



DEDUCTION MANAGEMENT SOFTWARE

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Abstract—Deduction Management Software works on the account receivables side of the transaction process between the client and buyer. The traditional approach of collecting receivables from customers was a cumbersome process for which the analysts required a lot of time and manual labour. The issue of dealing with claims raised by customers is paramount to any company. Deduction Cloud is a system designed to support companies in active deduction management. Configurations in the Deduction Management Software result in a streamlined workflow to obtain a quicker, optimized and more efficient deduction resolution process. As soon as a deduction case is created from a claim in the system, it will get routed to the worklist of the appropriate owner/processor based on certain case attributes like customer, company etc. The user will then have to perform role specific tasks and update the deduction case. In this way the deduction case will ultimately reach an acceptable closure state. Closure can be achieved through denial, which results in repayment and write-off, as well as credit issuance and offset. The goal behind my project is to utilize the streamlined workflow of Deduction Management Software to obtain a quicker, optimized and more efficient deduction resolution process.

Keywords—Days Sales Outstanding, Deduction Management Software

I. INTRODUCTION

Treasury Management Applications help teams achieve touch-less cash management, accurate cash forecasting, and seamless bank reconciliation. These solutions have a proven track record of delivering increased operational efficiency through automation, accurate cash flow forecasting, optimized cash management, lower days sales outstanding (DSO), and bad debt, to help companies achieve strong ROI in just a few months. Efficiency and productivity enhancements are central to the value provided to their customers. Regardless of what ERP, A/R or Treasury Management system is in use, the products automate manually-intensive tasks, streamline communication, and allow 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 working capital availability.

II. ORDER TO CASH (OTC) CYCLE

OTC, refers to the set of business processes for receiving and processing customer sales orders for goods and services and their payment.

Steps in the O2C Process

1. Customer Places an Order : The cycle begins each time a customer orders goods or services from your company.
2. Credit Management : A Credit management team evaluates the business potential of a customer. The background, credit score, method of revenue generation and past transactions etc. of the customer is checked.
3. Order is Fulfilled :The order is documented and the company begins the task of fulfilling the order.
4. Order is Shipped : In this step, the order is shipped to the customer, or the service order is completed.
5. Invoice Created and Sent to Customer : Once the product has been shipped and delivered, or the service has been fulfilled, the most important stage of the cycle begins with regard to cash management. The invoice is created and sent to the customer for payment.



6. Customer Pays Invoice : At this stage, the customer sends payment for the invoice via electronic funds transfer, credit, or debit card payments.

7. Payment is Recorded in General Ledger : When payment for an order is received, the accounts receivable department records it in the general ledger.

8. Deductions/Dispute Management Disputes are raised when the customer declines to pay the exact amount, maybe due to receiving hampered/ broken goods. The disputes are verified and resolved by the client and appropriate deductions are made based on the validity of the claim.

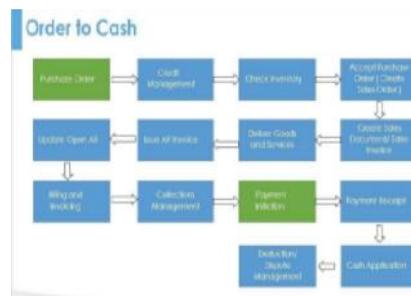


Fig 1.1 Order to Cash Cycle

III. ACCOUNT RECEIVABLES

Accounts Receivable refers to a company's overdue bills or the money owed to it by its customers. The term refers to accounts that a company is entitled to get as a result of delivering a product or service. Receivables are simply a line of credit provided by a business that is due within a short period of time, ranging from a few days to a year.

Why Do Businesses Have Accounts Receivable?

Most companies operate by allowing some portion of their sales to be on credit. In some cases, businesses offer this type of credit to frequent or special customers who are invoiced periodically. The practice allows customers to avoid the hassle of physically making payments as each transaction occurs. In other cases, businesses routinely offer all of their clients the ability to pay after receiving the service. For 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 accounts receivable.

