

September 2009

## **Delivering The Next-Generation Subscriber Experience**

The Broadening Of A Convergent BSS Approach  
Is Required To Meet Key Customer Management  
Challenges Of Service Providers

A commissioned study conducted by Forrester Consulting on behalf of  
Comverse, Inc.

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## TABLE OF CONTENTS

|   |    |
|---|----|
| Executive Summary .....   | 3  |
| Introduction .....  | 5  |
| A Definition Of Customer Management .....                             | 7  |
| Service Providers' Most Important Customer Management Goals .....     | 8  |
| Capabilities Included In Service Providers' Definition Of CRM .....   | 10 |
| Strength Of Service Providers' Customer Management Capabilities ..... | 13 |
| Conclusions .....   | 15 |
| Appendix A: Methodology And Respondent Demographics .....             | 18 |
| Appendix B: Service Provider Goals .....                              | 19 |
| Appendix C: Customer Management Capability Definitions.....           | 20 |
| Appendix D: Endnotes .....  | 23 |

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## Executive Summary

In September 2008, Comverse, Inc. commissioned Forrester Consulting to evaluate the management challenges and opportunities that operators face to deliver the compelling and differentiated customer experiences required to excel in a crowded and competitive market. The study addressed four questions:

- 1) What are communication service providers' most important customer management/customer relationship management (CRM) goals?
- 2) What capabilities are included in service providers' definition of customer management/CRM?
- 3) How strong are service providers' customer management capabilities now?
- 4) What are the characteristics of the customer management solutions needed to enable service providers to be successful?

In conducting an in-depth survey of 100 business and operational support systems (BSS/OSS), marketing, sales, and customer care executives and managers from around the world, Forrester found that a convergence of customer care, marketing, sales, and BSS/OSS solutions is required so that service providers can address key customer relationship management challenges and deliver "the next-generation subscriber experience." Service providers that fail to adopt leading-edge solutions risk being left at a competitive disadvantage.

## Key Findings

Service providers of all types face a variety of challenges as they develop and deliver a wide variety of communications services. A number of factors drive demand for flexible BSS/OSS as well as CRM systems, such as: 1) increasing competition from traditional and new entrants; 2) declining revenue streams from legacy communication services; and 3) the many implications that convergent network technology entails. Service providers are racing to offer customers new types of communication services and bundles, minimizing churn and growing revenues from existing subscribers, and improving the subscriber experience. Based on this study, Forrester found that:

- **Service providers include many capabilities in their definition of customer management.** Almost all of the service providers Forrester surveyed said "customer care" and "self-directed customer interactions" fall squarely within their definition of customer management. This was also true for the capabilities associated with "service and support." And the great majority of service providers said that "marketing," "sales," "installation," and "revenue management" capabilities are included in their definition of customer management.
- **Attracting and keeping customers are the top business objectives.** Service providers' most important goals are "keeping customers." However, "controlling costs" is also important, and strategies to "attract new customers" and "sell more to existing customers" are among the top five service provider goals.
- **Service providers struggle to meet top customer-facing business, revenue, and operational objectives.** For example, although "keeping customers" is the No. 1 goal, most service providers report that their capability falls short of what is needed. "Reducing costs" is the second most important goal, but many feel they are not fully achieving this objective either. Finally, it is important to service providers to build their revenues through "adding new services"; again, they are not as capable as they would like to be in this area.
- **Customer care capabilities are not fully mature.** Although traditional customer care capabilities are rated as highly important by service providers, some of the largest capabilities deficits were reported for this category. For example, "phone agent support" is the most important capability

## Delivering The Next-Generation Subscriber Experience

needed by service providers, but they rate this capability as falling short. This is also true for “call center infrastructure,” “customer service analytics,” and “customer self-service ordering.”

- **Weak OSS/BSS capabilities threaten customer management success.** Several capabilities associated with OSS/BSS are considered of high importance for effective customer management, but service providers feel their strength is less than required. For example, some of the largest capability gaps reported are: “service fulfillment,” “service assurance,” and “service provisioning.”
- **Sales and marketing capabilities need improvement.** Service providers also report deficits for a cluster of important sales and marketing capabilities. With respect to sales, the shortfalls include: “opportunity management,” “sales performance management,” and “contact and activity management.” “Marketing offer management” also shows a significant deficit.
- **Siloed solutions cannot bridge capability gaps.** Provisioning, billing, and customer service systems must be flexible enough to support the rapid introduction of new applications and services. Additionally, communication service providers must link billing and provisioning information with 24/7 customer support provided through a variety of channels (e.g., email, chat online, phone) to ensure consistent customer management. Results from this study highlight the growing importance of integrating the billing, customer service, marketing, and sales capabilities as part of a complete customer management solution for service providers.
- **A convergent BSS/OSS architecture can address the capability gaps.** A convergent BSS architecture that unifies sales, customer management, BSS, and OSS helps service providers address capability gaps identified in this study. By removing integration points, reducing complexity, and increasing agility, service providers can address key business objectives, improve customer management, and increase ROI. Important aspects of a converged solution include: 1) single-system support for sales, marketing, order management, customer management, charging, and billing, covering the entire customer life cycle; 2) flexibility to support customers using various networks and business models including policy-based plans, hybrid business models, usage-based awards, predictive marketing, and mobile advertising; 3) a centralized view of subscribers and product information; and 4) real-time, personalized marketing support.

## Introduction

In September 2008, Comverse, Inc. commissioned Forrester Consulting to evaluate the management challenges and opportunities that service providers face to deliver compelling and differentiated customer experiences required to excel in a crowded and competitive telecommunications market. The study addressed four questions:

- 1) What are service providers' most important customer management/CRM goals?
- 2) What capabilities are included in service providers' definition of customer management/CRM?
- 3) How strong are service providers' customer management capabilities now?
- 4) What are the characteristics of the customer management solutions needed to enable service providers to be successful?

We surveyed marketing, sales, customer care, and BSS/OSS decision-makers at 100 service providers from around the world, including the regions of North America, Latin America, Europe, and Asia Pacific. Sixty percent were service providers in mature geographic markets, and 40% were from emerging markets. A little more than one-half of the service providers offered primarily wireless services, and the rest offered primarily wireline/fixed-line services. Sixty percent were tier one service providers with at least 10 million subscribers, and 40% were tier two service providers with between 5 million and 10 million subscribers.

See Appendix A for details of the survey methodology and breakdown of respondent demographics.

