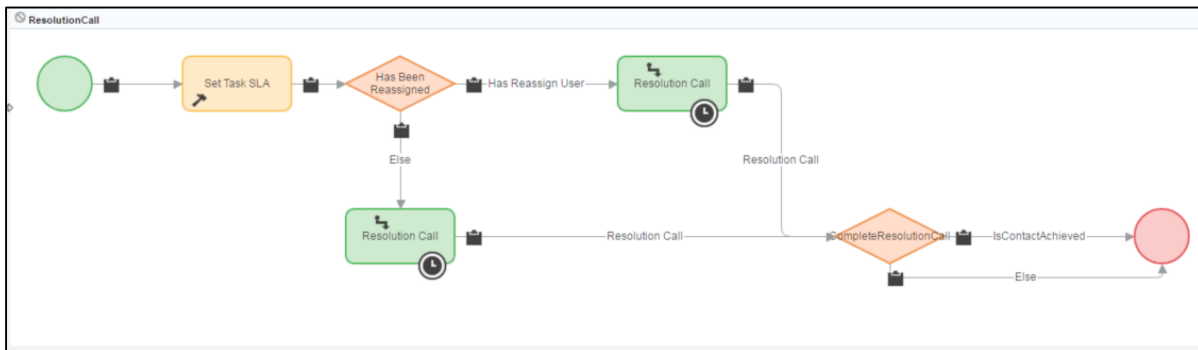


Figure 11: Resolution call.

Figure 11 explains the resolution call flow. After the resolution was confirmed by the QA. The Case was assigned to a specialist who called the customer and informed the resolution made. The resolution call should be made within the specified time allotted as SLA is involved for this task.

Flow 9: Complete complaint.

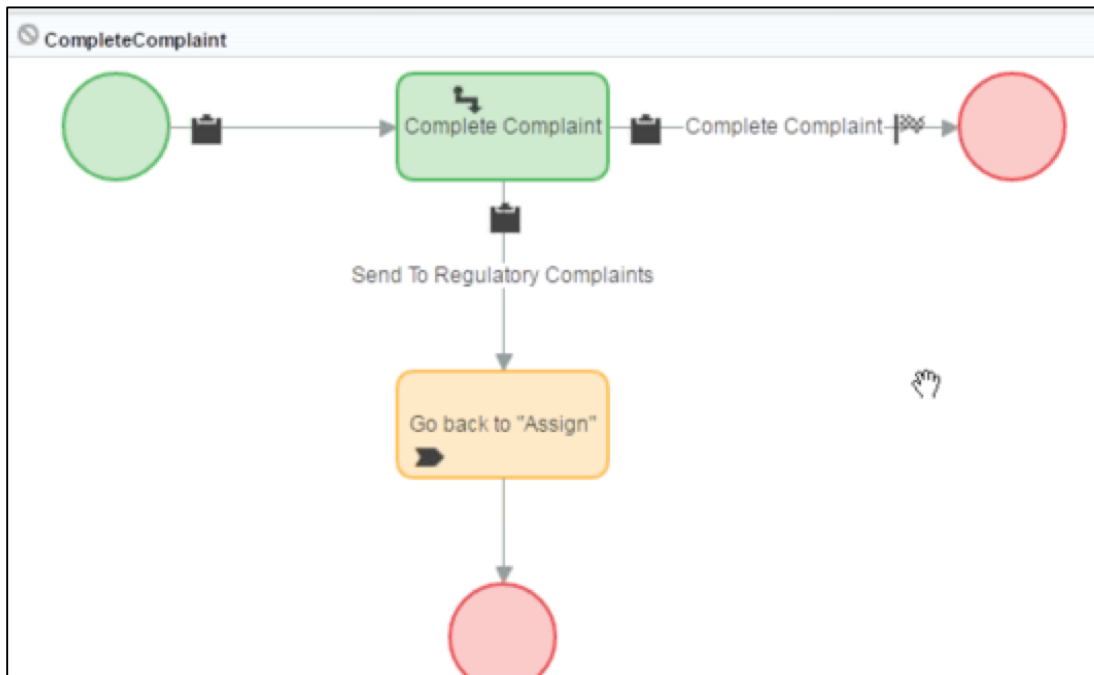


Figure 12: Complete complaint.

