JJ Intoranat, Product Design Professional

Consortium Sales Application Online: A UX Case Study

The UX behind getting fast and accurate healthcare analysis

“Every healthcare leader wants to optimize their data analysts’ value and effectiveness. One of the main reasons data analysts aren’t as effective as they could be is not having access to the right tools.” - HealthCatalyst

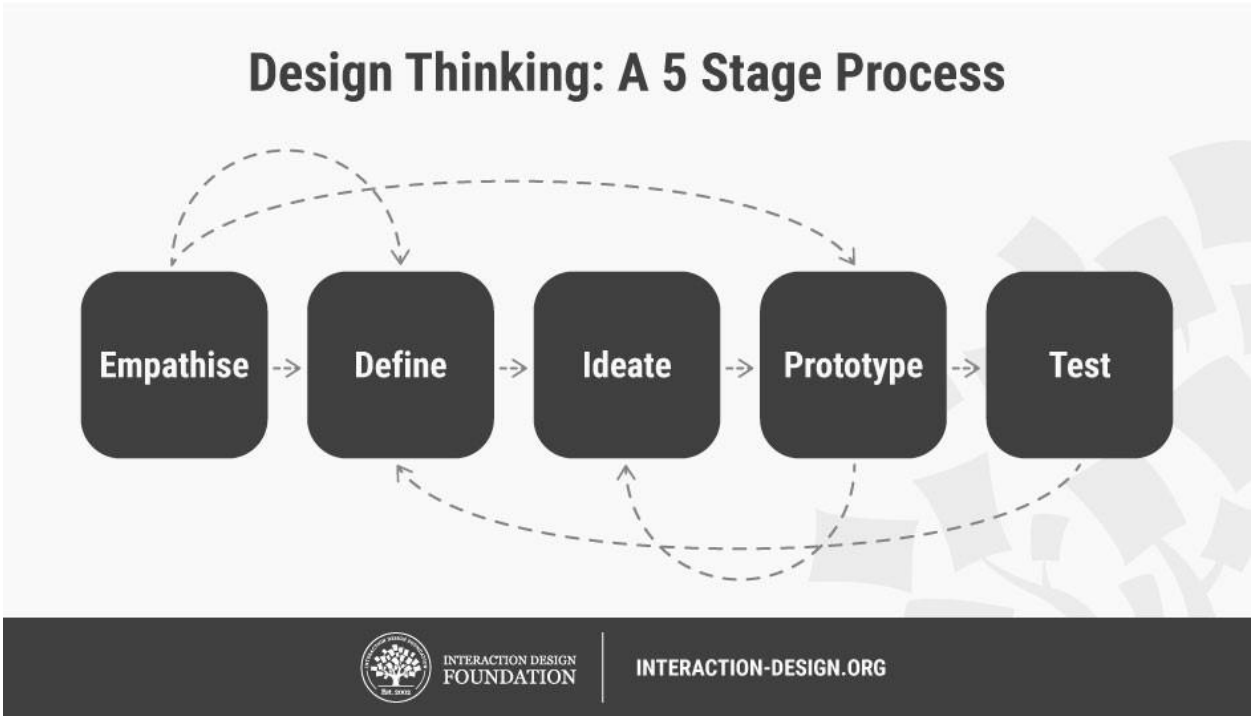
Currently, there is a lack of online tools to quickly gather accurate healthcare information for statisticians to compile and analyze the data. In today’s fast-moving market, being able to get meaningful analytics quickly would provide a competitive edge to capture, retain, and reclaim National Accounts. In order to compile and analyze healthcare statistics, requests have to be made to IT professionals or analysts to query and process the data. Once results are delivered, if the parameters need to be updated, a new request will have to be created and the process starts over again. The current process is lengthy and slow to respond to a fast-moving market.

The goal of the Consortium Sales Application Online is to deliver healthcare statistics to the statisticians as an on-demand service. Cutting out the step and time it takes to process the data per request. With Sales Application Online, users have an ability to compile and analyze the data directly by themselves. Additionally, the product would help users to quickly share and present the data visualization through a build-in export features.

Getting the information shouldn’t be the hard part, Sales Application Online is helping to deliver the data directly to users, whenever they want it.

