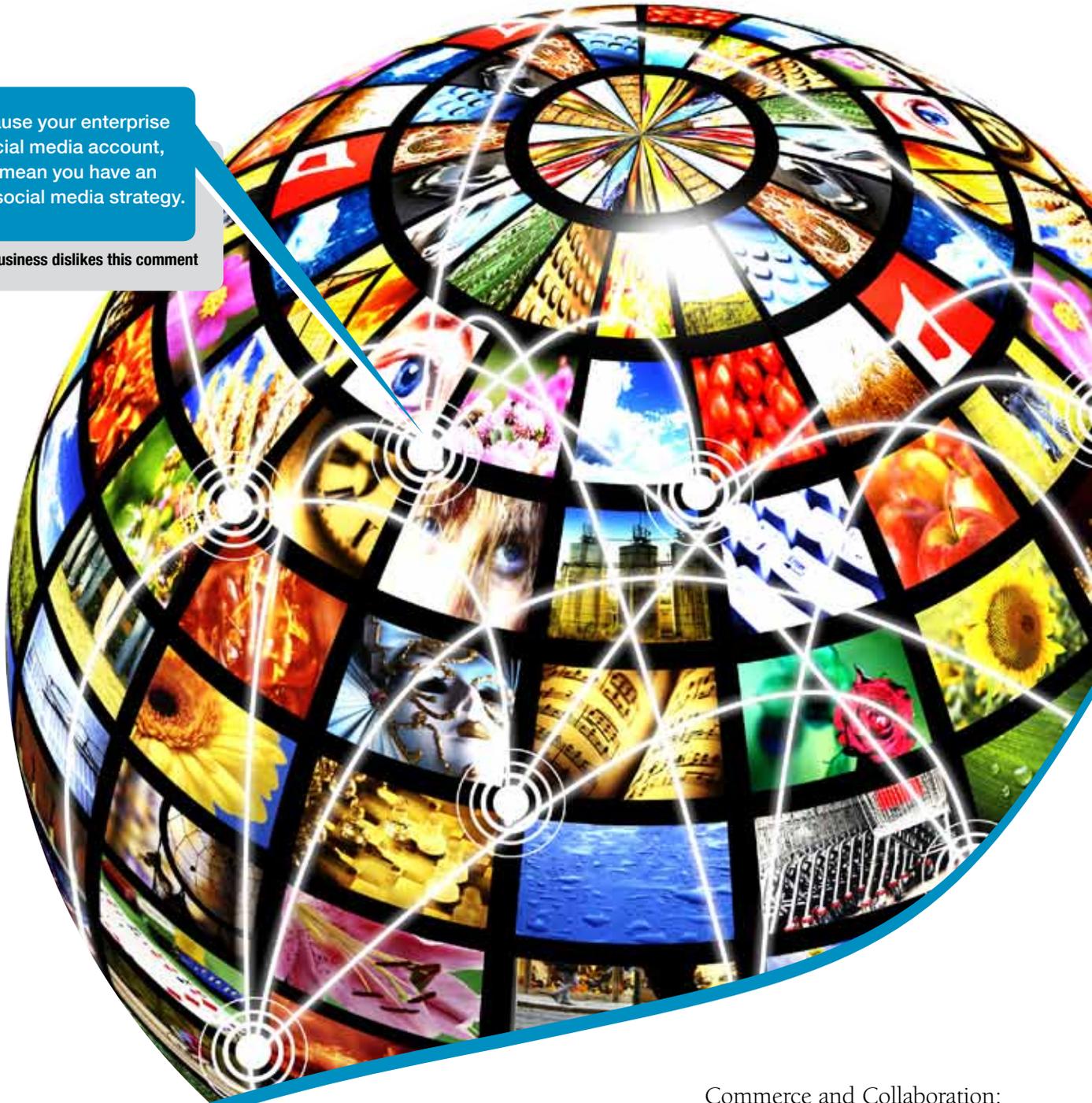


Just because your enterprise has a social media account, doesn't mean you have an enterprise social media strategy.



