AUTONOMOUS COLLECTION APPLICATION – BUSINESS CONSULTING

PROJECT REPORT [INTERNSHIP REPORT]

Submitted by

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Under the Guidance of

(Dr. A. VIJAY VASANTH)

(Assistant Professor, Department of Networking and Communications)

in partial fulfillment of the requirements for the degree of

BACHELOR OF TECHNOLOGY
in
COMPUTER SCIENCE ENGINEERING
with specialization in (CYBER SECURITY)

DEPARTMENT OF NETWORKING AND COMMUNICATIONS
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SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
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BONAFIDE CERTIFICATE

Certified that this B.Tech project report titled "**AUTONOMOUS COLLECTION APPLICATION – BUSINESS CONSULTING**" is the bonafide work of **Ms. SHREYA MAHAJAN** who carried out the project work under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other thesis or dissertation on the basis of which a degree or award was conferred on an earlier occasion for this or any other candidate.

SUPERVISOR
Associate Professor
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Communications

HEAD OF THE DEPARTMENT
Department of Networking and
Communications

highradius

OFFER LETTER

Date: 20th September, 2021

Ms. Shreya Mahajan

Sub: Placement Offer

Dear **Shreya**,

Greetings!

It is a great pleasure to welcome you to HighRadius Technologies Pvt. Ltd.

We are glad to offer you the position of "**Associate Techno Functional Consultant**" in our Company, at an annual CTC of **Rs. 8,00,000 (Eight Lakhs Only)**, which will materialize as per conditions below.

The details of the salary breakup are as below:

Sl.no	Particulars	Monthly (Rs.)	Annualized (Rs.)
	Suggested Pay Structure		
A	**Gross Pay**	**56245**	**674940**
1	Basic	28123	337476
2	HRA (40% of Basic)	11249	134988
3	Leave Travel Allowance (LTA)	2812	33744
4	Telephone Reimbursement	2500	30000
5	Vehicle maintenance reimbursement	0	0
6	Special Allowance	11561	138732
	Total Gross Pay	**56245**	**674940**
B	**Variable Pay**		
7	**Performance Linked Variable Pay (PLVP)***	**0**	**80000**
	A + B	56245	754940
C	**Benefits**		
8	Insurance (GMC,GPA,GTL)	602	7229
9	Gratuity	1353	16236
10	Company's Contribution to PF	1800	21600
11	Company's Contribution to ESIC	0	0
	Total Benefits	**3755**	**45060**
D	**Total CTC (A+B+C =D)**	**60000**	**800000**

HighRadius Technologies Private Limited,
4th floor, campus 3, KIIT, Bhubaneswar, Khordha, Odisha, 751024
www.HighRadius.com

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10. Successors and Assigns

This Agreement shall be binding on the successors and permitted assigns of the Company and shall inure to the benefit of and be enforceable by and against its successors and permitted assigns. This Agreement is personal in nature and the Candidate cannot assign this Agreement. The Candidate however agrees that the Company may assign all rights under the Agreement along with the sale of all or substantially all of the assets of the business, or merger, or a change of control.

11. Severability

If any one or more of the provisions of this Agreement shall be invalid, illegal, or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby. There shall be substituted for any such provision held invalid, illegal or unenforceable, a provision of similar import reflecting the original intent of the Parties to the extent permissible under law.

12. Governing Law and Jurisdiction

It is hereby agreed between the Parties that this Agreement shall be governed by, construed in accordance with and interpreted under and consistent with the laws of India without regard to the choice of law provisions thereof. In the event of any claim or liability arising out of the terms and conditions herein above contained, the Courts at Hyderabad, Telangana shall have jurisdiction to the exclusion of all the other courts.

Employee Signature

HighRadius Signature

DocuSigned by:

Shreya Mahajan

DocuSigned by:

Neha Srivastava

Neha Srivastava

Associate Vice President , People & Culture

HighRadius Technologies Pvt. Ltd

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DocuSigned by:

9/23/2021

This sheet must be filled in (each box ticked to show that the condition has been met). It must be signed and dated along with your student registration number and included with all assignments you submit – work will not be marked unless this is done.

<u>To be completed by the student for all assessments</u>

Degree/Course   :   B.TECH

Student Name   :   SHREYA MAHAJAN

Registration Number :   RA1811030010041

Title of work : AUTONOMOUS COLLECTIONS APPLICATION – BUSINESS CONSULTING

We hereby certify that this assessment compiles with the University's Rules and Regulations relating to Academic misconduct and plagiarism, as listed in the University Website, Regulations, and the Education Committee guidelines.

We confirm that all the work contained in this assessment is our own except where indicated, and that we have met the following conditions:

- Clearly references / listed all sources as appropriate
- Referenced and put in inverted commas all quoted text (from books, web, etc)
- Given the sources of all pictures, data etc. that are not my own
- Not made any use of the report(s) or essay(s) of any other student(s) either past or present
- Acknowledged in appropriate places any help that I have received from others (e.g. Fellow students, technicians, statisticians, external sources)
- Compiled with any other plagiarism criteria specified in the Course handbook /University website

I understand that any false claim for this work will be penalized in accordance with the University policies and regulations.

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ACKNOWLEDGEMENT

SHREYA MAHAJAN
RA1811030010041

ABSTRACT

HighRadius, a Fintech enterprise Software-as-a-Service (SaaS) company that works on the account receivables side of the transaction process between the client and buyer. High Radius platform optimizes income through automation of receivables and payments processes across credit, collections, cash application, deductions, electronic billing and payment processess. Powered by the Rivana computer science Engine, HighRadius Integrated Receivables enables teams to leverage machine learning for accurate deciding and upcoming outcomes. The Radius One Business to Business payment network allows the suppliers to digitally connect with buyers, closing the loop from supplier receivable processes to buyer payable processes. It empowers corporations to modernize receivables so as to lower Days Sales Outstanding (DSO), automate correspondences and prioritize the purchasers. the normal approach of collecting receivables from customers was a cumbersome process that the analysts required plenty of your time and. Therefore, during this project we tried to empower computer science to not only collect proactively but also predict the invoice payment dates. the maximum amount because the collections process has evolved, a number of the pitfalls within the process have didn't disappear. Collectors still struggle across the roadblocks like too many delinquent accounts and a shortage of your time to hide all accounts within the worklist. HighRadius Collections Cloud enables a proactive collection management operation. In-built VoIP calling with an integrated dialer enables collectors to contact any customer across the world. the answer helps to cut back Days Sales Outstanding (DSO), generate a prioritized worklist and collect effectively. the most objective of the project is to form an application for Collection management system to place a user in autopilot mode and make it easy for the receivables department of any company to cut back DSO.

Keywords: Records to Reports, Accounts Receivable, Proof of Delivery, Days Sales Outstanding

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1. INTRODUCTION

1.1 HighRadius – Corporate Overview

HighRadius is also a Fintech enterprise Software-as-a-Service (SaaS) company which leverages Artificial Intelligence-based Autonomous Systems to help companies automate assets and Treasury process. The HighRadius Integrated Receivables platform reduces cycle times in order-to-cash processes by automating receivables and payments processes across credit, electronic billing and payment processing, cash application, deductions, and collections.

HighRadius®Treasury Management Applications help teams achieve touch-less cash management, accurate cash forecasting, and seamless bank reconciliation. Powered by the RivanaTM AI Engine purpose-built for finance and thus the FreedaTM Digital Assistant, HighRadius enables teams to leverage machine learning to predict upcoming outcomes and automate routine, labor-intensive tasks. The radiusOneTM B2B Collaboration Network allows suppliers to digitally connect with buyers, closing the loop from supplier receivable processes to buyer payable processes. HighRadius solutions have a proven record of delivering increased operational efficiency through automation, accurate income forecasting, optimized cash management, lower days sales outstanding (DSO), and debt, to assist companies achieve strong ROI in barely a pair of months.

Efficiency and productivity enhancements are central to the worth HighRadius provides to their customers. no matter what ERP, A/R or Treasury Management system is in use, their products automate manually-intensive tasks, streamline communication, and permit standardization of processes to drive best practices into receivables and treasury processes.

They empower their customers to be able to work more accurately and efficiently, forecast and manage cash, get paid faster, and improve key metrics like Days Sales Outstanding (DSO) and improve assets availability.

1.2 O2C Cycle and Accounts Receivables

Order to cash, also called as O2C or OTC, refers to the set of business processes for receiving and processing customer sales orders for goods and services and their payment. These processes are at the center of all the businesses and unless and until they are managed efficiently and accurately, organizations would not only face economic problems, but also build better reputational values.

Every department during a given company is affected either directly or indirectly by the Order to a Cash system.