Design Thinking Process

Before my team can start creating the product, I need to evaluate the situation through a design process and determine what the business goals and users' need. I need to be able to understand the core issues from the users' perspective and not through our assumptions. The design thinking process at its core, consist of the following key stages:



Empathize

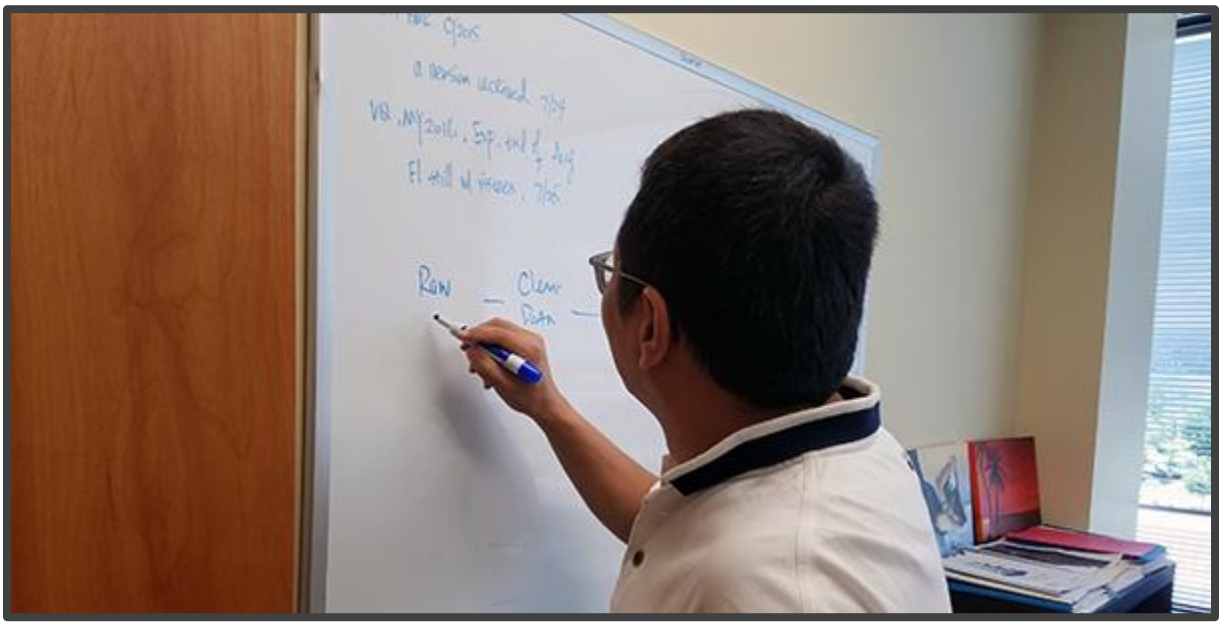
Stakeholder Interviews

In order to make meaningful impact, I needed to understand who the users were and what problems they had. I looked at the issues at hand and broke it down to its root. Here, I asked simple questions:

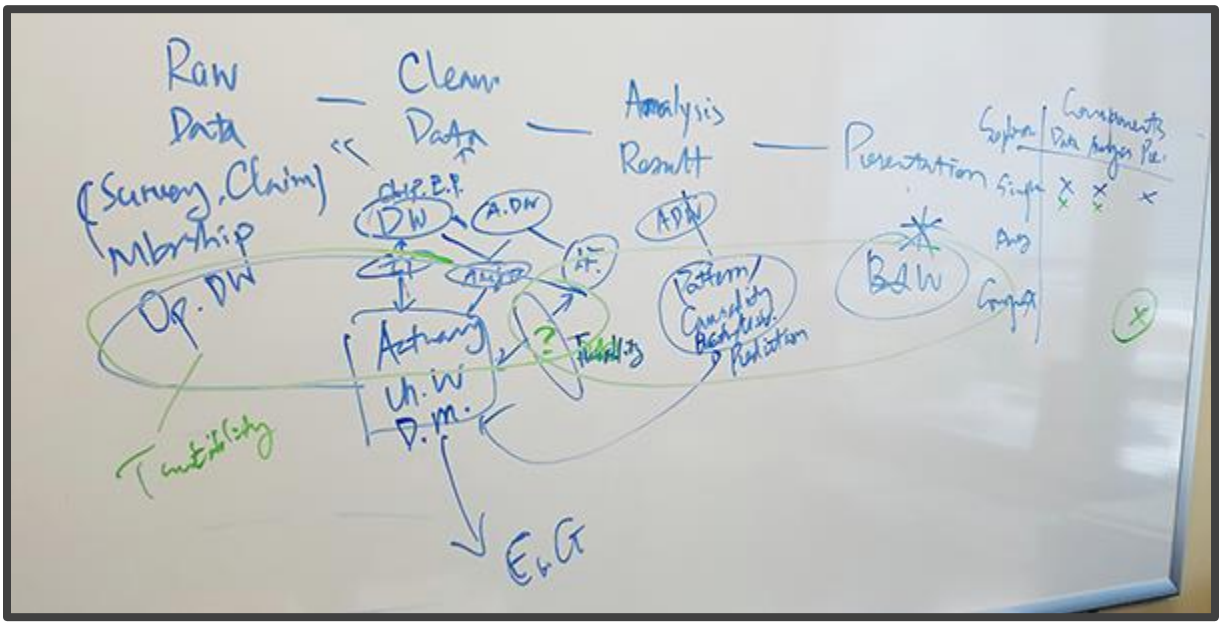
- Who are the users?
- What data are commonly requested to be processed?
- How long does it take to process a query request?
- How often do users make adjustment once the result is received?
- What do users do with the data?

