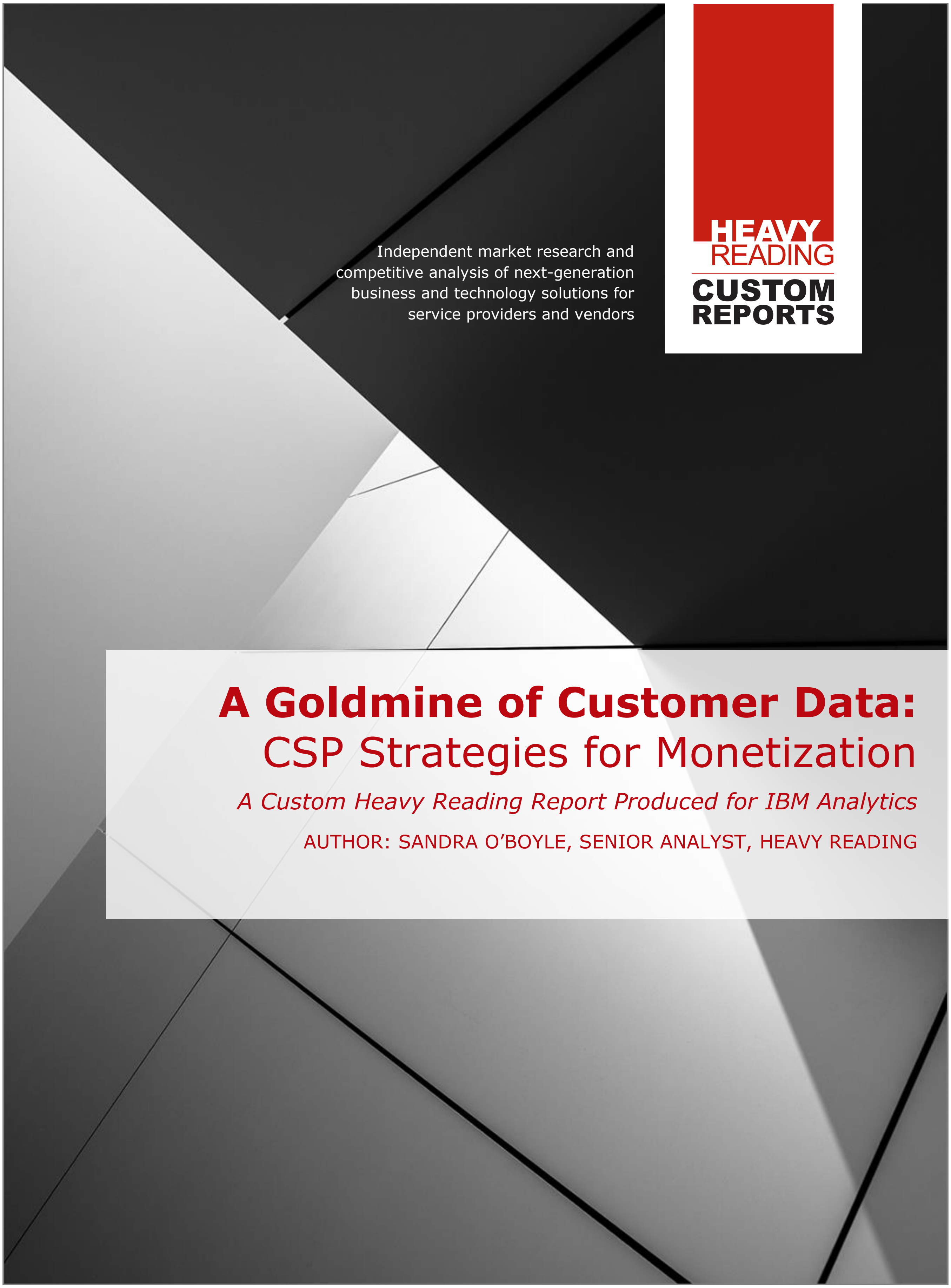

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HEAVY READING
CUSTOM REPORTS

A Goldmine of Customer Data:
CSP Strategies for Monetization

A Custom Heavy Reading Report Produced for IBM Analytics

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1. EXECUTIVE SUMMARY

Communications service providers (CSPs) are at a critical point where an intimate understanding of customers is needed to win their loyalty, as well as drive further value from the customer relationship. Through an exclusive Web-based survey of global CSPs, this Heavy Reading study offers detailed insight into CSP customer profiling and data strategies around customer retention and identifies key monetization opportunities. This report explores the key drivers and use cases for collecting customer data; plans and challenges to building out rich customer profiles; and the role of real-time analytics in monetizing customer location data.

The key findings of this report are as follows:

CSPs' strategic priorities are evolving toward becoming data-driven businesses with new revenue models and partnerships. Today the majority of CSPs are using customer data and analytics to focus on proactive care, customer retention and improving customer satisfaction and Net Promoter Scores (NPS). Looking ahead, there is a strong desire among CSPs to use analytics more effectively to drive new revenue and business models, including real-time customer engagement and personalization of services and offers, as well as third-party monetization opportunities.

Customer data profiling is still a work in progress, with plans to build a richer and more complete picture of customers. The majority of CSPs are collecting network experience and customer care data, but are quickly realizing they need to build a richer picture of who customers are in order to drive effective personalization and monetization. There is a strong desire to build a richer picture of customers by adding psychographic and behavioral insights, social media data, smartphone app and content usage and IPTV viewing habits.

CSPs believe they can do a better at collecting and monetizing customer data. Only a quarter say they do an "excellent" job collecting network experience data, and most would struggle to collect psychographic, behavioral, app and content usage, and social media data. Contributing to the problem are inadequate tools for collecting and analyzing data, the inability to do real-time analytics, and a lack of a unified or complete picture of customers, amplified by profiling customers in silos of network data vs. customer care data vs. marketing data.

Responsibility for customer data and profiling is spread across different departments: customer care, network, marketing and product. This could be a sign of the early stages and relative immaturity of customer profiling and analytics within CSPs, as the responsibility is still in silos and driven by use cases rather than at a strategic level with common KPIs and processes and a central customer profiling hub. The silo approach runs counter to the mission to build a richer, 360-degree customer profile and leads to competing interests and procurement inefficiencies with different departments procuring their "own solutions." To succeed, CSPs need a centralized, horizontal customer experience function with the responsibility for collecting, analyzing and providing customer data that is accessible across all teams.

Real-time and predictive analytics will be required to take full advantage of monetization opportunities around mobile customer location. There is a strong belief that customer location data will play a critical role in CSP monetization strategies, particularly around mobile advertising. Real-time analytics will be required to take advantage of customer location data and even predictive analytics to determine where the mobile customer will be next, as well as contextual insight about the customer to understand when it's appropriate to send an offer, as well as what type of offer (cross-sell/upsell, free minutes, etc.) to send.

