



Hyper-Personalization with MNO Subscriber Data

Approaches and Recent Trends Regarding the Use of MNO Data for Hyper-Personalization

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Private and public-sector organizations are increasingly seeking out ways to use big data to better target customers and constituents. MNOs are well-positioned to cater to these groups by building hyper-personalized solutions. Despite an increasingly competitive ecosystem, MNOs can build differentiated solutions by leveraging their vast amounts of valuable, real-time subscriber data and analytics capabilities.

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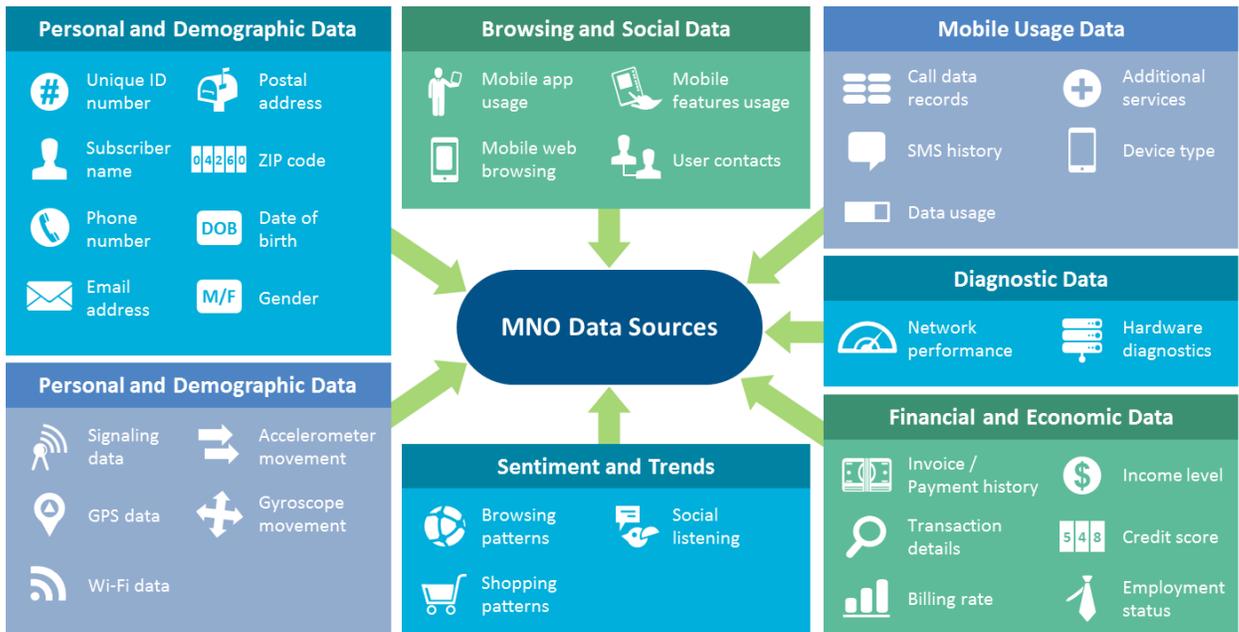
The Emergence of Hyper-Personalized Offers

The combination of growing data availability and improved analytic capabilities has made it possible for private and public-sector organizations to better understand their customers and constituents needs and, in turn, target their offerings. This hyper-personalization is leading to levels of customization never seen before, driving increased customer loyalty and improving companies’ bottom lines. As marketing personalization platform NectarOM notes, businesses that personalize their communications experience a 2 to 5% increase in margins.¹

Mobile Subscriber Data as a Driver of Hyper-Personalized Offers

Mobile subscriber data has been a key enabler of hyper-personalization. Due to the vast number of mobile subscriptions and large number of people using mobile phones as their most frequent computing device, mobile has been identified as a key medium through which to interact with consumers. Whereas traditional advertising relies on the behavior of large groups of indistinguishable customers to create loosely targeted offers, mobile’s ability to track individuals’ real-time context and personal, usage, and demographic information offers a unique platform for precise targeting in advertising and other forms of communication. Figure 1 depicts mobile subscriber data points that can be valuable for hyper-personalization. Data from each of these categories is available both on smartphones and feature phones.