I consulted experts to gain insight on how the data was handled, who made the requests, what the results looked like. Understanding the big picture was essential to my team's ability to empathize with the users. I interviewed a Director of Data Sciences about what data were being generated. He patiently explained how the data gets generated to how the data is delivered as results.

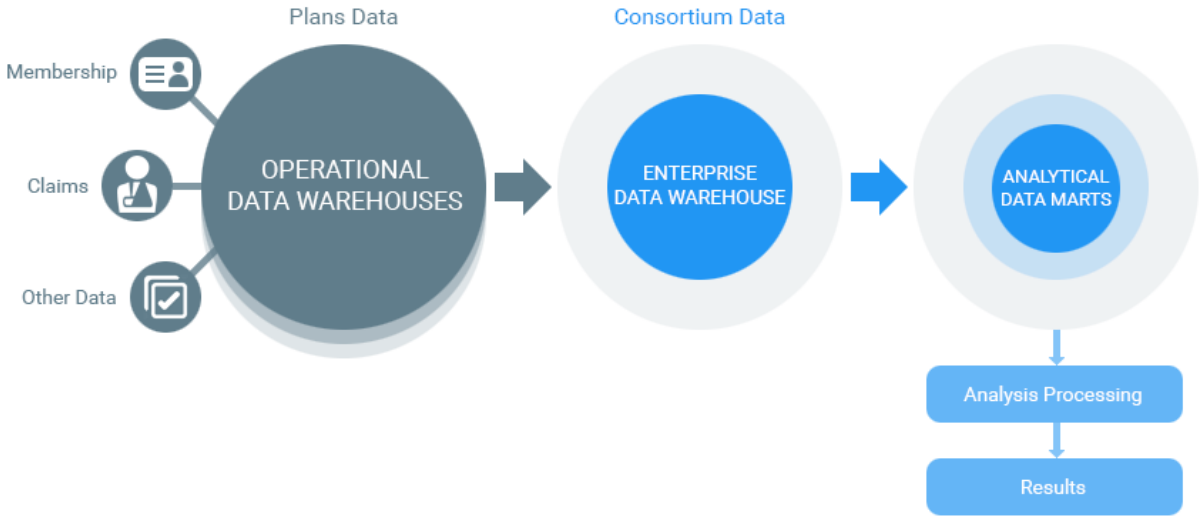
The short answer was "It's complicated".



Data Flow



As you can see, the current process was overwhelming, but my job was to review the process and identify the pain points the users were having. First, I simplified the information so that it was easier to understand. To do this I mapped out the data flow based on the information we gathered.



To explain it simply, the data is coming in through various collection methods. Most of the data are generated through membership accounts and membership claims. This is what is considered the “raw data”. It is gathered at the plans and is given access through authorization. Consortium pulls in about 65% of the raw data to be cleaned and stores it as the enterprise data. When a request is made, the IT professionals or analysts query requests in to data marts, process the cleaned data, and return the results.