Steps within the Order to Cash Cycle

• The cycle begins with the system receiving orders from the customer. this might be via email, Internet, salesperson, fax or by some variety of Electronic Data Interchange. In some businesses, the order might be an easy purchase request for a selected product, while in other service-oriented or wholesale businesses, the customer and also the company would enter into a long-term or short-term agreement.

• the corporate might even conduct a credit review of the customer before accepting the order, especially if they need plans of offering the customer credit options.

• The order is documented and also the company begins the task of fulfilling the order. Once the merchandise has been shipped and delivered, or the service has been fulfilled, the foremost important stage of the cycle begins with relevancy cash management. The invoice is made and sent to the customer for payment.

• After the customer has made the payment, the accountants note the entry within the account book.

Diagram depicting order to cash cycle:

Order to Cash Cycle

| Order Management | » | Credit Management | » | Order Fulfillment |

| Shipping and Transportation | » | Invoicing | » | Accounts Receivable |

| Collection | » | Reporting |

Figure 1: Order-to-Cash Cycle

In an idealistic system, this O2C would have been a simple chain that ensures that the customer gets his product and the company gets their due payments timely. However, there are always glitches and certain problems in every system, and unless companies on a priority basis deals with them quickly, they could hamper the unchaotic flow of business and profitabilty.

Impact and Challenges of Order to Cash Management are as follows:

☒ Firstly, if the sales orders are not registered accurately, then consequently the first stage of this process of the cycle itself would be in peril, and this is not a usual event when the orders are taken manualy. When a faulty product is made or faulty specifications are used, the reputation of the sales department gets jeopardized and the subsequent purchase returns cause losses for the production area.

☒ Secondly, creating manual invoices is a laborious, as does send the bill by courier or post. This lates the payment process and also increases the possibilities of mistakes. This also further creates additional, tasks for the accounting department.

☒ The logistics department is heavily involved in the process as their ability to transport the goods eficiently, safely and on time also plays an important role in the time taken for the cycle to be

finished. End moment requests, undetected transportation changes or the heavy damages to cargo can derail the entire cycle out of track.

- ☒ When customers are dissatisfied with the product or service, they could refuse to make payment, or at other times they would just default on their payments. This further increases the workload on the collections department and the customer centric service teams.

The importance of the corporate realizing the payment in cash is fully understood once they sell their goods on credit. the corporate doesn't have liquid cash to spend while they'd have recorded the sale of products as a revenue item in their books. the shortage of money inflow affects their capital and in large enough amounts the general finances of the corporate. Thus, the credit policies of the corporate have a substantial impact on the Order to Cash cycle. a major portion of the operating costs is therefore spent in managing the Order to Cash cycle. The greater the inefficiencies within the cycle, the greater are the danger of potential losses. that's why many companies are now venturing towards outsourcing for industry best practices so as to Cash management.

The following diagram explains order-to-cash cycle with greater depth:

Order to Cash – Service Offerings

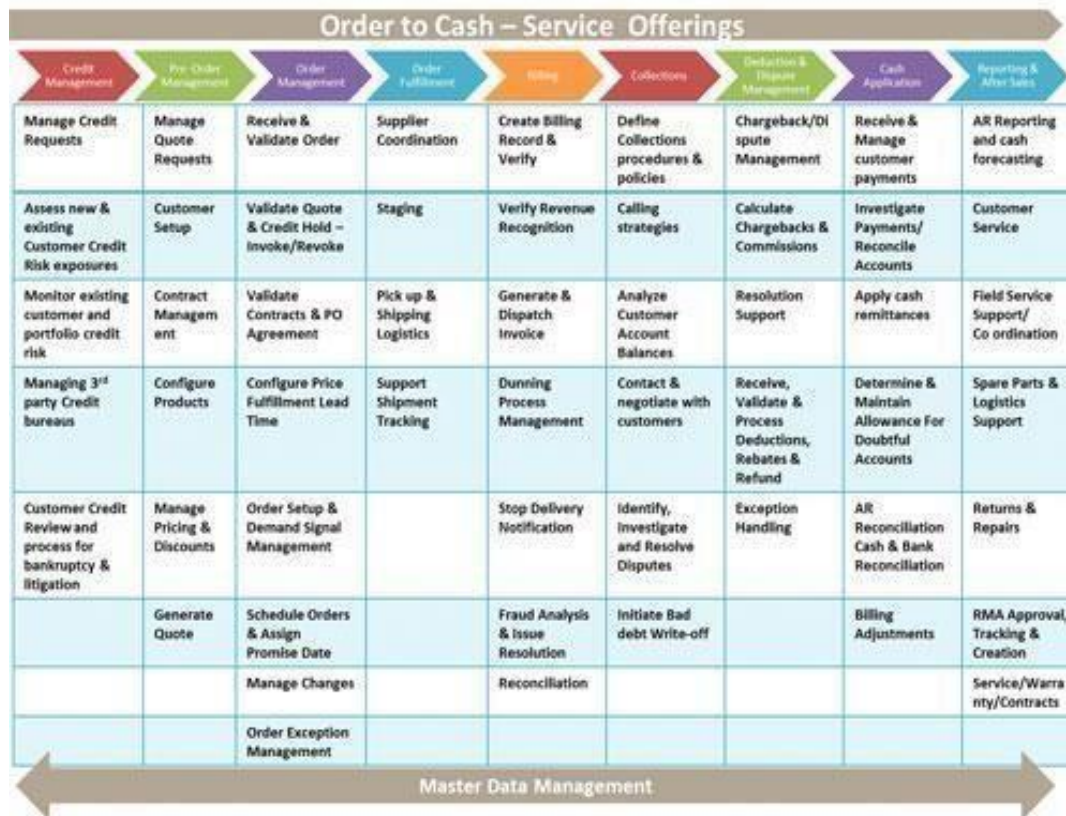| Credit Management	Pre-Order Management	Order Management	Order Fulfilment	Billing	Collections	Deduction & Dispute Management	Cash Application	Reporting & After Sales
Manage Credit Requests	Manage Quote Requests	Receive & Validate Order	Supplier Coordination	Create Billing Record & Verify	Define Collections procedures & policies	Chargeback/Dispute Management	Receive & Manage customer payments	AR Reporting and cash forecasting
Assess new & existing Customer Credit Risk exposures	Customer Setup	Validate Quote & Credit Hold – Invoke/Revoke	Staging	Verify Revenue Recognition	Calling strategies	Calculate Chargebacks & Commissions	Investigate Payments/ Reconcile Accounts	Customer Service
Monitor existing customer and portfolio credit risk	Contract Management	Validate Contracts & PO Agreement	Pick up & Shipping Logistics	Generate & Dispatch Invoice	Analyze Customer Account Balances	Resolution Support	Apply cash remittances	Field Service Support/ Co ordination
Managing 3rd party Credit bureaus	Configure Products	Configure Price Fulfillment Lead Time	Support Shipment Tracking	Dunning Process Management	Contact & negotiate with customers	Receive, Validate & Process Deductions, Rebates & Refund	Determine & Maintain Allowance For Doubtful Accounts	Spare Parts & Logistics Support
Customer Credit Review and process for bankruptcy & litigation	Manage Pricing & Discounts	Order Setup & Demand Signal Management		Stop Delivery Notification	Identify, Investigate and Resolve Disputes	Exception Handling	AR Reconciliation Cash & Bank Reconciliation	Returns & Repairs
	Generate Quote	Schedule Orders & Assign Promise Date		Fraud Analysis & Issue Resolution	Initiate Bad debt Write-off		Billing Adjustments	RMA Approval, Tracking & Creation
		Manage Changes		Reconciliation				Service/Warranty/Contracts
		Order Exception Management						

Master Data Management

Figure 2: Order-to-Cash Process

Accounts Receivable refers to the outstanding invoices an organization has or the money the corporate is owed from its customer/clients. The phrase refers to accounts a business encompasses a right to receive because it's delivered a product or service. Receivables essentially represent a line of credit extended by a corporation and due within a comparatively short period of time, starting from some days to a year.

Breaking Down the Accounts Receivables (AR) - AR' On a public company's record, assets is commonly recorded as an asset, because there's a legal obligation for the customer to remit cash for the debt. If a corporation has receivables, this implies it's made a purchase but has yet to gather the cash from the purchaser. Essentially, the corporate has accepted an IOU from its client.

Why Do Businesses Have Accounts Receivable? Most companies operate by allowing some portion of their sales to air credit. In some cases, business offers this sort of credit to frequent or special customers who are invoiced periodically. The practice allows customers to avoid the trouble of physically making payments as each transaction occurs. In other cases, businesses routinely offer all of their clients the power to pay after receiving the service. as an example, electric companies typically bill their clients after the clients have received the electricity. While the electricity company waits for its customers to pay their bills, the unpaid invoices are considered assets.

