

Win in the flat world

Streamlining Self-and Retro-billing for Automotive Suppliers

– Reinke Bonte

Executive Summary

Driven by competitive pressures, cost considerations and increasing globalization, automotive enterprises are striving to automate business processes to improve operational efficiencies. Among the several business processes in an organization, billing and reconciliation are usually rife with complexities.

The self-billing building block provided by SAP R/3 is a step forward toward automating complex business processes and enhancing efficiency. It allows a customer to produce a credit note towards a vendor using the goods receipts issued by the vendor as opposed to the conventional process of waiting for an invoice from the vendor before processing a payment. While this customer credit note may match with the vendor's account receivables in most scenarios, it can also vary in others.

Retroactive billing is another unique business process of the automotive industry that makes analysis even more complex. Retro-billing by definition has a very long lifecycle – sometimes beyond a year. This makes it a unique and potentially large challenge with significant performance issues for automotive SAP users.

Minimizing discrepancies enables accurate financial reporting but it is a challenge for the accounts receivable departments to achieve this in a timely manner. Reconciliation can get extremely complex and time consuming when a large number of retro-billing credit and debit notes are posted against an original self-bill credit note. As this snowballs into thousands of documents requiring reconciliation, it is not possible to execute manually.

This Infosys paper details challenges of this business process and discusses the gaps of solution provided by SAP R/3. It provides couple of approaches which are scalable, modular, integrated and flexible on how to manage this critical industry requirement. It includes a case study that demonstrates how the ability to analyze this business process makes a difference to revenue realization.



The Unique Automotive Business Process of Self-bill/Retro-bill

Business Requirement

Retro-active Price Changes

Automotive OEMs as customers usually leverage their strong bargaining power, resulting in suppliers accepting retroactive price changes, succumbing and aligning to the market pressures faced by OEMs. These changes warrant that old invoices be 'adjusted' to new rates. These iterations are often repeated, some dating back beyond a year.

Customers Raise Billing Documents

Intensive competition and just-in-time production forces

OEMs and suppliers to integrate their business processes closely. This coupled with the strong position of the OEM has led several suppliers to cede their right to raise invoices to the customer.

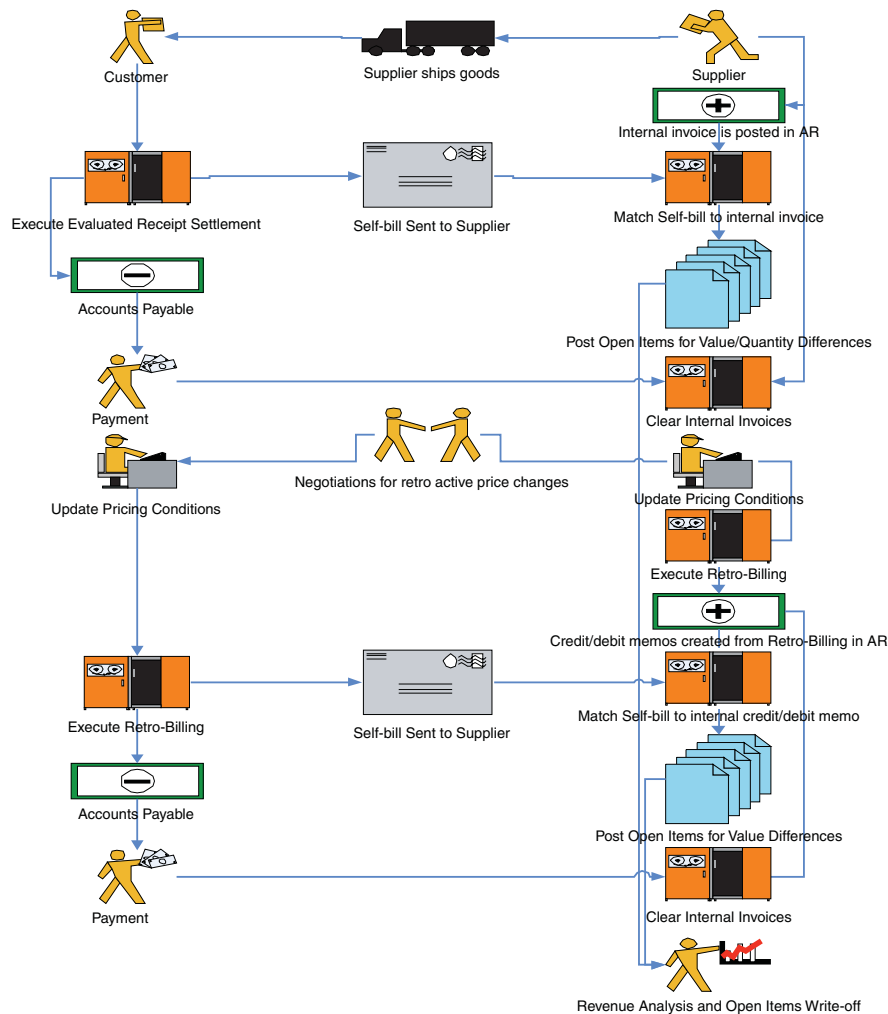
The Process

Self-Billing and Retro-Billing

The customer evaluates receipts and transmits self-invoices to the supplier, who then needs to reconcile these invoices with the internal invoice created with the outbound delivery. This process is called self-billing.

