



## EXPERT OPINION:

# Subscriber data management: Making the most of every customer

Multiple system operators and communication service providers have several things in common; arguably, the most important factor is the desire to be more than 'bit-pipes' or mere mediums over which companies such as Google, Amazon and Apple make money and generate brand loyalty. Operators want to avoid being relegated to utility status, as they co-operate and compete with increasingly influential species of internet and over-the-top players considered to have the 'cool' factor that attracts consumers, advertisers and 3rd party content.



The author, Jonathan Downey, is Director Product Marketing at Openet.

To thrive, operators must change from a network-centric to a subscriber-centric focus, using the knowledge of their customers to create deeper insight to serve them better and smooth the real-time subscriber experience. To do this, they will need to bring together previously latent or under-used assets; that is, the important subscriber-related information. By unlocking these data silos, preferences can be inferred, behaviours and patterns can be intelligently deciphered and better customer segmentation models built.

With IP-based convergence blurring the line for customers across services, operators have a unique opportunity to reinforce their role as key enablers of a better subscriber experience. They can use their knowledge of their customers' services, usage and preferences to facilitate real-time, subscriber-aware service delivery.

How to unite all this data? Operators have long recognised that their customers and customer information are their most valuable assets. However, managing these assets poses significant challenges, including managing multiple data repositories across products and applications, replicating subscriber information to address new business opportunities and making individual subscriber information available to dynamically personalise services for real-time delivery.

The time has come for increased subscriber visibility and network transparency across any and all platforms. Enter subscriber data management (SDM).

**Getting closer to your customer**  
SDM is both a solution architecture and the technologies required to assemble important subscriber information. To provide a holistic

solution to the data management needs of an enterprise, SDM must be capable of supporting both online access to subscriber data as required by service delivery platforms, and access to high quality data for diverse analytical and business intelligence (BI) applications.

Subscriber-specific information has the potential to elevate the customer experience to a whole new level, by influencing service delivery in real time. By federating subscriber profile information such as billing plans, service entitlements, spending limits and parental controls, operators can create a more dynamic and interactive service delivery environment.

This capability provides an opportunity to both improve the subscriber experience and provide the opportunity to sell more services. This can take some services beyond their traditional usage; allowing operators to configure and sell subscriber packages based on criteria such as network access, time of day, location, device type and bandwidth tiers. Examples of how these capabilities might be deployed include:

- Broadband customers who have reached their monthly fair usage limit, can purchase additional quota to carry them over to their next billing period
- A Pay-Per-View experience can be enriched by allowing customers watching on-demand content the option, for example, to purchase a download of the soundtrack from the movie through their remote control
- Customers who don't have a subscription to a TV channel can pay for temporary access to a popular series.

Operators are able to recommend, in real time, additional content, devices or services that others with similar interests enjoyed, to be purchased and dispatched immediately. ►



However, the value of an operator's data extends well beyond service delivery. There is a wealth of data that exists, or can be derived, that is inaccessible, locked away or simply under-used. As decision making becomes more data-driven, teams from across the organisation can benefit from getting access to data from across networks, services and subscribers.

Where subscriber data management is treated as a strategic initiative, it enables operators to put in place a solution architecture to address a myriad of data-related challenges. It provides the foundation for real-time BI applications, whose accuracy fundamentally relies on the collection of network usage data, ideally enriched with subscriber-specific reference data.

This foundation greatly simplifies how data is pulled together, driving down data management costs and providing a solid, repeatable foundation for BI applications such as:

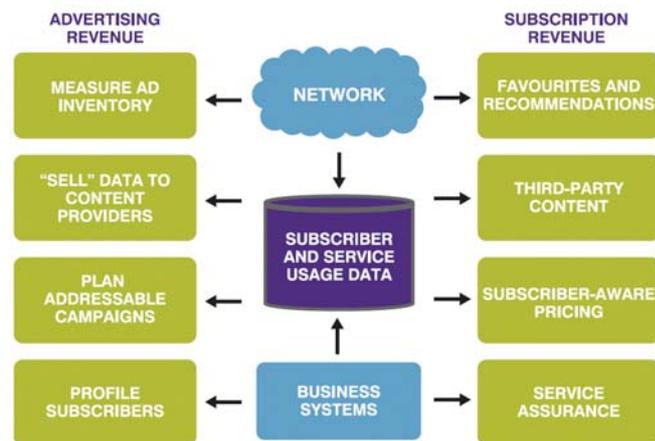
- **Audience Measurement** to provide accurate and complete viewership metrics for advertising sales and content provider negotiations
- **Revenue Assurance** to identify revenue losses caused by provisioning errors and fraud
- **Promotion and Loyalty** programmes to identify opportunities to reduce churn and implement initiatives to increase value-added service penetration
- **Network Congestion Analysis** to discover and understand issues causing network bottlenecks.

Importantly, where information is private or sensitive, or where subscribers have explicitly opted-out, personally identifiable information is removed to make subscriber information anonymous.

#### Making the most of your data

If operators are to leverage the data in their possession for both real-time service delivery and business insight, they must break it free from device- and platform-specific silos. This presents a significant challenge in transporting subsets of data from application-specific databases to the transactional and analytical applications, requiring expertise in collecting, synchronising, enriching and updating information in a dynamic fashion to make sure updates reflect the current subscriber state and usage activity.

Adopting a holistic SDM solution architecture provides both a blueprint and the means to unlock data previously trapped in multiple databases and management systems across the organisation. It makes it possible to achieve a



single, comprehensive version of the truth with a consistent view of customers and services.

This data can be managed and used as an overlay to existing systems, one that does not disrupt or impair the legacy infrastructure. This preserves legacy systems by creating a mediation layer through which selective subscriber data can be extracted, aggregated and shared within service provider environments, as well as those with trusted third parties.

With this perspective, service providers can use insight gleaned from network activity to understand customer behaviour, improve existing offerings and ensure smooth service delivery across devices and networks. Operators are then able to identify and respond to changing behaviours and create more segmented and targeted services, advertisements and data plans.

#### Conclusion

As decision making becomes more data driven, teams from across the organisation are looking to access their organisation's data to make better decisions and create more interactive and dynamic services. The primary goal of an SDM initiative is to unlock and deliver latent data for users and systems, with the goal of delivering differentiated and personalised services for customers. It facilitates both the online access to subscriber data to service delivery platforms and access to high quality data for diverse analytical and business intelligence applications.

SDM brings together important subscriber information from across a range of networks, applications and databases, serving as a centralised repository for that data, without requiring each application to deal with the complexity of underlying subscriber databases.

By embracing subscriber data management, operators can bring a level of personalisation and insight not possible with other competitors and partners in the value chain. This information allows operators to reinforce their roles as the enablers of IP-based services which offer a richer, more subscriber-aware experience for their customers.