1.3 A/R Processes
The accounts receivable process includes five key operations which are listed as follows:

- ☒ **Credit Management**
- ☒ **Cash Application**
- ☒ **Electro-Onic Invoice Presentment and Payment (Invoicing)**
- ☒ **Collections Management**
- ☒ **Deductions Management**

Credit Management

Credit management is that the process of granting credit, the terms it's granted on and recovering this credit when it is pending. The Credit Management function incorporates all of a company's activities aimed towards ensuring that the customers duly pay their invoices within a particular payment terms and conditions. Effective Credit Management serves to stop late payment or non-payment. Bidding the best bet and making it right reinforces the corporate's financial or liquidity position, making it a critical component in any business.

HighRadius Credit Cloud automates the method, enabling credit managers to form quicker and more accurate decisions. this is often through with four primary components, a configurable online application, data aggregation engine, collaborative workflow, and electronic storage and retrieval. Moving applications online simplify the distribution process and eliminate omitted or incorrectly entered customer data. Backup data and decision inputs are automatically gathered and made readily

available to review with the applying and through periodic reviews. A collaboration platform drives efficient approval hierarchies and customer/internal notifications about credit decisions. Finally, file cabinets stuffed with paper are eliminated, making retrieval easier and storage less costly.

Cash Application
Cash application may be a a part of the assets process that applies incoming payments to the right customer accounts and receivable invoices. so as to try to to this, the primary step is to see where to use for the payments. this is often normally done by matching the payment to the associated invoices. If for a few reason the payment can't be correctly matched to its associated invoice, then the payment is matched to the customer at the customer account level. Once this can be done, the payment are often applied to scale back accounts receivables.

HighRadius Cash Application Cloud is that the most comprehensive solution available for automating cash application across all payment and remittance formats. This is totally regulated by customer specific business rules, automated on-invoice hit rates of 95%+ are typical of the answer. A cloud-based solution available as Software-as-a-Service, Cash Application Cloud is straightforward and cost-effective to deploy and maintain.

Electro-Onic Invoice Presentment and Payment (Invoicing)
In invoice may be a papers that itemizes a transaction between a buyer and a seller. If goods or services were purchased on credit, the invoice usually specifies the terms of the deal, and supply information on the available methods of payment. An invoice is additionally referred to as a bill or sales invoice. Highradius EIPP Cloud utility also accounts to funtional automation of the invoice transmission and payment collection. The system therefore gives or provides a classic configurable result or solution that supports multiple invoice formatting ways and different modes of transmission (fax, email, portal, etc.) counting on the targeted customer. Integration with ERP systems and an expensive search capability enables efficient storage and retrieval of past invoices. A customer portal provides for quick and straightforward payment of outstanding invoices by integrating mastercard payments. Finally, the supporting delivery documentations are often pulled in and shown with each invoice to reduce disputes. Collections Management one in all the most components of generating income is clients paying their bills. Sales and the assets collection procedures eventually do not wait till the payments are late. the method of collecting on a sales invoice begins when the invoice is generated and ends when the payment is received.

Collections Management
One of the main components of generating cash flow is clients paying their bills. Sales and accounts receivable collection procedures do not wait until the payment is late. The due process of the collection on a sales invoice starts when the invoice is generated and ends when the payment is received.

 With a prioritized work-list, driven by predefined business rules, backup information readily available, and automatic dunning correspondence, collectors are able to contact more accounts and centrally track the activity for review and follow-up. Deductions Management after you receive payment from customers, a customer might reduce the number of a payment for unknown reasons, or for reasons that

may be related to a particular invoice or a bunch of invoices, like damaged goods. the quantity by which a customer's payment is reduced is thought as a deduction. Deductions are usually taken by customers as compensation or for the dearth of products or services. Few of the common/obvious reasons that a customer/client might have to take a deduction if the goods are damagedd or defective merchandise, allowances, disputed amounts or billing errors.
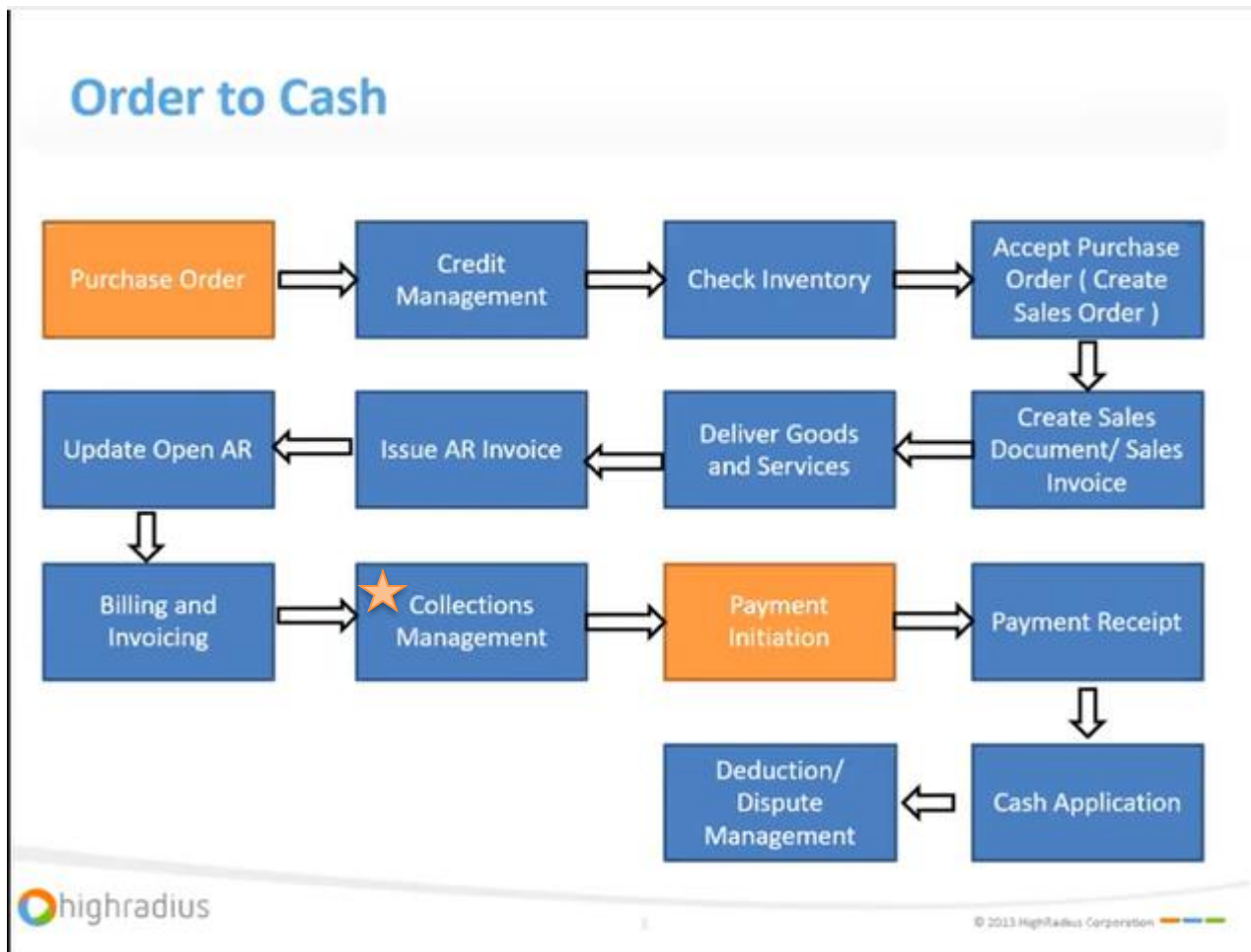
Figure 3: Collections Management in O2C

Deductions Management

When you receive payment from customers, a customer might reduce the amount of a payment for unknown reasons, or for reasons that might have also been linked with with a specific invoice or a group of invoices, such as damaged goods. The total amount/money by which a customer's payment is automatically reduced is called as a deduction. Deductions are generally up- taken by the clients/customers as a compensation for the lack of products or services. Some common reasons that a customer might take a deduction are damaged or defective merchandise, shortages in a shipment, promotional allowances, disputed amounts or billing errors.

Highradius Deductions as a Cloud provides a utiltity of an automation, process that have been in a standard, and a platform for cross-departmental and customer collaboration. the answer provides the foremost robust automation engine available to capture deduction data from customers and provide the knowledge required for resolution. Backup documentation, like and Proofs of Delivery (PODs), Bills of Lading (BOLs), are captured automatically and linked to the corresponding deductions to cut back manual research. Corresponding trade promotions are identified and suggested for settlement. Workflow and automatic correspondence engines streamline communication and also the approvals process.

