EXPERT OPINION:

SDM – A 'must have' in the LTE Age

Long Term Evolution promises a faster, more efficient network. Yes … and we all know that LTE is about transforming the access network. So, you might ask: "What could that possibly have to do with subscriber data management?" The answer, says HP's Ottavio Carparelli, is: everything.

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Today's business environment is dynamic and volatile. With the introduction of powerful handsets, including smartphones, subscribers are now using data services as never before. The almost-exponential growth in data traffic is making the adoption of LTE a necessity in many service provider networks. Certainly, LTE will help service providers solve their bandwidth problems. More importantly, however, LTE will also open the door to a world of unlimited choices for the subscriber.

For service providers, this poses a challenge – and an opportunity. To survive – and even win competitive advantage – service providers will have to leverage their deep knowledge of the subscriber.

Subscribers in this world are transforming into consumers. They no longer rely solely on the service provider for their entire mobile experience. While they still, for the most part, purchase the handset as well as voice and data services from a service provider, they are looking beyond the traditional services to free applications.

Many of these new service applications will come from

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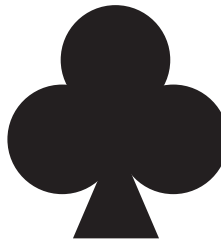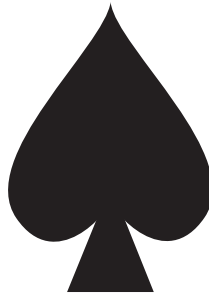
nimble, over-the-top (OTT) content providers who won't bother to fully test, methodically plan, and conduct test market roll-outs. To be sure, these new services will change the way subscribers interact with the network. If traditional service providers don't respond, their role in the consumer's life will be reduced to that of a simple utility, or the proverbial 'dumb pipe'.

Customer preference data

But service providers do have an ace up their sleeve: detailed data on each customer's preferences and patterns. OTT providers don't have such data, and cannot match service providers in terms of offering highly personalised services and customer support. Over-the top providers do have data about consumers, but it is quite limited and is typically related to the specific service being offered.

Service providers, by contrast, have much more data about the consumer and their behaviour, but they are struggling to convert this data into actionable customer information that is used to personalise the consumer experience.

In this new LTE-driven world, service providers can use their customer data to deliver content and a personal experience that can win the business and loyalty of the consumer base.

The problem is that much of the valuable subscriber data is located in different silos that are dispersed ▶

throughout the network under fiefdoms known as Network, New Services, and IT. It is imperative that service providers break down these silos and create a complete and insightful view of the subscriber.

Some have approached the Subscriber Data Management dilemma with a consolidation approach. This requires that a service provider move everything to one single database within the network in order to gain that complete view of the subscriber. The focus for many has been on consolidating the data of core network elements such as: Home Location Register, Home Subscriber Server, Authentication Authorisation and Accounting, Equipment Identity Register, and others. While this is a noble approach, the practicality of implementing such a utopian ideal can be expensive and limiting.

Costs and limitations
It's terribly expensive to change all the network elements that use subscriber data so that they communicate with this one database. However, the cost pales in comparison to the limitations the consolidation thrusts upon your network. Bringing together network data is good, but there is so much more information about the subscriber out there in a variety of IT and service databases. What kinds of purchasing decisions does the subscriber make? What types of searches do they perform? Where does the subscriber travel? How frequently does he change devices? How does she share her information with friends? Clearly, without this kind of data, the picture of the consumer will be limited.

And consolidating this data with the network data in a single database can be tricky because it crosses previously-defined internal boundaries. Some people would add that you wouldn't even want a single database – given the frequency of change.

So, creating a complete and unified view of a consumer in a 4G/LTE environment is going to require a different approach – and some additional capabilities. What is needed is an additional method for bringing together

subscriber data – federation. Federation enables service providers to:

1) receive a request for data from a service
2) send that request to the multiple databases storing the requested data
3) bring the data from these multiple databases together
4) reconcile any conflicts, and then
5) provide that information to the requesting service.

This allows the service provider to use the data where it exists today; there are no database migrations and there's no need to completely revamp your organisational structure.

Achieve a true single view
Federation and consolidation must be implemented in lock-step with one another to truly achieve a single view of the consumer in a 4G environment; a view that spans the network and IT to create a personal perspective of the consumer. A perspective that will enable the service provider to create new targeted services that will improve the consumer's experience. A perspective that will deepen the relationship between consumer and service provider – positioning the latter as the trusted provider of a truly integrated and personal experience.

In addition to creating revenue-generating services, service providers can leverage an integrated view of the customer to create new kinds of revenue streams. For example, they can offer advertisers access to targeted consumers who would welcome the advertising, based on usage, preferences and authorisation.

LTE is going to open many opportunities for service providers to generate new revenue streams – as long as they can bring together the subscriber data and provide a contextually relevant experience for the consumer. The world is changing, and service providers need to do more than just think outside the box. They need to grow their sphere of influence for tomorrow – by using the subscriber data they have in their network today. $

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