Figure 12 Explains the Complete complaint flow. The complaint is closed after taking consent from the customer. If the customer is not satisfied, it is then reassigned to the specialist and a new set of SLA for that case starts. Most of the cases are closed, as it has been viewed by several QA. And hence the suggested resolution is expected to be satisfactory.

Timeline

Table 2 shows the timelines for the project.

Table 2

Timeline

ACTIVITY	TIMELINE	COMMENTS
PROBLEM IDENTIFICATION - PROPOSAL	JAN 2016	Completed
INCEPTION	18th JAN TO 29th JAN	Completed
CONSTRUCTION	1st FEB TO 11th MAR	Completed
TRANSITION	14th MAR TO 25th MAR	Completed
TESTING	28th MAR TO 8th APR	Completed
PRODUCTION	11th APR	
DEFENSE	15th JULY	

Summary

This chapter was briefly on the Methodology and flow of the whole mechanism of CHM. It also includes the Timeline of the Project.

The next chapter concentrates on data analysis.

Chapter IV: Data Presentation and Analysis

Data Presentation

Introduction. This chapter includes the outcome of the application development and the interpretation and analysis of the same. The purpose of analyzing data is to obtain usable and useful information. The analysis, irrespective of whether the data is qualitative or quantitative, may describe and summarize data, identify relationship between variables, compare variables. Data representation uses a strategy of displaying the data in terms of rows and columns. Data analysis will implement the analyzing the data for validity.

Data is collected at various parts of the application like on board complaint type, assistant assigned to, category. Then the customer demographic information like first and last name, additional phone number, email and address are collected and sent to specific category to analyze. Once the information is validated and if it passes the validation then the case is resolved accordingly. Roles are assigned to the representative and flow of complaints are managed efficiently.

There are four main stages in handling the complaint. They are assign, research, resolution and resolve. At each step data is analyzed, validated and sent to succeeding check points. Acknowledge calls are made where ever necessary. Reviews are sent out at each level to identify errors. And resolution is made after making calls and printing out letters. Finally, case is closed and resolved after successful handshake procedures Urgent complaints are handled with priority and pending work at any level is organized for eligibility outcome.

This structure also facilitates the parent child relationship between the layers such that child layers can user their parent data without creating them again such that there would be

no redundancy in data. Data provided by the customer over agent channel can be propagated to the web channel eliminating the redundancy.

Data Analysis

User interface.

