



## Facing Churn in Telecommunications: Causes and Cures

### EXECUTIVE SUMMARY

Everyone used to take “the phone company” for granted. In turn, the phone company took its customers for granted. That worked when telecommunications was simple: lines carried just voice, rates rarely changed, and customers stayed a lifetime.

Then the corporate monolith splintered. Technology started changing rapidly. Competition among the providers intensified, and customers learned to churn — to blithely switch from one provider to another and often back again or over to a third one. The many descendants of The Phone Company dared not take customers for granted anymore.

Over the years, providers have responded to churn in various ways. Many tried to attract and retain customers with discounts and extra minutes, megabytes and messages, while others have taken more thoughtful strategies. The key to winning and retaining customers, it turns out, is intimate, up-to-date knowledge of customer segments.

But that’s tough to do when preferences vary by age group, region, income, and other factors, and when little of it stays the same for long. Marketing teams scramble to keep up with the many segments. The urgency is even greater in call centers, where reps want to know what offers to present to which customers while they’re still on the phone. Over in network operations, managers try to decide where to invest in new capacity for the future. In every department, the provider that’s fastest to actionable insight wins.

All that insight originates from data — data that is unbound by silos, that is integrated by those who need the insight, and that is analyzed quickly and dimension-free. The provider that consistently and correctly discerns customer segments and customer needs is the provider that engenders the most loyalty from customers and wins the most new customers.

The key is an advanced analytics platform. Speedy, self-service data analysis is step one, followed by dimension-free analysis. Predictive and event-driven analytics reveals trends, hidden relationships, and unseen patterns. Analysis done, groups across the organization view it in role-based and secure views.

Benefits show up across the organization. Managers in each department integrate and analyze data as needed, without IT help. The marketing team senses and reacts to customer segments based on data analysis. Network managers determine optimal network configuration for current and future needs. Call center representatives react to each customer's needs in a single conversation. Customers feel "seen."

Surprisingly, many providers have failed to take advantage of this advance and persist with small, inadequate tools. Meanwhile, they continue to base decisions on anecdote and "gut" — which is not surprising when old or incomplete data systems fail to inspire confidence. The provider's customers reach the call center and hear standard, mostly ineffectual responses. Its network managers forecast needs based on old patterns and hunches. Its marketing team bases offers on old results and incomplete data. The provider that goes without good tools doesn't really know the market at all.

Old reporting platforms should have been discarded along with the rotary dial, the fortunate providers acknowledge. Those who are fastest to action are fastest to insight, and the whole organization becomes smarter.

## INTRODUCTION

In the nearly 30 years of intense competition among telecommunications providers, services and customers have changed radically. The one-phone family and the voice-only office exploded. Some or all of those phones became mobile. Then data joined traditional voice. Services proliferated. New competitors entered as regulations evolved, notably the Telecommunications Act of 1996.

Regulations and customer attitudes have advanced, but not all CRM systems have. Managers charged with keeping customers happy find themselves still burdened with old systems that require IT departments to tweak data for every new question. While questions about market segments, cost per gross add, average revenue per user, and other metrics arise quickly and in fast succession, answers tend to come back slowly.

Meanwhile, deals, freebies, limited-time offers, and other tactics woo increasingly fickle customers who choose from kaleidoscopic varieties of services. The result is churn, also known as the percentage of disconnects relative to total subscribers.

## FIGHTING CHURN

Defectors might have been loyal once, but their loyalty weakened. Why? They might have felt ignored, perhaps deceived, or their needs were misunderstood.

Instinctively, organizations search for clues in their data, of which there's no shortage. Data streams in by the gigabyte all day and night from all corners: network operations, sales, marketing, billing, network statistics, device data, traffic, and usage trends, and even unstructured data from email, websites, and social media.

Analysts scour customer behavior, and the concerns and needs expressed to customer service representatives. Call records, network data, social media, and many other sources, internal and external, could give clues.

They may turn to traditional business intelligence platforms or to Excel. They scour sources for data, issuing requests to IT and then waiting and waiting. If they have direct access to data, they pull it together bit by bit from here and there, integrating it the best they can. The process is slow and awkward.

Even with all relevant data, they soon find their tool's limitations. They simply can't answer critical questions. Old assumptions have resulted in a rigid data structure, and reconfiguration takes yet another request to IT followed by the usual delay.

Collaboration? Most traditional tools have little to offer. Users with no efficient way to manage multiple voices offering expertise and insight resort to PowerPoint or Excel files over email.