The process of issuing credit or debit memos after retroactive price adjustments is usually referred to as retro-billing.

Business process flow



Self- and Retro-billing Challenges

Business Challenges

The onus for these business processes rests on the supplier who must deal with their key challenges.

Identifying Self-bill References

Since each customer has a different business process and sends differently formatted EDI messages, the varying references need to be linked correctly in the context of self-billing and the internal invoices that need to be matched. The customer makes the payment as per the self-billing invoices transmitted. The supplier must then analyze which payment references of the internal invoices can be considered cleared.

Root Cause of Discrepancies

Whenever discrepancies crop up between the self-bill and the internal invoice, the root cause needs to be isolated and corrected. Often these issues can be traced to the master data, data entry, PO price variances or mis-configured interfaces on the customer or supplier side. To this end, it is necessary to analyze each link in the chain.

Technology Challenges

High Number of Billing Documents

Frequent retro-billing and multiple discrepancies lead to a large number of billing documents posted in the system. As a result of this, tracking high volume document flow gets extremely resource intensive. Processing and analysis can thus be very time consuming.

Self- and Retro-billing in SAP R/3

Basic Support for Retro-billing

The standard SAP platform provides the retro-billing transaction VFRB. This transaction provides basic retro-billing functionality enabling identification of invoice

documents affected by retroactive price changes, choose the document type of the credit and debit memos to be created, and execute creation of multiple documents.

Self-Billing Process Design in R/3

In SAP R/3, self-bill invoices are stored in independent self-billing tables, compared with internal invoices and only discrepancies are posted as open items into Sales & Distribution and Finance modules.

Standard SAP R/3 provides iDoc type self-billing and the self-billing monitor (VSB1) which is used for automatic processing of self-billing documents and root cause discrepancies or matching errors.

Business Process Gaps

Complexities of Financial Analysis

Self-bill invoices are not posted directly as invoice documents in the sales flow. This stores only the internal invoice and, if there were discrepancies, open item documents. For this reason, there is no direct way of consolidated reporting on these except from the self-billing monitor, which only gives detailed data per transmission and per delivery. The overall picture remains elusive.

Drawbacks of Standard Retro-billing Transaction

The standard retro-billing transaction VFRB has usability issues. It can only be executed in the foreground, making it unsuitable for the volume of retro-bills that are typically generated in the automotive industry.

The proposal list on which the user chooses the invoices to retro-bill does not provide enough detail for decision-making. From a technical point of view the transaction is unfit for mass creation of credit and debit memos, because it only commits to the database after all documents have been created. Until then it locks the number range object of billing invoices, which means that in some situations other processes simply time out while requesting a document number for billing invoice documents. *In the*

worst case this means that for hours no other process can create billing invoice documents.

Though such a situation could be alleviated by parallel buffering of the number range object, for legal reasons buffering of billing invoice document numbers can be tricky. For example, the law in Italy requires that invoices are numbered sequentially in a chronological order. If buffering is used to resolve the locking situation, the buffers need to be huge, which will make it impossible to achieve a quasi-ascending order of numbers.

Another drawback of the existing retro-billing transaction is that the condition type which holds the price differences is hard-coded. This makes later analysis of components of the price changes difficult.

Solution

Usability of retro-billing transaction

The proposed solution rewrites the retro-billing transaction that has plug-in features of:

Background processing - Due to the huge volume of retro-billing documents generated in automotive industry

Separation of Proposal Run and Execution - As there is often a time gap between the proposal and execution of large amount of retro-billing documents

Integration with workflows - In order to ensure separation of duties in a company as it is often required that the person executing the proposal and the person approving the retro-billing run need to be two different people

Level of Detail of the Proposal List, Integration with Excel (ALV) - As the proposal list from the standard VFRB transaction is a multi-row list which cannot be sorted or downloaded in a format that allows easy analysis of this list

Definition of Condition Types for Retro-billing Differences - As it is required to define different condition types for different kinds of price changes in order to facilitate detailed reporting on price changes.

As this is the point where the enterprise generates revenue, retro-billing is a key transaction for automotive industry users and needs to be accorded due attention.

Consider the Document Flow

The fact that one invoice can be retro-billed several times can lead to an ever-extending sales document flow, although a lean design is desirable from the performance perspective.

APPROACH I

The choice of the right approach from different strategies available to achieve a lean document flow depends on the company's business processes. The standard recommendation is to have one sales document per item. The advantage of this approach is that materials can be easily retired and locking issues are avoided. On the other hand, the key disadvantage could be that customers or interfaced systems require multi-item sales documents.