Figure 1. Mobile Subscriber Data Relevant to Hyper-Personalization



¹ [“Hyperpersonalize” \(Direct Marketing News, Feb 2014\)](#)

The Role of Location Data

Customer location data is both a key enabler of hyper-personalization and a key reason mobile subscriber data is so valuable for hyper-personalization. By making use of data that is tied to the places customers go (location-based services) and their behavior over time (location-insight services), it is possible to build highly detailed customer profiles and target offers in light of the customers' immediate context. Mobile subscriber data is integral to making this possible, as mobile subscribers spend most of their time near their mobile phones. Mobile subscriber data has allowed for the development of novel targeting approaches such as geo-aware campaigns, which use a consumer's real-time location to advertise specific nearby promotions, and geo-fencing, a technique that restricts advertisements to consumers within a relevant geographic area.

MNO Subscriber Data for Hyper-Personalized Services

MNOs are well-positioned to offer hyper-personalized services. The subscriber data MNOs capture can be particularly valuable for hyper-personalization as it contains a variety of rich information and is continually collected in real-time. In addition, as operators have recently focused on building analytics capabilities, many are well positioned to offer not only raw data, but also business intelligence services. MNOs in some countries have established practices that allow them to share the mobile subscriber data with third parties unless a user makes a conscious effort to opt out. As a result, the data and insights that MNOs are able to share typically cover a substantial portion of their subscriber base.

Many MNOs are already pursuing strategies to monetize their subscriber data. Global MNO revenue from subscriber data sales is poised to reach \$9.6B in 2016, substantially higher than its \$5.5B level in 2015.² A larger opportunity to leverage their subscriber data within the ~\$40B global mobile internet advertising space exists for MNOs ambitious enough to create advertising solutions.

Despite MNOs' strong positioning, two key issues threaten to inhibit MNOs' potential to monetize subscriber data: evolving consumer privacy requirements and competition from smartphone application developers.

- ***Evolving consumer privacy requirements:*** Consumers have increasingly expressed the desire for transparency and control around how their personal information is used. Regulatory approaches to protecting consumer data have varied by country. The regulatory approaches addressing these needs have constrained the extent to which MNOs can monetize their mobile subscriber data. To deliver services within these bounds, MNOs have incorporated practices that better protect their subscribers, such as only supplying data has been highly anonymized. However, as technology evolves, so too

² ["Carriers sell users' tracking data" \(Bloomberg, Jun 2013\)](#)

does the conversation about protecting consumer privacy. MNOs may be required to continue adapting their services over time to meet evolving regulatory requirements.

- **Smartphone application developer competition:** While MNOs traditionally had nearly exclusive access to their subscribers' device, user and network data, a growing ecosystem of smartphone application developers has established new approaches to collecting mobile subscriber data. Mobile apps may ask users to opt in to sharing their data. If a user accepts, the application developer may collect many of the same valuable subscriber data points MNOs have collected for years. Many users are willing to opt in to gain access to the unique functions offered by popular applications. This creates new competition for MNOs, as anyone seeking to offer hyper-personalized services can now contract with third-party application vendors or build a proprietary application in-house.

How MNO Subscriber Data Enables Hyper-Personalized Services

MNOs have made subscriber data available through three key approaches, described below:

1. MNO Data Sales

The most simplistic way in which MNOs have made their subscriber data available is by selling it through third-party analytics firms. These firms in turn leverage their analytic capabilities to transform the data and provide enterprise customers with real-time access to consumer-level insights including where their customers are, their demographics and how their behaviors are evolving. Many of these analytics firms provide their customers with value added services such as web-based tools and portals where they can access both reports and charts.