Business dislikes this comment



Commerce and Collaboration:
Social media for today's telecom company

Crisis of Inertia

No. 2 in a four-part series

Wouldn't you think, BY NOW, my service provider would have enough information about me to at least know which services I'm buying from THEM!

I know, RIGHT!

I'm about to tweet this service issue, and if I don't get a response soon, I'm switching!



Business dislikes this comment

You fickle, young consumers expect everyone to respond immediately to everything in whatever medium you decide to use today. Do you know how much infrastructure that takes?



Telecom companies are beginning to understand that social media offers an unprecedented opportunity to build a new, richer relationship with their clients. Already consumers are engaging across a variety of interactive channels, having learned how to divide their attention among simultaneous online activities. Yet many enterprises still fail to harness the potential of social media.

Too often this challenge is promoted from insulated IT systems that lack a basic understanding of a customer's behavior and experience across different services. The challenge for telcos is to understand social media across platforms, channels and devices that span customers' working and personal personas. Today, customer data resides in silos in discrete business units. Inflexible business processes and physical technical constraints mean it cannot easily be shared. As a result no one person, channel or platform has a single view of the customer. This is the challenge of structured legacy IT systems, which lack the agility to manage unstructured data intelligently.

Overcoming the challenges of social media lies in the enterprise's ability to deliver consistent, carefully-aligned messages across all interactive channels whether handling a customer complaint, delivering a marketing message or being sure to deliver channel-appropriate content based on your consumers' pattern of engagement. Telcos recognize the problem, but they are hampered from tackling it effectively by legacy IT systems and the need to review entrenched business practices.

Not only is change costly, it can also be risky if they misjudge their step in this fast-moving market. Such challenges can be addressed as we investigate further into the "Crisis of Inertia."

Under Pressure

Today enterprises already juggle many difficult choices. Leaders within the organization need to plan product launches, price services, choose channels, manage operations, measure performance and shape corporate culture. And they have to do so amid constant disruption. Facebook illustrates the speed with which new internet services can come from nowhere and change everyone's understanding of the competitive landscape. Yet it is hard to tell in advance whether, how and when new technologies and services will hit a telco's business resulting in churn, reductions in margins and increased operational expenses. In 1997, many debated whether Bluetooth would supplant Wifi and many assumed that Wifi was going to kill mobile operators, but they didn't. Today, Netflix, GoogleTV, and Apple TV and others are in the process of usurping current cable TV business by offering content-on-demand. Such an evolution from the open internet into an on-line eco-system of loosely coupled APIs are shaping the wholesale and consumer markets. Customers are buying services differently. The only certainty is that service growth and diversification are putting networks, pricing and customer care departments under pressure. In all the upheaval, social media can appear to be just one more hard-to-gauge opportunity.

The risk is such that an implementation will be a long costly, headache. Business units need to be brought onboard and staff retrained. The net present value can be unclear. What if you finish a mammoth IT project and realign business processes to discover the market has moved on to the next big thing? What if the sole net gain is additional legacy IT systems to integrate? Given the dangers of the unknown, it can seem safer to wait and see how social media takes shape elsewhere. After all, few large enterprises have taken social media initiatives beyond one-off marketing or communication initiatives.

I've been hearing system integrators tout flexible platforms for years. Aren't our new systems supposed to adapt? Anyone remember SOA?



Business likes this comment

Exploiting Potential

Nevertheless, there are indications that social media continues to impact large enterprises customer service and support teams.. One example is Best Buy. They have been widely lauded for having hundreds of employees provide customer support on Twitter through a service called “Twelpforce.” The employees’ participation is tracked by a custom-based system, measuring engagement and overall customer satisfaction.

However, not all large companies that deploy social media exploit its potential. Capgemini has encountered companies that simply provide their 800 numbers via Twitter. That brings a call center back into the customer support value-chain, driving cost, increasing time to service and reducing the opportunity to engage customers through social media. Instead, companies need to create a social media policy and train staff to use it. Any query that surfaces on a social media channel should be tracked across multiple channels and customer care systems until it is resolved and measured with overall customer satisfaction. Companies also have the opportunity to mobilize their customer base, building credibility and reinforcing their brand across on-line communities. All this means providing a flow of information between social media and other forms of customer management systems, all of which is easier said than done.