2. ONLINE SURVEY ANALYSIS

2.1 Survey Methodology

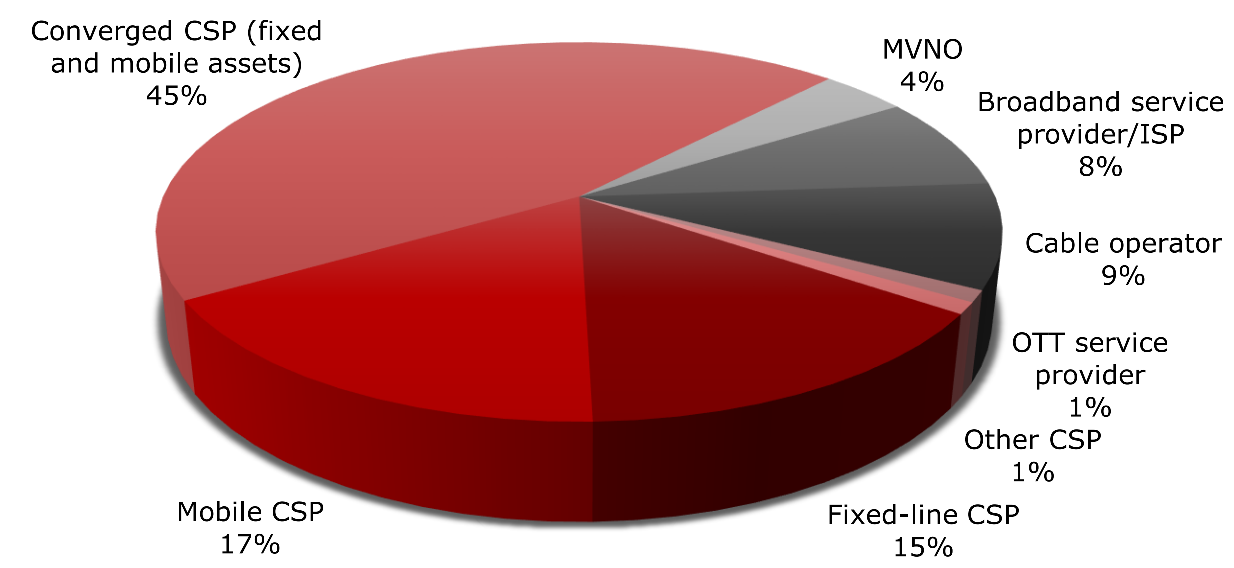
Heavy Reading conducted a Web survey with global CSPs on behalf of IBM Analytics. The research for this report was carried out in May and June 2016. Email invitations were sent to contacts in the Heavy Reading databases, from which we received more than 100 valid CSP responses. This section provides detailed analysis of the data from our online survey.

2.2 Online Survey Demographics

Figure 1 shows the survey has representation from all the different types of CSPs. CSPs with both fixed and mobile assets account for nearly half (45%) of the companies represented. Almost one in five (17%) respondents are pure-play mobile operators, and 15% are pure-play fixed operators. Just under 10% of respondents come from cable operators and broadband ISPs, respectively, and 4% represent MVNOs.

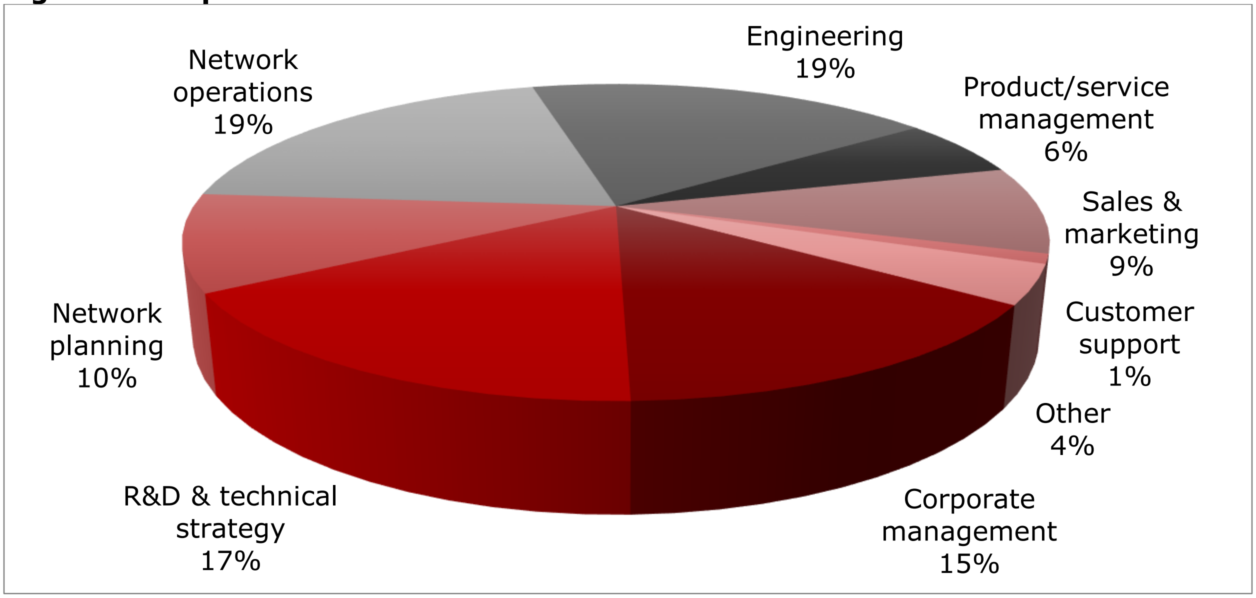
Example companies participating in this survey are: Antel, AT&T, Bell Canada, CenturyLink, Colt, Comcast, Deutsche Telekom, KPN, Level 3, Orange, Portugal Telecom, Rogers, Safaricom, SingTel, Sprint, Telecom Italia, Telefónica, Telenor, Telstra, Telus, Verizon, Virgin Media and Vodafone.

