



OTA platform for open, interoperable SIM and Device Management

SmartTrust DPT™ is a telco-grade OTA (Over-The-Air) platform for supporting advanced SIM and Device management. It provides mobile operators the opportunity to use a common platform to manage all of the equipment in their subscribers' hands. With a full range of management tools, it supports mobile operator's special needs for scalability, performance, reliability and interoperability.

The Challenge

Mobile operators are under increasing pressure retain subscribers and provide timely access to mobile services. At the same time they need to control costs in an increasingly competitive mobile marketplace. The OTA platform has a key role to play in the relationship between the subscriber and operator as mobile operators look for new innovative ways of ensuring a positive subscriber experience.

The OTA platform must be able to support the increases in numbers of subscribers resulting from organic growth as well as acquisitions. The increase in traffic from increased management of the subscriber or requirement for larger downloads must not become a limiting factor in providing fast, reliable service.

An OTA platform is a necessity for enabling the using of mobile data services. The channel always available for configuring terminals and SIMs is via the OTA platform. The ubiquitous nature of OTA for reaching subscribers means that Marketing must have an easy to use interface to design campaigns reaching the entire or specific groups of subscriber base.

The Solution

The SmartTrust DP is an OTA delivery platform. It is the backbone to all the OTA related SmartTrust products. Designed to support mission critical activities of mobile operators, it is capable of supporting virtually unlimited subscriber populations.

Flexible, reliable and scalable messaging capabilities between server platform and SIM/Device is a critical success factor for an OTA system. SmartTrust DP gives the choice of IP messaging if supported by Handset and SIM. SmartTrust DP also give the choice of avoid delivering OTA messages when a subscriber is not in its home network.

The platform provides a common environment for the SmartTrust portfolio of applications. It implements functionality and services including messaging, event reception interfaces, configuration management, charging, user administration, operation & maintenance, logging, statistics, reports, data storage and an API for external access to the unified repository.

The modular architecture of the SmartTrust DP allows mobile operators to deploy the SmartTrust applications either all at once or incrementally as they grow. The system is available

in high availability and ultra-high capacity option built using industry standard clustering technology. Protection against disasters like fire, flooding and earthquakes is provided by the Geo-Redundancy option.

Benefits

SmartTrust pioneered OTA technology over ten years ago. The result today is platform found all around the globe supporting many of the world's largest mobile operators to new start-ups. The cumulative experience gathered gives SmartTrust unique insight into the real needs and concerns of mobile operators.

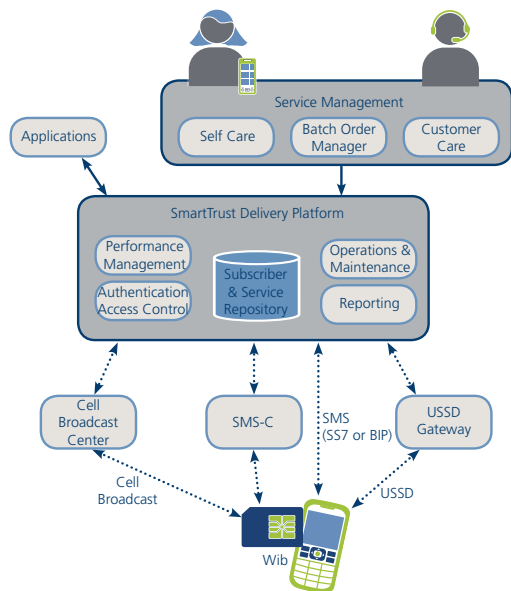
OTA management of SIMs has become a mission critical activity for many mobile operators. The SmartTrust DP has been designed and built with scalability, capacity, reliability and openness as primary requirements. The system supports traffic exceeding 1,000 short messages per second with the optional High Speed Messaging Package (HSMP) implemented and the repository is designed with no upper limit on size.

Because the SmartTrust DP is the common platform for unified SIM and device management, mobile operators can rationalize the number of systems implemented. This results in a lower total cost of ownership and simplified administration with fewer staff required to manage systems.

The platform is built upon industry standard hardware and software from suppliers of carrier grade products including Oracle and SUN Microsystems. The products are available worldwide meaning that operator groups can rest assured that they can deploy the SmartTrust DP globally simplifying procurement and interoperability.

The broad protocol support implemented in the platform ensures that SmartTrust DP integrates with minimal effort into the mobile operator's environment. As well, the platform continues to evolve to support new applications that leverage new features and functions of both SIMs and devices.

Advanced reporting tools open up the wealth of data about subscribers and the equipment in their hands (device and SIM) to the whole organization. Business groups can access and make use of this unique information vital to guaranteeing a positive subscriber experience



Features

Authentication & Access Control

- Access control based upon defined user profiles
- Policies supported based upon subscriptions groups, application and SIM file

Audit Trail Log

- Comprehensive logging of system usage protects against breaches of security
- Tracks usage by platform users and changes made to user profiles and attributes

Operations & Maintenance

- System usage data for performance management is collected and is easily retrieved via SNMP or Sysview, a built in statistical presentation utility
- A rich set of Fault Management tools including Event & Trace Logging, Alarm Handling and System Counters
- Intelligent throttling mechanism provides Overload Protection for connected systems and networks, for an SMS-C or the SS7 network

Subscriber & Service Repository

- Real-time SIM data import API for managing all aspects of SIM and subscription lifecycle in a widely recognized data format
- Optional Repository Integration Server (RIS) provides a single interface for allowing application access via CORBA and SOAP
- Allows SmartTrust device and SIM management solutions to have access to the same data about subscribers, SIMs and devices

Messaging Functionality and Options

- Automatic Choice of message delivery method, IP or SMS, based on handset and SIM support
- Decide message delivery based on Roaming, avoid expensive messaging if subscriber is not in home-network

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- Comprehensive SMS-C protocol support
- Ability to connect multiple SMS-Cs to Delivery Platform

Platform

- High Speed Messaging Package option allows direct connection to the SS7 network providing faster service response times, no need for increased SMS-C capacity and reduced HLR performance impact
- SMS-Cs connections can be added or removed on the fly with no need to stop the system
- Configurable queues and buffers ensure load balancing for the SMS-C based upon the SMS-C channel capacity
- Optional BIP (Bearer Independent Protocol) support for high speed access to SIM

Redundancy and Scalability options

- Horizontally scalable; add more hardware when more capacity is needed.
- Redundancy in hardware and software.
- Geo Redundancy option with the deployment divided into multiple sites.

Event Aware

- Support for a multitude of protocols including http, SOAPxml, ASN.1 and file based
- Designed to support integration with third systems allowing reception of new event types

Reporting

- Built upon the industry leading Business Objects Web Intelligence product
- Advanced tools for creating and executing reports using the extensive data in the platform repository
- Comes with standard reports and the ability to create own custom reports

Related SmartTrust Products and Services

SmartAct™

The SmartTrust SIM management platform - a total solution for reliable Over-the-Air management of the SIM life cycle over-the-air. It uses the Remote File Management standard, supports vendor specific OTA protocols from all major SIM suppliers and supports Remote Applet Management according to the ETSI specifications for Java™ Card based SIMs.

SmartàLaCarte™

A turnkey solution for value added and operator centric services to the entire subscriber base through standard SIM cards. Simplifies application development and distribution while ensuring availability to all subscribers independent of handset model.

SmartTrust Certified™

SIM card certification, ensuring correct implementation of SmartTrust Wib™, RFM, RAM and S@T. The certification program is open to all SIM card vendors.