



Revision Date: 12 August 2012

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1 Chapter 1: Introduction

1.1 Executive Summary

This report focuses on the NG (Next Generation) Subscriber Data Management (SDM) software solutions designed to provide a real-time and near real-time management of subscriber data.

SDM is gaining reputation as operators' devise emergent strategies on LTE (Long Tem Evolution) networks, IMS (IP multimedia subsystem), FMC (Fixed Mobile Convergence) and SDP (Service Delivery Platform) initiatives.

There is no standard definition for SDM or the components that constitute SDM. At the very fundamental level, it is a solution that unifies all the subscriber data (network and system data) in a single repository i.e. a single backend subscriber data layer within the core network, from where the applications simply feed off the common data-store.

By using SDM solution, operators can cut OPEX (Operational Expenditure) by up to 50% while maximizing revenue opportunities. See Figure 1 for operator benefits that can be realized through the SDM strategy.

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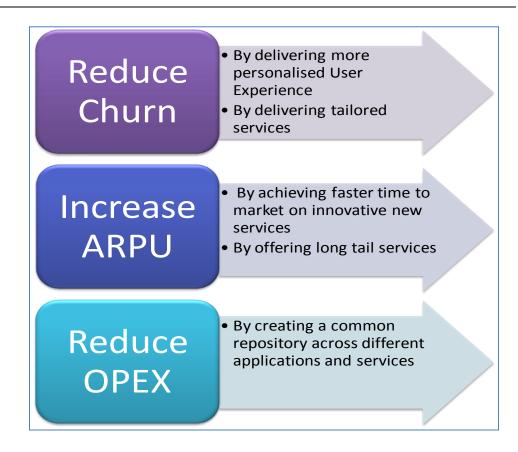


Figure 1: Benefits of an Integrated Subscriber Data Management Approach

Source: Signals and Systems Telecom

Signals and Systems Telecom believes NG SDM will remain one of the fastest growing segments in the overall OSS, BSS, SDP and SDM market. Although economic uncertainties threaten large scale investments by operators, the SDM market will remain robust with relatively strong growth rates of 46% worldwide in 2012 and a forecast CAGR (compound annual growth rate) of 28.88% from 2011 through 2016, eventually accounting for nearly 2 Billion USD in revenue. This growth will primarily come from operators who are offering or planning to offer triple play/Quad play

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services or planning to deploy NG LTE networks. For these operators, it is critical to combine their mobile, fixed, and internet businesses across all network access technologies while converging subscribers' identities, profiles and other relevant real-time data so as to reduce the payback period from investments in LTE and IMS.

Other developments such as the demand for mobile broadband will fuel investments in unified policy and SDM solutions.

1.2 **Topics Covered**

This report examines the technology, market analysis and offerings of the leading SDM solution vendors and their ability to use a wider product portfolio to create compelling propositions for the operators.

The report covers the following sub-topics:

- SDM Technology Overview
- The SDM Business Case: Market Drivers, Benefits, Obstacles and Risks
- SDM Market Dynamics
- SDM Market Analysis and Forecasts
- SDM Vendor Assessment
- SDM SWOT Analysis, Recommendations and Conclusion.

Each of the above listed topics is discussed in detail in five individual chapters.

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1.3 Key Questions Answered

Additionally, this report answers the following questions:

- What are the strengths and weaknesses of the SDM solutions available on the market?
- What are the internal and external driving factors for the growth of the SDM market in the next five years?
- Who are the vendors for SDM solutions?
- What new features and functionalities are vendors offering to enhance SDM capabilities?
- What is the worth of SDM market in 2012 and how the market and players will evolve in the next five years?
- How will SDM help operators optimize their investments in LTE and IMS networks?
- How will SDM help operators in bundling services and becoming truly convergent service providers?
- What is the optimal time period for operators to invest in SDM solutions?
- What is the global outlook for SDM solutions?
- What is the regional outlook for SDM adoption?

