Splunk and Machine Learning for Sales Efficiency

Empowering the Sales Force With Customer Insight Dashboards and Analysis

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Agenda

- About Ferguson Enterprises
- Customer insights – A strategic priority
- Why Splunk?
- Art of the possible with Splunk
- Our journey with Splunk
- Results
- Demo
THE PRODUCTS YOU NEED FROM
PEOPLE WHO KNOW YOUR BUSINESS

POPULAR CATEGORIES

- Bathroom Faucets
- Bathroom Sinks
- Kitchen Faucets
- Kitchen Sinks
- Toilets & Urinals
- Tub/Shower Faucets
Ferguson at a Glance

- Headquartered in Newport News Virginia
- $13.8 billion in sales
  - Largest distributor of commercial and residential plumbing supplies, and pipe, valves and fittings (PVF) in the US
  - Second largest distributor of waterworks products
  - Third largest distributor of industrial and HVAC/R products
- 1,400 Locations
- 23,000 Associates
- 63 Years of service
About the Presenters

▶ About Chandra

• Marketing Analyst, Customer Experience group
• Held variety of positions within Ferguson to include Inventory Management, Product Data Services, and Market Research
• Manage the customer experience data model and implementation leading to the current Splunk partnership

▶ About Mike

• Managing Director, Concanon LLC
• Splunk PS provider for 6 years
• Sister company, Scianta Analytics, brings ML/Cognitive Computing to Splunk platform
“Nobody expects more from us than we do.”

Ferguson Mission
Enterprise adoption of Sales Analytics to reduce churn and improve profits

- **Diminish Churn** – Understand customer segment behavior to fulfill segment needs and avoid churn
- **Tailor the Customer Experience** – to meet the needs of the customer based on segment and churn score
- **Align** Sales Initiatives With Marketing Initiatives

Better serve our customers through sales analytics
Transforming the Customer Blueprint
Customer Churn

- The rate at which a company loses customers

- We look a little deeper and use the customers’ transactional data to identify customers who look like they might be getting ready to churn so we can proactively change that.
Why is it Cheaper to Keep ‘Em?

Recency
How recently they purchase?

Frequency
How often do they spend?

Monetary
How much do they spend?
Customer Blueprint

What is it?

- Combines past purchase data with predictive data to better understand customer behavior and future needs, including:
  - Customer segment
  - Churn status
  - Customer profitability data
  - Matrix utilization
  - Core product purchases
  - Channel usage
  - Credit limit
  - Suggested next steps
Enhancing The Customer Experience
Why do we need it?

- Align resources
- Improve customer satisfaction
- Grow our profitability and wallet share
- We are a data driven company

Using the Customer Blueprint will give you and your teams the tools and information needed to understand their customers better than they already do.
Customer Experience Principles

Predicted Values

- Fair Deal
- Inventory Seeker
- Partnership Pursuer
- Price Focused
- Reliability Focused
What’s in it for Us?

**Time**
Spend the right time with the right customers
- Anticipate customer needs
- Strategically align resources with customer needs
- Ensures appropriate channel use

**Profits**
Optimize pricing by segment
- Improve margins and share of wallet
- Improve cost to serve ratio
- Enable targeted advertising messages to increase marketing ROI

**Satisfied Customers**
Enhance the customer experience
- Build stronger customer relationships, increase loyalty, and reduce churn rates
- Align resources to deliver individualized service to customers
Splunk at Ferguson Enterprises
History With Splunk Cloud

▶ IT Operations
  • Last Hostname by IP Address - Find the most recent Computer associated with an IP Address. (Helps find Assets and Users), Last IP Address by Hostname - Find the most recent IP Address(es) associated with a Computer
  • Alert to duplicate IP’s and duplex setting mismatches
  • Auditing alerts on active directory group changes that can cause serious outage
  • Monitor for non-human service account password maintenance mistakes that can bring down critical systems
  • ETL monitoring for data warehouse

▶ Security
  • Monitor Active Directory, Firewalls, Windows, Linux, Network Devices, and VPN
  • VPN Logins for strange behavior
  • Antivirus Alerting
  • Bad password attempts causing user account lockout
  • Alerting to PKI issues
History With Splunk Cloud

▶ Digital Marketing & Customer Analytics
  • Development and Ecommerce Teams proactively monitor the Development, Test, and Production environments for errors
    • ATG Order Attempts
    • Oracle Errors by Error Code
    • Credit Card Fraud

▶ Service Operations
  • Trading Ops, E-Business, and Finance dashboards support application and service support teams saving time both in proactive monitoring as well as diagnosing impact and trends including:
    • Monitor unsuccessful transactions
    • Rebate claims calculations
    • Critical web service monitoring
    • Customer registration tracking
    • Quote requests
    • Most products ordered
Design Workshop
The Art of the Possible

Roadmap To Put Into Practice

Three stages to the roadmap, (R1, R2, R3) represent an evolutionary strategy that delivers results quickly in R1 and sets the stage for rapid adoption in R2 and R3.