Figure 1: Type of CSP



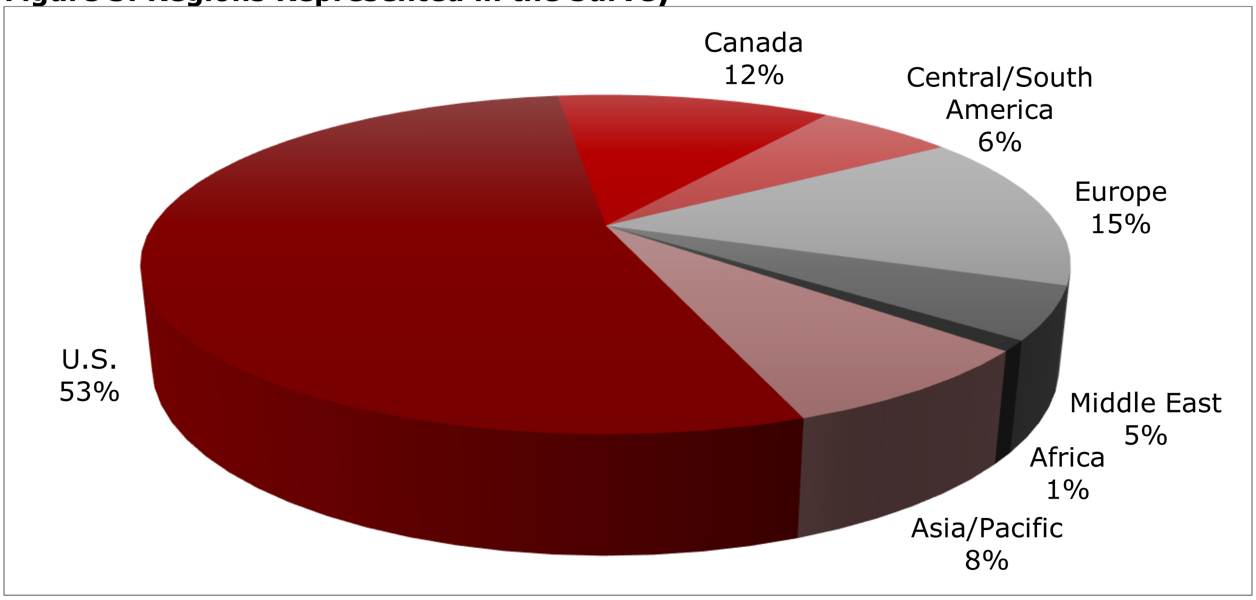
As is to be expected, given the maturity and diversity of CSP customer data strategies, respondents comprise a mix of roles in their companies: About 17% are in R&D and technical strategy roles, while the number in network planning and operations (30%) was nearly matched by the number from corporate management (15%) and commercial teams (15%), including both sales and marketing and product management. Another 19% were in network engineering roles. These figures suggest that the majority of the survey sample are informed about network operations and network analytics issues, with a mix of those likely to have future-thinking views, for example, in R&D, as well as corporate management, and commercial teams with an interest in customer retention and revenue growth.

Figure 2: Respondent Roles



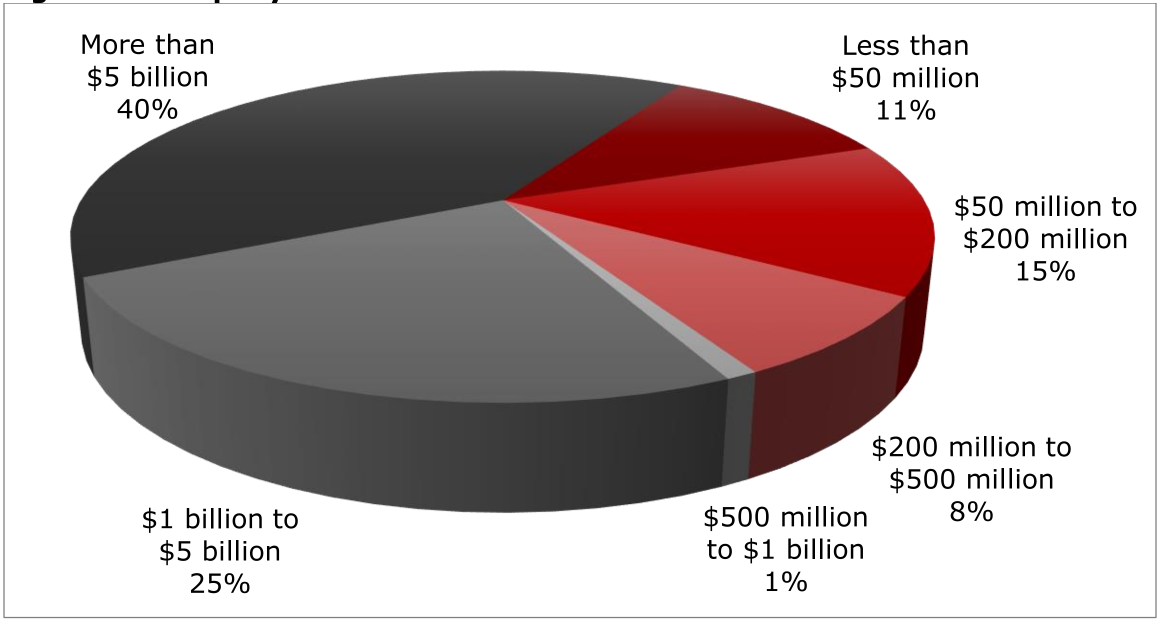
North America is well represented, with the U.S. accounting for just more than half (53%), although several U.S. operators also have global operations. Another 12% of respondents came from Canada. Europe and Asia/Pacific accounted for 15% and 8% of respondents, respectively. The rest of the respondents came from Central/South America (6%), Middle East (5%) and Africa (1%).

Figure 3: Regions Represented in the Survey



Nearly two thirds of respondents were from Tier 1 operators with revenue of more than $1 billion, with 40% from operators with revenue of more than $5 billion – confirming the dominance of large incumbents with converged assets in the sample. However, nearly a quarter were smaller operators with annual revenue of $50 million to $1 billion, and a significant slice (11%) are very small operators with annual revenue of less than $50 million.

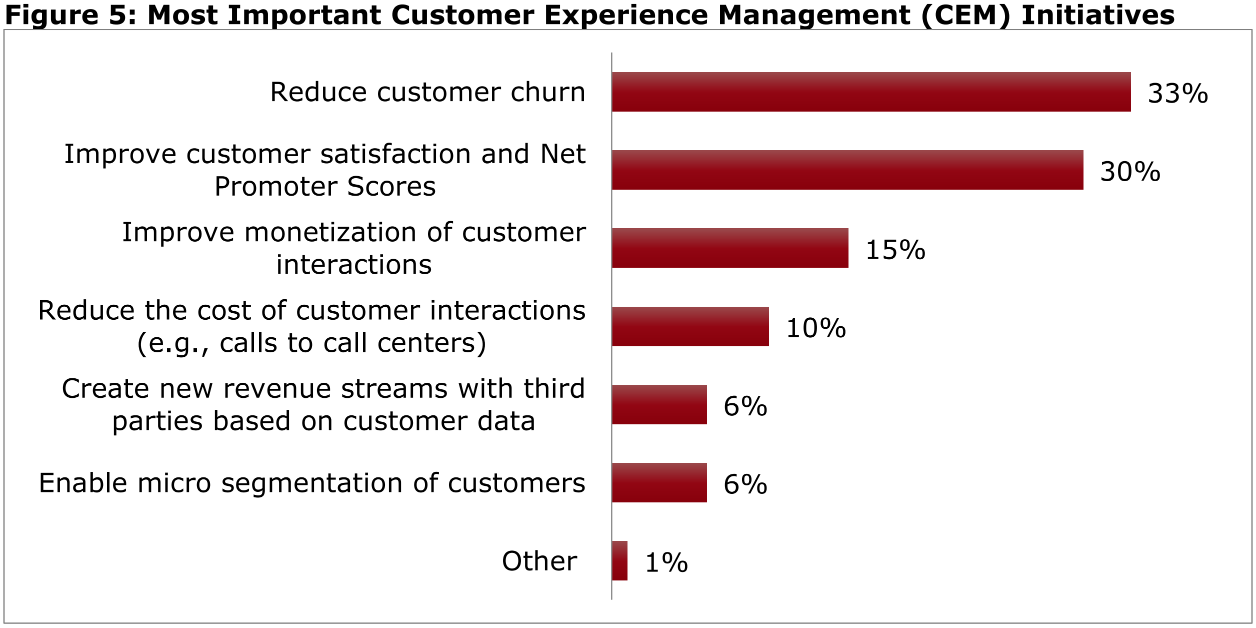
Figure 4: Company Size



2.3 Top Drivers for Understanding Customers

Reducing customer churn and retaining customers is the top reason cited by one third (33%) of CSPs for better understanding the customer experience. This isn't surprising, as it is significantly more expensive to win a new customer than to maintain an existing one.