Define

Validating the Questions

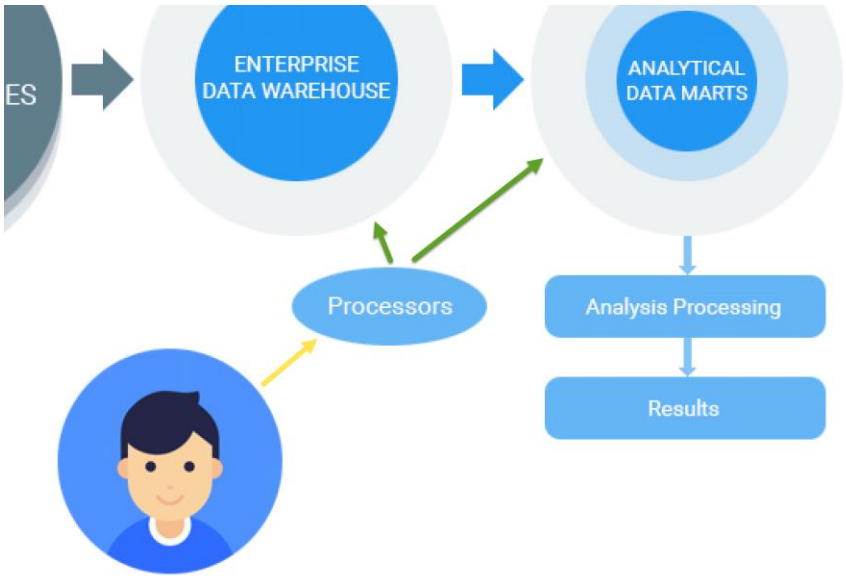
Through research I got answers to some questions from the earlier stage:

- **Users**
  The users are the decision makers; statistician, actuary, underwriter, sales personnel; that need the analytical information in order to make informed decisions regarding price prediction, savings advantage, coverages, etc.

- **Time**
  The process takes anywhere from a few hours to a few days.

- **Pain point**
  Users update requests often. Having to make a new request just to see adjustment is frustrating.

- **Usage**
  The data is used in many various ways, such as; competitive analysis, presentation, savings prediction, bids to win national accounts, etc.



"It's frustrating having to get back in queue to see adjustment to the results or not being able to explore for data discovery"

Problem Statement

By following the design process, I was able to validate the problems and met with my team to define a problem statement. The problem statement or product story is created to keep vision in check as we ideate and create the design prototype:

Consortium Health Plans is developing an online web application to help health care statisticians to deliver analytical data as an on-demand service with exporting features to help users quickly share and present the data visualization.

The problem statement breaks down in to:

- **Offering:** An online web application.
- **Target audience:** Health care statisticians or decision makers.
- **Solve a problem:** To deliver data at any time.
- **The secret sauce:** Ability to export the data out of the application.

Measuring Success

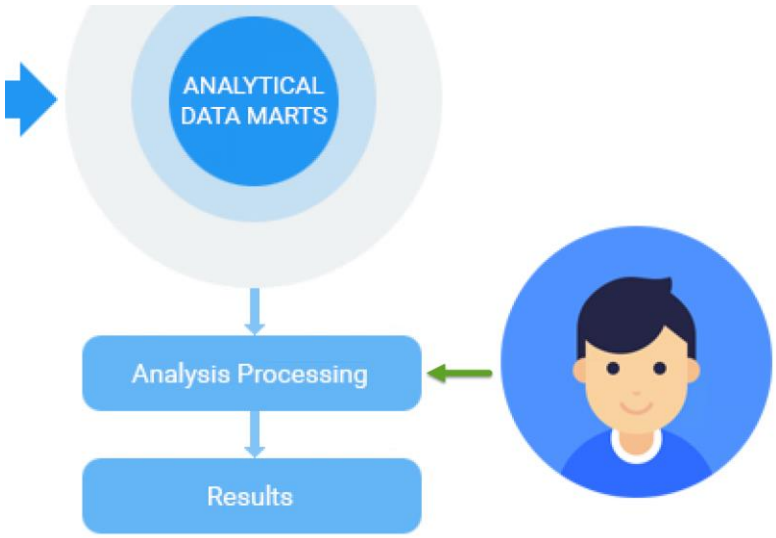
I also wanted to identify ways to track our UX efforts with quantifiable results. Some of the ways success could be measured are:

- Solicit user feedbacks on pain points and joyful interactions.
- Review usage analytics to track users' adoption to the online component.
- Measure new experience and create a baseline to compare with in the future.
- Create an approach brief, deploy a measurement strategies, and continuous improvement program.