## The Strategic Challenges Facing Service Providers

Service providers of all types face a variety of challenges as they develop and deliver a wide variety of communications services. The following factors drive the demand for a flexible business and operational support system as well as customer relationship management capability:

- **Increasing competition from traditional and new entrants.** Traditional telecom service providers must step up to the challenge from new competition in the market. These traditional service providers now compete with cable companies for consumer voice and Internet access. Communication service providers must also compete with new premier brands and a leading online auction company which are increasingly active in the communications space. Wireless carriers must address increased competition in the wireless data arena not just from other cellular carriers but also from municipal Wi-Fi networks and emerging "my-fi" offerings, as well as continued emergence of service bundling by broadband service providers.
- **Declining revenue streams from legacy communication services.** Wireline service providers continue to see declining voice revenues due to price pressure, VoIP service displacing access lines, and cord cutters' move to wireless. While the trend is not as strong for mobile service providers, the same decline is occurring in those circles as well.<sup>i</sup> Telecom service providers have deployed multiple strategies to grow their top-line revenues including: using new services (e.g., IPTV), deploying new technology (e.g., 3G, 4G), and engaging in mergers and acquisitions (M&A).<sup>ii</sup>
- **Convergence on many different levels.** Convergence is occurring on various fronts in the telecommunications industry. First, as telecom service providers continue to evolve toward an all IP network infrastructure, their goal is to use a single platform to support voice, data, and video content over fixed and mobile networks. Second the convergence of networks through fixed mobile converged (FMC) and IP multimedia subsystem (IMS) solutions enables service providers to deploy new types of services and bundles to

## Delivering The Next-Generation Subscriber Experience

customers over communications, smartphones, and entertainment devices. Third, systems convergence via business transformation is also occurring, driven by the need to reduce overall operational costs to the service providers' business. Traditionally, telcos implemented discrete systems to provide products to customers and dealt with the IT/BSS/OSS infrastructure silos to support different vertical offerings. However, in the past decade we have seen convergence of information and communications technology (ICT) to streamline business operations. All of these activities by telecom providers need to improve the cost structure and efficiencies of their IT and communications operations.

### Success Requires New Services And Focus On Customer Care

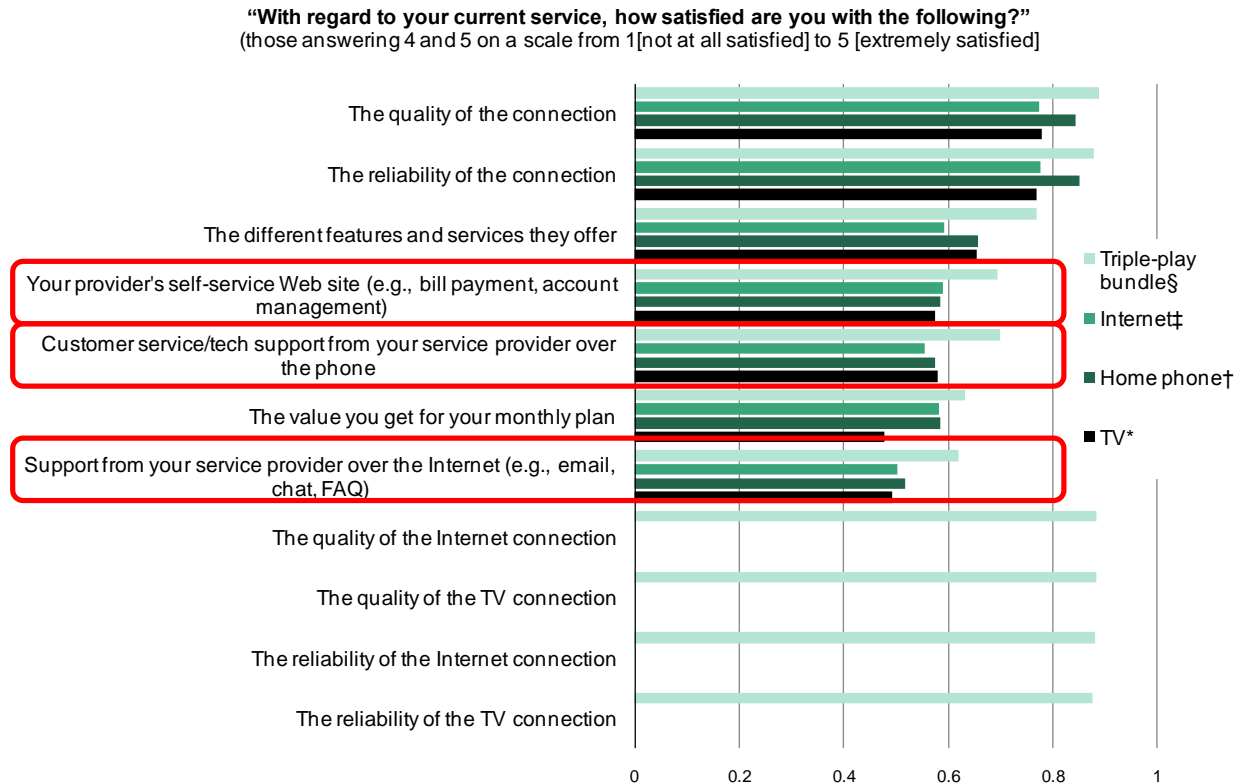
To stay competitive and continue to grow market share, service providers must deploy new types of bundles and offerings that address the needs of individual customers. In addition, it is important for service providers to minimize churn from existing customers and ensure the efficiency and accuracy of service and support capabilities across a variety of different channels. Some of the key challenges facing service providers include:

- **Offering customers new types of communication services and bundles.** To replace declining traditional voice service revenues, service providers must quickly deploy new types of communication offerings and bundles to customers, and businesses which want new types of solutions that relate to their needs (e.g., unified communications). In the US, cable companies now offer triple and quadruple-play bundles of voice, video, data, and wireless service to customers. Provisioning multiple services, deploying bundled service components, providing customers with the flexibility to view bundled service bills online, and providing real-time charging all improve the quality of the services for the end customer but add complexity to the BSS/OSS management for these services.
- **Minimizing churn from existing subscribers.** All communication service providers are worried about keeping their existing customers happy and minimizing churn, which is the frequency at which consumers switch between one or more service providers for their home TV, phone, wireless, IP/data, and bundled services. Many factors drive customer propensity to churn including cost, quality of service, and customer care. By focusing on solutions to address these key churn drivers, communication service providers can minimize or prevent churn and improve customer loyalty in the increasingly competitive landscape.
- **Improving customer care capabilities.** Over the past 20 years, there has been downward pressure on the price of communication services, forcing incumbent service providers to compete in other areas including customer support and service reliability, instead of only on price. Some communication service providers are taking a comprehensive approach to competing on value rather than price, where "value" is defined as meeting the needs of customers at a competitive price that is profitable for the company.<sup>iii</sup>

Competing on various aspects of customer value requires a more rigorous approach to marketing than service providers have shown in the past because it requires a detailed understanding of what value means to customers. In the US, for example, there is room for improvement in customer care, according to consumer subscribers for TV, home phone, Internet, and bundled services.<sup>iv</sup> Satisfaction levels for customer care — in any channel — fail to break 60% for TV, home phone, and Internet customers. Bundle subscribers tend to be satisfied with the customer care from their service providers, possibly because bundle subscribers benefit from dealing with a single provider, making for a better and more satisfying customer care and service experience (see Figure 1).