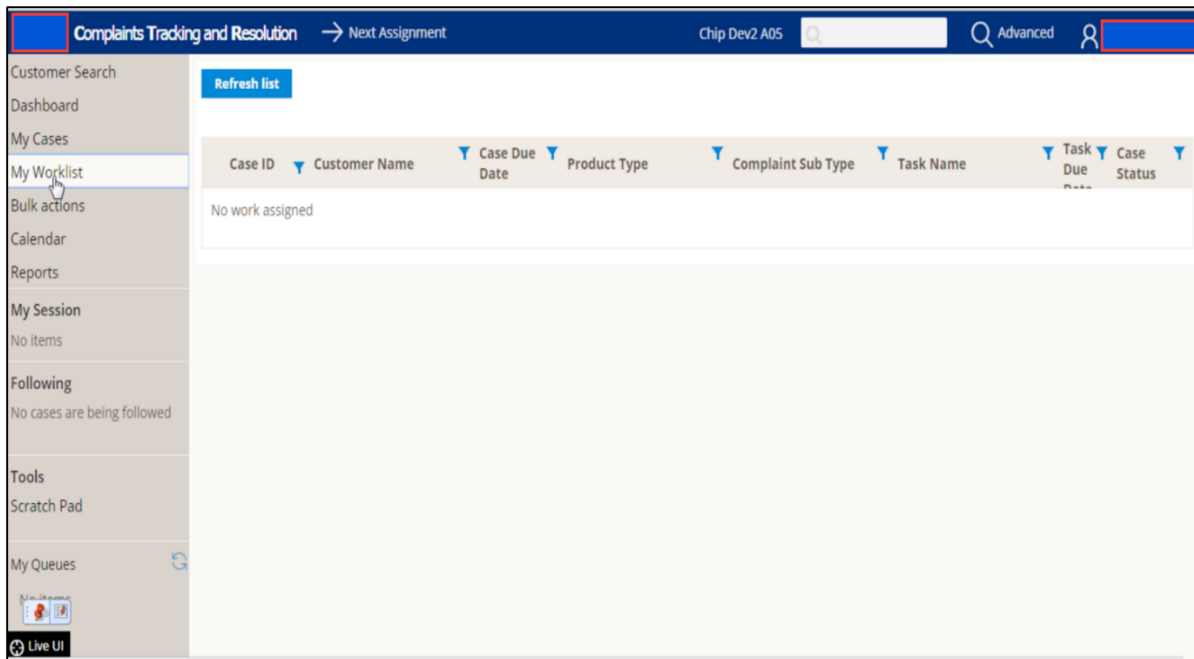


Figure 13: Complaint specialist: UI screen.

Figure 13 shows the Complaint Specialist screen. The Specialist portal can be accessed by the customer care representative, who are the end users of the application. The application has sorting features, wherein they can choose any cases from their work list. Sorting features are available based on SLA timeline and it gives them a way to prioritize their work.

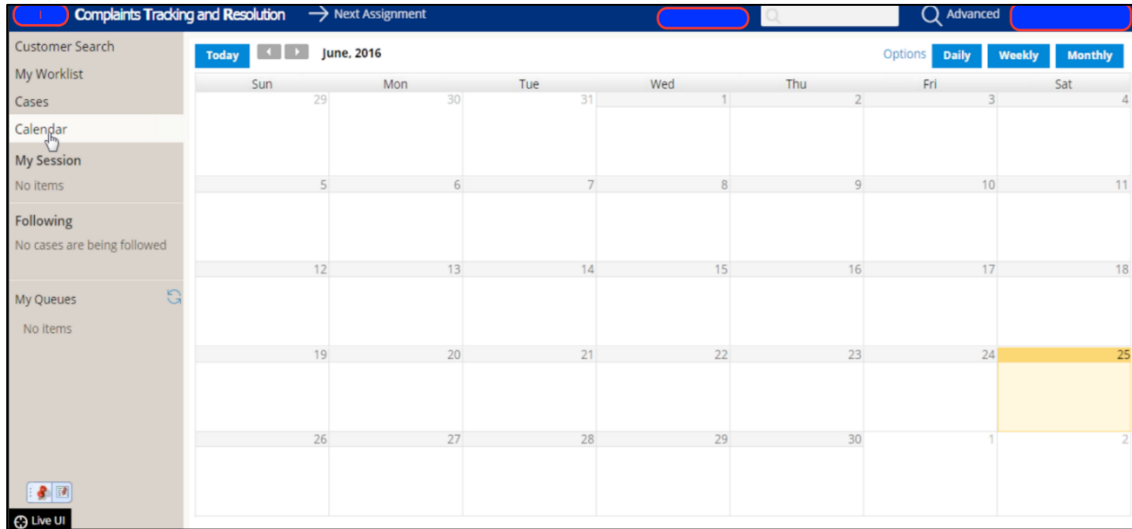


Figure 14: Calendar assignment.

Figure 14 shows the Calendar assignment screen. The UI also offers the view of all the assignments based on the dates. Each worklist has the assignments for a particular day, and the user can analyze the status of his previous work/cases from the calendar option available. This also helped him/her to analyze his own performance based on the number of cases he resolved on a Calendar day.