IV. PROCESS OF ACCOUNT RECEIVABLES

The accounts receivable process includes the following five key operations:

1. Credit Management
2. Cash Application
3. Electronic Invoice Presentment and Payment (Invoicing)
4. Collections Management
5. Deductions Management



V. DEDUCTION MANAGEMENT SOFTWARE

Deduction Cloud is designed to support companies in active deduction management. As soon as a deduction case is created in the system, it will get routed to the worklist of the appropriate owner/processor based on values of certain case attributes like customer etc. The user will then have to perform role specific tasks and update the deduction case. Once the updating is completed, the case is manually routed to the next processor, in adherence to the workflow defined to resolve the deduction. The routing process can be somewhat automated through the use of Action Presets within the organization. In this way the deduction case will ultimately reach an acceptable closure state through active interdepartmental cooperation and performance. Closure can be achieved through denial, which results in repayment and write-off, as well as credit issuance and offset. The goal behind designing a streamlined workflow is to obtain a quicker, optimized and more efficient deduction resolution process. This is depicted in the image below:

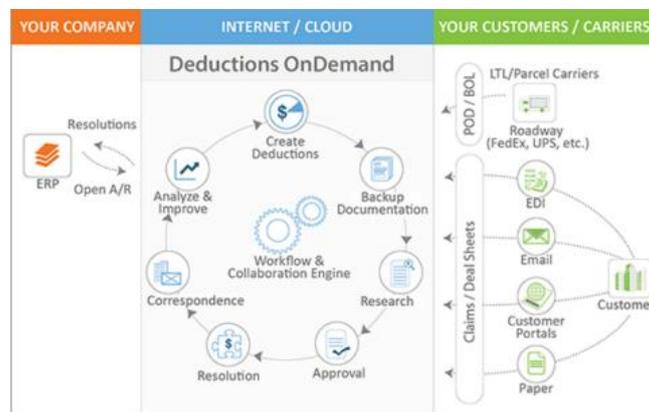


Fig 5.1 Architecture Diagram of Deduction Management Software

VI. DEDUCTION CREATION

For reasons unknown, every business encounters circumstances where it receives less payment from its consumers than expected. A deduction is made for any amount that is not paid. This deduction might result from a variety of reasons, which would include:

- Items that have been damaged
- Errors in billing
- A delivery shortage has occurred.

VII. FEATURE OVERVIEW

Deduction Cloud is a part of the Receivables suite of applications and it supports the following deduction management features:

Deduction Resolution Workflows ensure consistent processing and enable automated cross-departmental collaboration and resolution.

Deduction Analyst Worklist and Workflow Collaboration

Reason Code Population on Deduction

Prioritize Deductions based on Customer, Aging & Amount

Approval Workflow via Delegation of Authority

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Manage Promotional Checks/Payment Requests Resolution Workflows

Deduction Resolution (Credit, Write-off, Credit Offsets, Invalid)

Reporting, Dashboards and Analytics

POD & Claims Automation Engine aggregates and collects information such as proofs of delivery (PODs) from carrier websites and claims/debit memos/deal sheets from customer portals, websites, and emails.

Auto-Match of Deduction Backup (Claims, PODs) to Deductions

Pre-Deductions - Proactive Deduction Research using Claim Backup

Trade Promotion Settlement - Auto-Match Deductions to Trade Promotions
Correspondence Automation generates and distributes denial correspondence to customers based on account and deduction status and attaches supporting documentation per individual customer requirements. In future, this will also support automatically disputing deductions directly on customer's portals.

Customer Correspondence Management for Deductions

Automated Customer Correspondence for Deductions

VIII. DEDUCTIONS WORKFLOW

Step 1: Receiving dispute tickets

A dispute ticket from the client or a deduction claim from the accounts department are sent to an analyst.

2: Putting claims in order of importance

This is normally done depending on the value of the deduction.