1.4 Integrated Receivables

Integrated Receivables could be a solution to optimize assets operations by integrating all receivable and payment modules to figure as a unified business process. At the core of the Integrated Receivables platform are solutions for credit, collections, deductions, cash application, electronic billing and payment processing – covering the complete gamut from credit ratio to the cash ratio. The HighRadius Integrated Receivables platform may be a stand-out because it enables every credit and A/R operation to execute real-time from a unified platform with an end goal to be kept in mind of lower DSO, reduced high bad-debt, faster/quicker dispute resolution and improved efficiency, accuracy for cash application, billing and payment processing.

HighRadius IR is a utiltity which leverages Rivana Artificial Intelligence for Accounts Receivable to convert receivables faster and more accurately using machine learning for effective decision making across credit and receivable processes. The Integrated Receivables platform provides as utility that also enables the suppliers to a wholesome digital connectivity with buyers via the radius One network, closing the loop from the supplier A/R process to the buyer AP process.
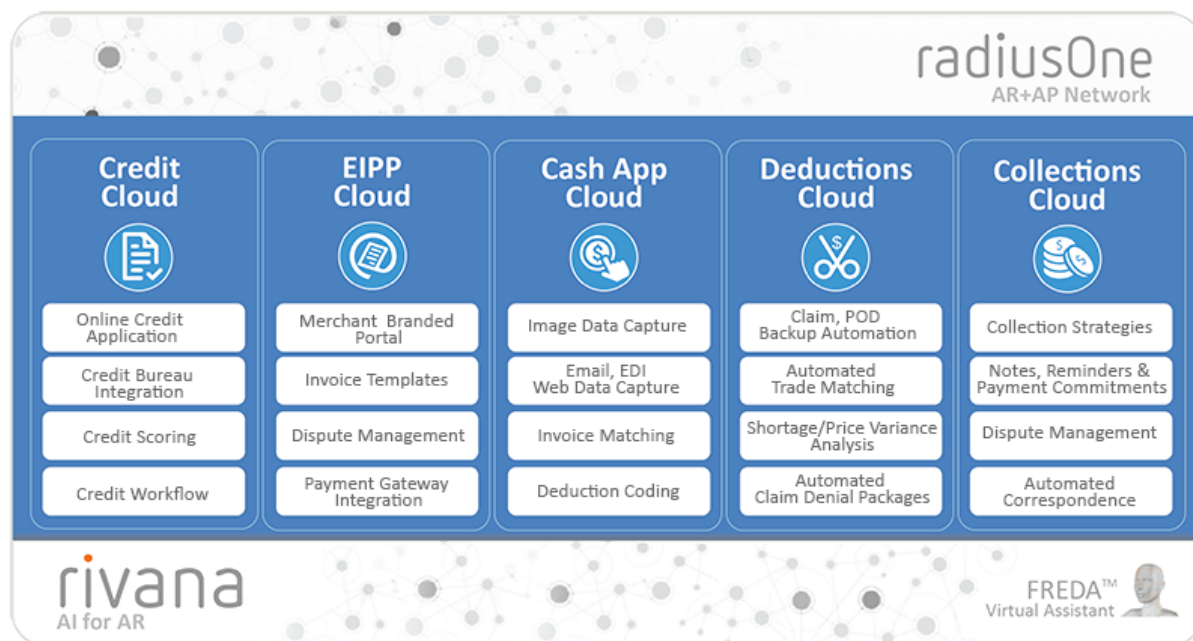

Figure 4: HighRadius Integrated Receivables

Table 1: HighRadius Integrated Receivables Solution

HighRadius Integrated Receivables Solutions	
Credit Cloud HighRadius Credit Cloud replaces a paper-intensive credit management process with an E-one to enable better credit portfolio and risk management.	**Electronic Invoice Presentment and Payment** HighRadius Electro-Onic Invoice Presentment and Payment (EIPP) Cloud provides tools that automate and speed up invoice communication and facilitate a faster collection of payments.
Cash Application HighRadius Cash Application Cloud is one of the most comprehensive solution or a UTILITY that is available for automating the cash app across all payments and remittance formats accordingly.	**Deductions Cloud** HighRadius Deductions Cloud is a greats utility that enables a proactive deduction management operation. The solution also enhances the processing, shortens resolution cycle time (RCT), reduces processing costs, and increases recovery rates.
Collections Cloud HighRadius Collections Cloud also highly automates and optimizes the credit collections management process to improve collectors eficiency, also minimize a bad debt write-offs and also, improve customer relationships and reduce DSO.	**ERP Payment Gateway** HighRadius ERP Payment Gateway provides companies the utility to accept ACH, debit card, and credit card payments across multiple start points natively from their ERP system.

Analytics, Digital Collaboration, and Artificial Intelligence	
Receivables Analytics HighRadius Receivables Analytics envisages a state-of-the-art reports and feedbacks by connecting and analyzing the data across credit and account Receivables data sources for the processors and owners.	**radiusOne^{TM} Network** HighRadius radiusOne^{TM} Network is the world's first network enabling digital collaboration between supplier A/R processes and buyer A/P processes.
Rivana - Artificial Intelligence Platform HighRadius Rivana provides Artificial Intelligence for high-impact decision making across HighRadius cloud's solutions for the credit along with collections, deductions, cash application, billing, and payments.	

Table 2: Analytics, Digital Collaboration, and Artificial Intelligence

1.5 Products Across Different Verticals

Solutions for Banks: HighRadius Integrated Receivables Platform allows banks that to mordernized banks to modernize treasury management system and services and streamlines the receivables-to-cash cycle for corporate clients. With a modular design, the flexible solution addresses specific business needs. It includes remittance-capture across the paper and electronic formats, B2B receivable and consumer bill payment reconciliation, enterprise invoicing and payment acceptance, short-payment identification and deduction resolution workflows, as well as a central repository of all payment streams and remittance information.

On-Premise Solution for SAP - SAP Receivables Management
HighRadius maximizes the value one gets from your SAP Receivables Management (FSSCM) investment. HighRadius provides proven, SAP- certified solutions and specialized expertise to some of the world's most recognizable brand names. If a company runs SAP, the simplest solution to run

receivables operations is SAP Receivables Management (FSCM). It is the most effective option, eliminating costly and difficult integrations to connect your operations to the enterprise. SAP Receivables Management was previously also called as the SAP Financial Supply Chain Management or SAP FSCM.
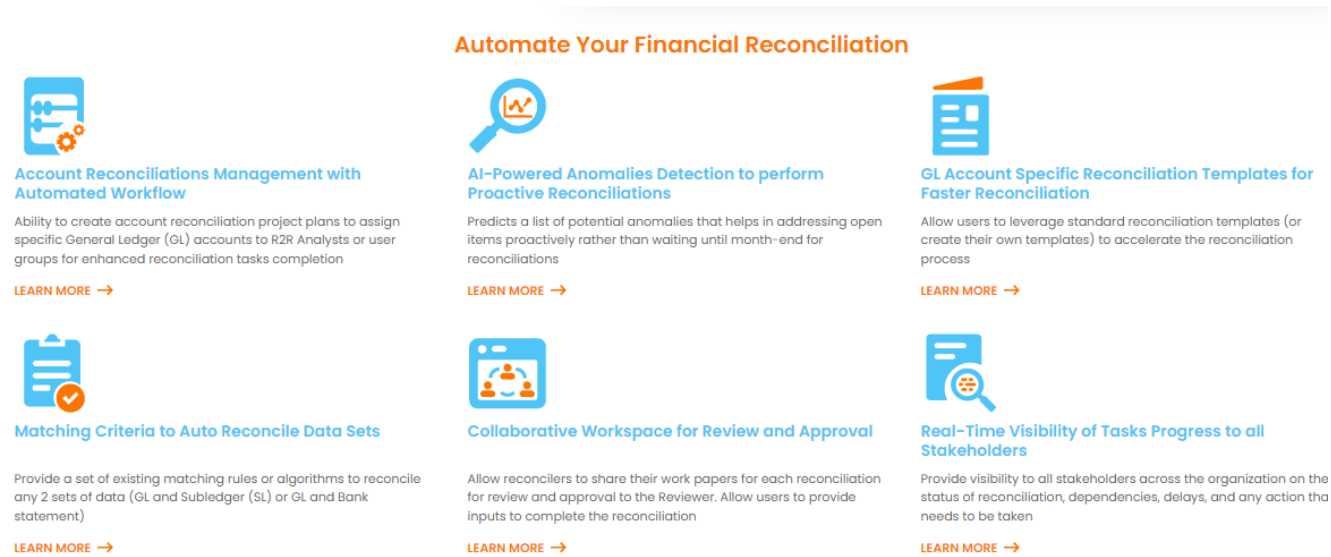

