

Collect, Clean, Conquer - A Field Guide to Surviving Master Data Clean-up

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ABSTRACT

While it may feel like you've moved a mountain, garnering management support and funding for a customer data clean up project is about 1% of the effort that really goes into a thorough and accurate review of master information. This paper will discuss Aspect Software's efforts at cleansing it's customer data and share the many lessons we learned during the process.

INTRODUCTION

This paper is designed to provide the tools and lessons learned necessary for a company to truly start a customer master clean up. Before continuing, it is important to note what exactly a "customer master clean-up" (CMC) is – by our definition – and understand fully the breath and depth of the impact that this project has on the company.

Aspect's data universe that revolves around the Oracle 11i eBusiness Suite (version 11.5.9). We have a number of peripheral systems, most of which get their primary data directly from 11i. When we migrated from 10.7 to 11.5.9 we faced a number of significant challenges with both the quality and quantity of the data that we wanted to migrate. Aspect crow-barred, forced and finagled over two-dozen legacy data sources into one instance of Oracle - without any cleaning on the front end. Hindsight is, as they say, 20/20 because the result was master data (commonly referred to as the customer standard) that would prove difficult, if not impossible, to work with down the line.

LESSONS LEARNED

More valuable than any templates or processes are the lessons that we learned along the way. Each of the "hiccups" we encountered helped shape our approach and reinforce our efforts. Because the project was so heavily influenced by these discoveries I believe they warrant top billing.

BRINGING IN THE BIG GUNS

It didn't take long for us to realize that Oracle simply didn't give us the views that we needed into our data. After an extensive search and vendor selection process we decided that SAS's Dataflux DFPowerStudio would give us the boost we needed to be effective.

Dataflux gave us a window into our data that we had never had before. It allowed us to pull and view data, find synergies between accounts and create complete views of both the before and after of each customer. As the project matures and focuses more on quality our use of DataFlux will only increase and expand.

There are many ways that we aren't using the software – including and most significantly it's capacity to write changes back to the source. When it came down to actually committing changes in bulk, the "human user" factor was too high a risk.

MISTAKES WILL BE MADE

Pulling the trigger on change proved to be a difficult thing for many in the organization. They wanted reform and saw the dire need for improvement, but they were terrified to actually make change.

While there is obviously some risk and discomfort when making changes to data, there are also many opportunities to recover lost data and turn back change. Once we realized that we could fix almost all mistakes that were made in the spirit of progress our team began to make huge strides towards the clean-up. This is a case where sometimes the best learning experiences we had were the result of mistakes that we never would have made had we not gone ahead and tried something.

CUSTOMERS WILL KEEP CHANGING – AND SO WILL WE.

The first time a "completed" customer became dirty again the team became highly discouraged. After all, what was the point in cleaning if the sales team and other players could simply undo all our efforts by putting bad data back into

the system? Then customers started merging and splitting off from one another. Then they went out of business. Then we got bought and merged with another company – and all the while the beat played on and the team kept cleaning. There were times that perspective was hard to come by but in the all we came to truly realize that data is a living breathing thing that is under constant evolution. Knowing and adapting to this fact helped build our understanding of the dynamic nature of data and kept our spirits up (most of the time) despite the difficulties.

I'M BORED.... ARE WE THERE YET....

Actual data cleansing and integration is thankless and boring work. Tedium abounds and nerves can flare after full days are spent at a desk in front of a computer making changes from Dr to drive. We created the “Survivor” theme for the project to help boost morale and get the sales and support teams more interested in participating in the clean-up.

DATA CLEAN-UP... MAKING IT HAPPEN

An amazing thing has happened - Your organization's management has come to grips with the fact that your have a master data management problem - they've found the budget, hired the consultants and assembled a team to manage the clean-up. Now what?

Most major companies realize that they have a significant data problem – but few have actual plans and solutions hammered out. How exactly do you transition from data quality management theory to hands-on evaluation, consolidation and cleansing? The invention of the wheel is small in comparison to the development of a road map to clean master data.

There are literally dozens of questions that need to be answered – before a single address will be cleaned or a contact inactivated.

LADIES AND GENTLEMEN, START YOUR ENGINE...

Before you do anything else, take stock in the status quo. What is the state of things now? How do people currently access customer information – and more importantly WHERE do they find it? How will you access and view the data in the future? Who are the key players when it comes to data management and how can you get them involved?

At Aspect, the status quo and the future had both been decided. As I alluded to earlier, Oracle 11i is the central repository for all customer financial and general information. But saying 11i is like saying the United States. That still leaves deferred revenue in Texas while customer data is in California and sales online is in the most remote of the Hawaiian Islands.