Bypassing Complexity

The reality is that any telco looking at social media first has to consider the software they already have in place. Normally that means a complex back office system. Indeed, integrating legacy technology is the biggest hurdle to adopting new technologies. That explains why more agile organizations are moving faster than large enterprises to embrace social media, building credibility and reinforcing their brand across on-line communities. Their relatively simple IT infrastructure means they can.

Capgemini research has discovered that many operators, for example, are already adopting new OSS and BSS systems based on today’s simple, cheap, industrialized “cloud” infrastructure. New service oriented architecture (SOA), master data management (MDM), and semantics technology (see Figure 1)) enables enterprises and medium-sized businesses to be more agile in detecting and addressing market needs quickly. They can also scale their consumption of software for running business processes according to their needs. In this way, they link their operational costs to growth with service demand.

Deploying social media technology is becoming easier. Today’s cloud computing, SOAs and semantics software allow large enterprises to bypass IT complexity and introduce new services. Capgemini is helping telecommunication companies use packaged software tools with virtualized platforms and open standards to make information technology agile, cost-effective, scalable, and secure.

My new modem isn't working, and I can't get online to ask a support question! Oh, hey, I'll tweet from my phone! LOL



Customers like this comment

If You've Got it, Use it

Change is needed. Existing IT systems are often poor at exploiting what should be a telco's greatest wealth: customer data. Telcos collect huge swathes of information about their customers, but typically fail to store it in a way that makes it useful. Instead it stacks up in multiple databases that do not interconnect because they are each built out of different legacy technologies. As a result, call center staff struggle to pull up data in real time and frustrate customers by asking them to repeat information.

Many telecommunication organizations have Facebook pages and Twitter accounts. In addition, a few thousand enterprises are already searching Twitter for mentions and engaging customers. Yet that is only the start of extending self-service automation, given that companies can combine better service with lower costs: it costs \$10 dollars to answer a query and less than ten cents to address an issue proactively on-line.

In addition, the marketing and customer care departments cannot mine data quickly enough to react to service problems or buying trends. And anyone who wants to run social media and mobility services will find the data they need unavailable or under-leveraged. Capgemini is helping telcos deploy modern concepts of semantics and data services to unify the customer data elements, opening up the possibility of real-time realization of the macro- and micro-behavior of customers.

The Whole Picture

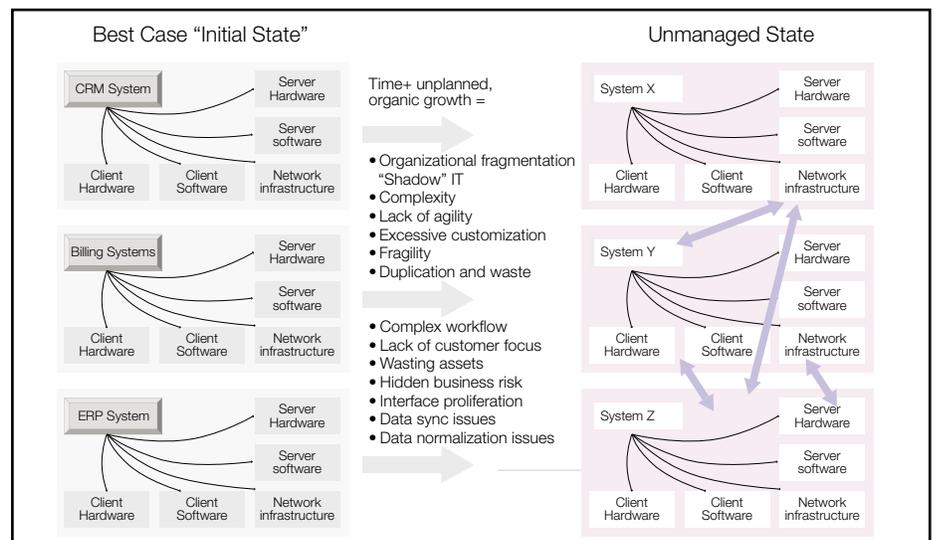
Keeping workflows for sales, support, and billing in silos supported by inflexible, vertical software stacks makes it hard for a workforce to collaborate. It also means no one shares a complete view of the customer. These reasons alone should be drivers for change. Yet attempts to re-engineer IT processes typically meet with resistance from vested interests such

as customer care organizations or billing system providers.