Figure 5: Solution for Banks

Figure 6: Solution for Finance

Table 3: Integrated Receivables for SAP

INTEGRATED RECEIVABLES FOR SAP		
SAP Credit Management SAP Credit Management, would be the first option for corp credit departments whose companies run SAP. There is a great benefit to being effectively aligned with this credit management system leveraged by us..	**SAP Collections Management** SAP Collections Management is an integral part of the SAP Collections & Dispute Module and is the first choice for accounts receivable ops whose companies run SAP.	**SAP Dispute Management** SAP Dispute Management is an integral part of the SAP Deductions & Dispute Module and is the first choice for accounts receivable ops whose companies run SAP.
SAP Biller Direct Corporates that are using the SAP Biller Direct can directly lower billing costs, streamline receivables and payment management, and increase customer loyalty. Electro-Onic Invoicing and Streamlined Payments Your company.	**HighRadius Accelerators** HighRadius provides Accelerators for SAP Receivables Management modules that enhance the functionality and are fully integrated natively into the SAP modules in real-time.	**Payments for the SAP®** HighRadius Payments for the SAP enables companies to accept ACH, credit card, and debit card payments across SAP solutions. The PCI compliant solution uses cloud technology.
Disputes & the Collections Accelerators HighRadius Dispute & Collections Accelerator addresses challenges in resolving disputes and recovering invalid deductions by providing easy, real-time access to required data from different type of SAPs.	**Advanced Correspondence Automation** The HighRadius Advanced Correspondence Automation utility also gives the automated creation and distribution of credit, collections, and dispute correspondence. Using data inputs from SAP Financials, Sales etc.	**Credit Decision Accelerator** HighRadius Credit Decision Accelerator eventually also automates the credit management i.e. CR process, creating an enablement of the credit faster and more accurate decisions. The solution's three primary and basic components are automated credit data.

2. THE STATE OF COLLECTIONS TODAY

2.1 Disassembling Collections

Collections is the primary most important processes in accounts receivables cycle or O2C. For a corporate to have a leading growth graph, the Accounts Receivables team tends to put a high amount of effort into Collections Management. As the time passes after some years, collections management has evolved from a call-centric "dial for dollars" process to a process with a versatile set of operations including work-list prioritization, customer collaboration, logging calling notes and all the processor-client communication details, setting up reminders and follow-up, saving and tracking payment commitments, and finally monitoring the collections analytics.

A typical collections process is illustrated below:

Figure 7: Collections Process

- **Worklist Prioritization:** This work list determines the order during which the collector will work or initiate the dunning process on the open or late invoices. Conventionaly, the A/R teams have considered along the way a very passive factor that include aging and invoice value to prioritize accounts. However, these lagging factors of delinquency haven't yielded satisfactory output over the decades

- **Customer Collaboration:** The collectors contact customers supported the prioritized or highly prioritized work list. The cornerstone of the collections process, correspondence relates to any activity that's performed when reaching bent a customer for payment. This includes calls, sending reminders, past-due notices, demand notices and sharing account statements, invoices, and the other document that's required by a customer.

- **Logging Correspondence:** Collectors have to keep track of all the data shared during correspondence. this might include logging call notes, storing payment commitments, noting down specific queries made by the customer, and adding the other upcoming follow-up tasks to be performed within the work list. This activity not only helps the collectors stay top of their accounts by having all previous communication details in one place, but also ensures seamless transition of accounts within the collections team, especially just in case of escalation

- **Tracking Payment Commitments and Setting Reminders and Follow-Up**:

  Customers often inform collectors about payments that they're visiting make within the upcoming dayss. However, the requirement of keeping track on whether these commitments are honored or not lies with the collector. Collectors have to keep a detailed watch on all commitment made by customers and follow-up if the payment has not been made.

- **Reporting and Analysis**: to observe the performance of the collections management process, it's essential to regularly analyze the deliverables of the team, the input costs and also the output of collections efforts. This helps to spot the strategies which work best and drive positive outcomes, and also the poor performing tactics which should be weeded out. The first step in the collections process is to create a prioritized work list. This work list determines the order in which the collector will work or initiate the dunning process on the open or past due invoices. Conventionally, A/R teams have considered passive factors including aging and invoice value to prioritize accounts. However, these lagging factors of delinquency have not yielded satisfactory output over the decades.

2.2 The Four Pillars of Collections
In essence, a perfect collections management process rests on four pillars:

1. **Data**: Data is that the backbone for all collections operations including work list prioritization and customer correspondence. This includes all of the data extracted from the ERP, the information obtained from other teams like cash application, credit management, deductions management, billing, and A/P, and also the data that has been accumulated and gathered from the client like payment commitments and invoice errors and discrepancies. Real-time and accurate data is that the most elementary element altogether collection activities

2. **Customer Collaboration**: Undoubtedly, customer collaboration is that the heart of the collections process. But isolating the on-risk, critical customers from the fast-paying, lowrisk customers is not any mean feat and features a significant impact on the result of the customer correspondence and account coverage for a collector. Automated correspondence for lowrisk customers is that the simple yet impactful answer to enable collectors to concentrate on crucial accounts.

3. **In-Line Correspondence Logs**: With an exponential increase in collections workload, it's not feasible for collectors to stay track of all previous customer collaboration through notepads or spreadsheets. it's essential to log correspondence within the collections management tool to cut back the pre-correspondence workload for the collectors.

4. **Account Prioritization:** With tens of thousands of shoppers and a large number of open invoices, spending time and efforts on critical collections accounts is of paramount importance for each collector to make sure account coverage and positive growth for collections closed. during this

scenario, hoping on static parameters like due-date for prioritization, as discussed before, is just not an option for collectors. The collections teams across the industries must consider dynamic, leading indicators because the bedrock for work list prioritization for a scalable collections process.

2.3 Where the Collections Shoe Pinches

As much because the collections process has evolved, a number of the pitfalls within the process have did not disappear. Collectors still struggle across the roadblocks like too many delinquent accounts and a shortage of your time to hide all accounts within the work list. the subsequent are fundamental cracks within the pillars of a perfect collections process:

1. **Inaccurate and off Data**: data is the fuel to the collections engine, and inconsistency in data severely impacts collections process. as an example, collectors often hear from the purchasers during a call that they need already made payments against an invoice in question. This scenario occurs when the cash is applied in batches and also the real time based updation information is unavailable to the collectors, or when the cash has been applied in an incorrect forrmat. This not only wastes the collector's time, which could are used for an in danger account, but it further also renders the invested collections efforts that are redundant and presents poorly to the beleaguered customer.
2. **Half-Baked Correspondence:** Executives across the financial spectrum believe that collections correspondence is that the core of collections. As golden as this belief is, the very fact still remains that the groundwork beneath customer collaboration is more pivotal.
   Answering "who to contact?" is far more crucial than "how to contact?" Collectors often do not usually pay much concentration on the ground-work and find yourself specializing in non-critical customers who would have paid even within the absence of frequent follow-up and reminders.
3. **Static Prioritization**: At the outset, the collectors relied on their intuition, skill, and knowledge to skim through the work list in to order to prioritize accounts and reach dead set the shoppers. According to the collections management has developed into a reactive process, the collectors use static parameters like due-date, invoice value, and current customer segment to tweak their collections strategies. With the many factors involved in customer's A/P functions, these factors are grossly insufficient to cope with dynamic changes.