## Delivering The Next-Generation Subscriber Experience

**Figure 1 Customer Satisfaction Levels In the US Highlight Opportunities For Improvement**



\*Base: 1,285 US online consumers with TV service

†Base: 1,191 US online consumers with home phone service

‡Base: 1,198 US online consumers with Internet service

§Base: 705 US online consumers with a triple-play bundle

Source: North American Technographics® Telecom and Internet Access Online Survey, Q3 2008

## A Definition Of Customer Management

The full scope of the business processes that service providers must manage to support direct and indirect interactions with customers has a variety of definitions. Some service providers refer to this as managing their “moments of truth.” Other terms used are: “customer management,” “customer care,” “customer relationship management,” and “customer interaction management.” For purposes of this study, Forrester defines customer management to be:

*The set of processes and supporting technologies used to acquire, retain, and enhance customer relationships.*

The specific business activities that fall within this definition, as viewed by service providers, are described later in this study.

## Service Providers' Most Important Customer Management Goals

What are service providers' most important customer management goals? To find out, Forrester asked service providers to evaluate the relative importance of their key business goals and assess how successful they are in meeting these goals.

### Sixteen Business Goals Were Evaluated

Service providers were asked to consider 16 business goals, in three categories: business objectives, revenue generation objectives, and operational objectives. For each objective, service providers were asked to rate the *importance* of each goal for their organization on a five-point scale (1 = "not a priority at all" and 5 = "very high priority"). And service providers were asked to rate how *successful* their organization is at achieving the goals at the present time, also using a five-point scale (1 = "not at all successful and 5 = "very successful").

Using these two sets of service provider ratings, Forrester calculated a "gap" score for each goal. "Achievement" gaps are the difference between service providers' rating of the "importance" of the specific objective and their rating of their "success" in achieving the objective. (See Appendix A for the list of the 16 service provider business goals).

### Service Providers Agree On Top Business Issues

Service providers report that their most important goals are to reduce customer churn (keep their existing customers), while controlling costs (see Figure 2). Forrester found that:

- **Attracting and keeping customers are top business objectives.** Service providers' most important goal is "keeping customers" (4.49). However, "controlling costs" is also important (4.41). Strategies to "attract new customers" (4.40) and "selling more to existing customers" (4.25) are among service providers' top five goals.
- **Adding new services is an important revenue-generating objective.** Service providers report that "adding new revenue streams (e.g., new services in real-time environment)" (4.13) is among their top 10 goals.
- **Attention to efficiency is the most important operational objective.** Service providers seek to drive increased revenue but are also attuned to the need to manage business processes and costs carefully. Their most important operational objective is "minimizing time to launch new services" (4.17). Service providers also place high importance on "reducing the cost of serving existing customers (or accounts)" (4.16) and "optimizing billing and collections" (4.15).

## Delivering The Next-Generation Subscriber Experience

Figure 2: Top Ten Service Provider Business Priorities

| Business Objective   | Priority |
|--|----------|
| Keep customers   | 4.49     |
| Reduce costs   | 4.41     |
| Attract new customers  | 4.40     |
| Sell more to existing customers                                      | 4.25     |
| Minimize time to launch new services                                 | 4.17     |
| Reduce the costs of servicing existing customers (or accounts)       | 4.16     |
| Optimize billing and collections                                     | 4.15     |
| Offer new services   | 4.13     |
| Add new revenue streams e.g. new services in a real-time environment | 4.13     |
| Increase ARPU by increasing data services revenue                    | 4.12     |

Source: A commissioned study conducted by Forrester Consulting on behalf of Comverse, fall of 2008.

### Service Providers Struggle To Meet Their Most Important Business Priorities

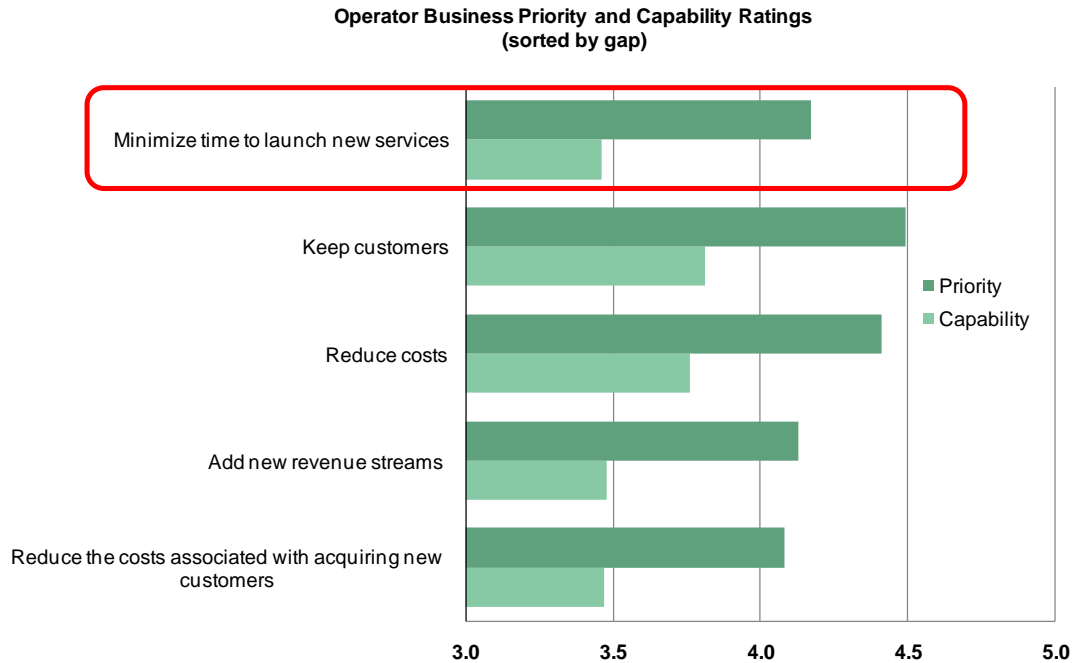
Forrester found that service providers feel challenged in meeting their top customer-facing business, revenue, and operations objectives (see Figure 3). Compounding the challenge, the largest “gaps” in service provider ability to successfully address their goals are also associated with their most important priorities. Forrester found that the largest shortfalls were:

- **Minimizing time to launch new services.** Service providers rate minimizing the time it takes to launch new services as their fifth most important priority (4.17), but they are not successfully meeting this goal (3.46), resulting in the largest success achievement deficit score (“gap”) of all objectives (.71).
- **Keeping customers.** Although keeping customers is the No. 1 most important goal (4.49), service providers report their success rating falls short (3.81). This is the second largest achievement gap (.68).
- **Reducing costs.** Reducing costs is the second most important service provider goal (4.41), but service provider success was evaluated to be less than ideal (3.76) and is the third largest achievement gap (.65).
- **Adding new revenue streams (e.g., new services in a real-time environment).** Service providers feel challenged in building their revenues through adding new services. Launching new services is rated as a relatively important (4.13) objective, but service providers feel challenged in meeting this goal (3.48), reporting a large achievement gap (.65).
- **Reduce the costs associated with acquiring new customers (or accounts).** Cost efficiency is important to service providers, particularly with respect to acquiring new

## Delivering The Next-Generation Subscriber Experience

customers (4.08). But service providers feel their success is subpar (3.47), reporting a significant achievement gap (.61).

**Figure 3: Top Five Service Provider Business Priority And Capability Ratings**



Base: 100 CRM or OSS/BSS decision makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Comverse, fall of 2008.

## Capabilities Included In Service Providers' Definition Of Customer Management

What capabilities are included in service providers' definitions of customer management and/or CRM? Forrester asked service providers to reflect on a broad range of business capabilities and indicate which of these proficiencies they considered to be within the scope of customer management for their organizations.

### Service Providers Include Many Capabilities In Their Definition Of Customer Management

Service providers considered 43 business capabilities, making up eight categories of business capabilities necessary to support the full *customer-interaction cycle* from product development, marketing, selling, and installing to providing customer care, revenue management, and service support (see Figure 4).

The specific capabilities evaluated by service providers were:

- **Product and service life-cycle management.** This category includes capabilities related to product management, digital commerce and advertising, and service delivery and control.

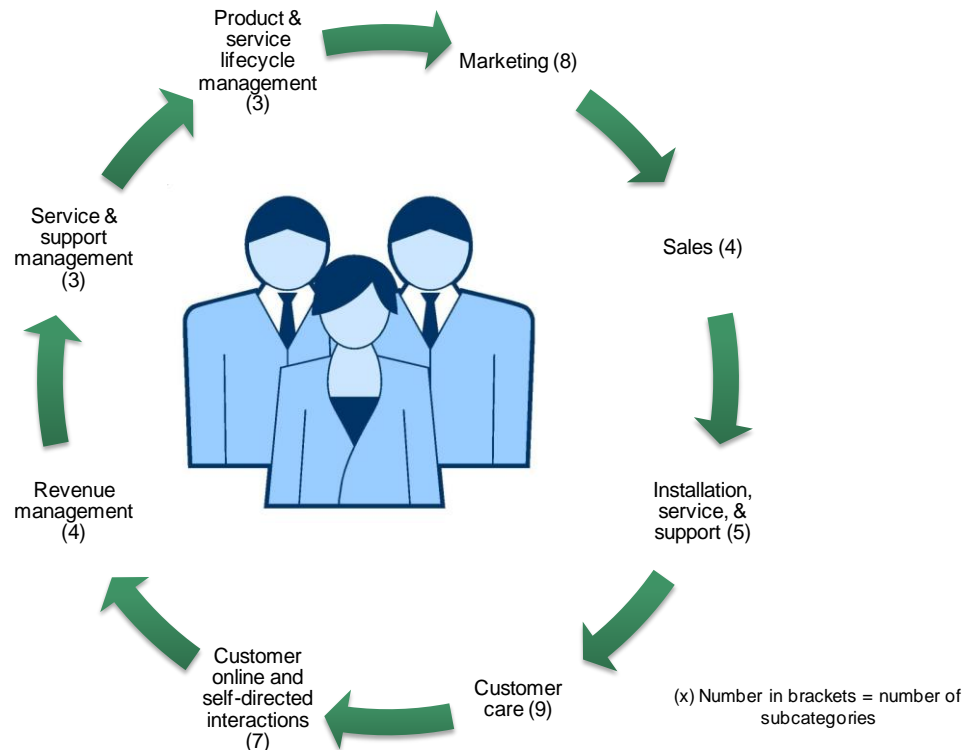
## Delivering The Next-Generation Subscriber Experience

- **Customer care.** This category includes capabilities related to phone agent support, call center infrastructure, agent collaboration tools, knowledge base, self-service-to-live-service transition, email response management, customer forums, workflow engines, and customer service analytics.
- **Customer online and self-directed interactions.** This category includes capabilities related to product catalog and content management, eMarketing, customer self-service ordering, customer self-service support, customer self-service billing, customer pricing and contracts, and customer self-service reporting.
- **Marketing.** This category includes capabilities related to marketing planning and resource management, marketing campaign design, customer selection and segmentation, marketing offer management, marketing campaign execution and tracking, marketing interaction management, marketing lead management, and marketing analytics.
- **Sales.** This category includes capabilities related to contact and activity management, opportunity management, sales performance management, and sales analysis.
- **Installation and service and support.** This category includes capabilities related to field service, scheduling, mobile capabilities, spare parts management, and depot repair.
- **Revenue management.** This category includes capabilities related to converged pre-paid/post-paid billing, mediation, settlement, and revenue assurance.
- **Service and support management.** This category includes capabilities related to service provisioning, service fulfillment, and service assurance.

Full definitions available in Appendix C.

## Delivering The Next-Generation Subscriber Experience

Figure 4: Customer Interaction Cycle



Source: A commissioned study conducted by Forrester Consulting on behalf of Comverse, fall of 2008.