### CHURN'S THREATS AND OPPORTUNITIES

Naive observers might conclude that churn isn't a serious concern. Why else would the tools to manage it be so inadequate and relevant data be so hard to use? In fact, churn carries serious threats but also some opportunities — starting with these:

**Multiple services lost.** Most customers have multiple services with the provider, such as voice, internet, and TV. When the customer cancels one service, the rest of the customer's bundle of services goes away, too.

**Social media sets off chain reactions.** It magnifies satisfaction and dissatisfaction. The number of friends and acquaintances who once heard a single person complain has ballooned into the hundreds or thousands who hear complaints on Twitter, Facebook, and other social media. Complaints ripple through to exert a strong influence on many other customers. When one customer switches, many more than ever before are likely to follow.

**Churning customers provide insight,** if it can be captured. At the moment a customer closes an account, the provider records reason codes. Though not always reliable, reasons to switch give clues to network weakness and vulnerability to the competition.

**Best data analysis wins.** Everyone's got data, and most know that thwarting churn starts with data analysis — dimension free, visualized for quick recognition, and without requiring IT help. The provider with the best data analysis tools, which make business users happy and productive, is the first to spot imminent churn, the first to offer incentives that work, the first to identify churn-inducing network trouble, and overall the first to actionable insight.

**Predictive analytics gives visibility into the unknown.** Even the most astute analysts with a full bank of data can't see everything. Predictive analytics can point even casual business users to potential trouble and, with early attention, churn stopped.

## WHAT DRIVES CHURN?

To fight churn well, providers have to understand where it comes from and how it grows. Two recent studies of churn in the telecommunications industry provide insight.

Simply put, churn is just another personal relationship, reports a 2011 study by Accenture. In “Getting Beyond ‘Nice to Meet You’: Building Customer Loyalty through Analytics in the Communications Industry,” Accenture identified several provider blind spots.

The most common showed up in a provider’s failure to set correct expectations. About two thirds of customers reported extreme frustration with service that delivered less than consumers expected. Here, sales people made promises that downstream departments never heard about and, of course, failed to deliver.

A similar disappointment occurs when advertising has promised good network coverage in locations important to the consumer, then the speeds and actual network quality fall short. If coverage can’t be brought up to expectations, customers expect at least simple recognition and perhaps special help or rewards. A provider’s failure to acknowledge problems often triggers feelings of alienation.

Three of the blind spots had to do with failure to recognize a customer’s progressive alienation. The customer-provider bond often deteriorates in stages, such as when a customer makes partial switches. Others may need simple recognition of some kind or a chance to engage with the provider.

Eventually there’s “trinket fatigue,” which is what Accenture calls an advanced stage of estrangement after a provider has tried to please customers with trivial gifts and offers.

## THE “SOFT STUFF” REALLY COUNTS

Trivial offers can be infuriating to anyone who has suffered a series of disappointments, and now only craves serious attention. Customers rate “customer service, honesty, and trust” just below strong network performance when it comes to brand allegiance, according to the 2012 study “Customer Loyalty” by PwC (PricewaterhouseCoopers) in its Consumer Intelligence Series.

The trouble is that perceptions vary. What one segment perceives as attentive service, for example, may be annoying intrusiveness to another.

Much varies by a customer’s age group. Older users tend to value consistent customer support even more than younger customers do and are less impressed with incentives. They are also much less likely to switch than younger customers, viewing it as more of an inconvenience than an opportunity.

Younger customers can decide to switch in an afternoon, perhaps lured by a competitor’s ad or just a friend’s tweet. The current provider can be out of luck when a competing carrier pitches a new phone. The PwC study quotes one customer from the 18-to-24-year-old bracket, for example, talking about leaving AT&T for a two-year stint with T-Mobile. He did it just for the Sidekick. Then he switched back again when AT&T got the iPhone.

The PwC and Accenture studies both make at least one thing clear: customer relationships are personal relationships. Providers may segment the crowd, view the segments as buckets of data, and give different priorities to each. But to the individual customer, it feels almost the same as one to one: my devices, my services, my connections. Smart providers use data to keep track of their devices, their services, and their connections.

“The only solution to churn is to create a close and binding relationship with the customer,” notes Newton’s Telecom Dictionary. “That’s not easy.”

## ANTI-CHURN TACTICS

How is a close and binding relationship with the customer achieved?

The crucial element is the availability and use of data analysis tools that are capable of responding to each user's flow of questions. How freely can analysts add data sources and analyze all the data in one view without artificial constraints? Could the analyst, for example, add a source from social media as needed and without a wait? Or take a few minutes to combine a few data sources that had never been seen side by side before and follow a wild hunch? Or share an analysis for another analysis to try out ideas?