Figure 5: Most Important Customer Experience Management (CEM) Initiatives



Churn reduction is closely related to the need to improve customer satisfaction and NPS or voice of the customer improvement. Top management within operators is now paying close attention to customer satisfaction and NPS: In some cases, as much as 40% of executive bonuses are linked to ongoing improvement in customer satisfaction.

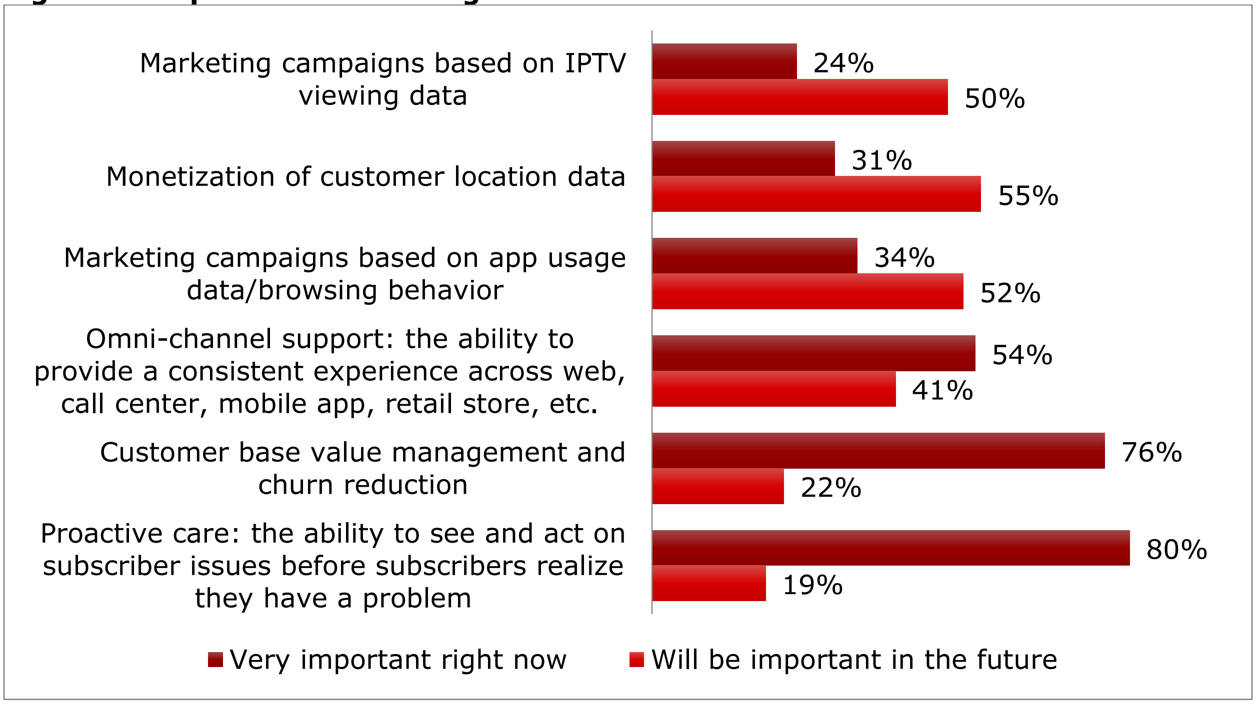
Improving monetization of customer interactions is among the top three CEM initiatives. This requires CSPs to build a better relationship with their customers by personalizing engagement. In order to do this effectively, real-time contextual insight about the customer is key, and analytics is needed to understand when, for example, it's appropriate to send an offer to customer, and what type of offer – cross-sell/upsell, free minutes, etc. – should be sent.

Creating third-party revenue offers based on customer data and customer micro-segmentation is still relatively small at 6%, though these are emerging areas that will become more important in the personalization of marketing offers and services.

As **Figure 6** shows, the top three customer-related use cases for CSPs *today* have a common goal in terms of their impact on churn reduction:

- **Proactive care** (80%), meaning proactively monitoring and analyzing network and service quality and taking action before a customer's service is impacted, is a critical weapon for CSPs in reducing churn and keeping customers happy.
- **Customer base value management** (76%) is mainly about analyzing churn indicators to take action to prevent at-risk customers from churning. In the future, customer base value management will be more about customer monetization and engagement, identifying cross-sell and upsell opportunities, and personalized one-to-one marketing.
- **Consistent omni-channel experience** (54%) is another priority use case in terms of improving customer satisfaction and identifying customers' channel preferences, as well as ensuring "customer data" carries over between channels for a unified and integrated customer experience.

Figure 6: Importance of Strategic Use Cases Now vs. in the Future



Looking ahead to *future* customer use cases, CSPs are looking toward the next phase of monetization and revenue growth:

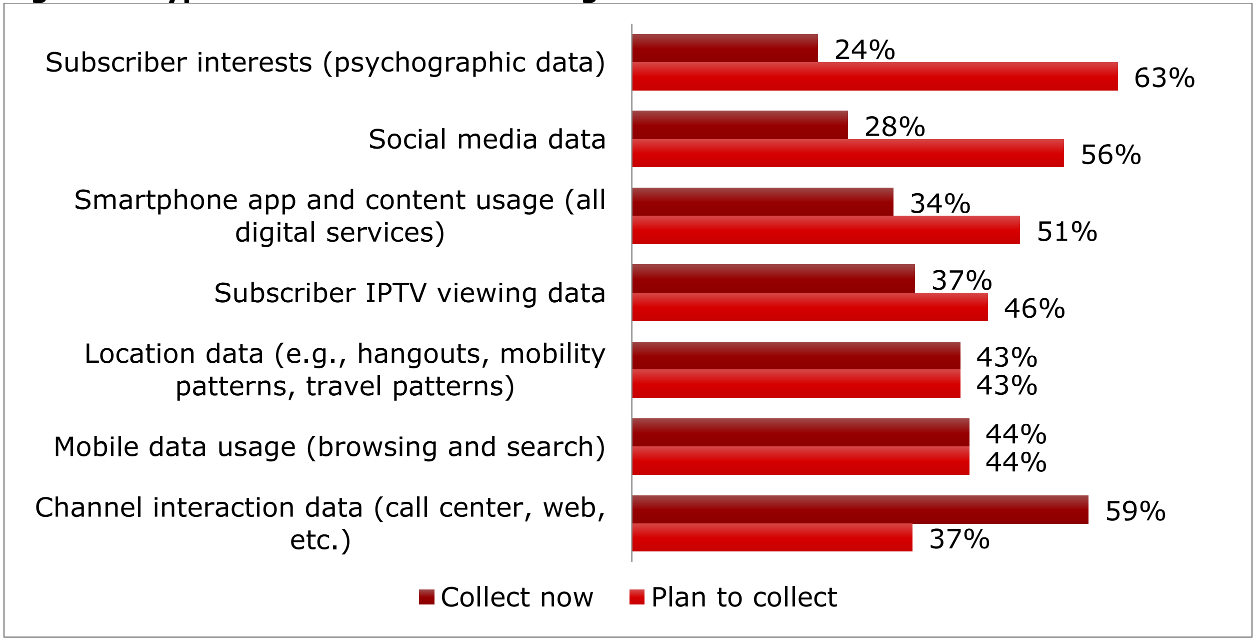
- Determining customer mobility location data to drive new revenue internally for CSPs and externally with third parties, such as retailers, hospitality and services businesses, etc.
- Personalized marketing campaigns based on app and content usage and IPTV viewing data, for example, offering mobile customers slices of more relevant content for mobile usage or more suitable bundles based on their app and content behavior.