Meanwhile, the usual work-arounds, such as outsourcing or building an extra layer of infrastructure using internal resources, fail to solve the problem if there is no strategic re-evaluation of working methods. Instead, companies risk wasting time and money. So what should telecommunications companies do? They need software for revenue management, enterprise resource planning, customer care provisioning and the activation or modification of customer-facing services. What they don't need is for these systems to diminish the agility that is required for analytics and customer management. But as we have seen, that is exactly what happens.

Typically, a mature company will run several hundred or even thousands of software systems, each built on separate client-server architectures (Figure 1). Not only is this expensive to run, it allows data to fall through the cracks, thereby restricting service innovation, customer care and collaboration.

Figure 1: Complexity and Proliferation of IT Systems





This is dangerous in a fast-changing market where your competitors are not just companies that look like you. Today's telcos need a clear view of the competitive horizon. They need an up-to-the-minute understanding of how their customers are reacting to services, pricing policies and changes in technology.

Dangerous Diseconomies

Companies are hindered with complexity that increases the marginal cost of doing business, stifles innovation and makes it harder for employees to work together. The economic term "diseconomies of scale" fits today's industry, as the marginal cost of production begins to exceed marginal revenue. In fact, efforts to support basic and new products and services can become so burdensome that the ancillary impact is significant.

Turnover rate and training costs increase, the productivity of front-line employees declines, and customer satisfaction suffers. Large numbers of interfaces can turn simple processes, such as signing on a new customer or changing some aspect of a customer's rate plan, into major undertakings.

Business history is littered with incumbents that have been displaced by newcomers that deploy new, disruptive technologies with lower operational costs. In the late 1990s, US long-distance telecommunication companies tried to innovate with expanded product features, but were held back by complex and expensive infrastructure. Suddenly, the new mobile phone companies, unencumbered by a legacy infrastructure, started winning over subscribers with convenience, friendly features and eventually the cheaper price points that opened the door for mass market adoption and saturation. The long-distance segment consolidated and declined. Today, VoIP providers are being squeezed on margin and customer retention due to the uptake of Skype and Google Voice. Indeed Google's success is

in part due to its use of standard low-cost Intel servers to build data centers connected to IP networks unhindered by legacy infrastructure.

Even if competition were not an issue, there are other reasons to simplify processes. Today, many IT departments are buckling under the strain of trying to tack new projects onto old systems. Faced with limited capital budgets, IT departments are forced to prioritize. The outcome is often a compromise that pleases no one. This compounds internal clients' perception of IT departments as incompetent, which in turn pushes employees to develop their own solutions.

But a customer care team that uses social media tools or tools like TweetDeck in an ad hoc manner risks creating security and integration headaches for everyone else. The data collected will be unavailable to marketing, business operations, or product management teams. The resulting lack of organizational alignment exaggerates cost inefficiencies, exacerbates organizational silos, and ultimately worsens the customer experience.

The successful introduction of social media into an enterprise is dependent on strategic planning around a modern IT architecture. Otherwise, it is likely to be a complicated, risky and costly proposition.