Use Case

AirSage collects raw, real-time signaling data from Sprint and Verizon and triangulates the approximate location of mobile subscribers using analytics. They then resell this data to digital advertising firms such as Vistar Media. This advertising firm has developed technology that allows marketers to analyze where consumers live, work and shop in order to provide hyper-personalized location-based mobile advertising opportunities. AirSage and Vistar are able to capture the most substantial benefit because they are the ones serving enterprises with the high value location-based data insights.

2. Analytics Based Solutions

Another way MNOs have supported hyper-personalization efforts is by building and leveraging analytic expertise to provide data insights directly to enterprises, agencies and other organizations. These offerings generally involve the aggregation of subscriber data along with third-party demographic profile data. From there, MNOs (e.g., Verizon with Precision Market Insights, Telefonica with Smart Steps) work to derive insights that help enterprises make more informed decisions and better target their offerings to meet

customers' needs. In these cases, enterprises need to work with another firm, potentially a partner of the MNO, to create hyper-personalized communications for their customers.

Use Case

A UK food retailer received from O2 (Telefonica) insights derived from mobile network data pertinent to its shoppers to support its efforts to target direct marketing efforts. The retailer was advised to target 400,000 households out of 11 million households. Telefonica provided heat maps of geographies that were particularly well suited for promotions. Telefonica's customer insights led to a 150% increase in the amount of new or reactivated customers who visited the food retailer.

3. Hyper-Personalized Solutions

Finally, MNOs have built hyper-personalized solutions that leverage not only their subscriber data and analytics capabilities, but also their ability to directly reach customers with targeted offers and alerts. At a basic level, MNOs are able to leverage their network-based location data to provide proximity based alerts including advertising offers or emergency notifications. More mature and ambitious MNOs have evolved into vertically-integrated mobile advertising enablers offering a variety of mobile advertising services to enterprises, agencies and other organizations. MNOs' real-time and location-based data are a key differentiator that will help them to compete against advertising giants such as Google and Facebook.

Use Case

Basic: *Several MNOs such as AT&T, Telefonica, and Rogers offer location-based advertising to its pool of subscribers via SMS. For example, using geofencing, the Rogers Alerts service helps retailers target subscribers with automated offers based on their proximity to a retailer's location.*

Mature: *In 2015, Verizon acquired AOL and Millennial Media, demonstrating its intention to compete in the broader digital advertising industry. As a result of these acquisitions, Verizon has become a mobile advertising enabler with advertising capabilities across multiple platforms and devices. These acquisitions substantially increase Verizon's ability to offer not only deeper data and insights services, but also a platform through which it can offer enterprises hyper-personalized advertising enablement services. Other MNOs have been building out their digital advertising capabilities as well, including Singtel with its purchase of both Adconion and Kontera, as well as Telstra with its acquisition of Videoplaza.*