2.4 Customer Data Profiling Plans

The type and quality of customer data collected determines the richness of the profiles CSPs can create and how intimate the understanding of a customer is. "The richer the data, the richer the customer picture, and CSPs are starting to realize that they are sitting on a goldmine of data – they just need to dig it up."

Figure 7 shows that customer data being collected today is fairly standard for CSPs – customer channel interaction data, mobile data usage (browsing and search) and location data (hangouts, mobility and travel patterns).

Figure 7: Types of Customer Data Being Collected Now vs. in the Future

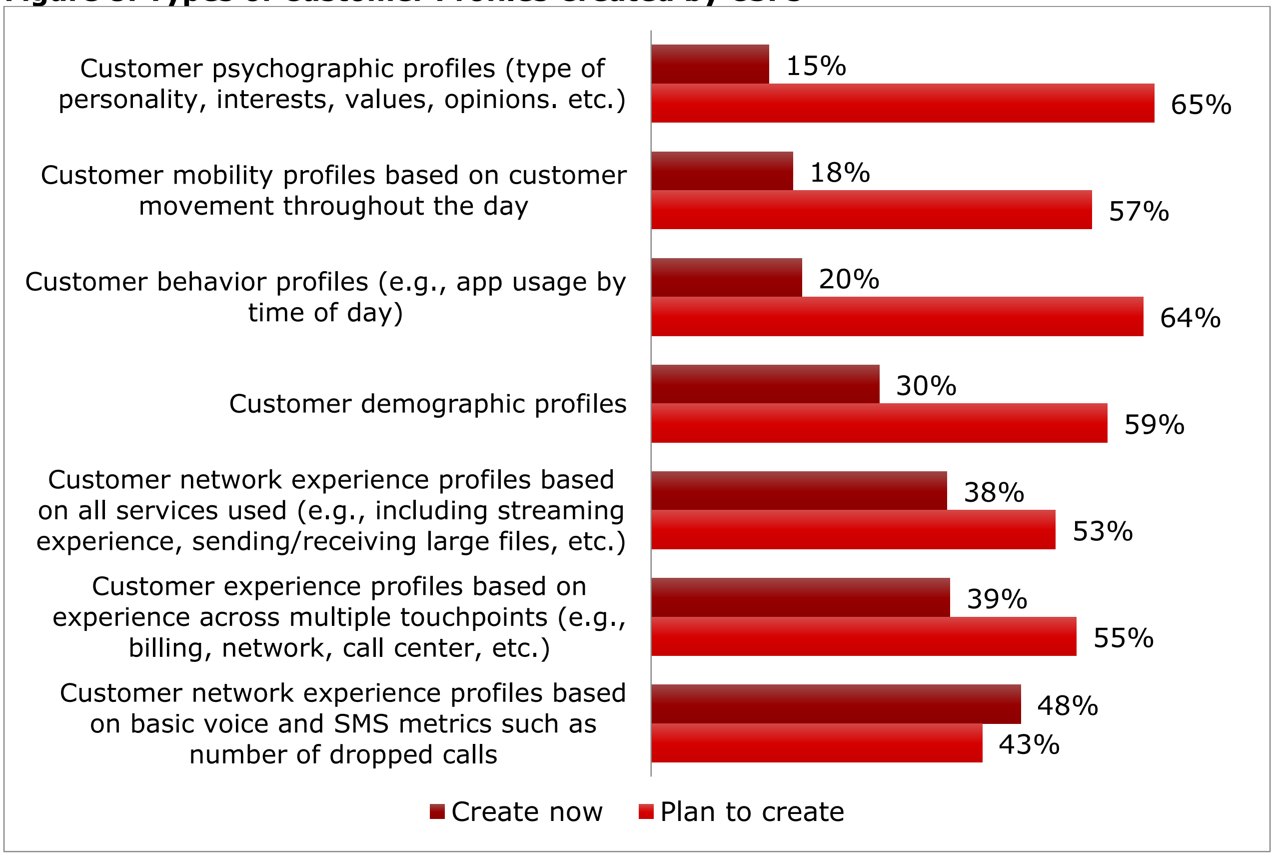


Looking ahead, we see that CSPs plan to expand data collection plans to build out a more complete, 360-degree view of customers. Nearly two thirds of CSPs (63%) plan to collect data on subscriber interests (psychographic data), closely followed by collecting social media data (56%), smartphone content and app usage for all digital services (51%) and IPTV viewing data (46%).

CSPs recognize the need to really get to know their customers in order to drive more engagement and build a better customer relationship by providing not only a better customer experience, but more relevant and "immediate" digital services (i.e., video content, extra mobile data, a mobile advertising coupon, etc.). This "customer-centric" shift in thinking is part of ongoing digital transformation within CSPs that includes transforming operations, networks, processes and organization structure to become more customer-centric and agile in a digital world.

As **Figure 8** shows, nearly half of CSPs are creating customer network experience profiles typically around more basic services, such as voice, data and SMS usage (e.g., number of dropped calls). About 40% are creating customer experience profiles based on all touch-points, including channel interactions, billing queries, customer support contact, etc., and looking at network experience across *all services used*, which is a more realistic indicator of customer experience and satisfaction.

Figure 8: Types of Customer Profiles Created by CSPs



In terms of future customer profiles, about two thirds (65%) of CSPs plan to create richer psychographic customer profiles to better understand customers' values, lifestyle, personality, opinions, etc., as well as customer behavior profiles (64%), for example, looking at what apps customers are using at different times of the day. These profiles can also be enriched with customer mobility profiles (57%) based on customers' movements during the day, along with customer demographic profiles (59%).