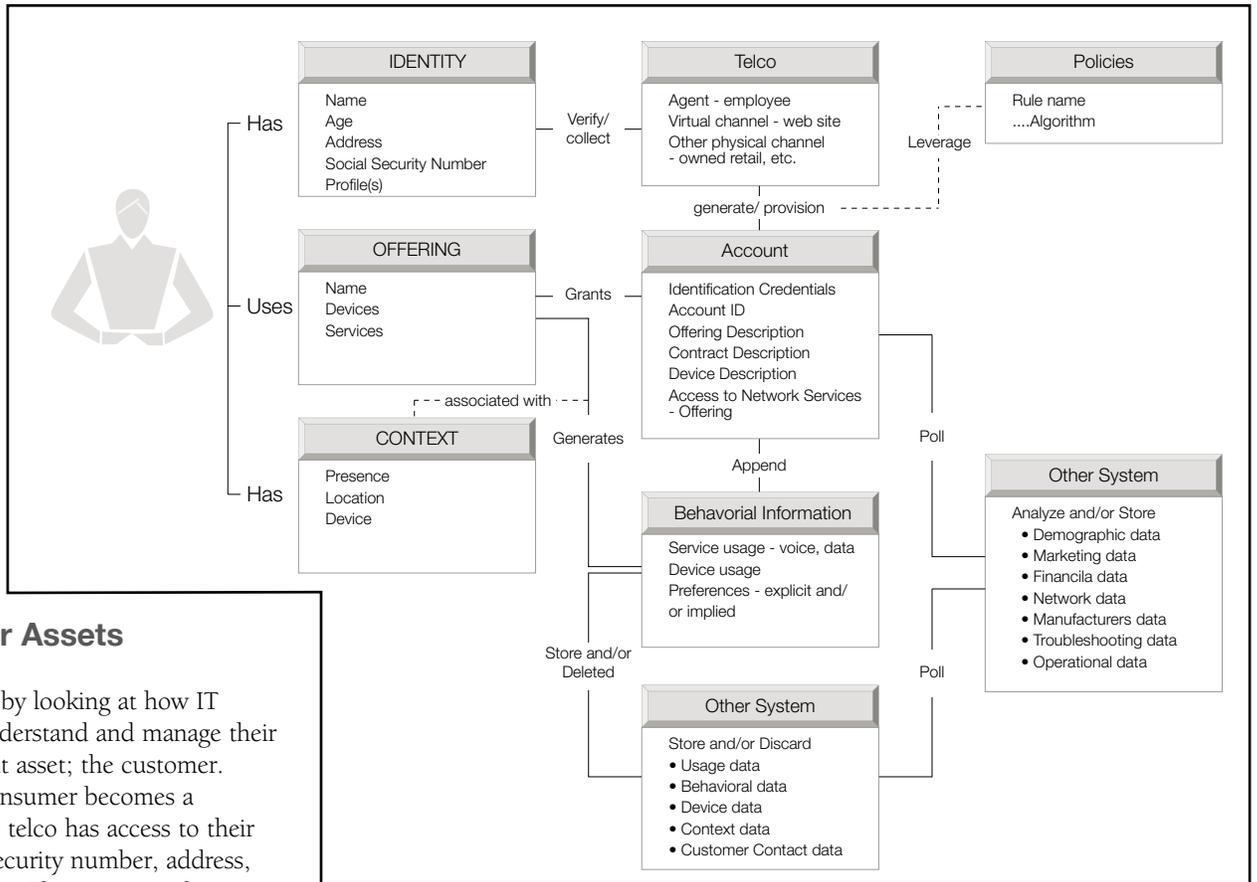
Many mature telcos today know that inflexible technologies materially impact their bottom line. They can see how rigid information silos inhibit innovation, negatively impact employee productivity and hurt even traditional interactions with customers. They understand the danger of diseconomies of scale. They need to be asking, "What is our path for adopting these new technologies and changing our business for the better?"

What I wanted was simple. You'd think I was asking them to connect me to the International Space Station!



