

# Subscriber Data Management

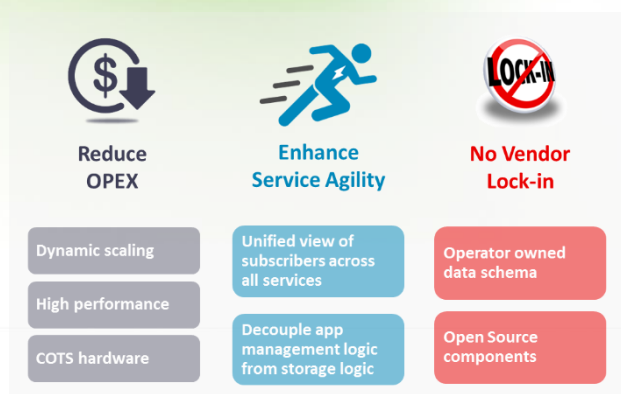
Any time ... Any place ... Any data

The telecom industry landscape has evolved greatly since the advent of an OTT ecosystem. Mobile operators are morphing from pure communication providers into media companies. The industry is on the cusp of two further major inflection points – **Virtualization** and the **Internet of Things (IoT)**. In order to create and deliver more value in the OTT and IoT ecosystems, operators need to achieve high **Service Agility** and an ability to harness the benefits of Virtualization.

One of the fundamental roadblocks in achieving high Service Agility is the age-old problem of subscriber data fragmentation and duplication. Data pertaining to subscriber profiles, billing, and device details and state is often fragmented and duplicated across logical and physical architectures and different locations. Subscriber Data Management (SDM) seeks to provide **centralized management of all subscriber data**, thus reducing network complexity, TCO and time-to-market for new services.

Of course several Telecom application vendors provide SDM solutions. However, these SDM platforms are developed around and tightly coupled with their front-end applications, e.g. HLR/HSS, PCRF, etc. Moreover, many vendors lock down their data schema making data consolidation difficult to achieve. Such platforms are inappropriate as the centralized repository for all other network applications. A good SDM solution should be application agnostic and not introduce any form of vendor lock-in.

The characteristics of a good SDM solution are summarized in the infographic below –



## Our SDM Portfolio

With Openwave Mobility's award winning SDM solutions, service providers can grow their SDM infrastructure with confidence, rapidly integrating new services and applications without limitation, while remaining in total control of their costs. Our SDM portfolio consists of four products and solutions which enable operators to efficiently and painlessly manage subscriber data as well as deliver more value in the OTT and IoT ecosystems.

- **Smart User Repository (vSUR)** – A massively scalable, 3GPP standards compliant, high performance, fully virtualized LDAP data store (vUDR). vSUR has integrated data distribution, routing and redistribution capabilities to allow dynamic scaling in/out and up/down, configurable data replication and consistency policies for optimal resource utilization.
- **Smart Data Federator (vSDF)** – A specialized data centric application server to aid integration between disparate systems/applications by allowing protocol translation, data transformation, and data schema manipulation, transactions. vSDF has configurable workflow and policy engines to give application specific treatment to data requests.
- **SDM - Cloud Edition (SDM-CE)** – A next generation integrated SDM platform which combines the benefits of vSUR and vSDF into a single solution. A fully virtualized, high performance data store with federation capabilities.
- **Smart Identity Manager (SmartIDM)** – A carrier grade solution for securely exchanging subscriber information with interested parties like OTT players and internal network applications. The solution also provides powerful tools to manage operator relationships with OTT partners.

## Benefits of our SDM Solutions

Carrier-Grade Reliability

Unrivalled Performance

Extreme Service Agility

Efficient Capacity Management

Enhanced Security

## Carrier-Grade Reliability

Our SDM solutions have a global footprint of more than **500 million subscribers**, including the world's largest UDR deployment of 140 million subscribers. Deployed in several Tier-1 operators globally, our solutions have a **proven availability of 99.999%**.

With **peer based architecture, rack aware deployment and self-healing capabilities**, our SDM solutions offer best-in-class reliability.

## Unrivalled Performance

Multi-master architecture allows all nodes in the setup to serve read as well as write requests. Solutions can be tuned to deliver optimal performance in a given environment. Designed to be able to serve critical network applications like HSS and PCRF, our SDM solutions have **<1ms read and <5ms write latency**. The solutions have been lab tested for **1 billion entries and 100K TPS per node**.

## Extreme Service Agility

Decoupling of application management logic from storage logic allow our solutions to enable rapid integration of new network services/applications, thus ensuring extreme service agility.

- **Provision once, access anywhere within seconds** – highly efficient intra and inter Data Center replication methods
- **Data and protocol federation** capabilities allow operators to create a unified interface for all applications to access data from all repositories.
- **Data transformation** capabilities enable creation of virtual schemas for application specific data views
- **Policy based differentiation** of data requests enable prioritization of critical apps over non-critical apps

## Efficient Capacity Management

Our solutions can be deployed in a fully virtualized environment, thus making optimal use of available resources. Their highly efficient architecture and design enables our solutions to have a **hardware footprint 30-50% smaller** than our competitors.

- **Dynamic scaling** in/out and up/down with zero impact on normal operations
- **Proprietary data compression techniques** enable **up to 85% reduction** in storage requirements
- **Flexible configuration, deployment topologies and replication policies** for optimal utilization of compute, storage and network resources

## Enhanced Security

Our SDM solutions support **SASL, Digest-MD5** security and **TLS** for encrypted data transport. To ensure effective security the solutions include –

- Robust authentication and authorization engine
- Granular access control rules and policies at application as well as attribute level
- Data Encryption
- Server and client-side certificates
- System-wide audit trails

## Awards and Recognition



## Find out more

Download the individual Product/Solution Sheets and request our Operator Success stories at [www.owmobility.com](http://www.owmobility.com)

## About Openwave Mobility

*Openwave Mobility empowers data service providers to manage and monetize encrypted and unencrypted mobile traffic, optimizing available RAN and maximizing the value of user data.*