3. PROBLEM STATEMENT

3.1 Problem

Considering the critical nature and direct value that collections improvements provide to a business looking to grow, it's surprising that a lot of collections teams still depend on manual processes and spreadsheets to manage dunning activities. This lack of automation and optimization inhibits teams from maintaining with increases in overdue balances, impedes productivity and efficiency, hurts customer service and negatively impacts income, Days Sales Outstanding (DSO), and equity. It also creates an absence of visibility into the collections process and individual collector results. an absence of information to sufficiently prioritize collector activity combines with the manual work required to inquire and speak to accounts to lead to major staff inefficiency

Therefore, there had to be an integrated system for this development and solving of problem
The Collections Management Application was developed at Highradius. The app consists of mainly 5 screens:

1.   My DailyWorkboard screen

2.   Call Workboard

3.   Call-Prep screen

4.   In-Call screen

5.   Post-Call screen

The functionalities of all screens together put the user in autopilot mode and make the gathering journey easy.
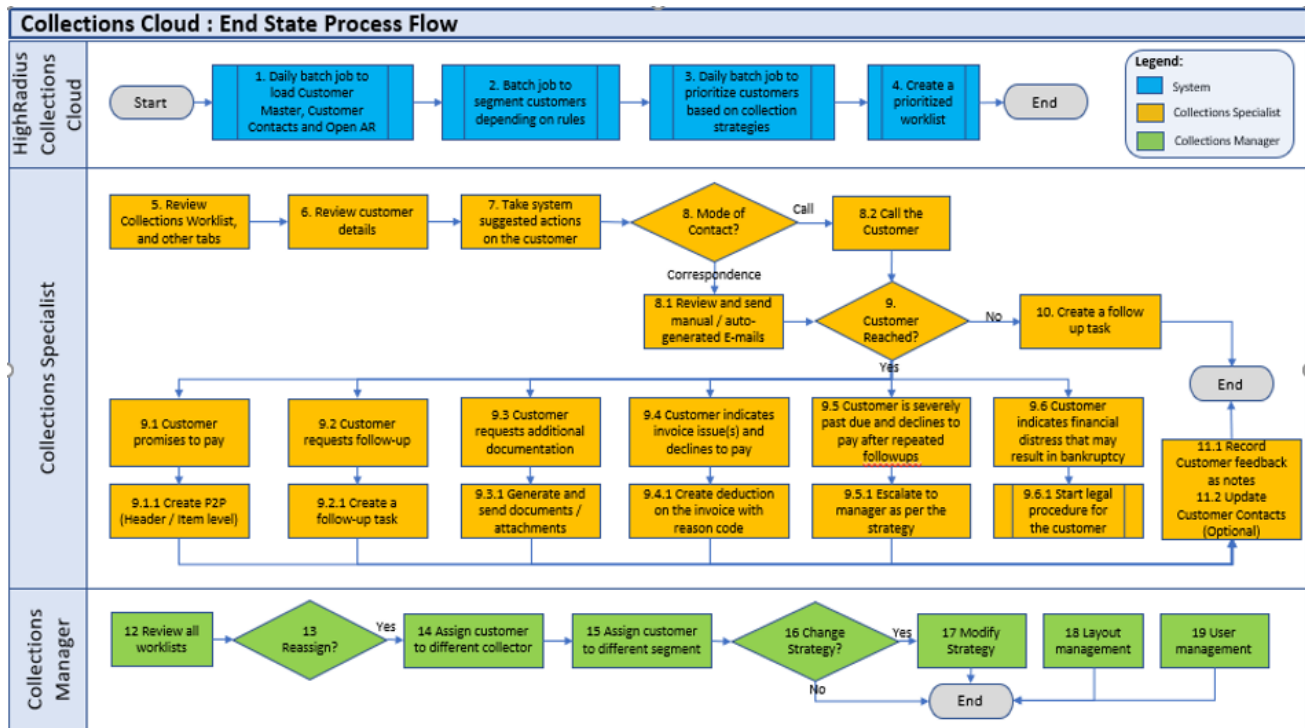
Figure 8: Collections Process UML Flow Chart

3.2 Objective

The objective is to create collection's journey easy by developing an application for Collection management. The utility app should put the user in autopilot mode and help in reducing DSO (Days sales Outstanding). A system is required to be built that provides a whole set of tools to optimize and automate the collections process and enable the higher prioritization of collections activities. All the data you wish (invoices, dispute information, POD, claims, tracking info, etc.) on each case is automatically presented during a collections workspace and prepared to be used. With a prioritized work list, driven by pre-defined business rules, backup information readily available, and automatic dunning correspondence, collectors are able to contact more accounts and centrally track the activity for review and follow-up. The result's a more efficient collections team that contributes to enhanced income and reduced DSO

COLLECTIONS WORKLIST

	PARTNER_COUNTER	Customer Name	COMP_CODE	CUST_NUMBER	Score	Suggested Actions	Worklist Status	Customer Segment	Strategy	Satisfie
☐	21053666	HYATT CENTRIC 39TH & 5TH NEW YORK	NYCAM	525799	95.00	Review credit bal...	Open	Hotel – Hyatt to Hya...	Hotel – City Ledger	Invoice
☐	21044898	QUIRK HOTEL CHARLOTTESVILLE	RICDH	523377	95.00	Review credit bal...	Open	Hotel – Hyatt to Hya...	Hotel – City Ledger	Invoice
☐	20889730	THE SCOTTSDALE RESORT AT MCCORMICK RA...	PHXRP	484884	95.00	Review credit bal...	Open	Hotel – Hyatt to Hya...	Hotel – City Ledger	Invoice
☐	21418229	RESORT AT SQUAW CREEK	PDXRP	470149	95.00	Review credit bal...	Open	Hotel – Hyatt to Hya...	Hotel – City Ledger	Invoice
☐	21360156	THOMPSON DALLAS	DFWAP	473051	95.00	Review credit bal...	Open	Hotel – Hyatt to Hya...	Hotel – City Ledger	Invoice
☐	21581962	Carmel Valley Ranch	OGGRM	464976	95.00	Review credit bal...	Open	Hotel – Hyatt to Hya...	Hotel – City Ledger	Invoice

Figure 9: Collections Worklist

Design: Collections Management Process
Action Items

This tab lists all the Parking lot items that need further attention. All the Critical actions needs to be addressed before design closure.
Any open items if not addressed during design phase should be moved to RAID log.

S No	Action Item	Status	Assigned To	Due Date	Critical for design completion?	Comments
6	Is there a report for calls suggested vs calls placed	Open	Matthew	9/10/21	Yes	
7	Internal discussion on FIT followups - how frequent, what information is needed, how to confirm agent has done the followups	Open	Crystal	9/13/21	Yes	
12	Snowflake reporting tool - can custom reports be built, what are the capabilities, is it currently available to use or still in the pipeline	Open	Matthew	9/15/21	No	
13	Can we schedule dashboard exports in the report scheduler?	Open	Matthew	9/15/21	No	
15	Layouts for various screens	Open	Hyatt team	UAT	No	
16	Correspondence options - can we do a dedicated IP for Hyatt so they can set up email relay	Open	Matthew	9/28/21	Yes	
17	Can an autoforward be set up whenever the HRC email inbox is not in the CC?	Open	Hyatt email team	9/28/21	No	
18	Create email templates for all correspondences from the system	Open	Clint, Crystal	10/4/21	No	
19	Hyatt to review Security roles and assign to each user in the system	Open	Steve, Clint, Crys	9/30/21	Yes	
20						
21						

Figure 10: Design Sheet

4. IMPLEMENTATION

4.1 Why Collections Cloud?

Challenge

Considering the critical nature and direct value that collections improvements provide to a business looking to grow, it's surprising that a lot of collections teams still depend on manual processes and spreadsheets to manage dunning activities. This lack of automation and optimization inhibits teams from maintaining with increases in overdue balances, impedes productivity and efficiency, hurts customer service and negatively impacts income, Days Sales Outstanding (DSO), and equity. It also creates an absence of visibility into the collections process and individual collector results. an absence of information to sufficiently prioritize collector activity combines with the manual work required to researchh and speak to accounts to lead to major staff inefficiency

Solution

HighRadius Collections Cloud provides a whole set of tools to optimize and automate the collections process and enable the higher prioritization of collections activities. All the data you wish (invoices, dispute information, POD, claims, tracking info, etc.) on each case is automatically presented during a collections workspace and prepared to be used. With a prioritized work list, driven by pre-defined business rules, backup information readily available, and automatic dunning correspondence, collectors are able to contact more accounts and centrally track the activity for review and follow-up. The result's a more efficient collections team that contributes to enhanced income and reduced DSO

4.2 FEATURES AND BEEFITS

Key Features –

- Rules-based Collections Optimization automatically prioritizes and assigns collections activities to analysts supported pre-definitioned business rules.
- Integrated Collections Workspace tracks promises-to-pay, tasks and reminders for each account and collection effort.
- Predictive Risk Scoring Model identifies 'at-risk' customers who can be current on their account and integrates the danger level into prioritization.
- Dunning Correspondence Automation generates and sends out correspondence packages containing needed documentation supported pre-defined templates.
- Easy integration with ERP, Accounting, and other systems

Benefits –

- Reduce Days Sales Outstanding (DSO) by 10%.
- Increase collector efficiency by up to 30%, freeing up time to target higher value activities.
- Reduce debt write-offs and operating costs.
- Standardize process to rank and manage collections activities.
- Enable reduction of risk.
- Limit upfront cost and minimize the necessity for internal IT involvement by employing a "pay-as-you-use" SaaS solution with a monthly subscription fee.
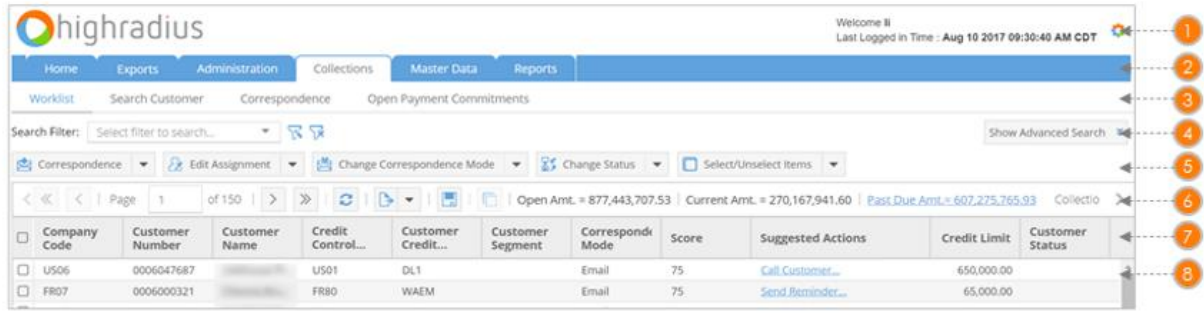
Rules to Identify & Prioritize Customers for Collections

Payment History
Customers that have a bad payment history

Amount
How much past due?

