

SmartTrust ®  
SmartProvisioning™  
Comprehensive device  
management



Giesecke & Devrient  
Creating Confidence.

## Automatic intelligent mobile device management

The diversity of today's handsets is matched only by the diversity of today's subscribers. That is why Giesecke & Devrient provides a carrier grade Mobile Device Management solution that is fully operational with a minimum of configuration and integration work, yet flexible and scalable enough to meet the needs of operators' future requirements.

### The Challenge

To access and make the most of today's advanced mobile data services requires correctly configured and identified handsets. As with traditional SIM based services, the handset must have been discovered, identified and possess the correct parameters.

If mobile operators are to succeed in broadening the appeal of advanced services, like Social Networking, the process of correctly readying the handset must be fully automated. Business logic needs to be embedded in the solution and extensive databases available to ensure a specific customer's handset is optimized for their subscribed services.

Managing the handset must be part of a total solution framework for device management ensuring that all aspects of subscriber and service activation are addressed. If the SIM and device are not ready for operation you miss the opportunity to capitalize upon a subscriber's curiosity of their new device and its capabilities.

### The Solution

SmartProvisioning is a modern mobile device management system built on Giesecke & Devrient's long and world-leading experience in SIM and device management. Incorporating comprehensive support for event detection, business logic built from real-life experience, carrier grade OTA and detailed databases, SmartProvisioning is a solid foundation for device management.

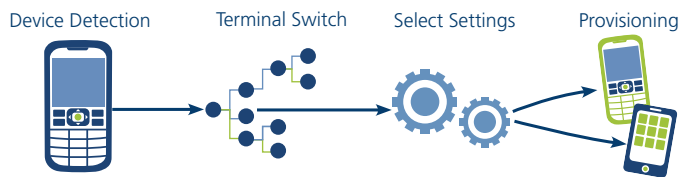
Device Aware and Subscriber Centric, SmartProvisioning focuses upon the needs of the subscriber and the capabilities of their device. We realize that all subscribers are unique and that one size does not fit all when it comes to device management. We deliver device management that meets the needs of the operator – from the handset manager to the marketing manager.

Automatic provisioning may be initiated from third party applications or triggered from file outputs.

### Benefits

With SmartProvisioning, subscribers are relieved from the complex process of configuring their devices. The process has been reduced to simply accepting the operator's request to automatically configure the device. Clearly this not only improves the customer experience but it also significantly reduces the customer care workload, and as a result reduces the operator's cost for existing services.

Subscribers have the right device settings, as the handset is configured automatically, avoid the frustration of failed service access after changing their phone. This helps create a more satisfied subscriber and reduces churn.



Operators using automated handset configuration see an increased usage of services. They can even use the system to enable new services in the network.

The SmartProvisioning system is an important enabler opening up access to network services, like IMS, Mobile TV, Wi-Fi, SIP and 3rd party / enterprise applications. By managing the handset lifecycle operators can build a solid business case based on reduced cost, increased revenue, reduced churn and a quality assurance of the subscriber's perceived service level.

With diminishing revenues from basic voice services it is vital that subscribers start to use such value added data services to their full potential.

The SmartProvisioning solution includes a repository holding detailed information about device capabilities (SIM and handset) and how they are configured. This provides valuable information that can be used to personalize services for each customer. It also provides an opportunity for targeted marketing and advanced customer care services.

## Features

### Automatic Device Configuration

- High performance device detection and configuration, with support for multiple device detection methods, SIM and network based, which generate events coupled with advanced business logic automates the whole provisioning process from discovery to sending configuration settings.

### Mobile Device Repository

- The Giesecke & Devrient world leading mobile device Repository holds detailed information about the features and capabilities of handset models, data about subscriber handsets and SIM cards including information on configuration, subscriber profiles and history as well as provisioning history.

### Flexible Business Logic

- SmartProvisioning supports the most widely used OTA provisioning protocols enabling the delivery of settings for a broad range of devices. The product contains the flexible business logic that determines, based upon various external triggers, device capabilities, subscription groups how to and with what settings to provision the device and manages the process. SmartProvisioning execute provisioning of device settings based upon data about the device capabilities and protocols.