Ideate

Design Strategy

With solid understanding of the process and users' pain point, we worked together to identify new solutions to the problem statement we've created. Our idea was to pre-process the most commonly requested query and store the data for users to access directly.



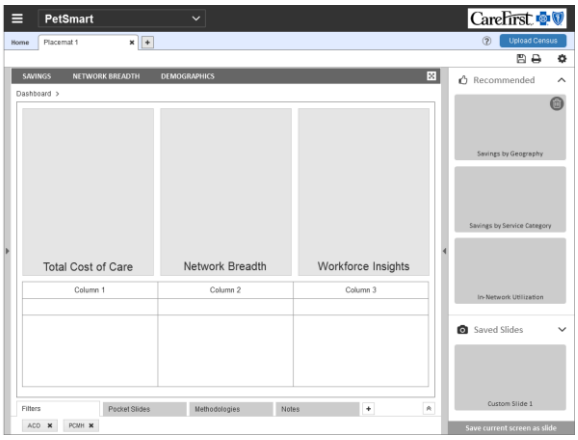
The idea is not to replace the processing service, but to give users alternative access to pre-processed analytics. As we add more useful pre-processed data based on feedbacks, our application should gain traction of usages from users who are looking for quick access to the commonly used healthcare statistic.

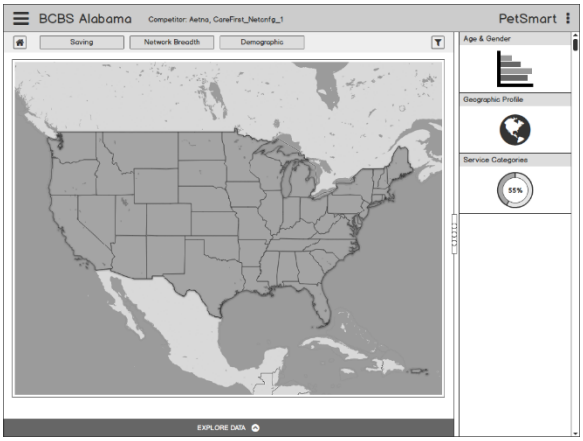
The drawback of the pre-processed data is rigid data that is predefined. We hope to overcome this overtime by providing the most commonly requested query across all the Blue's plans.

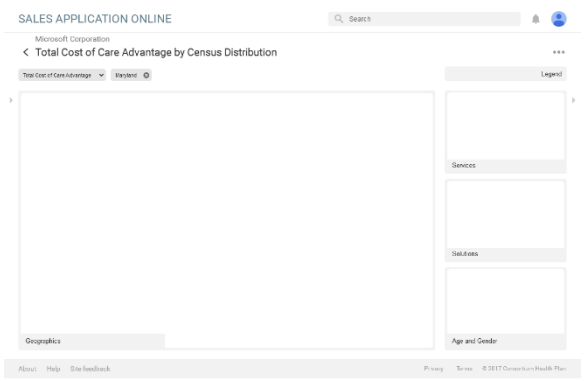
Prototype

I worked with my design team to prototype various designs rapidly to test out specific features within our team and internal resources. By the end of the prototyping stage we had a good idea of the technological constraints and how users' interaction with the application.

I created low-fidelity prototype using Balsamiq, and testing interaction using paper printouts.