Age
How long past due?

Rules
Set of rules from a collections strategy

Risk
Customers that have a high risk of going bankrupt

Figure 11: Collections Rules and Concepts

System Navigation

User's permissions determine the features displayed once they open the application. These are the application layout sections:

① Banner Frame	③ Sub Menu	⑤ Tool Bar	⑦ Grid Header
② Main Menu	④ Search Bar	⑥ Pagination Bar	⑧ Grid

Figure 12: Worklist User Interface

Menus

Main Menu bar is located beneath the Banner Frame of the application and consists of tabs for the different modules of the application for quick access.
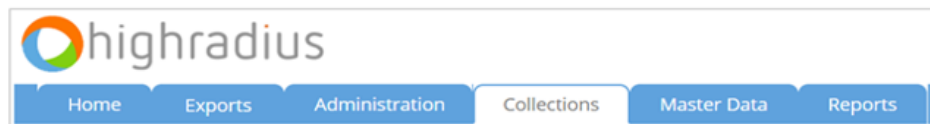
Sub Menu bar is located beneath the Main Menu and consists of tabs for the different sections of the corresponding module.
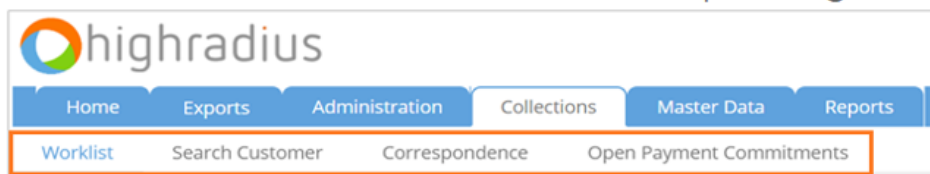
Figure 13: Worklist User Interface

Collections Dashboard

While every business likes to make sales, selling without timely collection of due receivables is as good as the on-paper sales agreement. As such, business owners often need to estimate collections of accounts receivable to project cash inflows to meet the company's obligations. Understanding how to figure collections of accounts receivable can help finance executives identify an impending cash crunch before the business is in the middle of it.

The following dashboard elucidates the must haves for effective collections monitoring.
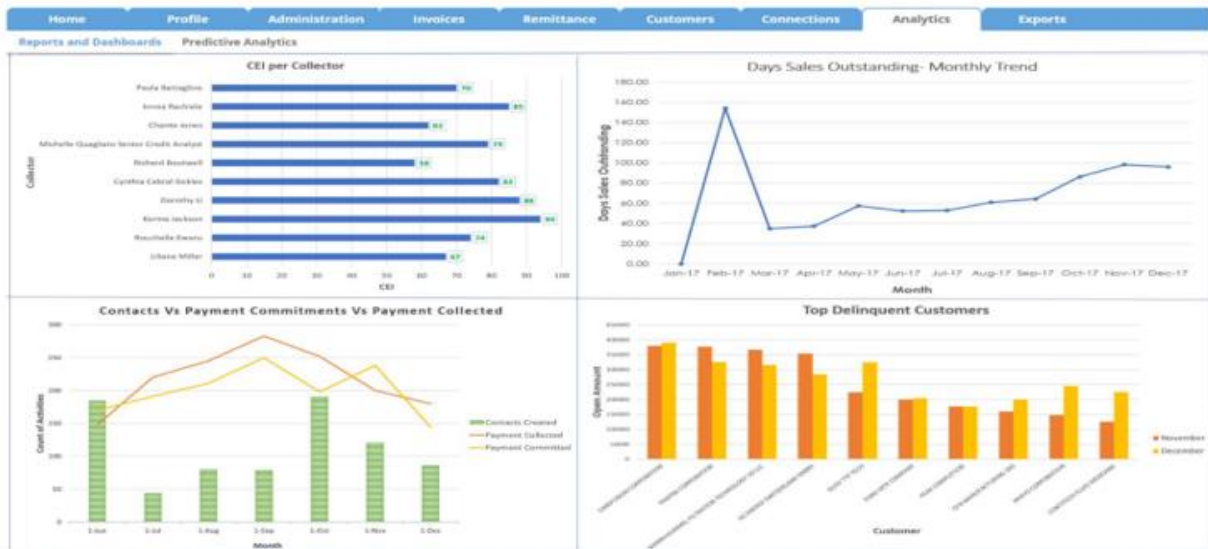
Figure 14: Worklist Reports (Collections)

TOOLKIT USED
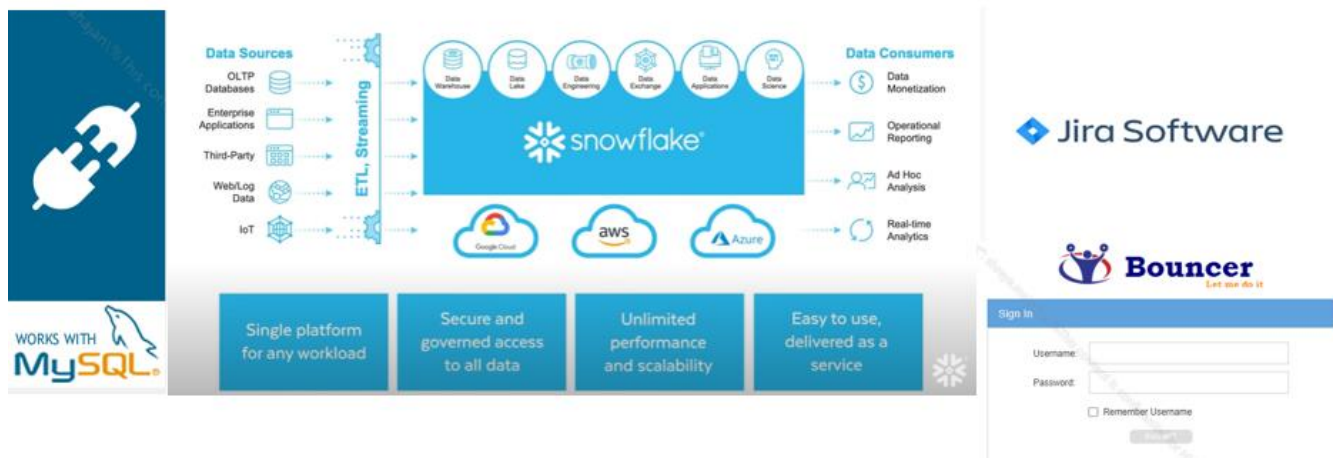
Figure 15: Toolkit Used for Project

Deductions Dashboard

Customer deductions remain an intractable problem causing revenue and profit dilution costing even mid-market companies man years of back office work and millions of dollars every year - depending on the industry up to 5- 15% of revenues. While deductions will never be completely eliminated, steps can be taken to reduce those that are considered "self-inflicted" and streamline processing of those that are "the cost of doing business".

Hence an ideal dashboard for deductions would look something like this.

Figure 16: Worklist Reports (Deductions)

5. HIGHER - LEVEL SOLUTIONS- IT'S ARCHITECHTURE & DESIGN

5.1 Task

- UI Access request
- Jobs creation
- Configuration of parameters like correspondences,
- UI for the client.
- Loading the AR and CM data of client's company into HRC System
- Generating worklist by running the agents.
- Preparing for the UAT(User Acceptance Testing).
- User training to the clients.
- Hypercare

Figure 17: Collections Cloud Architechture

6. DESIGN SHEET – THE BACKBONE OF CLS

Design Sheet – In order to generate a prioritized worklist, a team of Project Manager along with Technical Architects produce a design sheet in regard to Client's needs and requirements.