We found that:

- **Service providers include traditional “customer care” capabilities within their definition.** Perhaps not surprisingly, almost every service provider said “customer care” and “self-directed customer interactions” fall squarely within their definition of customer management, specifically phone agent support, call center infrastructure, knowledge base, customer service analytics, agent collaboration tools, service workflow engines, self-service-to-live-service transition, customer self-service support, customer self-service billing.
- **OSS/BSS capabilities are also considered to be part of customer management.** At least 90% of service providers identify three capabilities associated with “service and support” to be included in customer management: service provisioning, service fulfillment, and service assurance. This was also true for “product life-cycle management” capabilities, including product management, digital commerce, and advertising. These two “installation service” and “service support management” capabilities were also included by virtually every service provider surveyed: core field service functionality and scheduling.
- **Marketing, sales, installation, and revenue management are also key components of the customer management cycle.** Fully three-quarters, or more, of all the service providers surveyed indicated the capabilities that support “marketing,” “sales,” “installation,” and “revenue management” to be part of their definition of the requirements for effective customer management.

## Strength Of Service Providers' Customer Management Capabilities

How strong are service providers' customer management capabilities? To find out, Forrester asked service providers to evaluate the relative importance of their customer management capabilities and assess their company performance relative to each capability. For each capability, service providers were asked to rate the *importance* of each for their organization on a five-point scale (1 = very low and 5 = very high). For each capability, service providers were asked to judge their company's *performance*, also on a five-point scale (1 = poor and 2 = outstanding).

Using these two sets of service provider ratings, Forrester calculated a "gap" score for each capability. A "capability gap" is the difference between service providers' rating of the "importance" of the specific capability and their rating of their "performance."

### Service Providers Rate Both "Customer Care" And "OSS/BSS" Capabilities As Important For Customer Management

Service providers report that the most important capabilities for meeting their customer management requirements include traditional customer care capabilities but also include abilities typically associated with OSS/BSS solutions, marketing, and sales.

Forrester found that:

- **Many of the most important capabilities are customer-care related.** "Phone agent support" is rated as the most important customer management capability. Other capabilities closely related to phone agent support — "call center infrastructure," "service assurance," "knowledge base," and "customer self-service ordering" — are also very important in the minds of service providers. All of these fall within service providers' top 10 priorities.
- **OSS functions including service fulfilment, service provisioning, and service assurance have high importance ratings.** Not only do service providers consider that many business capabilities traditionally associated with OSS/BSS fall within their definition of customer management requirements, several rise up to the top 10 on their list of importance. These include: "service fulfilment," "service provisioning," "service assurance," "product management," and "service delivery and control."
- **Marketing capabilities are also important.** Several business capabilities associated with marketing are among the top in service providers' ratings of importance. These include "customer selection and segmentation," "marketing offer management," and "marketing campaign executions and tracking."
- **Sales capabilities are vital for effective customer management.** Many service providers serve commercial markets. Therefore, managing sales activities effectively is considered to be essential. For example, the sales capability of "contact and activity management" is rated among the most important capabilities. And nearly as important are other sales capabilities like "opportunity management" and "sales performance management."

## Service Providers Struggle With Customer Management Capability Gaps

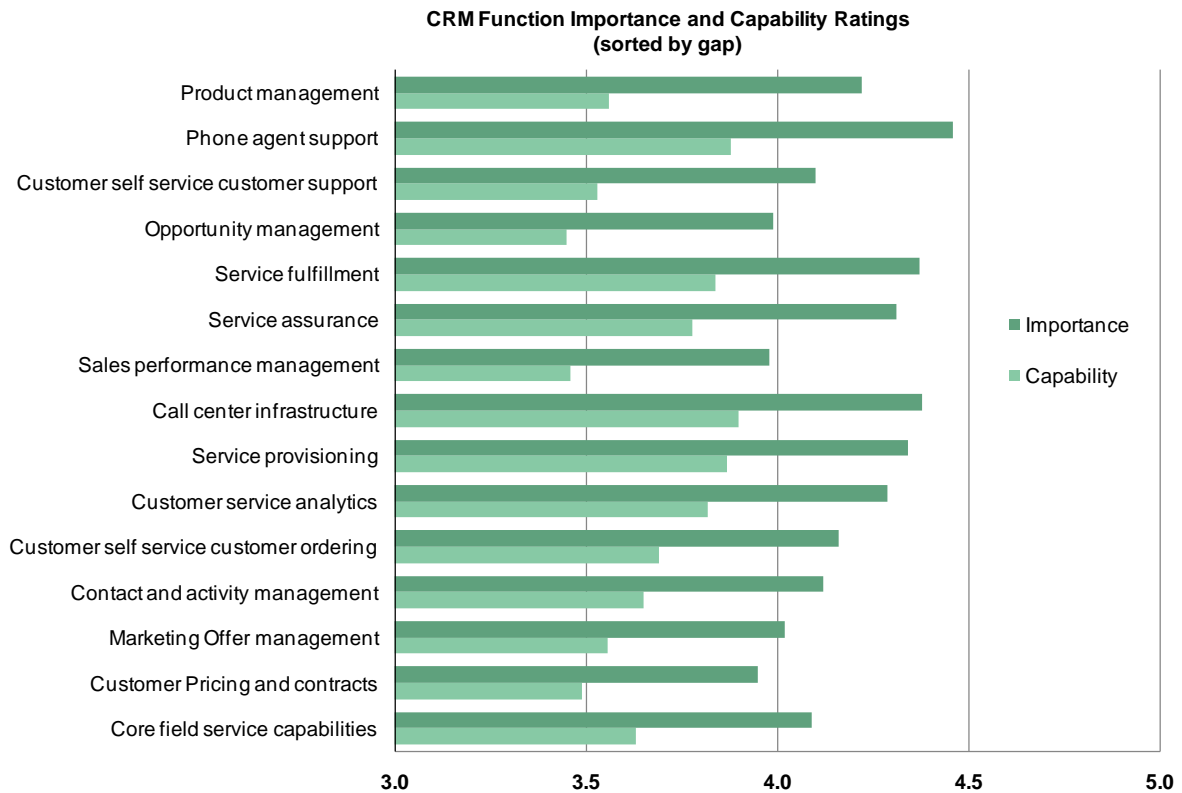
Forrester found that service providers rate the strength of their customer management capabilities to be lacking in many of the areas they consider to be most important for effective customer management. These include the functions associated with customer care, OSS/BSS, and sales and marketing (see Figure 5).