Competition likes this comment

Figure 2: Disparate Data Sources Don't Allow for One View of the Customer

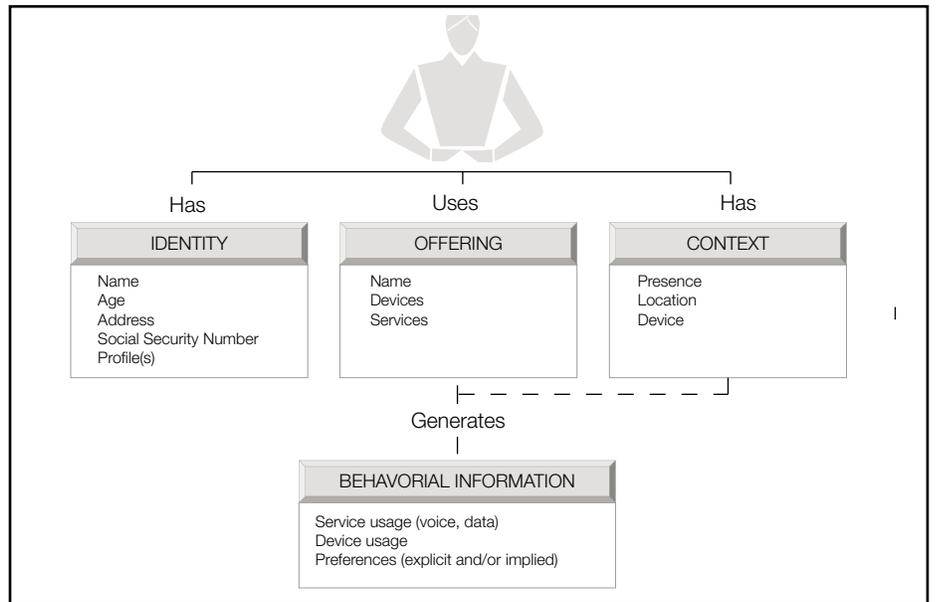


Know Your Assets

They can start by looking at how IT helps them understand and manage their most important asset; the customer. When a US consumer becomes a subscriber, the telco has access to their name, social security number, address, and credit score. The company then adds service and billing information to create the customer’s account credentials. However, when it comes to collecting and analyzing behavioral data, few telecommunication companies do a good job.

Figure 2 illustrates how the data associated with a customer is typically “organized” within a company’s technical architecture. The only behavioral information that feeds into the account record is related to service events, such as when a customer calls for help. Meanwhile, key information relating to customer behavior — the how, when, and why the customer uses the offering — is stored in other systems and not made readily available to key business stakeholders in marketing and product development. The dispersal of customer data in multiple, separate databases leads to a load of problems (see Figure 3).

Figure 3: Behavioral Information Typically Relates to Service Events Only



² MSISDN (Mobile Subscriber Integrated Services Digital Network Number): A number uniquely identifying a subscription in a GSM or a UMTS mobile network; the telephone number of the SIM card in a mobile/cellular phone. The MSISDN together with IMSI are two important numbers used for identifying a mobile subscriber.

A Shared Perspective

Not having access to key, real-time customer information is an obvious drawback. A full picture of the subscriber opens up new revenue streams, facilitates the creation of targeted services and pricing, and makes it easier to seal advertising, marketing and wholesale deals with third parties. But in many telcos, inaccessible data is not the only problem. Different departments and channels can find themselves with contradictory views of the customer. A classic example is the “engineering view” of a customer equaling a valid MSISDN and IMSI, versus the “billing view” of a customer representing a person with a valid account that is associated with one MSISDN, one or more lines, and a service order code map.

Failure to deliver high-quality messages across all interactive channels can confuse and frustrate your customers, while increasing your chances that your messages will be overlooked or simply ignored.

Understanding a customer identity based on this interaction is the key to developing persona, profile and entitlements with security. In practice, multiple views are inflexible and hard-to-reconcile, severely limiting how new offerings are defined and promoted. Data integrity issues proliferate, causing the enterprise to set up teams to manually keep the data “in sync” across several systems. As a result, data is not available in real-time and when a customer calls for help, the service representative cannot see crucial data such as the kinds of transactions initiated in other channels. This means customers are likely to receive inconsistent information on pricing, features, availability, and service eligibility, depending on which channel they use to contact the company.

For instance, a customer care system might define eligibility for a product this way:

Customer > 2 years + credit score > 670 = Eligible

Meanwhile, retail might define eligibility in a slightly different way:

Customer > 24 months + approved credit = Eligible

As a consequence, consumers could be denied product through the care channel because their credit scores are 650 or because they’ve been customers for 729 days. However, they could still be given product through the retail channel if a credit agency approves their credit or if 729 days is rounded up to 24 months.

