



## USSD

The hidden gem in the GSM network

### Key Benefits

**Derives rapid deployment of services**

- Out-of-the-box services
- User-friendly service creation
- Easy integration of applications via portal

**Enhances uptake of services**

- Support for multiple languages and character sets
- Service discovery through portal

**Cost-effective solution**

- No new CAPEX in the network
- Exploits existing network capabilities
- No complex handset configuration
- Cheaper than IVRs for self-care
- Flexible, non-blocking licensing

### Market Dynamics

Unstructured Supplementary Service Data (USSD) is a service whose time has come. Supporting high-speed, bi-directional communication between GSM mobile subscribers and applications, USSD represents the most cost-effective way for mobile operators to roll out innovative, interactive, value-added services such as customer self-care, mobile banking and payments and mobile advertising. Unlike WAP or mobile internet, USSD services require no sophisticated handsets, no special settings and are available to subscribers in any GSM network, even while roaming abroad.

### Product Overview

The Jinny USSD Server provides the operator with a complete suite of enablers and turn-key applications to launch innovative services and begin monetising their network's capabilities fully. This opens up new revenue streams and raises customer satisfaction and loyalty, leading to reduced churn. USSD is especially attractive for services such as mobile information, mobile commerce, mobile entertainment or any service that requires immediate assured interaction between subscriber and application, such as mobile banking. The immediate, interactive and assured nature of USSD services makes it the ideal technology for mobile banking applications. The Jinny USSD platform already supports the provision of mobile banking services to previously "unbanked" populations in remote regions of the world.

As an enabler of USSD services in the core network, the Jinny USSD Server supports GSM SS7 connectivity and translates USSD requests into IP-based protocols such as SMPP or HTTP/XML. It complies with GSM phase 1 and 2 USSD for push/pull and session-based services. It provides a flexible routing capability based on service code, network information or subscriber identity.

In addition to providing the standard features of a USSD gateway, Jinny offers optional components to help operators provide out-of-the-box services and to build menus to enable subscribers to locate services from a central access point.

The Jinny USSD Server is founded on Jinny's distributed component architecture, which supports industry-leading performance, high availability and cost-effective scalability. As the same architecture underlies the whole range of Jinny's voice, multimedia and messaging products, it is easier to seamlessly integrate them together to launch synergistic and complementary services such as:

- USSD download of MMS and WAP settings
- Mobile marketing
- Customer self-care via USSD menus
- Mobile payments & banking
- USSD information services for inward roamers



## Key Features

### Out-Of-The-Box Services

With its suite of turn-key applications, the Jinny USSD server enables a mobile operator to immediately roll out attractive services to subscribers when they deploy the platform. The following applications are available to operators deploying the Jinny USSD server:

- Voucher Recharge
- AirTime Transfer
- Balance Enquiry
- Call Me Back

### Menu-based Navigation and Accelerated Launch

The Jinny USSD portal helps the operator construct and present interactive menus to subscribers for the discovery of and navigation through services and information. Menus can be constructed in a tree structure that terminates either with an application that provides a particular service or with an item of information for display on the subscriber's handset. This means subscribers do not need to remember codes for specific services and enables the operator to provide a central point of access.

### Integration of External Content

The definition of menus on Jinny's portal provides for menus terminating with static "pages" of information. This information can be retrieved from an external source such as a web page and simply displayed on the subscriber's handset.

### User-Friendly Service Creation

Jinny's USSD Portal equips the mobile operator with a GUI-based interface for designing menus through which to offer VAS services to their own subscribers and subscribers on other networks.

### Real-time Rating and Charging

The Jinny Real-time Charging Gateway enables flexible rating and charging of USSD services based on numerous criteria. Typically a service code is used to charge.

## USSD Architecture