Forrester found that:

- **Customer care capabilities are not fully mature.** Although customer care capabilities are rated as highly important by service providers, some of the largest capabilities deficits are reported for this category. For example, “phone agent support” is the No. 1 most important business capability (4.46), but service providers rate their capability as falling short (3.88), resulting in a large reported achievement gap (.58). This is also true for “customer self-service support” (.57 gap), “call center infrastructure” (.48 gap), “customer service analytics” (.47 gap), and “customer self-service ordering” (.47 gap).
- **Weak OSS/BSS capabilities threaten customer management success.** Several capabilities associated with OSS/BSS are considered of high importance for effective customer management, but service providers feel their strength is less than required. For example, some of the largest capability gaps reported are: “service fulfillment” (.54 gap), “service assurance” (.54 gap), and “service provisioning” (.47 gap).
- **Sales and marketing capabilities need improvement.** Service providers also report deficits for a cluster of important sales and marketing capabilities. With respect to sales, the shortfalls include: “opportunity management” (.54 gap), “sales performance management” (.52 gap), and “contact and activity management” (.47 gap). “Marketing offer management” shows a significant deficit (.46 gap) and is among the top 15 largest capability gaps.
- **Product management has the biggest capabilities gap.** Consistent with challenges service providers face to manage and launch new services, “product management” capabilities were rated by service providers as having the biggest gap (.66) between importance and strength of capability. This category includes the capabilities associated with the enterprise product catalog and product and offer management and optimization.

## Delivering The Next-Generation Subscriber Experience

Figure 5: Top Fifteen Customer Management Capabilities' Importance And Capability Ratings



Base: 100 CRM or OSS/BSS decision makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Converse, fall of 2008.

## Conclusions

What are the characteristics of the customer management solutions needed to enable service providers to be successful? Forrester found that a convergence of sales, marketing, customer care and BSS/OSS solutions is required to enable service providers to address key customer management challenges and deliver “the next-generation subscriber experience.” Service providers that fail to adopt leading-edge solutions that unify the management of these key concepts risk being left at a competitive disadvantage.

### Capability Gaps Cannot Be Addressed By Siloed Solutions

Service providers told Forrester that they face important challenges in effectively managing customer interactions. In fact, their top five most important challenges are keeping customers, attracting new customers, selling more to existing customers, and minimizing the time to launch new services while at the same time reducing costs.

It is also evident from this research that service providers define the business capabilities needed to meet their customer management requirements very broadly. Therefore, effective customer management cannot be supported by relying on traditional “siloed” solutions alone. The evidence for this conclusion is the fact that the top 15 customer management capabilities that are **both** highly

## Delivering The Next-Generation Subscriber Experience

important to service providers, and where they struggle with the largest capability deficits, span multiple functions. In order to succeed in highly competitive markets, service providers need strong customer management capabilities that combine not only customer care but also sales and marketing and BSS/OSS system functions (see Figure 6).

**Figure 6: Customer Management Capabilities With The Greatest Capability Gaps**

|                                 | Customer Care | Sales & Marketing | BSS/OSS |
|---------------------------------|---------------|-------------------|---------|
| Product management              |               |                   | √       |
| Phone agent support             | √             |                   |         |
| Self-service customer support   | √             |                   |         |
| Opportunity management          |               | √                 |         |
| Service fulfillment             |               |                   | √       |
| Service assurance               |               |                   | √       |
| Sales performance management    |               | √                 |         |
| Call center infrastructure      | √             |                   |         |
| Service provisioning            |               |                   | √       |
| Customer service analytics      | √             |                   |         |
| Self-service customer ordering  | √             |                   |         |
| Contact and activity management | √             |                   |         |
| Marketing offer management      |               | √                 |         |

Source: A commissioned study conducted by Forrester Consulting on behalf of Comverse, fall of 2008.

## Extending BSS Convergence Closes Service Provider Capability Gaps

Historically, sales, customer management, and BSS/OSS were developed as discrete, siloed systems, and even when integrated, each has a different way of defining customer profile and account information that drives up system complexity, increases costs, and increases the likelihood of out-of-sync data. These challenges are compounded by the fact that service providers must expand their revenue streams by offering new bundles of converged voice, video, and data services, which requires information to be gathered from these varied systems and managed across them. It is critical for the BSS, OSS, and customer service systems to provide accurate provisioning, deployment, and billing of these services in real time. In addition, there is a demand for 24/7 availability of customer support through a variety of channels (e.g., email, chat online, phone).

Service providers need to ensure that their BSS/OSS and customer service strategy can support these new converged requirements. Important aspects of these converged solution requirements are highlighted in the key findings of this research study:

- Single-system support for sales, marketing, order management, customer management, charging, and billing covering the entire customer life cycle.**

Historically, customer management touchpoints (e.g., Web, IVR, CSR, and marketing) use their own means of storing, accessing, and manipulating data, resulting in multiple versions

## Delivering The Next-Generation Subscriber Experience

and unique views of data. This significantly hampers the ability of service providers to provide consistent customer care, causes business logic duplication, and yields inconsistent results in each system. Many of the capability gaps identified in this study are driven by these disparate provisioning, billing, and customer care systems, each using specialized ways of defining and managing customer data. Unifying these systems streamlines the business logic, uses a single point of reference for data, and provides a consistent view of market offerings and customer information across all service provider functions. This unified customer information should be available through various channels (e.g. Web, IVR, point of sale, and mobile devices) to ensure customer and product information is readily accessible. In addition, by centralizing all customer and product information, service providers can improve the efficiency and effectiveness of the customer life-cycle management process.

- **Flexibility to support customers using any network service and various business models.** BSS and customer experience processes must be flexible enough to support new business models and to deploy services across various networks. In an increasingly converged communications environment, service providers must support evolving business models (e.g., multiple payment types per account, balance sharing across family accounts, multiple accounts associated with a single phone number), and be prepared to deploy services in a real-time environment over any network. Using a convergent BSS approach helps to address these requirements.
- **Support for real-time, personalized marketing.** Service provider BSS/OSS and customer care systems must enable sales and marketing teams to quickly and accurately identify segments of opportunity and relevant offers for customers in real time. In addition, these services must be provisioned, billed, and supported efficiently and accurately. The timely, accurate analysis and use of this information to define campaigns across services and to launch these services based on real-time subscriber activity can provide service providers with a key advantage in this highly competitive market.

The “siloes” approach to sales, customer management, and BSS/OSS is not sufficient for service provider success in the evolving and highly competitive telecommunications market. To address key strategic challenges — new competitors, declining revenues from traditional telecom services, and convergence everywhere — service providers require a holistic view of customers and their subscribed services. In addition, communication service providers must be able to flexibly provision, bundle, and execute on market opportunities quickly and efficiently and deliver a subscriber experience that supports sales and marketing capabilities. These critical success factors are attainable when BSS/OSS, customer management, sales, and marketing systems are unified.

