The Opportunity

Customer service and support organizations that provide customer service in the field face rising costs and constant pressure from customers to deliver faster, better service. Too often, customers call contact centers with an issue with a product or service that agents are unable to resolve. Agents end up placing a request for a technician to visit the customer on site to address the issue.

These “truck rolls” typically cost companies between $100 and $200 per visit, adding up to many millions of dollars annually for firms. And for customers, these on-site visits often mean time off work and lengthy, frustrating delays in having their issue resolved. For example, Internet service customers may go days without service, and kitchen appliances may be unusable for weeks at a time over issues that may not require in-person service. And all the while, customers grow increasingly unhappy with the service provider pushing them ever closer to the dangerous churn line.

Depending on the service agreement, trucks may roll to perform scheduled maintenance – which is intended to prevent downtime – or to address an unexpected issue. Too often, trucks roll for scheduled maintenance too late – after customers experience a failure. So the goal of many service providers is to better anticipate when breakdowns in assets or services are likely to occur – and to proactively send trucks to head off potential issues.

How can your service and support organization reduce unnecessary truck rolls to cut costs and boost customer service levels? Is it possible to anticipate when problems will occur so trucks roll before customers are impacted?
Use Cases

As illustrated in the following use cases, Datameer can help you optimize truck rolls to realize key business goals.

**Identify and Address the Root Causes of Unnecessary Truck Rolls**

To reduce unnecessary truck rolls, you first need to understand the extent of the problem, the customer issues most likely to trigger them, and what factors are limiting agents’ ability to resolve issues over the phone.

Datameer helps by making it easy to build accurate, descriptive data models that combine virtually unlimited volumes of data (such as call center data logs and truck roll work orders) and adding other datasets (such as HR data on call center agents). Because Datameer is an end-to-end solution, no other third-party analytical or modeling software is needed.

In addition, every few minutes, historical call data related to all scheduled truck rolls can be funneled through a decision tree – powered by Datameer – that verifies that agents have asked all relevant questions needed to diagnose the underlying problem and take corrective action. If not, customers can be put into a queue for a call-back to complete the diagnosis process and attempt a remote resolution – before a technician visit is actually scheduled. This approach leads to fewer truck rolls, happier customers, lower overall support costs and higher technician productivity. Using Datameer, one customer created a 90% accurate prescriptive model for avoidable truck rolls, enabling a significant reduction in truck rolls and associated service costs.

**Help the Customer Help Themself**

Another source of unnecessary truck-rolls are problems the customer could have solved themselves. Often the customer may have the skills and desire to fix a problem. After all, that would be the fastest path to resolution. But they could not find the necessary online resources to help them identify, isolate and fix the problem.

Big data analytics can combine problem resolution information from truck-rolls, with web experience data from support sites to identify gaps in the online knowledge bases and support sites. The insights can drive new content and “funnels” to guide the customer through their own problem discovery, isolation and resolution process, and further eliminating unnecessary truck-rolls.
Identify and Replicate What Differentiates Top-Performing Contact Center Agents

With big data analytics, it's easy to aggregate and integrate data from diverse sources such as:

- HR employee data, such as years of experience, training and certifications, and number of hours worked
- Call center data such as customer issues handled, text data from customer conversations, calls that ultimately led to truck rolls, and more
- Field technician data on the actual diagnoses of customer issues and which truck rolls can be deemed unnecessary

Big data analytics can analyze all of this data – all at once – to reveal insights into what makes some agents more effective at diagnosing and resolving issues. Our customers have uncovered findings such as:

- More successful agents ask more questions about a diverse set of possible root causes, increasing their likelihood of diagnosing the issue.
- Agents with certain levels of training and experience order fewer truck rolls.
- During shift changes, agents try to get customers off the phone by scheduling truck rolls before they fully attempt to diagnose and resolve their problem.

Armed with insights like these about agents, you can develop targeted training, pair less experienced agents with more experienced ones, create best-practice-based question lists for specific customer issues, and more to make agents more effective problem solvers.

Analyze Data from Connected Assets to Predict Future Truck Rolls and Optimize Scheduling

To reduce the cost of customer service and optimize resource utilization, one company is using big data analytics to predict customer issues so that they can proactively address them when technicians will be in geographic proximity for scheduled customer visits.

Another customer is using big data analytics and the Internet of Things to optimize truck rolls by analyzing streaming data from sensors on wireless home alarm systems. When battery performance anomalies are detected, for example, technicians already in the area can be routed to these customer locations for quick battery replacements or repairs, ensuring system uptime and optimal use of field resources.
Datameer’s Approach

Using Datameer’s comprehensive big data analytics platform, you can analyze customer, sensor, call center, technician, and other data to identify and address the root causes of unnecessary truck rolls – and use alerts to proactively maintain assets at customer sites.

• **Use the Power of Hadoop for Analysis.** Datameer harnesses Hadoop’s linear scalability, processing power and storage to quickly aggregate structured and unstructured data with no need for data pre-aggregation, reduction or simplification.

• **Rapidly explore data and discover insights.** Datameer is a self-service environment that supports the entire analytic cycle - integration, preparation, analysis, and visualization. An easy-to-use interface and on-the-fly modeling (schema-on-read) empowers business analysts to work easily and without IT assistance.

• **Run simple to complex analytics at once.** Datameer makes it vastly easier to perform any analysis from basic to more complex analytics. Now you can combine fluid data discovery with telematics, time series, graph, and other advanced analytics for deep insights in hours, rather than months.

• **Execute production-ready data pipelines.** Analytic data pipelines are well governed and automated for specific uses, capturing the results to help you feed downstream business processes and applications.

Datameer does it all. As a result, you’re well positioned to harness your big data to innovate, compete, and grow your business.

To learn more about how Datameer can help your business, please visit [www.datameer.com](http://www.datameer.com).