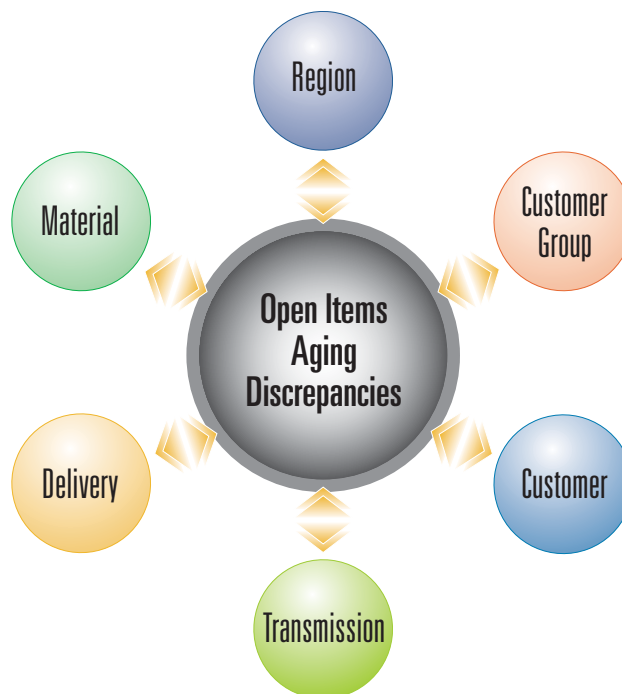
APPROACH II

Another approach to reducing document flow is to switch off the link between sales order and deliveries. One large automotive supplier discovered that this link was not required in the case of scheduled orders. It realized it was possible to delete about 30 million entries in the document flow. This resulted in reducing the processing time of retro-bills and most other sales and outbound logistics processes manifold, which had reached critical performance levels putting the company's ability to do business in danger.

Integration with SAP BW

There is no automatic reconciliation tool available to analyze and reconcile the discrepancies raised between supplier invoices and customer self-billing transmissions in terms of price and quantity. Hence a solution is needed to address this gap. The SAP Business Warehouse is the tool of choice for analytics. However, there are no standard cubes available to analyze self-bill invoices.

The supplier sometimes needs a higher level view, e.g., on a per customer group level to see differences and open items and then drill down to single transmissions and even self-bills and their items to understand where the discrepancies have accumulated. When custom fields are involved, a new reporting solution can make the difference between success and failure.



Conclusion

Standard SAP provides basic support for the self- and retro-billing business processes for the automotive industry. However, to use these processes on a large scale would need a large number of custom adjustments. Since the business process is more complex on the supplier side, this is where we find the biggest pain points. These challenges pertain to the usability and scalability of the standard retroactive billing transaction and reporting on self-billing transmissions and their financial analysis.

Infosys recommends that any implementation of self- and retro-billing processes in SAP must consider changing the retro-billing transaction and involve BW report development especially if the data volume is significant.



Case Study

A Tier-1 Automotive Supplier Obtains Clarity On Received Self-bills

A large tier-1 automotive supplier was struggling to deal with cleared payments and open items of its self-bill customers. Custom discrepancy and aging reports that ran on R/3 were not able to cope with the amount of documents produced from self- and retro-billing.

Infosys partnered with the client to devise a unique solution that was built from conceptualization to deployment leveraging its R/3 and BW capabilities. The solution was designed to provide reports post-reconciliation summarizing the errors/discrepancies (sometimes running into millions of dollars). The report is provided to the accounts receivables department for action.

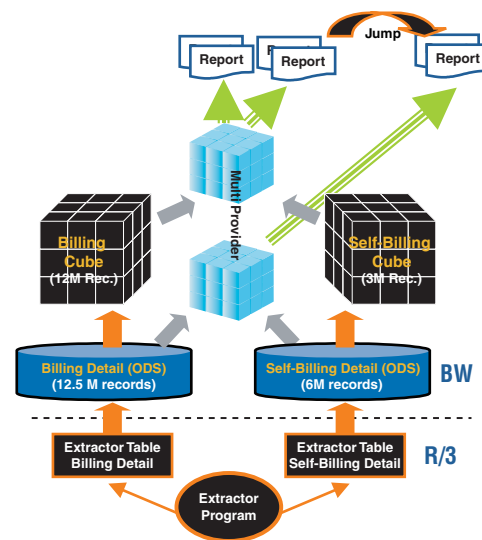
The Solution

SAP R/3

Extraction and calculation happen in R/3 through a custom built extractor. This extractor collects data by integrating SD, FI and self-billing modules.

SAP BW

The operational data sources feed billing and self-billing cubes. On the top of these cubes sits the multi-provider on which the reports are built.



Benefits of this custom solution:

- Provides multi-dimensional analysis and reporting with drill down capabilities
- Ability to handle and analyze large volumes of data without timing out issues
- Performs analysis of cash discrepancies based on invoice/retro billing and cash received
- Provides accurate summary to business owners for write-offs or collection

About the Author:

Reinke Bonte is a Consultant with Infosys' SAP Practice. With around 5 years of SAP experience and 3 years in the automotive industry, he focuses on facilitating solutions using SAP components in the areas of supply chain management and logistics. Reinke holds a bachelor's degree in economics and a post graduate degree in Asia Pacific studies. He can be reached at reinke_bonte@infosys.com

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