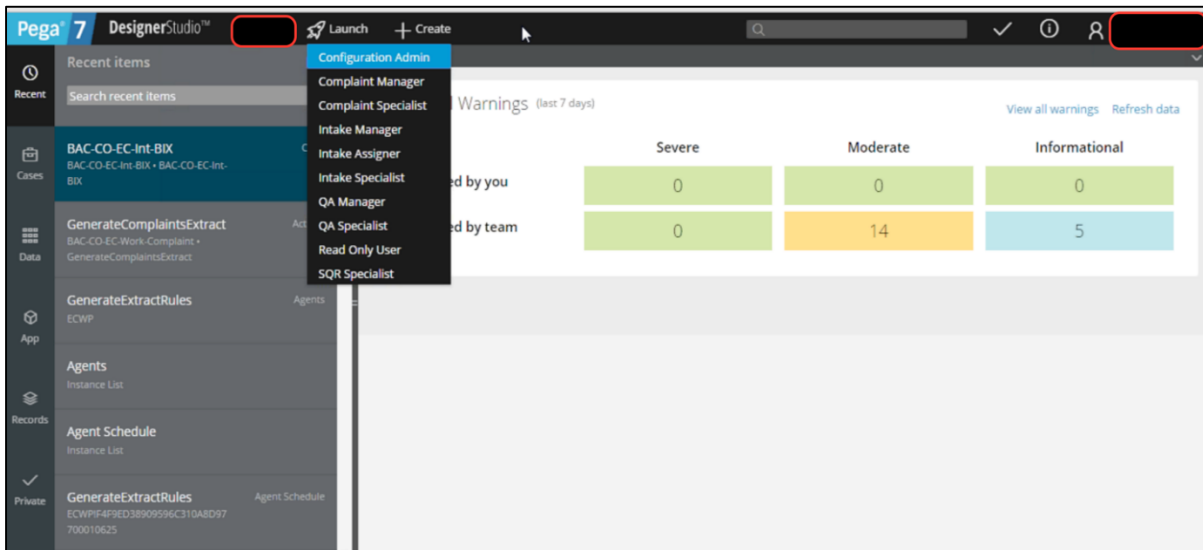


Figure 15: Various portals.

Figure 15 shows the various portals in the application. The application has the portal for each and every user based on their access group or specialities.

These includes:

1. Complaint Manager
2. Complaint Specialist
3. Intake Manager
4. Intake Assigner
5. Intake Specialist
6. QA manager
7. QA specialist
8. Read only User
9. SQR specialist

Complaint manager. The Manager portal can be accessed only by the manager. They can manage the Work load. And to analyze the status of the current day by the user who have the Complaint Specialist access group. These users, Research and resolve the complaints.

Intake manager. This portal can be accessed by manager having the Intake manager as their access role. This portal helps to maintain the intake flow and analyze the performance of the associates under intake work flow.

Intake assigner. This portal is used to assign the cases to specialist.

Intake specialist. This portal is accessed by the Intake specialist, who interact with customers and create the cases based on the complaints.

QA manager. This portal is accessed by the QA manager.

QA specialist. The QA specialist role is to access the resolution suggested on the case.

This portal can be accessed only by the specialist.

Any user can have multiple access group, wherein he can get into any portal.

The screenshot shows a dashboard with a sidebar on the left containing navigation options like 'My Worklist', 'Search Customer', 'Search Case', 'Dashboard', and 'My Reports'. The main content area is titled 'Dashboard' and features a 'SUMMARY FOR TODAY' section. Below this is a table titled 'URGENT WORK (MILITARY BENEFITS CUSTOMER CASES)'. The table has the following columns: Urgency, Case ID, Case Status, Request Receipt Date/Time, Deadline, and Owner. The Owner column is highlighted with a red box.