### Support for multiple provisioning methods

- SmartProvisioning supports Self-Care (Web & SIM triggered), Customer Care, Batch, SIM event trigger, Network event trigger and 3rd party provisioning requests as standard.

### Based on a Carrier Grade market leading OTA platform

- SmartProvisioning uses the SmartTrust DP™ - the market leading platform for OTA management of wireless devices. The SmartTrust DP is a carrier grade, high capacity OTA platform in commercial use by major operators worldwide.

### Support for Multiple provisioning protocols

- Support for multiple device management protocols, from legacy protocol to standards based including OMA Client Provisioning and OMA Device Management (OMA DM). With the introduction of OMA DM, new device management operations are possible as support is introduced to new handsets.
- OMA DM provides a bi-directional IP based channel between handset and management server to enable confirmed provisioning of handset and application settings. It is the enabler for standardized advanced mobile device management applications.

## The Future

### Advanced Mobile Device Management

A key objective of a Mobile Device Management system is to manage the total handset life cycle. Standardization plays an important part in reducing the complexity of managing diverse handsets from a multitude of vendors. Many new handsets, and in particular Smartphones, have an OMA DM client enabling the operator to manage handsets in a standardized fashion. The OMA DM protocol provides 2-way communication between client and server, and is the enabler for new device management applications.

Devices supporting these standardized management objects are appearing in greater numbers and are supported by SmartProvisioning. The knowledge in the global terminal capabilities repository is a critical factor to be able to manage all devices from cradle to grave. Each device must be managed by right protocol over the most appropriate channel.

## Related SmartTrust Products and Services

### SmartAct™

The SmartTrust SIM management platform product - a total solution for reliable Over-the-Air management of the SIM life cycle.

### SmartInsight™

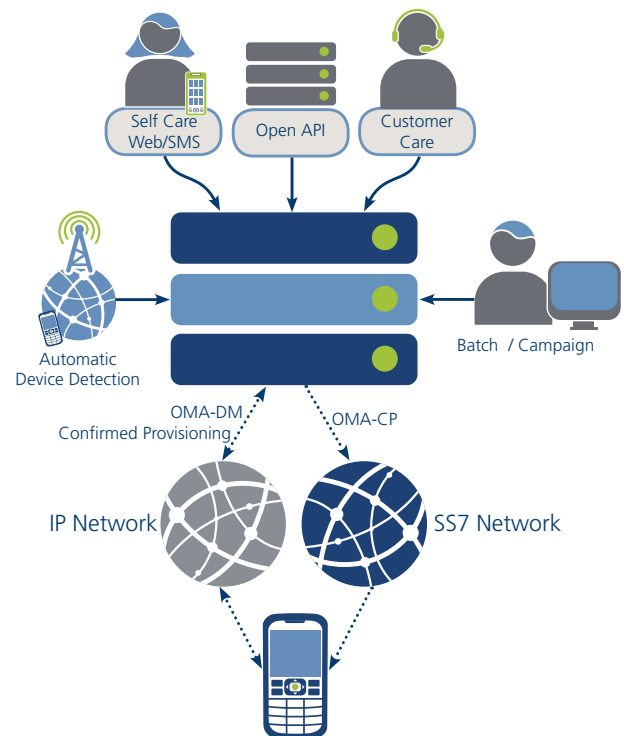
A product providing structured access to device, SIM and subscriber data. The data provides invaluable support for building campaigns and creating reports for intelligent decision support when selecting new services and applications.

### SmartManage™

A product that enables operators to create an intelligent marketplace in the mobile application ecosystem. Allows operators to feed application developers with information about the market potential for their applications and monitor feedback. Subscribers maximize the potential of their devices with applications matched to the terminal capabilities.

### Terminal Update Program

A service from providing the very latest capabilities data of devices from over 300 vendors. The services updates the SmartTrust Terminal Capabilities Repository used by SmartProvisioning and the other products in the SmartTrust product family from Giesecke & Devrient.



Giesecke & Devrient  
Server Software and Services

Fredsborgsgatan 24,  
Box 47154  
SE-100 74 Stockholm  
Sweden

Phone: +46 8 685 93 00

Fax: +46 8 685 65 30

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