In terms of CSPs' ability to collect critical customer data, the results in **Figure 9** suggest room for improvement. Just over a quarter (29%) of CSPs rate their ability to collect network experience data as "excellent," with 39% rating their ability as "good" and 25% rating it just "fair." Since network and service quality is a key driver of customer satisfaction and retention, the ability to collect this data accurately and quickly is the foundation for managing customer experience for network operators. Not surprisingly, most struggle with collecting app content usage data, social media data and IPTV usage data as CSPs are just beginning to explore collecting this data and the best tools and techniques to use.

Figure 9: Rate Your Company's Ability to Collect the Following Types of Data

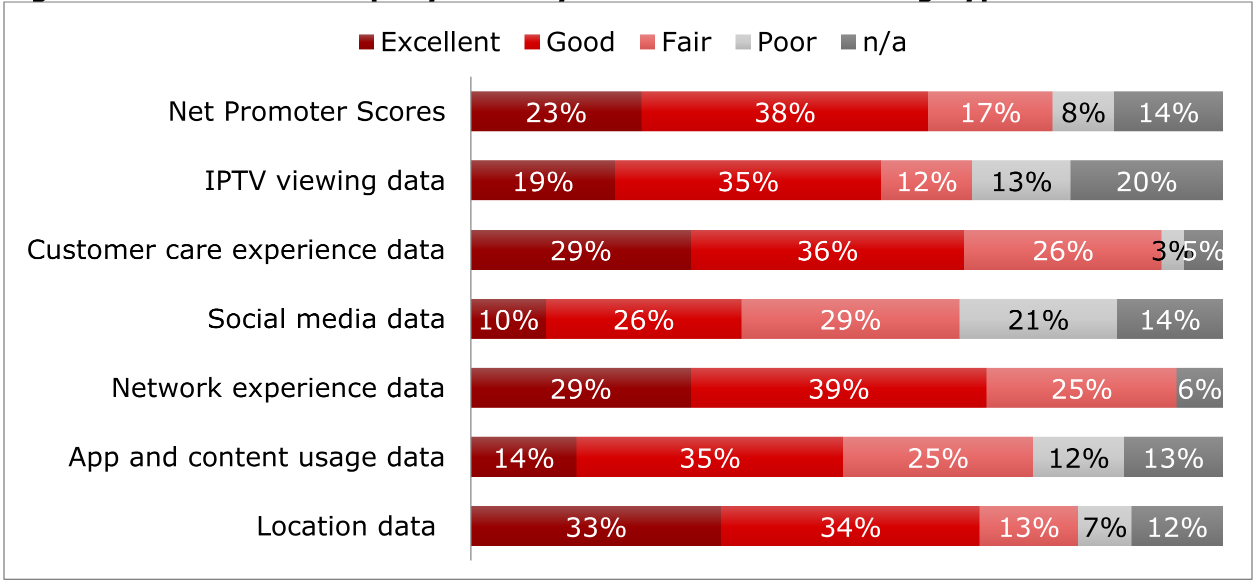
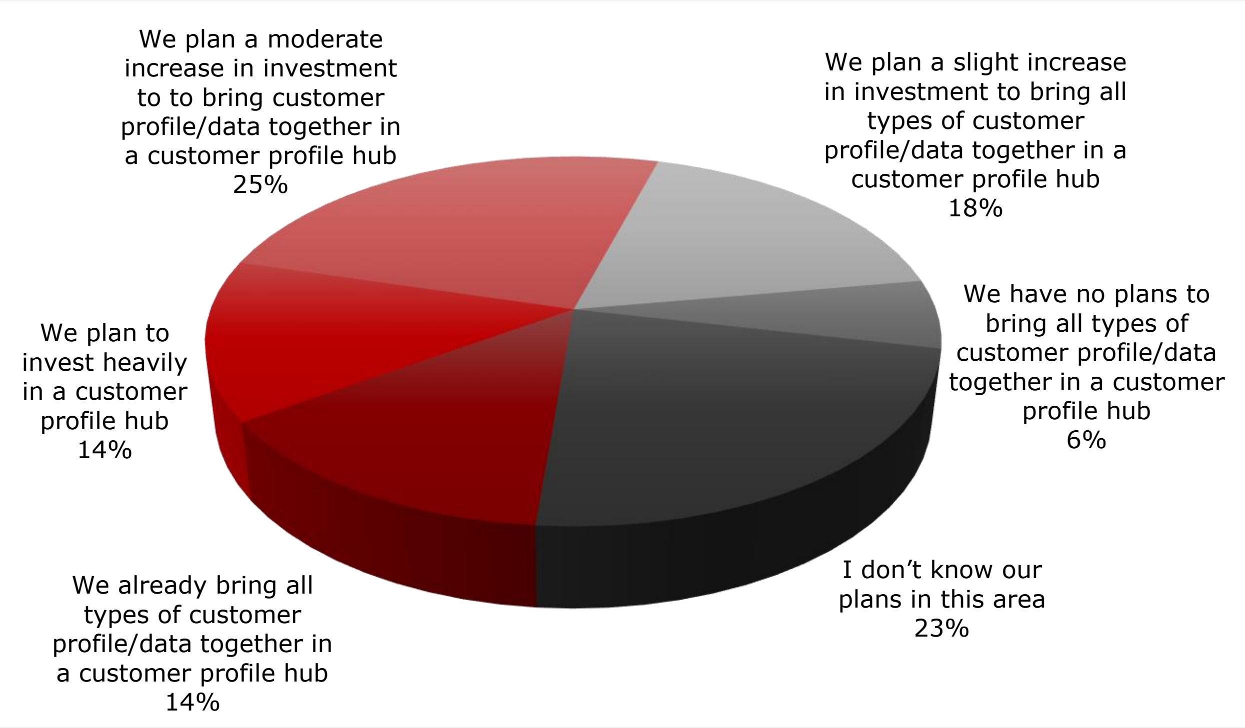


Figure 10 shows that just 14% of CSPs currently bring all of their customer data together into a central customer profile hub. However, 57% of CSPs plan to invest in bringing all types of customer data together in a profile hub, with nearly two fifths planning a moderate to heavy investment to make this happen.