Urgency	Case ID	Case Status	Request Receipt Date/Time	Deadline	Owner
10	160331MMBCC00006	Pending-ExceptionReview	3/31/16 1:53 PM		
10	160425MMBCC00010	Open	4/25/16 3:24 PM		
10	160425MMBCC00010	Open	4/25/16 3:24 PM		
10	160425MMBCC00012	Pending-Monitoring	4/25/16 5:01 PM		
10	160425MMBCC00012	Pending-Monitoring	4/25/16 5:01 PM		
10	160426MMBCC00001	Open	4/26/16 8:45 AM		
10	160426MMBCC00001	Open	4/26/16 8:45 AM		
10	160426MMBCC00004	Open	4/26/16 9:48 AM		
10	160426MMBCC00004	Open	4/26/16 9:48 AM		

Figure 16: Dashboard.

Figure 16 shows the dashboard screen. This is a Complaint managers screen, which has the information of all the cases with the deadline and the associates who were assigned to. This helped the manager to monitor the case, and make sure the SLA is met.

Application reports. The following are the reports generated by the application, which can be viewed by the managers and help them with their analysis and decisions.

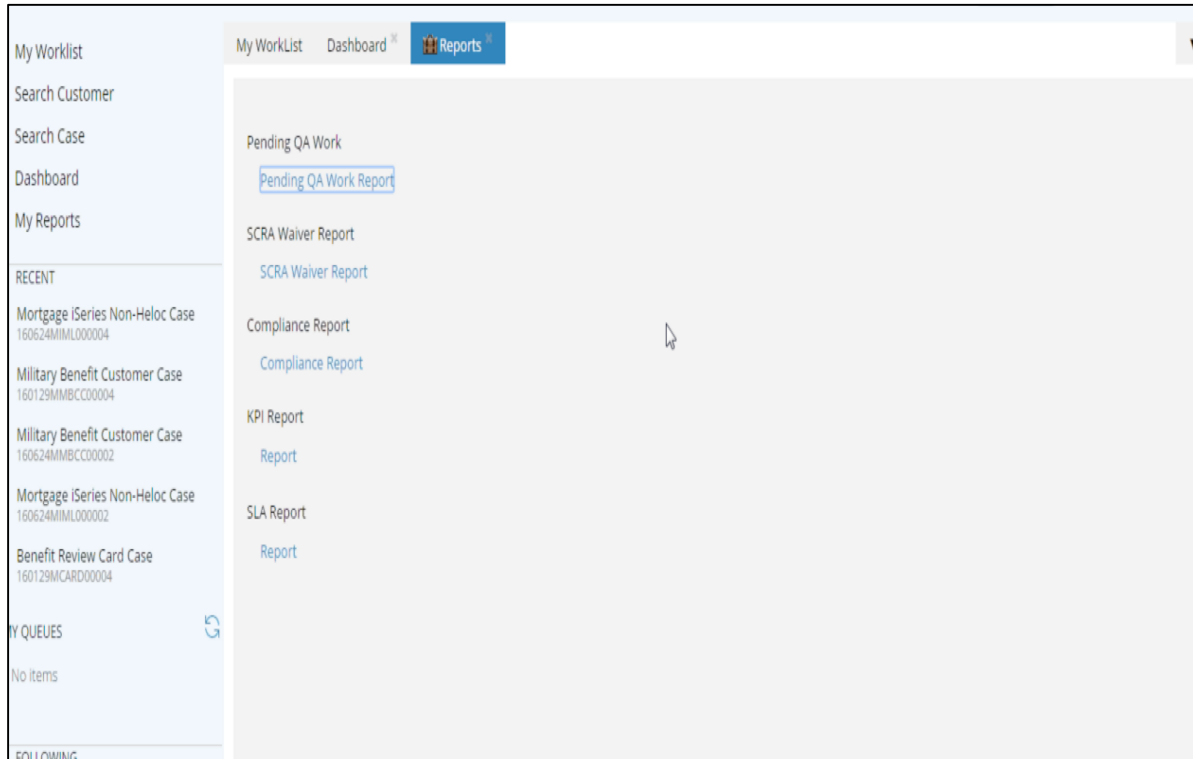


Figure 17: Reports.