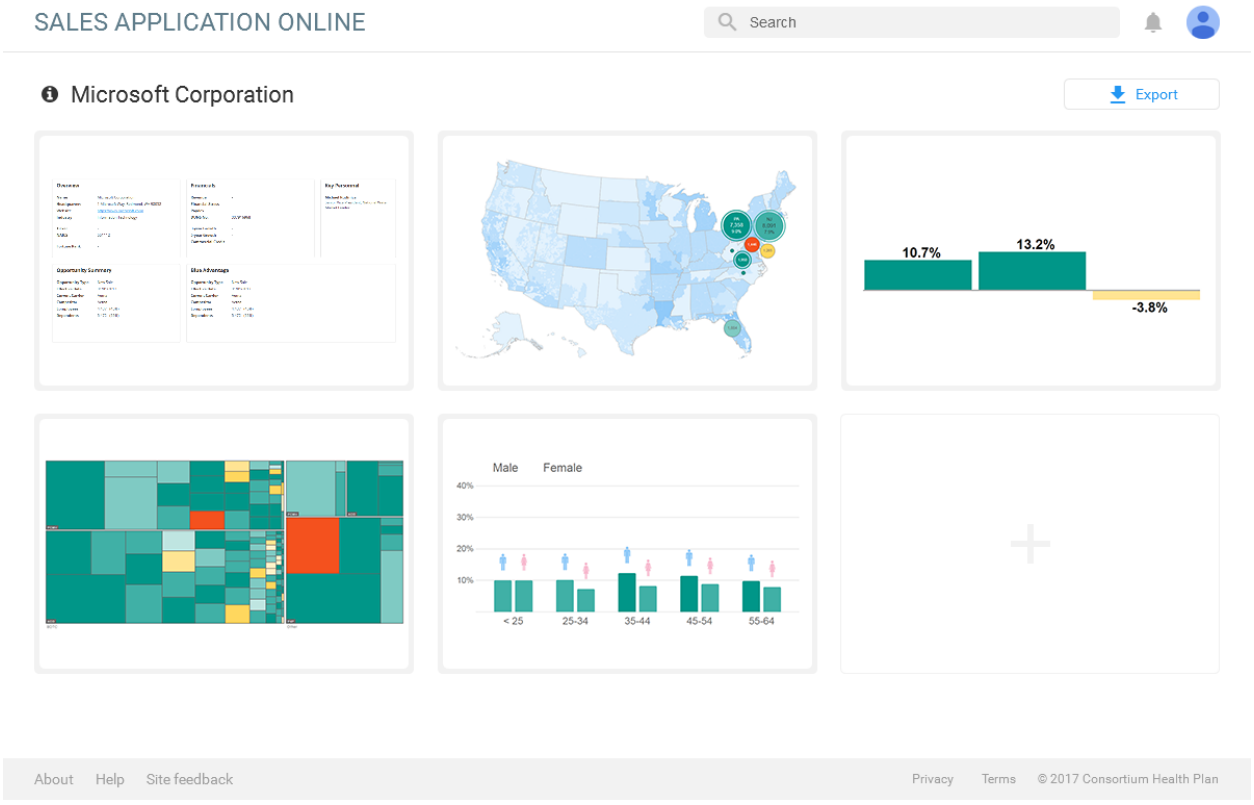






I went broad with my design to go narrow, and was able to narrow down the designs rapidly through testing and feedback loops.

Eventually, I was happy with what we have gathered and delivered an interactive and high- fidelity prototypes using Axure. We launched the product and the application has roughly doubled the users every month since we launched in May 2017. We are monitoring and gathering feedbacks to ensure the continual support of Sales Application Online.



SALES APPLICATION ONLINE

Search

Microsoft Corporation

Company Profile

Overview

Name	Microsoft Corporation
Headquarters	1 Microsoft Way, Redmond, WA 98052
Website	https://www.microsoft.com/
Industry	Information Technology
Ticker	-
NAICS	551112
Fortune Rank	-

Financials

Revenue	-
Financial Stress	-
Paydex	-
DUNS No.	007916968
3-year Growth	-
5-year Growth	-
Commercial Credit	-

Key Personnel

Michael Rudinica
Senior Vice President, National Water Market Leader

Opportunity Summary

Opportunity Type	New Sale
Effective Date	01/01/2017
Current Carrier	Aetna
Competitor	Aetna
Eomployees	4,437 (45%)
Dependents	5,472 (55%)

Blue Advantage

Opportunity Type	New Sale
Effective Date	01/01/2017
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Blue Advantage Detail

Opportunity Type	New Sale
Effective Date	01/01/2017
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Network Advantage

Opportunity Type	New Sale
Effective Date	01/01/2017
Current Carrier	Aetna
Competitor	Aetna
Eomployees	4,437 (45%)
Dependents	5,472 (55%)

Total Discount Advantage

Opportunity Type	New Sale
Effective Date	01/01/2017
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Takeaways

The biggest challenge for me while working on this was understand the complexity of the data, and changing the culture of “this is how it always has been done” was tough. We were able to persuade and get buy-in from stakeholders to pre-process the data when we showed the feedback and success of the prototype we did to validate the idea.

The Consortium Sales Application Online is a great product, and is something I am proud of. It makes me happy to be able to deliver something to the users that help ease the frustration they were having for so many years. I look forward to bringing addition functions to the application. One of an idea, I want to test is self-learning application, so the application can learn the variance in the recent commonly asked query from the processing server. The application would then adjust the pre-processed data for the application using the trends.