This variation in the customer experience causes confusion, resulting in calls to the operator and lost sales. Under such circumstances the hope of modeling consumer behavior in response to new offerings is illusionary. Without a centralized view of a customer, operators cannot effectively use information about geo-location and data usage patterns, for example, to drive new revenues and better manage customers. Multiple, separate databases further compound the problem. If a customer uses a company’s website to enter information in order to speed up transaction time, they may well discover when they call with a request that the customer care employee cannot access it. The customer will waste time by giving the information all over again. Separate databases also hinder service introduction. Service automation is difficult because multiple data sets have to be coordinated. If one isn’t in sync, the workflow breaks. If a new product is launched, or a business rule is changed, then a large number of separate data stores have to be populated with the same master data.

I just entered that data online, and you want me to give it to you over the phone? This is like health care!



Business dislikes this comment

Often the representation of data varies from system to system, resulting in a cumbersome process that causes delays to product rollouts.

What is missing from legacy technology is a “virtualized customer database,” which stores in real time all data associated with a customer and makes it available to any corporate system that appropriately requests access. Such a database would have to be structured, secure, and extensible. But it would free data from individual applications. Instead of being holed up in application-specific databases, data would be accessible to multiple applications via a common data source. Without that type of solution, customers will continue to be underserved, and telcos will find it hard, if not impossible, to leverage the power of social media to get closer to them.

Self Service, Now

Once core processes are in place, they are hard to dislodge — regardless of changes in customers’ service expectations or harshening competitive conditions. So rather than developing a new strategy to cope with changing market conditions, companies look for stop-gap solutions that seem easier in the short term. When it comes to customer care, for example, the default solution is to put an employee in front of the customer (see Figure 4).

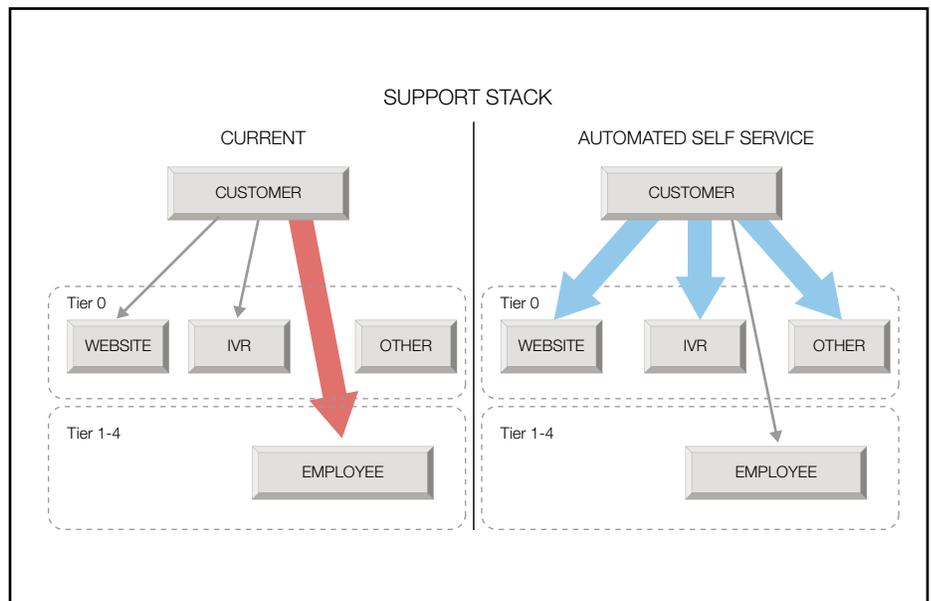
This is costly and over time will undermine an operator’s margins. It is also out of step with customer expectations, which have been reset by the Internet. Customers increasingly expect self-service for simple transactions.

For the average bank customer, not having access to an ATM would be unacceptable. And self-service is a win-win business model: customers gain control over when they perform transactions, while the company benefits from greater efficiency and reduced costs.

In this context, social media provide an emerging channel of commerce and collaboration. A user who posts a question or comment on Facebook or Twitter expects an immediate response. Automation is not only tolerated, it’s embraced if it proves relevant. In these stressful economic times — when telecommunication companies are worried about market saturation, customer loyalty, and operating efficiency — social media offer a real opportunity to provide a compelling customer experience. Like any disruptive technology, social media are forcing companies to reassess their operations. More than ever, a company’s leadership has to think outside traditional silos and vertical organizations. A horizontal approach is the way to deliver consistent and continuous customer connectivity across multiple channels.