Figure 17 shows all the reports that application provides.

Pending QA work report. This report includes:

1. QA Associates performance
2. Case status on QA
3. All pending information

This can be accessed by QA managers, Complaints Manager.

SCRA waiver report.

Summarize Print Export to PDF Export to Excel Save as Edit Report

Initial Filters: Case ID StartsWith EMBRR- and (Assigned To and (Open case OR (Resolve Date From and Resolve Date To)))

Displaying 50 records

CASE ID	ASSIGNED TO	CUSTOMER LAST NAME, CUSTOMER FIRST NAME	REQUEST TYPE	COMPLAINT TYPE/INQUIRY TYPE	COMPLAINT SUBTYPE/INQUIRY SUB TYPE
EMBRR-2711	ZK6ZF0B		Complaint	Military Benefits & Protection	Fees
EMBRR-2710	ZK6ZF0B		Complaint	Military Benefits & Protection	Payment History, Eligibility
EMBRR-2709	ZK6ZF0B		Complaint	Military Benefits & Protection	Fees, Eligibility
EMBRR-2708	ZK6ZF0B		Complaint	Military Benefits & Protection	Interest Rate Relief, Fees
EMBRR-2706	ZK6ZF0B		Complaint	Military Benefits & Protection	Payment History, Credit Reporting
EMBRR-2705	ZK01RR7		Complaint	Military Benefits & Protection	Eligibility
EMBRR-2704	ZK01RR7		Complaint	Military Benefits & Protection	Payment History
EMBRR-2703	ZK02RSD		Complaint	Military Benefits & Protection	Eligibility
EMBRR-2702	ZK02RSD		Complaint	Military Benefits & Protection	Credit Reporting
EMBRR-2701	ZK6ZF0B		Complaint	Military Benefits & Protection	Eligibility, Interest Rate Relief, Payment History, Fees, Credit Reporting, Foreclosure, Repossession
EMBRR-2695	MBRR13		Complaint	Military Benefits & Protection	MLA - Military Lending Act, MAPR - Military APR
EMBRR-2693	ZK6ZF0B		Complaint	Military Benefits & Protection	Credit Reporting, Foreclosure
EMBRR-2690	ZK4YLNP		Complaint	Military Benefits & Protection	Fees
EMBRR-2682	MBRR05		Complaint	Military Benefits & Protection	Eligibility, Payment History
EMBRR-2681	ZK6ZF0B		Complaint	Military Benefits & Protection	Payment History, Interest Rate Relief
EMBRR-2680	ZK6ZF0B		Complaint	Military Benefits & Protection	Foreclosure, Repossession
EMBRR-2676	ZK6ZF0B		Complaint	Military Benefits & Protection	Eligibility, Payment History
EMBRR-2666	ZKNLW67		Complaint	Military Benefits & Protection	Interest Rate Relief, Payment History, Eligibility, Fees, Credit Reporting, Foreclosure, Repossession

Figure 18: SCRA waiver report.

Figure 18 shows the SCRA complaints type report. This reports on special cases related to Military Customers and their beneficiary. These cases have special SLA and preferences, policies. These included a case type Military Benefits and protection. These cases also include fulfillment benefits for Military customers.

KPI Report. Key Performance Indicator report–Includes the Performance analysis of all the specialist.

SLA report.

EMBR SLA Report												Export to PDF	Export to Excel	Add To Favorites	
													Displaying 29 records		
Expand All															
	RECEIVED FROM INTAKE / CREATED	CASES RESOLVED	CASES IN-PROCESS	COUNT OF 24 HR FO/UPS	AVERAGE NO OF ACCOUNTS	QA FIRST PASS	QA FAILED	DOJ RECEIVED	FCL RECEIVED	FRR RECEIVED	ECCR RECEIVED	BK RECEIVED			
+ Manager : MBRR07															
Total for Manager : MBRR07	6	1	5	0	1.17	1	1	0	0	0	0	0			
+ Manager : MBRR077															
Total for Manager : MBRR077	25	14	11	0	1.08	12	5	0	0	0	0	0			
+ Manager : MBRR08															
Total for Manager : MBRR08	26	1	25	0	1.12	1	1	0	0	0	0	0			
+ Manager : ZK01RR7															
Total for Manager : ZK01RR7	1	0	1	0	2	0	0	0	0	0	0	0			
+ Manager : ZK6ZFOB															
Total for Manager : ZK6ZFOB	37	1	36	0	1.57	4	3	0	1	0	0	0			
+ Manager : ZK02RSD															

Figure 19: SLA report.