Figure 10: Plans to Create a Customer Profile Hub



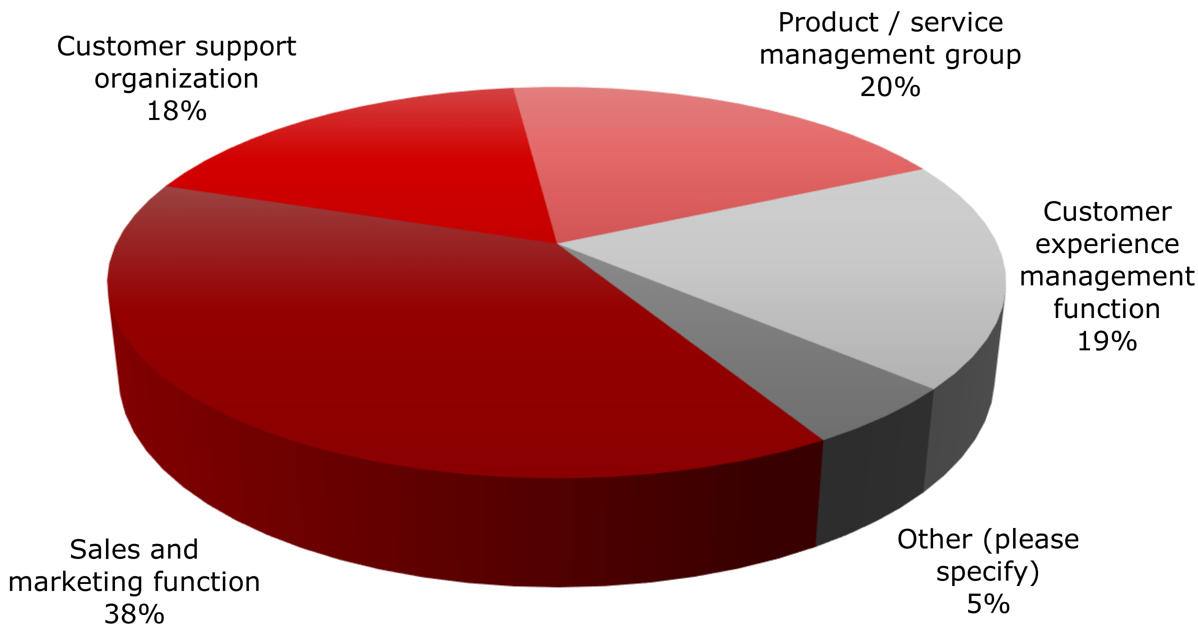
Nearly a quarter of respondents (23%) are not aware of their plans in this area, suggesting that the number of companies with such plans could be even higher, but the lack of clear organizational responsibility and mandate for managing all customer data and the end-to-end customer experience is holding CSPs back.

Part of the problem for CSPs in terms of driving a master customer data management strategy is a lack of clarity around ownership and a leader with authority to drive that across the organization.

As **Figure 11** shows, when we asked CSPs who in the organization has the main responsibility for customer profiling initiatives, the responses were all over the board, with responsibility across sales and marketing (38%), product/service management (20%) and customer care (18%) organizations.

Tellingly, just one in five CSPs (19%) said that the CEM function is in the charge of customer profiling initiatives, which typically takes charge in other industries. This could also be a sign of the early stages and relative immaturity of customer profiling and analytics within CSPs. The structure and responsibility is still very much in silos and driven by use cases, rather than being driven as a strategic initiative with common organizational KPIs and processes and a central customer profiling hub.

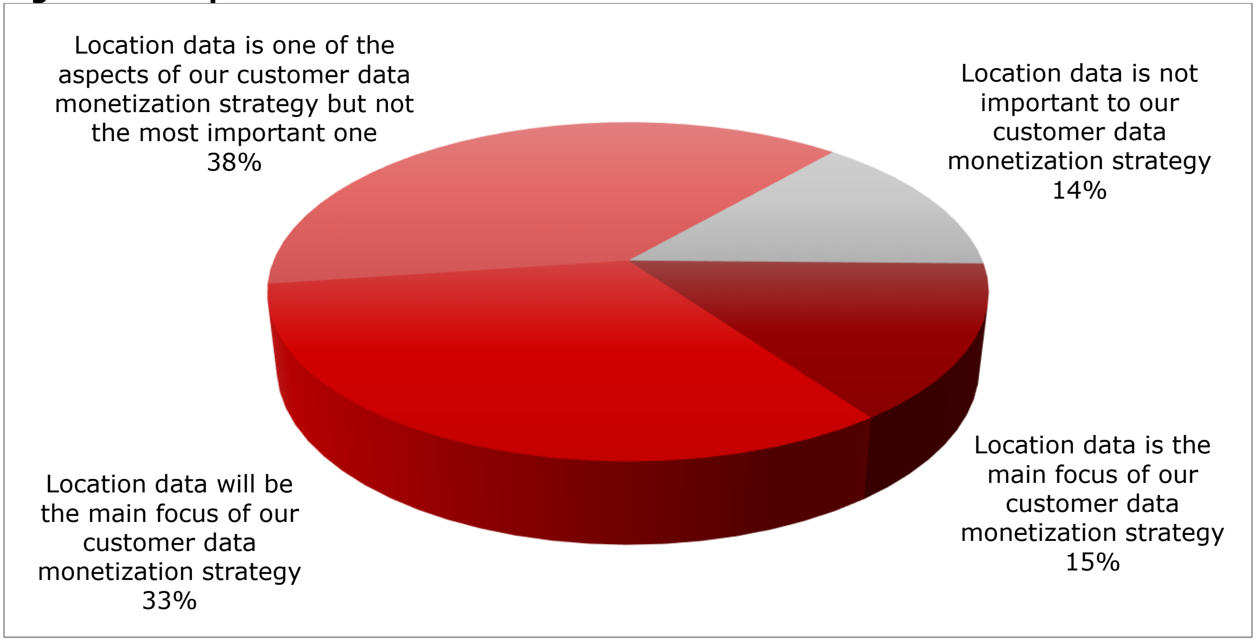
Figure 11: Main Responsibility for Customer Profiling Initiatives



2.5 Monetizing Customer Mobile Location Data

A robust 86% of CSPs say that location data is important to customer data monetization, with nearly half (48%) stating that it is or will be the main focus of their monetization strategy. Location is a key advantage for CSPs in enabling mobile advertising and, for example, sending real-time offers and coupons to customers based on mobile location from third-party businesses in the vicinity.

Figure 12: Importance of Customer Mobile Location Data for Monetization



As shown in **Figure 13**, fewer than half of CSPs (43%) currently support real-time location offers, while real-time location offers in conjunction with third parties is supported by just more than a third (36%). Predictive location offers are still at an early stage. Real-time customer location data will grow in importance for monetization in the future.