- **Sales KPI Dashboards**
  - R1 (Q1 2023)
  - R2 (Q4 2023)
  - R3 (Future)
  - Transform existing Excel reports to Splunk Dashboards
  - Improve report adoption by 10% to 15%
  - Enable management to view adoption and results
  - Retire the use of two software packages
  - Enable Executive and Finance compliance with KPIs and Goals
  - Prime sales to utilize dashboards

- **Near Real-Time Sales Dashboards**
  - R1 (Q1 2017)
  - R2 (Q4 2017)
  - R3 (Future)
  - Source data directly from operational systems
  - Enable sales teams to respond to near real-time customer behavior
  - Enable alerts to monitor for anomalies and opportunities
  - Enable geo-coding and other UI enhancements

- **Broader Operational Adoption**
  - R1 (Q1 2017)
  - R2 (Q4 2017)
  - R3 (2018)
  - Integrate and correlate e-commerce, point of sale, and other sources
  - True insight into customer journey for marketing/sales/operations

Potential First-Year Value Opportunity

<table>
<thead>
<tr>
<th></th>
<th>Before Splunk</th>
<th>With Splunk</th>
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</thead>
<tbody>
<tr>
<td>Expected Sales Adoption</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>Customer Count</td>
<td>90,000</td>
<td>90,000</td>
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<tr>
<td>Customers affected</td>
<td>9,000</td>
<td>22,500</td>
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<tr>
<td>Expected annual improvement in revenue^1</td>
<td>$15,300</td>
<td>$15,300</td>
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<tr>
<td>Potential First Year Improvement</td>
<td>$137.7M</td>
<td>$344.25M</td>
</tr>
<tr>
<td>Improvement Difference</td>
<td>$206.55M</td>
<td></td>
</tr>
</tbody>
</table>

^125%-30% Range
^2An expected 34% increase in revenue using the existing Sales KPI report increases annual revenue per customer from $45,000 to $60,300, a $15,300 increase.

In addition, it was estimated that the use of Splunk dashboards instead of a custom built solution could avoid the cost of 3 full time equivalent headcount costing $89,000 per year, a potential savings of $267,000 in headcount per year.

R1 – Sample Dashboard Wireframe Design*

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Excel For Cx Data

- Cumbersome - manual data pulls from multiple sources
- Difficult to share electronically
- Lacks security (for different viewing levels)
- Lacks monitoring capabilities

- “Ugly” raw data - few visualization capabilities
- Limited drill down capabilities
- Requires some excel knowledge (filtering, etc.)
- Inability to look at trends in the data
- Difficulty incorporating into CRM
- No room to grow

Emailed Monthly, 4 Tabs, 31 Columns, manual intervention to prepare!
Splunk Cx Dashboard

- Future all most “real-time” capabilities
- Cloud based – simple link to share
- Secure – and allows for different viewer levels
- Users can be monitored to understand usage – alerts can be set up
- Visually dynamic dashboard
- Ability to drill-down into more detailed views
- Simple to use
- Trend analysis capabilities
- Easily incorporate into CRM
- Automatic alerts to notify the sales team of changes in customer behavior

Updated daily*, available on demand, automated
Transform The Data

From this

To this
Data Workflow

Mainframe Data → Indexer → Extract → Run Lookups → Apply MLTK → Indexer

Use Collect → Index-time field extractions

Daily Ingest Process
Keys To Success

1. Data must be transformed (in motion) to be useful
2. Understand MLTK and apply algorithms correctly
3. Leverage native Splunk features to assure scale and performance
Demo

Overview of Sales Manager and User Audit Panels
1. Easy to use, holistic tool to gauge individual account health and identify areas of opportunity

2. Easily filter down to the pertinent salesperson or business group data eliminates outside noise and allows our Sales Managers to quickly obtain the needed information. Ability to review supporting data is important

3. Inclusion of metrics such as churn status and cost to serve have differentiated the CX Blueprint from existing sales management tools

4. CX Blueprint provides a view of other managerial data all in one place so that an educated decision regarding account strategy can be made
“Great work on this! This sales tool will help us to have a deeper understanding of our customers.”

Area Sales Manager
“What used to take hours of cumbersome pivots, chart creations, and waiting for excel to ‘respond’ now takes a significant less amount of time to produce and provide needed customer data to our sales force.”

Sales Director
Learnings & Looking Ahead
1. It is possible to have too much data

2. Ability to review supporting data is important

3. Equally important to frame the data points in a descending order of importance as this allows for the most impactful data to be front and center

4. It is important to include representatives from the field in the design process. They represent the target audience

5. Including associates early in the process bolsters other field associates’ perception of the final product in that “some of their own” had a say in the format
1. Automation, what steps in the current process can be automated to reduce the time and labor spent each month on producing the CX Blueprint content? Can data be made available in a more frequent manner?

2. Requested YOY metrics to be included to increase the visibility of account health compared to the past years.

3. Inclusion of additional data points from other areas of the organization that have an impact on account strategy (ex. Credit, Ferguson Rewards).

4. Stand-alone business groups, take deliverable created for blended locations and replicate for other business groups throughout the company.
Thank You

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