Therefore from the Design Sheet the PoD Leads and Functional Consultants assigned to the project work-up, configure the system and raise up a worklist that is prioritized.

Worklist have a standard structure for most of the projects but they are subjected to change according to the requirements and utilities of the respective project.

The relevance of the design sheet is considerably obvious as it has all the details that needs to be configured for the project.

It envisages the main key decisions, action lists and index as a significant insight which has a crux of all the relevant data and requirements made by the clients and designing team

Design: Collections Management Process
Action Items

This tab lists all the Parking lot items that need further attention. All the Critical actions needs to be addressed before design closure.
Any open items if not addressed during design phase should be moved to RAID log.

S No	Action Item	Status	Assigned To	Due Date	Critical for design completion?	Comments
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19	Hyatt to review Security roles and assign to each user in the system	Open	Steve, Clint, Crys	9/30/21	Yes	
20						
21						

Action Items ▾ | Index ▾ | Key Design Decisions ▾ | Data Loading ▾ | Layouts ▾ | Customer Segment ▾

7. DESIGN SHEET – KEY FEATURES

The following are some basic and key features that a design sheet envisages:

1. Action Items
2. Index
3. Key Design Decisions
4. Data Loading
5. Layouts
6. Customer Segments
7. Ledgers
8. Strategies
9. Corp Class Details
10. Success Criteria
11. Collection Rules
12. Aging Buckets
13. Correspondence Config & templates
14. Statement Templates
15. Collection Specialists
16. Assignment Rules
17. Tasks And Disputes
18. Customer Communication
19. Security Roles
20. Customer Status

Design: Collections Management Process
Index

This tab lists all the architecture building blocks for a Collections implementation. All the mandatory building blocks needs to be completed before any closure of design workshop.
If any building block is not covered, it should be moved to RAID log as a risk to design.

Sl No	Sheet	Status	Comments	Needed for Design Completion?	Assigned to	Due date
1	Action Items					
2	Index Sheet					
3	Key Design Decisions			Yes		
4	Cross Module Design			Yes		
5	Data Loading			Yes		
6	Layouts					
7	Customer Segment			Yes		
8	Collection Rules					
9	Strategies			Yes		
10	Aging Buckets			Yes		
11	Correspondence			Yes		
12	Correspondence Templates			Yes		
13	Statement Template			Yes		
14	Collection Specialists			Yes		
15	User Assignment			Yes		
16	Autonomous Collections	Required only if present in SOW		Yes		
17	AI Collections Edition	Required only if present in SOW		Yes		

+ ☰ | Action Items ▾ | Index ▾ | Key Design Decisions ▾ | Data Loading ▾ | Layouts ▾ | Customer Segment ▾ | ◀ ▶

Design: Collections Management Process
Key design decisions

This tab would cover key decisions that are taken during the design phase. This is a summary view of the Collections design.
<<< Back to Index

Sl No	Module	Key Design Item	Design Decision	Rationale	Pros	Cons
1	CLS	Project Scope	Regions of Business in scope - US, LatAm Location of Users - US ERP - Oracle Product Edition - Enterprise with In app calling			
2	CLS	Customer Hierachy	One time load as provided in Parent Child Relationships tab			
3	CLS	Customer Segmentation	Defined in segmentation sheet			
4	CLS	Collection Strategy	Hotel FIT - Segment Hotel City - Segment Corp Low Risk - WADL <30 Corp Medium Risk WADL >30,<90 Corp High Risk WADL >90 Excluded from Collections Efforts - World of Hyatt, Fulfillment, DNC, BU Escalations			
5	CLS	Collector Assignment	Corp - As defined in user assignment sheet Hotel - See hotel user assignment sheet			
6	CLS	Correspondence Options	Email Relay	Email spoofing is more complicated to set up and less preferable	Email relay with a dedicated IP would be fast, safe, and simple, and ensure emails cannot be sent by other customers using their domain	HRC may not be able to have a dedicated IP address/range for Hyatt
7	CLS	In App Calling	Calls can be placed from the UI using a headset that the user has connected to their computer Virtual numbers will be procured for all users that would be placing calls from the UI Area code for the virtual numbers will be based on phone number in Collection Specialist tab			
8	CLS	Correspondence Templates	Account Statement First Past Due Letter - Hotel			

+ ☰ | Action Items ▾ | Index ▾ | Key Design Decisions ▾ | Data Loading ▾ | Layouts ▾ | Customer Segment ▾ | ◀ ▶

8. HIGHRADIUS INTEGRATED RECEIVABLES SOLUTIONS

Credit Cloud HighRadius Credit Cloud replaces a paper intensive credit management process with an E-one to enable better credit portfolio and risk managementt.	**Electro-Onic Invoice Presentment and Payment** HighRadius Electro-Onic Invoice Presentment and Payment (EIPP) Cloud provides tools that automate and speed up invoice communication and facilitate a faster collection of payments.
Cash Application HighRadius Cash Application Cloud is that the most comprehensive solution available for automating cash application across all payment and remittance formats.	**Deductions Cloud** Highradius Deductions Cloud has a utility that enables a proactive deduction management operation. the answer streamlines processing, shortens resolution cycle time, reduces processing costs, and increases recovery rates.
Collections Cloud Highradius Collections Cloud directly automates and optimizes the credit collections management process to boost collector efficiency, minimize debt write-offs, improve customer relationships and reduce DSO.	**ERP Payment Gateway** HighRadius ERP Payment Gateway enables companies to just accept ACH, mastercard, and open-end credit payments across multiple origination points natively from their ERP system.

9. CONCLUSION AND FUTURE SCOPE

The evolution of technology for collections has centered on however it's enabled easier access to information and additional correct and up-to-date aging reports for collectors.

In the 90's, collections groups were primarily investing custom programs written over mainframe or ERP databases. Aging reports were ready on a daily or a weekly basis and would be generated on a printer. A team of collectors would then only "dial for money" via phone calls.

The early 2000's saw the emergence of information deposition and Business Intelligence tools like Cognos, Business Objects, and Crystal reports. These tools value-added the flexibility to slice-and-dice the information to the regular aging reports before contacting a client. whereas this gave the groups additional context to filter whom to contact and what invoices to push for, the analytics were still performed manually.

This decade has seen the emergence of package vendors with dedicated package product for Collections Managementt. the same as client Relationship Management (CRM) tools for sales groups, the Collections Management package emerged as a customary a part of assortment departments. This third-generation technology brought elementary automation via collections methods and rules to fully eliminate the necessity for collectors to manually perform analytics to work out that customers to contact. The system did this work for them. With the growing adoption of email, a decent portion of phone calls started shifting to email communications instead that in several normal cases like past-dues or monthly statements were automatic via dunning and correspondence techniques.

Overall, third-generation assortments technology enabled a 30-40% automation of collection operations and a median of 100 percent in DSO improvement – a definitive strategic impact will be to capital.

This raises a question - what should be next? there's one flaw that still holds collections groups back. The entire collections method remains terribly reactive at its most simple perform. A client is contacted "after the fact" - once a client is already delinquent on payments.

Artificial Intelligence and Machine learning area unit already dynamic our lives. The Uber ride taken to figure and also the Amazon product bought on-line were all enabled by computer science. Apply this technology to form AI-powered Collections Management that endlessly monitors client information Associate in Nursingd predicts client default well before an invoice is thanks to advance collections client contact activity by 5 to 15 dayss. In essence, amendment collections operations from reactive to proactive with a capability to additional impact DSO and dealing capital by another 100 percent just by empowering collections with ML.

10. REFERENCES

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[2] https://www.highradius.com/integrated-receivables-solutions/receivablesradius/

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[4] https://www.highradius.com/integrated-receivablessolutions/receivablesradius/creditsolutions/

[5] https://www.highradius.com/integrated-receivablessolutions/receivablesradius/collectionsolutions/

[6] https://www.highradius.com/integrated-receivables-solutions/receivablesmanagement/

[7] https://www.highradius.com/integrated-receivables-solutions/solutions-forbank/integratedreceivables/

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[11] http://www.prweb.com/

[12] https://na35.lightning.force.com/one/one.app#/home

11. APPENDIX

Individual Contribution

Being a consultant in Collections team in the company, had demanded me not only to configure systems as per client needs but design, implement and test new requirements and bring about a new change into overall product development making it more robust and effective. Working closely with many teams especially Data science team had made me work with many scenarios of implementing machine learning in our product. Though had not designed the initial specifications and configuration but had been the one of the most important aspects in bringing the machine learning application in `Prediction of invoice dates` by testing cases, creating functional specs, making appropriate adjustments in the system with data science team and product management and create a final robust product leading from consultation aspect.