Figure 13: Location-Based Offers Currently Supported

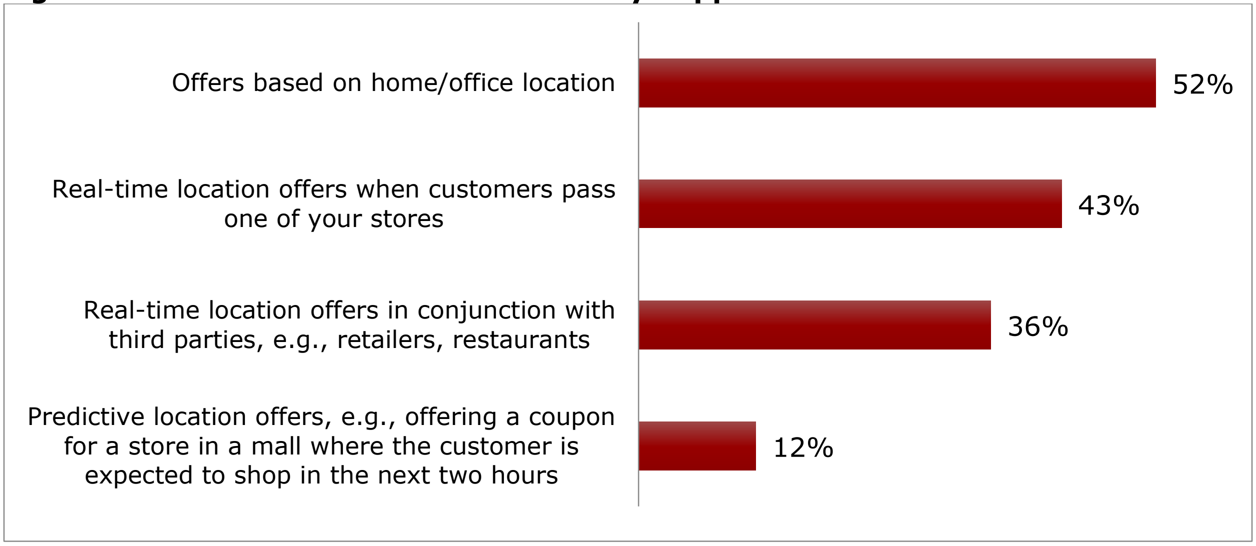
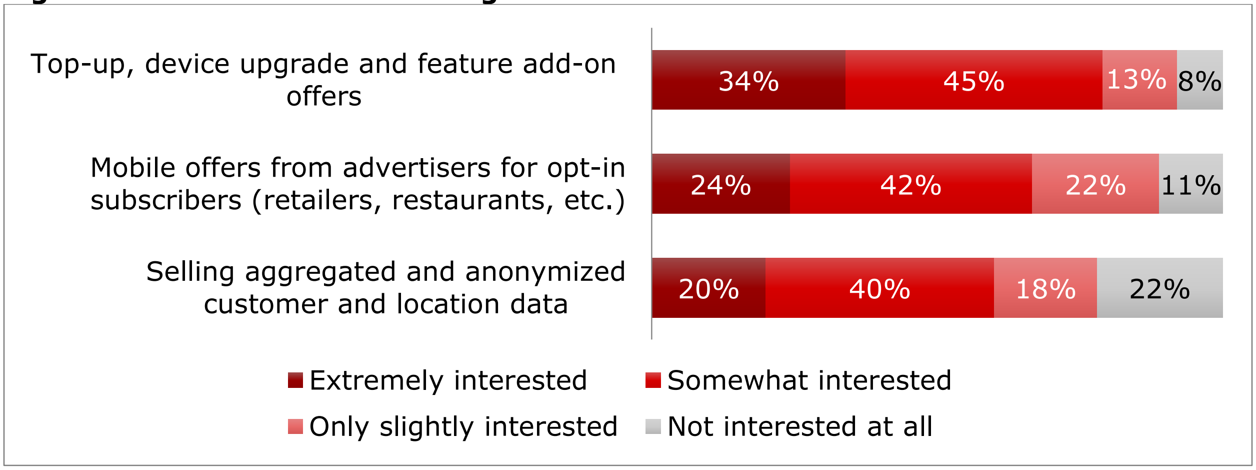


Figure 14 shows that CSPs are primarily interested in monetization for increasing revenue from their own products and services, e.g., top-up data usage, personalized content bundles and service upgrades. Two thirds of CSPs surveyed are interested in mobile advertising and working with third parties to deliver targeted ads. External monetization of data will be key for digital service providers in terms of driving future business models and building the return on investment in predictive real-time analytics, machine-learning and big data platforms.

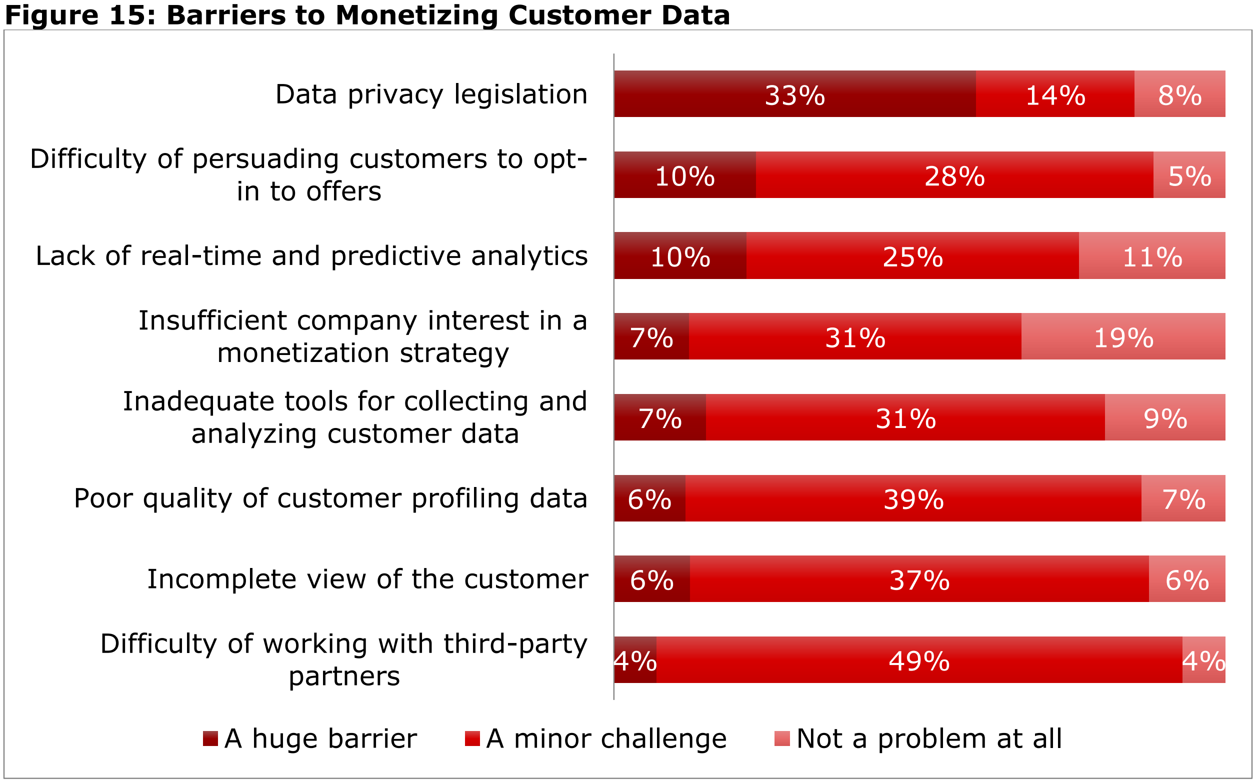
Figure 14: Interest in Monetizing Data for Internal Use vs. External Third Parties



In terms of barriers to monetizing customer data, it's not surprising to see customer data privacy legislation and persuading customers to opt in at the top of the list. Data privacy legislation is something the entire industry has to deal with and will vary by region. Customers are more likely to opt in if they see value for them (e.g., mobile coupons with retailer discounts) and trust the CSP with their data. Younger Internet consumers are used to sharing their data in return for freely using Internet services.

Besides data privacy and opt-in concerns, the top barriers – such as the lack of real-time and predictive analytics, an incomplete view of the customer, and inadequate tools for collecting and analyzing data – are solvable for CSPs.

Figure 15: Barriers to Monetizing Customer Data



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