

SMPP Proxy/Router

System Description

PROTEI SMPP-proxy/router is a flexible solution intended both for Operators, content-providers and content-agregators allowing intellectual SMS- and USSD-message routing between SMS-centers or USSD-gateways and the external applications.

System enables messages exchange between one or more sms/usss centers and external applications by several routing criteria. Flexible policy and bandwidth management allows creating branched out routing algorithms that allows deployment of the SMPPproxy/router as a key element of the content provider access system.

System Features

- Thousands supported simultaneous SMPP-connections;
- ESME access control and policy management (admissible IP addresses, list of numbers allowed for using as the originator number for message sending from ESME, spam preventing functionality);
- White and black list of message recipients can be configured for each ESME;
- Possibility to manage bandwidth for each ESME separately;
- Powerful and flexible SMPP message routing between SMSC or USSDC and the external application by the message type, destination and origination addresses, message body and time parameters;
- Alternative SMS routing in case of failing the main ESME connection;
- Dinamical configuration of the message processing rules;
- Traffic limitation from the subscribers to ESME and from ESME to the subscribers;
- Detailed CDR generation for all transaction types;
- USSD transactions processing.

To prevent possible SMS-spam from ESME (sending of unsolicited message) special mechanism of dynamically created windows can be used. It allows ESME sending only limited number of the messages to the subscribers and only in the specified time interval after the subscriber sent his request to ESME.

Together with Protei SMS gateway SMPP-proxy can be efficiently used for implementation "First delivery attempt" functionality to off-load main Operator's SMSC during mass SMS sending.

System Use Cases

1) Connection external applications to the SMS Center/Gateway

SMPP Proxy/Router can be installed between the SMS Center/Gateway and external applications (Fig. 1). The main advantage of this scheme is the ability to route requests directly from the external applications to SMS gateway. Only undelivered messages in this case will be sent to SMSC for the postponed delivery. This algorithm dramatically lowers the load for the SMSC and frees up its resources for carrying out its main task—exchanging messages between the subscribers of the network.

2) Exchanging messages between SMS centers

PROTEI SMPP proxy/router can be used as a router between SMS centers of different mobile telecommunications carriers in order to organize a single SMS messaging space (Fig. 2). In this case, the subscribers of different service providers can exchange SMS messages and take advantage of unified SMS services. When SMPP proxy/router operates in this mode, content providers get access to different networks via single access point.

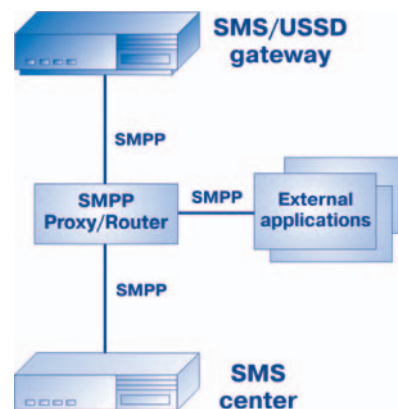


Fig.1. Scheme for using SMPP Proxy/Router together with SMS Gateway implementing FDA functionality

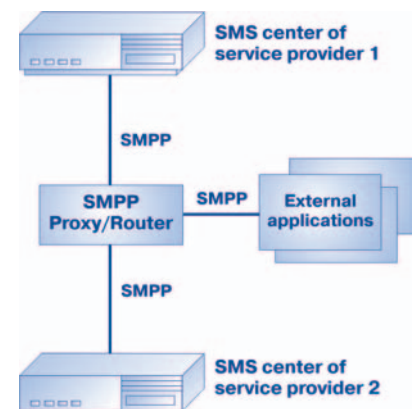


Fig.2. Scheme for using SMPP Proxy/Router for organizing message exchange between SMS centers of different service providers

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