## Appendix A: Methodology And Respondent Demographics

In this study, Forrester conducted a phone survey of executives and managers from 100 service providers made up of a cross-section of organizations from around the world to explore four questions: 1) What are service providers' most important customer management/CRM goals? 2) What capabilities are included in service providers' definition of customer management/CRM? 3) How strong are service providers' customer management capabilities now? 4) What are the characteristics of the customer management solutions needed to enable service providers to be successful?

Data collection was completed via 30-minute telephone interviews using a structured questionnaire. Survey participants included marketing, sales, customer care, and BSS/OSS decision-makers and were screened to meet specific criteria with regard to their functional role within the organization, the size of the company, primary geography, and primary type of services offered. The survey questions focused primarily on an evaluation of the relative importance of their business objectives, the capabilities they considered to be within the scope of "customer management," and the strength of these capabilities at their organization. Respondents were not offered incentives to participate in the survey. The interviews began in September 2008 and were completed in November 2008 (see Figure A1).

In this survey:

- Respondents were screened to meet specific criteria:
  - Service provider size
    - Tier 1: more than 10 million subscribers
    - Tier 2: between 5 million and 10 million subscribers
  - Participation in CRM or OSS/BSS decision-making process, including:
    - Set budgets
    - Set strategy
    - Choose vendors
    - Authorize purchases
  - Functional role in organization, including:
    - CIO or CTO vice president of customer care
    - Senior-most CRM (customer relationship management) decision-maker
    - Senior-most OSS or BSS decision-maker
    - Senior executive outside of IT (e.g., CEO, COO, CMO)

## Delivering The Next-Generation Subscriber Experience

- Executive who reports to the CIO or senior-most CRM/OSS/BSS executive, manager or director of CRM/OSS/BSS

**Figure A1: Distribution Of Interviews**

|                   |                     |                    |                |                    |
|-------------------|---------------------|--------------------|----------------|--------------------|
| <b>REGIO</b>      | North America<br>21 | Latin America<br>9 | Europe<br>48   | Asia Pacific<br>22 |
| <b>RESPONDENT</b> | CRM<br>41           |                    | OSS<br>42      |                    |
| <b>TIE</b>        | Tier One<br>60      |                    | Tier Two<br>40 |                    |
| <b>MATURIT</b>    | Mature<br>61        |                    | Emerging<br>39 |                    |
| <b>SERVICE</b>    | Wireline<br>45      |                    | Wireless<br>55 |                    |

Base: 100 CRM or OSS/BSS decision makers

Source: A commissioned study conducted by Forrester Consulting on behalf of Comverse, fall of 2008.

## Appendix B: Service Provider Goals

|   |
|---|
| <b>Business Objectives</b>  |
| Attract new customers   |
| Offer new services  |
| Sell more to existing customers   |
| Keep customers  |
| Reduce costs  |
| <b>Revenue Generating Objectives</b>  |
| Add new revenue streams e.g. new services in a real-time environment  |
| Enable cross-platform integration e.g. voice features integrated with television services (phone number popping on TV screen) |
| Build new marketing offerings, brands, & bundles  |
| Increase ARPU by offering triple/quad play services   |
| Increase ARPU by increasing data services revenue   |
| <b>Operational Objectives</b>   |
| Minimize time to launch new services  |
| Minimize time to enter new markets  |
| Achieve price optimization  |
| Optimize billing and collections  |
| Reduce the costs associated with acquiring new customers (or accounts)  |
| Reduce the costs of servicing existing customers (or accounts)  |

Source: A commissioned study conducted by Forrester Consulting on behalf of Comverse, fall of 2008.

## Appendix C: Customer Management Capability Definitions

Service providers considered 43 business capabilities, making up eight categories of business capabilities necessary to support the full *customer-interaction cycle* from product development, marketing, and selling and installing to providing customer care, revenue management, and service support.

| CRM Capability                                     | Definition   |
|--|--|
| <b>Product &amp; Service Life Cycle Management</b> |  |
| <b>Product management</b>                          | Supports capabilities such as Enterprise Product Catalog and Product & Offer Management Optimization Services  |
| <b>Digital commerce and advertising</b>            | Supports the ability to sell new products and services such as non-traditional solutions e.g. Content enhanced services such as entertainment and advertising. |
| <b>Service delivery and control</b>                | Support capabilities for a single convergent system that can cover all channels, networks and across lines of business   |

|  |   |
|--|---|
| <b>Customer Care</b>                           |   |
| <b>Phone agent support</b>                     | Supports capabilities such as: Incident management, Escalation subsystem, Previous call history, Previous self-service history, Products/purchase visibility, Entitlements, and Scripting.  |
| <b>Call center infrastructure</b>              | Supports capabilities such as: Blended agent support, Globalization, CTI integration, Call timers, Assignment management, Security, and Reporting.  |
| <b>Agent collaboration tools</b>               | Support capabilities to enable agent-to-agent chat to help agents assist one another in resolving a customer issue  |
| <b>Knowledge base</b>                          | Supports capabilities such as: Guided agent advice, Dynamic FAQ lists, Multilanguage content, Capture viewed content, Content authoring and publishing, and Granular content access controls.                                     |
| <b>Self-service to live-service transition</b> | Supports capabilities such as: Click-to-call back, Transfer of history to live agent, Customer-to-agent chat, Proactive chat, Automated chat dialogs, Page push and co-browsing, Chat transcripts, and Full-contact transcribing. |
| <b>Email response management</b>               | Supports capabilities such as: High-volume capacity, Email business processing, and Integration with live agents.   |
| <b>Customer forums</b>                         | Supports customer forum capabilities such as: Integration to eService suite, Moderated forums, and User registration and maintenance.   |
| <b>Workflow engine</b>                         | Supports workflows and follow-up activities.  |
| <b>Customer service analytics</b>              | Supports customer care with analytics tools to provide insight into data, business processes, systems/operations, and customer needs.   |