3: Data Collection

Analyst manually finds related documents in the system

4: Making a data request

In the event that any data is missing or erroneous, the deductions analyst manually contacts stakeholders and internal teams to acquire the necessary information.

5: Resolving deductions

After gathering the papers, the analyst compares them to the claims document in order to determine the legitimacy of the deduction.

6: Getting approval

If the deductions analyst's claim meets specific conditions, they may need to follow up with their bosses for approval. This results in yet another round of back-and-forth, delaying the outcome even more.

7: Follow up with the client

If the deduction claim is invalid, the analyst delivers a handwritten letter to the customer alerting them of the claim request's denial. If the deduction claim is genuine, the analyst contacts the client and issues a credit or debit memo for the customer's future use.

8: Syncing the ERP and TPM systems with the adjustments

After the claim is certified genuine, the analyst tells the accounts department, asking them to adjust the invoice in the ERP and issue a credit or debit memo as needed. After then, the client's account status is changed to closed.

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9: Reports

Reports are created manually, generally in Excel, to let managers and executives understand how the deductions operations are doing. Because real-time data is not available, creating these reports takes a long time. Let's look at how Artificial Intelligence may assist firms to automate these procedures and allow the deduction management team to focus on early identification and settlement of disputes now that we have a better understanding of the issues in the traditional deduction management process.

Deduction Cloud is a centralized, interactive and automated dispute resolution workflow tool that will allow Deduction processor and Owner to:

- Control and streamline the deduction processing
- Enable cross-department case investigation and resolution
- Provide full integration with financial and logistic processes
- Organize and store all information and documents related to a case

Generally, customer deductions or complaints mostly occur post invoicing when customers send a short payment (amount paid is less than the invoiced amount) or do not make a payment on their outstanding invoices.

Common reasons for deductions can include service acceptance issues, shipping issues, product quality, incorrect invoicing, incorrect invoicing form, incorrect pricing, missing PO (purchase order), missing POD (proof of delivery) etc.

Following are the main Process areas:

- Basic settings configuration - System related
- ECI Mapping and Load Extracts - System related
- Identify and Create Deductions
- Deduction Processing - System related
- Resolve & Close Deductions

Below is a generic flow chart of how deductions are managed within Deductions Cloud. These are standard process steps in the deduction life cycle.

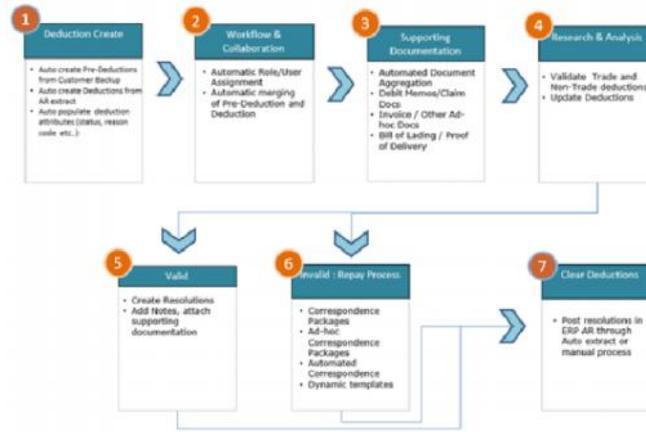


Fig 8.1 Deductions Cloud Flowchart

IX. CONCLUSION

The system includes the most powerful automation engine available for collecting deduction data from consumers and supplying the information needed to resolve the issue.

To reduce manual investigation, backup paperwork such as Proofs of Delivery (PODs) and Bills of Lading (BOLs) is automatically gathered and connected to the related deductions.

Corresponding trade promotions are also found and settlement suggestions are made. Communication and approval procedures are streamlined thanks to workflow and automatic correspondence engines.

X. REFERENCES

1. [HTTPS://WWW.HIGHRADIUS.COM/](https://www.highradius.com/)
2. <https://www.purchasecontrol.com/blog/order-to-cash-process>
3. techdocs.highradius.com
5. https://wiki.highradius.com/wiki/Main_Page