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1.4 Key Findings

The report has the following key findings:

- Subscriber data is the core asset held by operators, it is their source
 of competitive advantage in all markets and offers monetization
 opportunities.
- In 2012, a large number of operators continue to have infrastructures that are largely separated into subscriber management and customer management systems.
- Innovative operators are looking at solutions such as NG SDM to combine the different customer data across their networks.
- NG SDM solutions consolidate information from several network subscriber databases as well as from OSS/BSS (Operations Support System/Business Support Systems) and CRM (Customer Relationship Management) for building a real time view of subscribers and services.
- SDM-enabled HLRs/HSS (Home Location Registers/ Home Subscriber Server) are still being deployed to reduce OPEX and increase capacity. However, NG SDM is more than just enhanced HLRs. These must be M2M-optimized so as to track and manage devices across technologies (2G, 3G, LTE, Wi-Fi and WiMax).
- SDM offer many benefits to operators such as power to embrace new business models. Operators can become brokers of subscriber identity, both for their own services and for third parties such as content providers, mobile advertisers or retailers.

- SDM vendors who can facilitate an evolutionary, modular and flexible approach will emerge as winners.
- Market research suggests that nearly 40% of the global operators are using some form of subscriber management solutions in order to deal with the unprecedented growth in mobile broadband subscription. We believe by 2016, over 25% of operators will embrace advanced end-to-end NG SDM.
- Operators are increasingly demanding SOA (Service Oriented Architecture) in SDM and are no longer prepared to tolerate high customization costs.
- Operators want better SDM solutions than those currently available on the market. They are increasingly turning toward IT vendors that provide more flexible and enhanced SDM capabilities to optimize the subscriber experience and become identity service providers.
- If vendors can address the challenges described in this report, they
 have an opportunity for greater success. We recommend that
 traditional SDM vendors revisit their partnering strategies so as to
 offer end-to-end SDM solutions to operators.
- SDM market will witness strong growth in 2012/2013 as an increasing number of operators in the developed markets deploy LTE and look for ways to monetise the new network.
- By 2014, majority of vendors will offer SDM combined with powerful analytics, policy and identity management solutions.

- SDM will account for an increasingly bigger portion of operators' CAPEX budget over the next five years. It will become an essential component in their NG networks.
- SDM will become a key market by 2016, attracting new players and
 offering opportunities for consulting, change management and
 managed services. As the importance of customer data grows
 further, operators will need services from various players in the
 value chain to ensure successful commercial SDM deployment and
 monetization.
- Payback period from LTE+IMS networks can be successfully shortened with migration to NG SDM. Rolling out LTE and IMS is expensive, complicated and has a relatively long payback period. Operators would be spending over \$17 billion globally in LTE infrastructure by 2016.
- Using NG SDM, operators can effectively bridge the gap between the LTE Networks, IT domain, offline customer management systems and service data. They can rapidly and cost-effectively create, deliver, and manage innovative new services that take the advantages of the high speed broadband functionality of the LTE networks.
- SDM investments will be closely linked to the NG SDP, LTE, IMS and OSS/BSS investments planned by operators.
- Spending on SDM solutions is expected to reach USD860.21 million in 2012 and reach USD2.1 billion by 2016 as increasing number of operators in the developed markets formulate strategies to improve

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customer satisfaction, rather than solely focusing on operational efficiencies.

 Regionally, Latin and Central America will be fastest growing SDM market with CAGR of 44% from 2011 to 2016. Operators in the Western European region will continue to lead the SDM opportunity.

1.5 **Methodology**

The contents of this report have been accumulated by combining information attained from a range of primary and secondary research sources. In addition to analyzing official corporate announcements, policy documents, media reports, and industry statements, Signals and Systems Telecom sought opinions from leading industry players within the SDM market to derive an unbiased, accurate and objective mix of market trends, forecasts and the future prospects of the SDM industry between 2012 and 2016.

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1.6 Target Audience

The report targets the following audience.

- Business intelligence solutions providers;
- IMS vendors;
- Location and presence enabler vendors;
- Messaging gateway vendors;
- MNOs;
- Mobile advertising solutions providers;
- Mobile analytics solutions providers;
- Real-time charging and rating solutions providers;
- Subscriber data management solutions providers;
- OSS and BSS solution providers; and
- Investors.

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1.7 **Companies Mentioned** The following companies have been mentioned in the report: Accenture **AIS Alcatel Lucent** Amdocs Apertio AT&T Autonomy **Bharti Airtel** Blueslice Bridgewater BroadHop **BSNL**

BT

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