Our list of key players shapes up like a who's who of functional groups within the company:

- Sales (both new logos and renewals which account for a large part of our revenue)
- Order Management
- Warehouse and Supply
- Credit and Collections
- Contract Administration/Legal
- Customer Support
- Education Services

It was important for us to understand how and what each group uses in the customer standard so that we could be sensitive to their needs and attentive to the integrity of their data by having an accurate understanding of where to look for everything related to a customer. This exercise also allowed us to evaluate the gaps in our data.

Among our more interesting discoveries was that we had little or no idea where many of our products were installed. We turned into modern day Sherlock Holmes with the many places we had to investigate and hunker down to find a trace of the customer in question.

COLLECT DATA (TRANSACTION REVIEW)

To be sure that we had an accurate “Before” image of the customer we developed a form that would guide us through every step of the hunt:

Step #	Description	Owner	Customer: 1234 Party: 233532
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1	Find all accounts from the name above "%Name%" (Be sure to set status to "All" and choose "Fuzzy"). Enter Customer and Party Number (create additional columns as needed)	PB	Complete
2	Change Customer Master Cleanup Status to "In Progress" in Oracle	PB	Complete
3	Is there an address for this site? (Be sure to check the MX and CA books as applicable). If no, follow "Inactivating Parties with No Addresses" protocol	PB	yes
4	Click into the site details and review for usage. If no "Usage" is selected for an address, select "Ship To", change the address line 1 to include "zz NU" click "Save", then Inactivate the record.	PB	Complete
5	Check addresses in each customer for Install At locations. If Install exists, please note site number and Install At location	PB	21607/26512
6	Generate and review Aspect Corporate Order Management Status Report (located in Supply Chain Custom Reports) to validate existing customer activity	PB	Complete
7	Review Sales Online for active quotes	PB	4
8	Review AES purchased training report	PB	Complete
9	Review Project Accounting Revenue Report for project activity	PB	Complete
10	Check billing relationships – if populated research to verify entries	PB	Complete
11	Check credit analyst code, terms, and credit check in Profile Transactions tab	LO	Complete
12	Check currency and credit limits in Profile Amounts tab	LO	Complete
13	Review Billing and Receipt History Report for AR activity	LO	Complete
14	Review monthly Deferred Revenue report	LO	Complete
15	Run Install Base report to determine IB or contract activity	PB	Complete

We created a version of this document for each customer, and a column for each party/account in Oracle where we found information pertaining to this customer. In some cases, there were literally hundreds of accounts where data had slithered into hiding. We also quickly discovered that in cases of partners, the company had done little or no tracking of the actual end customers – adding another layer of research to the project for a large number of customers.

CLEANING CUSTOMERS

Cleaning customer data has two distinct phases: Architecture Development and Clean/Consolidate.

During the Architecture phase, we would take all of the data that we discovered during the transaction review and literally craft the image of the customer moving forward. This included selecting the surviving party, reviewing lost and orphaned products, understanding the contracts and negotiated terms with each customer and consulting all involved parties on the proposed changes.

Once we had an accurate blueprint of the customer moving forward, the actual cleaning of a customer record was a breeze. Duplicate addresses would be addressed, product moved, extra parties and accounts merged into the surviving record, and corporate nomenclature standards put into place. Most of this work was done through the Oracle Trading Community Architecture (TCA) module using templates and process documents similar to the one above. While it was laborious, it was also straight-forward and easy to conquer as a result of extensive the planning and mapping done earlier.

THE FUTURE AT ASPECT CONQUERING DATA APATHY

There is still a lot to overcome at Aspect. Our data apathy levels remain high and users constantly need to be reminded of "what's in it for me." While the project started out with good enthusiasm, our merger and father time have both taken their toll on the project's momentum. To help kick-start our efforts for the next phase we are doing a "bootcamp" road show – taking the message of customer data and the importance of business intelligence to each of the main Aspect offices.

We also have made increased strides to helping management to understand the importance of the project and garner their support. We can never let them forget for a day this small team and our big goals and efforts – and so long as I'm around, they won't.

CONCLUSION

Working with customer master data and data integration is still uncharted territory in many respects. While it is daunting to make changes and edits to these vital records, the right planning and forethought can make even the most challenging mess into a harmonious data set. Remember that flexibility and change are inherent in our industry but that there's living proof that old-fashioned hard work can pay dividends in the end.

CONTACT INFORMATION

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