## Delivering The Next-Generation Subscriber Experience

| Customer Online & Self-Directed Interactions    |   |
|---|---|
| <b>Product catalog and content management</b>   | Supports capabilities for on-line catalog and content management  |
| <b>eMarketing</b>                               | Supports on-line marketing capabilities such as: Campaigns, Personalization, and Cross-sell/upsell.   |
| <b>Customer self service customer ordering</b>  | Supports capabilities to allow customers to shop, order and configure products and services through an online shopping cart, and manage returns -24*7   |
| <b>Customer self service customer support</b>   | Supports capabilities for customer to interact by what channel they prefer -- Web, IVR or television -- and create, submit and keep track of their service requests and complaints.   |
| <b>Customer self service customer billing</b>   | Supports capabilities to consolidate all the information from all a billing systems to provide a single, convergent view of billing information to customer whereby customers can view their bill and check the details of individual calls over the Web, without having to visit multiple self service interfaces. |
| <b>Customer pricing and contracts</b>           | Supports on-line capabilities to facilitate pricing and contracts.  |
| <b>Customer self service customer reporting</b> | Supports capabilities for end users want to use a portal to monitor and analyze their communication charges, payments and services.   |

| Marketing   |  |
|---|--|
| <b>Marketing planning and resource management (MRM)</b> | Supports capabilities such as: Marketing Program planning; Program optimization; Budget optimization; Budget and cost management; Performance measurement; Supplier management; Task routing, approvals, and alerts; Best practices and standards; Collaboration; Market development funds; Digital asset management; and Product development. |
| <b>Marketing campaign design</b>                        | Supports capabilities such as: List management, Campaign response, Multistage campaigns, Recurring programs, Event-triggered campaigns, and Dialogs.   |
| <b>Customer selection and segmentation</b>              | Supports capabilities such as: Target Segment Selection flexibility, Segmentation query interface, Calculated fields, Advanced segmentation, Control groups, and Segment tracking and migration.   |
| <b>Marketing offer management</b>                       | Supports capabilities such as: Offer hierarchy, versioning, eligibility, channel alignment, and life-cycle management; Offer assignment; Key coding; Content linkage; Pricing and promotions management; and Offer analysis.   |
| <b>Marketing campaign execution and tracking</b>        | Supports capabilities such as: Channel support, Campaign optimization, Partner marketing, Capacity limits, and Just-in-time changes.   |
| <b>Marketing interaction management</b>                 | Supports capabilities such as: Multichannel support, Access to customer data, Alignment with marketing goals, Real-time analytics, Integration with campaign and offer management, Response management, and Lead escalation.   |
| <b>Marketing lead management</b>                        | Supports capabilities such as: Lead scoring, Lead routing and assignment, Lead acceptance and feedback, and Channel management.  |
| <b>Marketing analytics</b>                              | Supports marketing with prebuilt reporting/analytic content customer and marketing analytics.  |

## Delivering The Next-Generation Subscriber Experience

| Sales                                  |  |
|--|--|
| <b>Contact and activity management</b> | Supports capabilities such as: Contact and account relationships, Query and search capabilities, Activity and to-do management, Email tracking, Calendaring, and Alerting. |
| <b>Opportunity management</b>          | Supports capabilities such as: Lead management, Lead to opportunity, Deal tracking, Discounting and approvals, Forecasting, and Quotes and proposals.                      |
| <b>Sales performance management</b>    | Supports capabilities such as: Quota management, Goal management, and Commissions management.  |
| <b>Sales analysis</b>                  | Supports capabilities such as: Dashboards, Built-in reports, Custom reports, Drill-through, Trending/historical comparison, Graphics, and Sharing and accessibility.       |

| Installation Service & Support         |   |
|--|---|
| <b>Core field service capabilities</b> | Supports capabilities such as: Task list, plan board, Gantt, maps, and scheduler integration; Full-service activity visibility; Parts order — forward logistics; Parts return — reverse logistics; SLA and contracts; Service analytics — various levels; Asset visibility; Modeling third-party service providers; Automated charges calculation/invoicing; and GIS and mapping integration. |
| <b>Scheduling</b>                      | Supports capabilities such as: Part requirement, skill requirement, and customer access hours; Optimized cost-based and rule-based scheduling; Geographic route-based scheduling; Flexible scheduling configuration and user-defined; and Available/window to promise capability — appointment booking.   |
| <b>Mobile capabilities</b>             | Supports mobile capabilities such as: Laptop, tablet PC, PDA, cell phones, and BlackBerry; Store-and-forward wireless support; Invoice generations, pro forma; and Manage truck stock.  |
| <b>Spare parts management</b>          | Supports capabilities such as: Global inventory view, Excess returns management, Service parts planning, and Defectives/returns tracking.   |
| <b>Depot repair</b>                    | Supports service depot repair capabilities such as: Service logistics and Advanced exchange/loaners/repair.   |

## Delivering The Next-Generation Subscriber Experience

| Revenue Management                            |   |
|---|---|
| <b>Converged Pre-Paid / Post-Paid Billing</b> | Ability to handle single subscriber/account with both prepaid and postpaid elements   |
| <b>Mediation</b>                              | Mediation process includes collecting raw customer usage data from the network, converting this raw usage data to a complete representation of the transaction, and delivering the transaction record to the necessary applications.                              |
| <b>Settlement</b>                             | Settlement involves tallying the debits and credits due to or due from a third party who is not the subscriber or user. The third party could be the owner of content, an advertiser/sponsor, or another operator who participated in call completion or session. |
| <b>Revenue Assurance</b>                      | Ensuring proper billing of services that have been implemented. Identifying revenue leakage from technical errors, human errors, and fraud.   |

| Service and Support Management |   |
|--------------------------------|---|
| <b>Service provisioning</b>    | Service provisioning includes order management, inventory management, service design products.                            |
| <b>Service fulfillment</b>     | Service fulfillment products enable the provisioning and activation of new communication services and product bundles     |
| <b>Service assurance</b>       | Includes service level agreements (SLAs), fault management and performance management associated with particular services |

## Appendix D: Endnotes

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<sup>i</sup> UK regulator Ofcom data suggests mobile call prices (both pre-and post-pay) peaked in 2004 at 0.166 pound per minute and 0.147 pound per minute, respectively. By 2007, the corresponding

<sup>ii</sup> Additional details on telecom service provider initiatives to succeed in a challenging economic market are found in the May 7, 2009, "Farewell To The Traditional Telecom Ecosystem" Forrester report.

<sup>iii</sup> Telstra's market-based management approach to reaching customers is discussed in depth in the March 26, 2009, "Case Study: Telstra's Telecom Marketing Excellence" Forrester report.

<sup>iv</sup> More information on the factors driving churn among US subscribers is found in the January 16, 2009, "The Science Of Churn: When And Why Consumers Switch Service Providers" Forrester report.