## TWO PROVIDERS, OLD TOOLS, AND NEW WAYS

Imagine two competing providers. Both are awash in data. Each monitors an array of KPIs, each of which derive from hundreds of data sources generating a million rows of data every day.

**Provider X:** old tools. One provider persists with old tools designed for slower times. They might have a traditional BI platform. They may rely on Excel either to supplement the BI platform or on its own. The tool of choice calculates KPIs over weeks. Though the calculations are relatively simple, the volume easily overwhelms the organization's tool. When unanticipated questions arise, users have to ask IT for a reconfiguration. Users work with the IT staff so often, in fact, that they know their schedules and specialties. But IT has a backlog of other work, and they get to the data when they can.

When the manager has assembled the worksheets and made an analysis, PowerPoint and Excel files go to collaborators, who make comments and modify the files. Each collaborator keeps a copy, and "spreadmarts" proliferate. Each collaborator replies to the original analyst or sometimes to all on the list, or to just some. Before long no one's sure who's looking at which version. Confusion ensues.

**Provider Y:** analytic platform. At the other provider, an analytics platform gives ready access to current data along with the ability to manage it effectively. Analysts drag data from disparate but relevant sources into a data mashup, where it's analyzed holistically. Most analysts find this faster than pouring coffee, and all without IT's help.

Questions arise and answers quickly follow, whether with data already at hand or new data the analyst adds. They test factors such as locations or regions of the country, ages, incomes, family status, number of kids, and others.

These users find that as the analysis unfolds, the more their initial questions splinter into finer and finer questions, and answers prompt yet more questions. They see each segment's and sub-segment's characteristics unfold, such as what would make each likely or less likely to churn. The analysis also shows the relative worth of each segment. Visualizations let users grasp meaning at a glance even without a strong statistics background.

Sharing is role-based, secure, and easy. Everyone reads from the same page. Analyses can be reused and interrogated anew. The team collaborates in context and reacts fast to trends and outliers. They quickly take advantage of opportunities and mitigate weaknesses.

## SOLUTIONS: FACING CHURN BY KNOWING THE CUSTOMER

Some of the most important battles against churn occur in call centers. There, each customer service representative, or CSR, makes immediate use of any knowledge — any that's available at a glance.

The analytic platform-equipped CSR sees all relevant information on one screen, neatly displayed. It shows each caller's plan, devices, location, and other details. The CSR even sees the family members listed who are served by the caller's account. Does each member have a phone? A gentle suggestion might follow:

"I see you have a teenager who's not on your plan. Did you know that you can save...?"

In a call center running on traditional systems, however, the CSR's task is difficult. Each one of multiple data sources display data in its own interface. CSRs have to keep track of up to five or six different apps at once. Each app requires the CSR to enter the customer ID for each report. Nothing is integrated, so CSRs jot numbers with pen and paper. The customer's patience may expire before the representative can make an offer.

Those few moments are critical. The CSR's response can make the difference between alienation and allegiance: Customers who call with a problem and end up gracefully solved are more loyal than those who've never had a problem at all.

Satisfy the caller's need, and the caller will keep coming back — but only if the CSR has a full view of the customer and knows what can be offered.

**The network and customers' devices** "Your network is lousy," a customer complains to a CSR. "My neighbor has service with the other guys, and he's got great service." For this customer, the network actually could be lousy, but why? The poorly equipped CSR can't see the cause. Is it the network or a malfunctioning phone? That's information made possible by hardware feedback data that comes now in over 3G and 4G networks. Old systems can't use it in time, and the insights never reach the call center.

An important source of customer knowledge is each customer's devices. That knowledge can be put to use in the well-equipped call center.

Over in the analytic platform-enabled call center, however, the system keeps reps informed with full, 360-degree views: all of the customer's transactions and relationships with the company, their devices, their neighborhoods, frequent contacts, and other facts that contribute to customer intimacy.

The analytic platform-enabled rep knows, for example, that the caller downloaded Skype to his iPhone the week before — hinting at the imminent loss of that international-call revenue.

Another caller might also complain of bad connections. Here, network feedback streaming from the caller's device indicates a hardware fault in the person's device. The CSR resolves the issue neatly: "I see something's gone wrong in your Android. I'd like to ship you a new one."

Subtle warnings that a customer is about to churn, too small for the rep to catch, can be detected in the platform's predictive and event-driven analytics.

**Angel or demon?** The CSR may also make use of an estimated customer value. Let's face it, some customers just aren't worth saving. The opposite of the highly profitable "angels" are the "demons." The demons are not only less profitable than average, the provider actually loses money on them. Feed the angels, starve the demons.