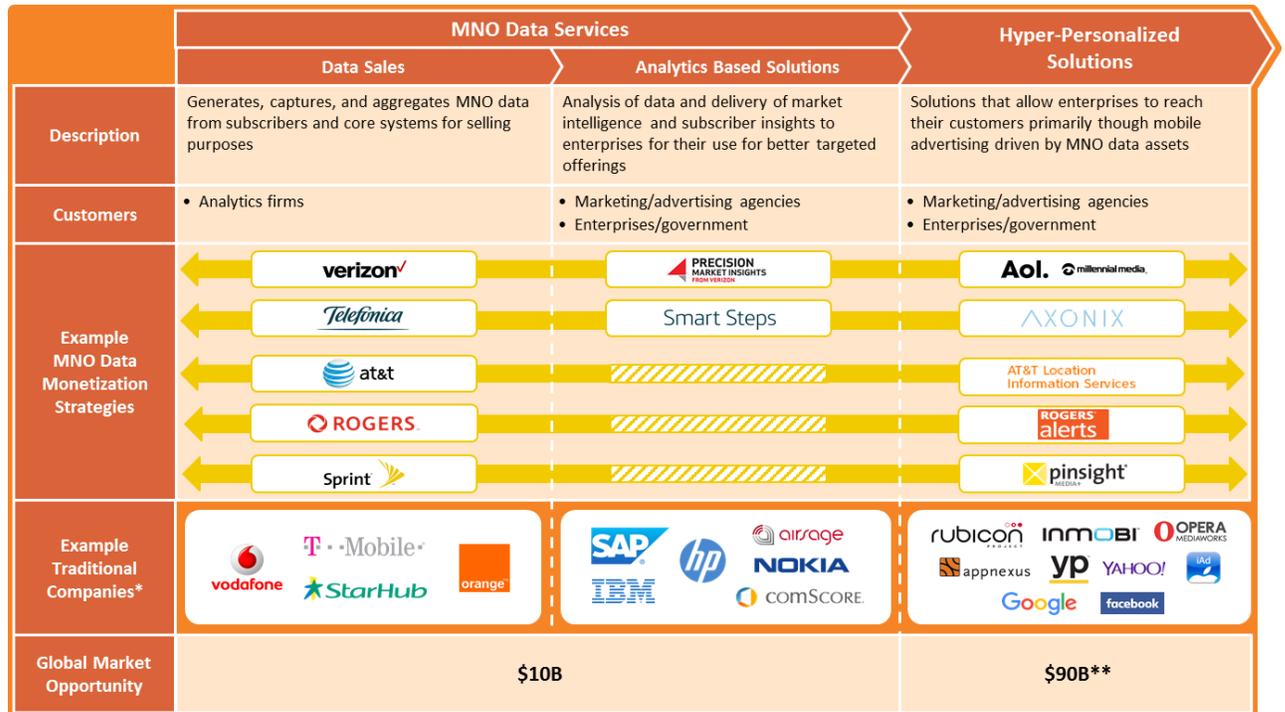
How MNOs Can Monetize Their Data for Hyper-Personalization Purposes

MNOs have the opportunity to begin offering hyper-personalized services or expand upon their current offerings, but must navigate the complexity of developing a hyper-personalized solution and address the challenges associated with consumer privacy and growing competition. In a 2014 industry survey, 60% of MNOs said they "believe that it is more important for telcos to harness the power of Big Data to drive new revenue streams externally than it is to turn it to the advantage their own internal operations." However, only 10% of respondents stated that they are focusing on external monetization programs for their

Cartesian: Hyper-Personalization with MNO Subscriber Data

subscriber Big Data.³ Whether MNOs are beginning to explore subscriber data monetization strategies for the first time or are deep into the process of building out holistic hyper-personalized solutions, several best-practices can help them ensure greater success.

Figure 2. MNO Data Monetization Value Chain



* Key competency shown; many of these vendors have or may be expanding along the value chain

** The global mobile advertising opportunity is \$90B, of which hyper-personalized solutions are a fundamental subset

To build hyper-personalized oriented offerings, MNOs should begin by understanding the unique capabilities and elements of their data that will lend themselves to hyper-personalization offerings. They should then ensure they have integrated the necessary analytic capabilities to draw insights from that data that are required to provide tailored high-value services directly to the public and private sector (note these analytic abilities can also be leveraged for internal purposes such as improving subscriber experience). Finally, they should build out strategies to offer full hyper-personalized services. Cartesian offers MNOs several forms of assistance in developing and refining their hyper-personalization strategies:

1. Identify and integrate key data, analytics and other technology requirements
2. Develop necessary internal capabilities and organizational buy-in
3. Identify and prioritize high value personalized service offers based on key capabilities
4. Determine capability/data gaps and identify strategies to fill gaps (build, buy, partner)
5. Identify potential customer segments and competition
6. Refine offer, develop go-to-market strategy, test, and execute

³ [Intelligence Industry Survey \(Telecoms.com, 2014\)](http://Intelligence Industry Survey (Telecoms.com, 2014))

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Cartesian has supported operators in a wide range of projects concerning data monetization, adjacent revenue capture and revenue growth strategy. Key areas of expertise include market opportunity and business case development, competitor evaluation, proposition design, technology and vendor assessment, partnership strategy and go-to-market launch support.



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