Figure 19 shows the SLA report. The SLA report data helps the managers to analyze the cases based on the SLA deadlines. Thereby gives them an idea/strategy on the pending cases.

Summary

This chapter focused on the data analysis which includes the application features and how it is user friendly. The chapter also highlighted all the important portals, reports and other features.

Next chapter concentrates on results, conclusion and recommendation.

Chapter V: Results, Conclusion, and Recommendations

Results

Introduction. This chapter highlights the achievements of the new application developed based on the objectives and project questions which was put forth at start of initial phase.

The Application was successfully tested and it is into production from past 1.5 months. The application was developed and automated using the agile methodology. And it has been successfully tested.

Project Objectives

1. The main objective of the application development was to build a system which would hold more than 3.5 million complaints, which legacy system was failing.
The new application has been in production since May 2016, and on an average, it has been handling 3.5 million cases.
2. The SLA of each case was to resolve 15% faster than the legacy system
SLA for each Case:
Average SLA for legacy application: 4 business days
Average SLA for the current application: 2.3 business days
3. Maintenance cost: The application required less maintenance.
Cost of maintenance for legacy system – 1 million/yr.
Cost for present application – 400k/yr.
4. Application – user centric. The application is easy to understand. The end user can easily identify the nature of the complaint and how to proceed and how to get

things done. Each portal has its own use and thus assigned users can benefit from the application.

5. To improve the quality of the application:

The application has two or higher QA checkpoints. And the customer was always notified on the complaints status. The bank has always been keen on improving the quality. This system has made sure quality was prioritized.

Project Questions

1. What tools/parameters were considered to measure the changes/objectives?

To analyze the maintenance cost required for the application – Project management tools were used.

Pega Production analysis reports gave the understanding on the application performance compared to its legacy.

Customer representative feedback was 92% satisfactory when compared with the legacy system.

2. What was the degree to which the performance has improved by using automation system by PEGA?

There was a 70% increase in performance when compared with the legacy system. The SLA was 15% faster than the legacy system.

3. How much time was saved to solve a case when compared with the legacy system?

The PAL indicator (Pega Tool) helped to analyze the case resolve time. And the new system has a new record of 2.3 business days and steps are being taken to improve the record.

4. Was the System able to handle 3.5 million case?

The production data in last one month – has proven the capacity of the system to handle and manage more than 3.5 million cases per month.

5. How can PRPC system be helpful in other application of the organizations?

This system has given hopes to other slowing systems in bank organization. New application system development has already been started to manage other automation process.

Conclusion

Customer was satisfied with the results and they could see the potential of expanding these automations to other departments as well. They were also impressed by Agile methodology where business decisions were changing fast and agile process helped in managing those changes and providing what customers needed with in short span of time. Sales directors were extremely pleased by the amount of time this automation has save.

This study was about automating hiring process using Agile methodology. The company tried to accomplish automatic decision making, send correspondence, and improving the reports. This project was mainly implemented to overcome the issues of time, cost, scalability, and flexibility in changing assignment logic.

Recommendations

Despite the fact that the task was effectively actualized, there were a few hazy areas that required consideration. Following are a few of them:

- All logical changes to codes require QA and separate procedure and maintenance to send it to production.

- The Application should be used properly as it is a Licensed. And the cost involving with acquiring them is huge.
- All application across the organization can use one single framework and then build rest of their codes with respective to individual needs.

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