A 2011 Pitney-Bowes whitepaper, "Customer Centricity in the Telecommunications Industry," proposes estimating each segment's lifetime value. The formula involves ARPU (average revenue per user), churn and retention rates, CPGA (cost per gross add), revenue, and other common data.

Any metrics, whether traditional or novel, are just trivia unless they're actionable. Such action usually takes place first in the call center.

## RECOMMENDATIONS

Remember telephone operators? They gave way to direct dial. Later, the sound of dialing became just muted beeps, and still later even the beeps went silent. That same kind of direct effect and automation — fluid, direct, and fast — is how a modern analytics platform boosts business insight in telecommunications.

The telecommunications industry moves too fast for the old ways of siloed data, backroom data integration, and lockstep analysis. Business analysts can't wait weeks to take the customers' pulse. By the time insights arise in old systems, customers may have endured network faults, flirted with offers from their providers' competitors, and moved on even before the account is officially closed. They hang up on the current provider so fast that no one even hears the click.

Real competitors don't wait for the fatal moment. They look far into the data to spot triggers and events that warn of imminent churn, realizing real insight into the unknown. Analysts integrate the data they need, as they need it without help from IT, for systematic monitoring — whether the data's on geography, handset performance, calls to customer care, or anything else.

The modern analytic platform propagates insights in role-based and secure views wherever they're needed, and wherever analysis might incite collaboration. Call center displays, for example, alert representatives to signs of imminent churn — and give the reps a full view of a customer's relationship. Even better, it gives a full menu of available offers for the customer's expected lifetime value. The quality of each interaction rises, and loyalty grows, when the company shows it truly knows what the customer needs.

Real competitors make full use of modern predictive and event-driven analytics, which often point out to analysts what human analysis could never have detected. These advanced statistical models work behind the scenes to reveal trends, anomalies, opportunities, and risks.

Real competitors tap the whole organization for insight. Role-based, secure analysis stimulates collaboration. Ideas, hypotheses, and insights flow among peers, advisors, and suppliers. Content in context provokes rich discussions for valuable contextual collaboration. Real competitors know that to be just a few seconds ahead is sometimes all they need to stem churn and win the game. In the end, the score is the only number that counts.

## FURTHER READING

- A 5-Minute Guide to CRM Analytics <<http://spotfire.tibco.com/home/asset-download.aspx?assetId=E0E132522BD54976A0DA85F3441CBE20>>
- A 5-Minute Guide to Business Analytics <<http://spotfire.tibco.com/home/asset-download.aspx?assetId=B37FFBC9710B4BE48FFC96AAEAED4E5C>>
- The Foundations of Analytics: Visualization, Interactivity and Utility: The Ten Principles of Enterprise Analytics <<http://spotfire.tibco.com/~media/content-center/whitepapers/10-principles-of-analytics.ashx>>

## REFERENCES

- Pitney-Bowes, “Customer Centricity in the Telecommunications Industry” <<http://slp.pbinsight.com/info/insight-Centricity>>
- Fortune magazine, “Make No Mistake?” <[http://money.cnn.com/magazines/fortune/fortune\\_archive/2001/12/24/315311/index.htm](http://money.cnn.com/magazines/fortune/fortune_archive/2001/12/24/315311/index.htm)>
- PwC, “Customer Loyalty,” Consumer Intelligence Series <<http://www.pwc.com/us/en/industry/entertainment-media/publications/consumer-intelligence-series/index.jhtml>>
- Accenture, “Getting Beyond ‘Nice To Meet You,’” <<http://www.accenture.com/us-en/Pages/insight-customer-loyalty-analytics-summary.aspx>>



**TIBCO Spotfire**  
**281 Summer Street,**  
**3rd Floor**  
**Boston, MA 02210**  
**+1 866-240-0491 TEL**  
**+1 617-702-1700 FAX**  
**www.tibco.com**  
**spotfire.tibco.com**

TIBCO fuels digital business by enabling better decisions and faster, smarter actions through the TIBCO Connected Intelligence Cloud. From APIs and systems to devices and people, we interconnect everything, capture data in real time wherever it is, and augment the intelligence of your business through analytical insights. Thousands of customers around the globe rely on us to build compelling experiences, energize operations, and propel innovation. Learn how TIBCO makes digital smarter at [www.tibco.com](http://www.tibco.com).

©2013-2014, 2017. All Rights Reserved. TIBCO, TIBCO Software, the TIBCO and Spotfire are trademarks or registered trademarks of TIBCO Software Inc. in the United States and/or other countries. All other product and company names are marks mentioned in this document are the property of their respective owners and are mentioned for identification purposes only.  
11/10/17