

Data Experience Solution

Market Offer Datasheet
Banishing **Bill shock**



Today's customers want control

The growth in smartphone adoption and the popularity of mobile data applications are causing mobile subscribers to rely more heavily on mobile data in their everyday lives. They are also becoming more aware of how usage affects their data charges, especially while roaming. Without proper controls, users face potential bill shock scenarios or will simply turn off data, significantly decreasing roaming revenues for operators. As a result, preventing mobile bill shock is imperative for service providers – today's savvy customers demand transparency and control.

To successfully implement bill shock prevention solutions, service providers must manage both home and roaming usage simultaneously, and meter it accordingly on a per-subscriber level. They also need tools to provide information about, and control over, usage balance and monetary charges to their subscribers.

Amdocs Bill Shock Prevention

Amdocs Data Experience Solution, which integrates real-time policy control with online charging, includes a pre-integrated Bill Shock Prevention market offer that allows operators to monitor, manage and personalize data usage for subscribers, whether they're using data on the home network or while roaming.

Benefits

- Capitalize on roaming revenues – alleviate bill shock concerns by putting control into the hands of the subscriber
- Avoid expensive bill forgiveness costs
- Comply with roaming regulations rapidly using a pre-integrated solution
- Create customer loyalty by providing usage awareness and real-time control of data usage

Bill Shock Prevention helps protect subscribers from incurring excessive charges for data roaming or from domestic usage that exceeds their monthly quota. Designed to streamline the process of compliance with regulatory and legislative requirements for preventing mobile bill shock, this market offer provides a configurable service offer template with options for implementing bill shock prevention measures, including the ability to meter home and roaming usage by time, volume or monetary value. Real-time notifications and different types of controls in the network when usage limits are exceeded – such as increased roaming limits, reduced QoS for applications or cutting off data altogether – are also included. Subscribers receive real-time awareness into their data usage and various service add-ons, such as data top-ups, roaming passes and bandwidth boosts.



Key features

Amdocs Bill Shock Prevention market offer supports:

- Flexible, real-time quota management based on time, volume, application type, or location (for example, when the subscriber is on the home network or roaming)
- Multi-service metering: real time metering for both temporary and monthly plan services
- Broad set of configurable options for creating compelling service add-ons designed to improve transparency and prevent bill shock: roaming and domestic data, application data passes, higher data speeds
- Real-time and in-service notifications: convenient notifications to increase subscriber awareness
- Ability to trigger specific actions as a result of real-time events, such as offering roaming data passes when subscribers roam onto another network

Functional components

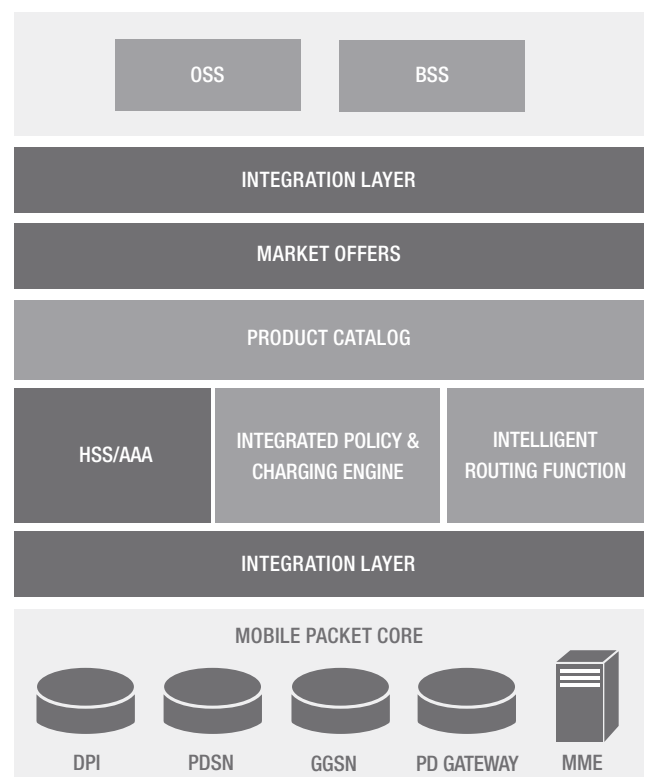
Product catalog

The product catalog enables rapid service definition for bill shock prevention controls that can be applied to subscriber data plans. It can configure data plans based on controls such as volume and time limits, monetary limits, real-time notifications, and different rating categories based on subscriber locations.

Integrated policy and charging engine

This component supports the bill shock prevention parameters that are defined in the service offer definition. It manages subscribers opting-in or opting-out of data roaming controls and applies different types of controls in the network to control data usage, such as applying QoS rules when a subscriber reaches a data roaming limit.

FIGURE 1: THE AMDOCS DATA EXPERIENCE SOLUTION



When a specific usage threshold is exceeded, the integrated policy and charging engine triggers a notification to the subscriber and applies a rule in the network to redirect them to a captive service provider portal, to upgrade their service plan and purchase a roaming pass.

It enables operators to meter usage based on monetary balance, volume limit, time or application usage, and apply differential ratings based on different factors, such as subscriber location. This component supports complex limits as defined in the service definition and provides support for immediate provisioning and activation of temporary roaming passes and data top-ups.



