

# Web Self-Care

## Introduction

MASS MO's Web Self-Care solution is specially designed for telco businesses. It offers telco subscribers the flexibility and power to view and modify their services and accounts through the Internet environment, thus both improving user experience and reducing cost-to-serve. The solution features:

- Online access to key subscriber details
- Rich set of self-service processes and operations
- Fully configurable interface allowing the company's administrators to change styles and to add news, special offers, targeted messages and other content
- Scalable architecture
- Robust security and audit capabilities

## Architecture

Solution architecture offers a zero-code, browser-based client interface that utilizes Java Servlet technology. HTML-based screen templates and widget technologies combine to allow for:

- Customizable design and screen layouts that match the company's corporate style and market strategy
- Targeted advertisements, news, graphics and other content
- Translation to different languages

Secure access and privacy are facilitated by a built-in security engine together with SSL principles adopted throughout all web components.

Web Self-Care solution operates in close integration with the company's billing system. All web processes and operations utilize the business logic adopted in the billing system, thus ensuring that data consistency is preserved and that all actions are properly logged and tracked.

Both synchronous and asynchronous interfaces to billing system are supported, and interaction is optimized by employing cache as well as operations-per-time limitations.

A set of APIs is provided to interface with other types of external systems, and Single Sign-On (SSO) approach can be utilized to achieve seamless user experience.

Multi-node architecture of the solution allows for scalability and can conform to the company's established business continuity (software / hardware redundancy) practices.

To handle requests for various forms and reports – like call or charge details – with speed and efficiency, a dedicated reporting engine is encapsulated into the solution.

Deployment of the Web Self-Care solution requires the following environment:

Web server engine:	Apache Tomcat
Database SW:	Oracle
Reporting engine:	Jasper Server
Additional server software needed:	Java Virtual Machine, Apache httpd
Server OS:	MS Windows or Unix

As for the client side, key modern web browsers are supported, including MS Internet Explorer (v.8.0 or higher), Google Chrome and Mozilla Firefox (v.3.0 or higher). Mobile browsers can also be supported.

## Access & Security

For subscribers, secure access to Web Self-Care interface is ensured by a login name (which is usually either their respective MSISDN or account number) and a password. The solution supports both permanent password setup and one-time password generation. Passwords can be delivered to subscribers via SMS or email. When a subscriber opts for a permanent password, its complexity is controlled through a set of configurable rules. Password expiration and login attempt policies can be also configured, the latter ensuring

that login attempts are not only monitored but instantly blocked whenever pre-configured count or time thresholds are achieved.

To make registration and logon more convenient to subscribers, the solution also offers integration with popular social network sites (*Facebook*, *Vkontakte*, and *Odnoklassniki*).

Each and every action done by either subscriber or a company's administrator is logged by the solution, thus ensuring proper audit trail.

### **Key processes**

Once logged in, subscribers receive a 360° view of their accounts through the both feature-rich and easy-to-use web interface. All key data like current balance, account details, active services, packages and free minutes is readily available. In addition, subscribers can view their payment history and the history of all actions they've carried out through the self-care interface ("event log").

All typical self-service operations are supported, including options to:

- Change contact details
- Suspend / resume services
- Change tariff plan
- Manage services – add, remove or configure (e.g. change *Friends & Family* numbers)
- Request and view call / charge details
- Register promised payments
- Request and receive device configuration data – e.g. to configure Internet access

Depending on integration with external payment systems and gateways, processes for making various types of online payments can be also enabled.

Furthermore, there's a process allowing subscribers to send their requests, questions and complaints to the company's customer care team through filling an easy-to use form. Another option is the integration with external feedback gathering systems (online survey services).

### **Configuration & Administration Options**

The solution offers a comprehensive set of configuration options to its administrators. Great care is given to provide the most flexible options for dealing with content. Administrators can:

- Add news articles, special offers, targeted messages, banners, graphics and video
- Configure all those content types basing on subscriber's region, tariff plan and other parameters
- Integrate external widgets (e.g. *Facebook* Comments or Like Button)
- Change static content – e.g. field labels, screen titles, error texts, etc. – when necessary

Since employees responsible for the Web Self-Care administration may have different responsibilities – and thus different access privileges – a role-based approach to user access control is implemented. Basing on their roles, administrators can be allowed access either to the whole set or only to a part of configuration functions: for example, an employee may be entitled to generate and manage news and targeted messages for a particular region only, while dealing with other regions or changing process-related settings is not accessible for him.