“It is a good thing to follow the first law of holes; if you are in one, stop digging.” — Denis Healey

Figure 4: Differences in the Customer Support Paradigm



In Conclusion

Telecommunication companies have spent a lot on IT systems for customer care, revenue management, and enterprise resource planning. They have invested heavily in hardware, software, staff and consulting only to find the ROI is often suspect at best. Little surprise that business leaders are reluctant to spend even more. Instead, they prefer containment policies. But there are new technologies that allow companies to combine a strategic, top-level approach to business with existing systems -- namely the implementation of services-oriented architecture (SOA), master data management (MDM), and "cloud" technologies.

Overall, adoption of cloud technologies has been slow because of uncertainty about security in a multi-tenant environment. There are concerns about the transferability of data from one cloud provider to another and how the lack of industry practices relating to the liquidation of a cloud service provider might affect the data and applications hosted in the cloud. Companies also wonder about their ability to customize the software.

Yet, right now, the cloud is providing small and medium businesses scale and that could prove disruptive to the industry at large. With its pay-as-you-go cost structure and its suitability for temporary applications, the cloud can also act as a migration environment for an IT transformation. This contrasts with an IT containment strategy, which takes a lot of expertise, money, and discipline if new technologies are to provide a return on investment. In addition the payoff comes at the end of the implementation cycle, with all the risk loaded into the front end.



In No. 3 of our four-part series — *A Path Forward* — we describe how packaged technical solutions can successfully and cost-effectively address the needs of telecommunication companies.

Thank goodness! I was hoping you were going to tell us how to pull all this together in a workable solution.



Business likes this comment

New Technologies to Make the Transition Easier

Service Oriented Architecture (SOA) is a “traffic cop” that orchestrates the sequences of actions performed by multiple applications during the course of a pre-defined workflow. It is heavily dependent on building services that act as interfaces to the applications and on a central processor that is programmed to call upon applications when a function is required in a pre-determined sequence that represents a workflow. When correctly implemented, SOA improves speed-to-market for new offerings. It also has a material impact on the speed with which third parties can be integrated into an infrastructure.

Master Data Management (MDM) is the use of a common set of definitions for terms such as “product” or “customer” which then dictate the behavior of an application. For example, if “Plan X” has a cost attribute set at \$10/month, then any application that uses “Plan X” in its code should use “\$10 dollars/month” as defined by the MDM repository. Without an MDM repository, a company has to set up many different applications’ master data to a given value. That challenge often results in operational failures since invariably errors are made when the attributes of an offering are

changed over time in a large number of parallel systems. Like SOA, MDM can improve speed-to-market for new product releases and ease third-party integration.

Cloud Computing refers to several technologies. One is grid computing, which describes clusters of CPUs that distribute tasks among them and enable high volume, high performance computing. Another is autonomic computing, which are “self-healing” and automated resource management techniques that promote resource availability and efficient resource use. In addition is utility computing, which involves measuring and managing infrastructure in units of resources, that can result in better network bandwidth and reduced latency. There are also improved technologies for multi-tenant environments, related to dynamic computing, storage networks, and security, as well as server virtualization, SOA, and MDM. The cloud is usually abstracted into three layers — application, platform, and infrastructure — each of which is managed as a “service.” Large telecommunication companies have most commonly adopted the infrastructure layer, for which open standards exist.



About Capgemini

Capgemini, one of the world's foremost providers of consulting, technology and outsourcing services, enables its clients to transform and perform through technologies. Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working, the Collaborative Business Experience™. The Group relies on its global delivery model called Rightshore®, which

aims to get the right balance of the best talent from multiple locations, working as one team to create and deliver the optimum solution for clients. Present in more than 35 countries, Capgemini reported 2009 global revenues of EUR 8.4 billion (approximately USD \$11.6 billion) and employs 100,000 people worldwide. More information is available at

www.us.capgemini.com

Contact



Matthew Standish

Capgemini
Mobility and Social Media Service Line Leader
Matthew.standish@capgemini.com
Phone: 1.404.910.6686
Follow Matthew on Twitter @matthewstandish