Intelligent Routing Function

The Intelligent Routing Function included in the Data Experience Solution provides a single Diameter interface to the 3G and 4G packet core network. When the Data Experience Solution sends a real-time policy or charging control to the network, the Intelligent Routing Function acts as the common Diameter interface to all devices in the network and provides routing and load balancing capabilities.

Configuration options

The Bill Shock Prevention market offer includes a number of configuration options that allow you to offer the broadest set of bill shock controls for subscribers, enabling them to customize their plans to suit their needs, including:

- Time, volume and monetary limits
- Real-time notifications when usage limits exceeded
- Pass start and end time: daily, weekly or monthly roaming passes
- Actions on thresholds: block data access, prompt sign up for roaming data pass, offer data top-ups
- Roaming zones: roaming passes based on network or country zones

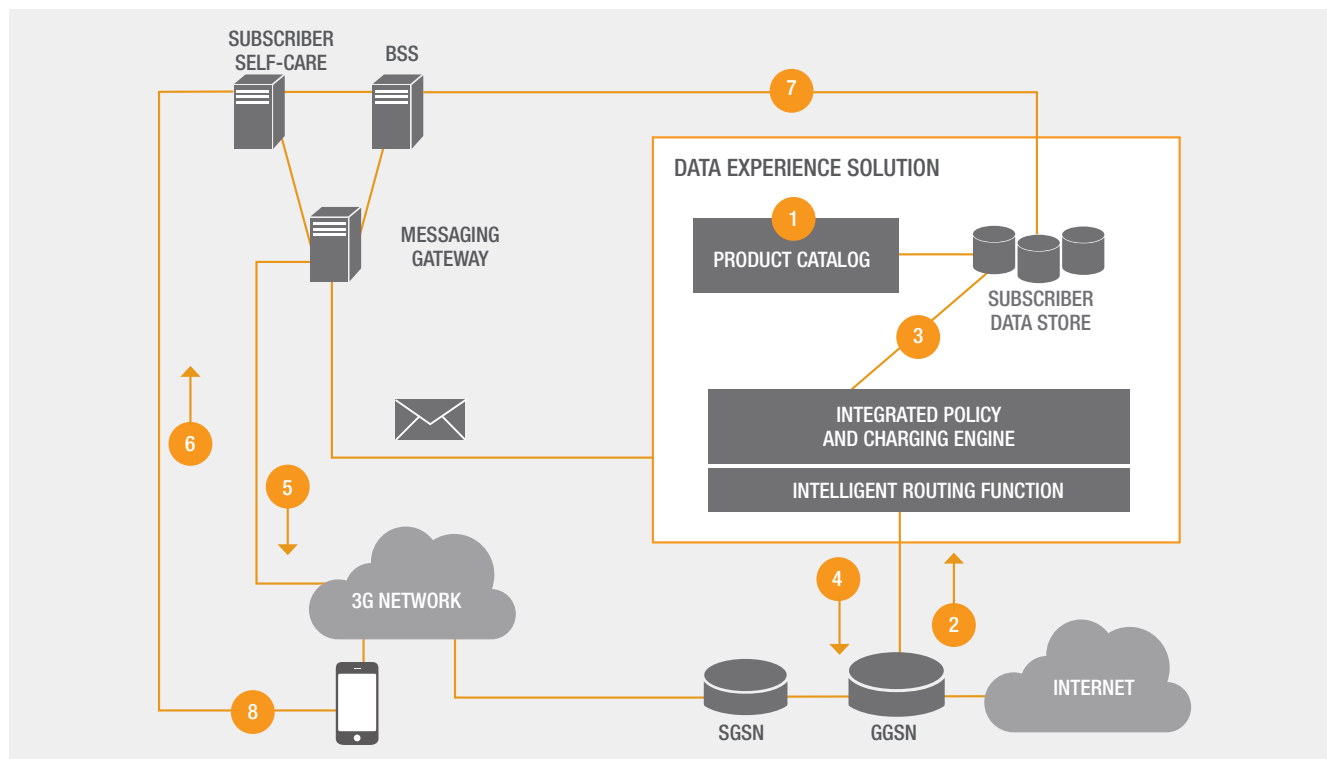
How it works

1. Service tiers are defined in the Product Catalog
2. The integrated policy and charging engine performs session control using Gx interface and real-time volume-based quota management using the Gy interface to the network.
3. The integrated policy and charging engine applies QoS rules based on the subscriber's service package, and the OCS applies the appropriate rate plan, for example:

Gold Service:

- Max speed: 1 Mbps
- 3 GB monthly quota
- Overage: \$1 per MB

4. When the user is roaming, the Data Experience Solution sends a policy to the network to apply roaming QoS. When roaming spending exceeds 50 Euros, the PCRF sends a policy to the GGSN to redirect the subscriber to the operator portal.
5. The subscriber is redirected and receives an SMS with an offer to upgrade.
6. Subscriber acknowledges the 50 Euro roaming spend warning.
7. The Data Experience Solution receives the service change message to allow data access.
8. The subscriber uses the client application to view real-time usage.



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