

SMPP Proxy/Router

System Description

PROTEI SMPP proxy/router is a flexible solution intended 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/USSD centers and external applications by several routing criteria. Flexible policy and bandwidth management allows creating branched out routing algorithms that allows deployment of the SMPP proxy/router as a key element of the content provider access system.

System Features

- Supports thousands of 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 prevention);
- 'White' and 'black' lists of message recipients can be configured for each ESME;
- Bandwidth can be managed separately for each ESME;
- Powerful and flexible SMPP message routing between SMSC or USSDC and the external application according to message type, destination and origin addresses, message body and time parameters;
- Alternative SMS routing in case of main ESME connection failure;
- Dynamic configuration of message processing rules;
- Traffic limitation from subscribers to ESME and from ESME to subscribers;
- Detailed CDR generation for all transaction types;
- USSD transaction processing.

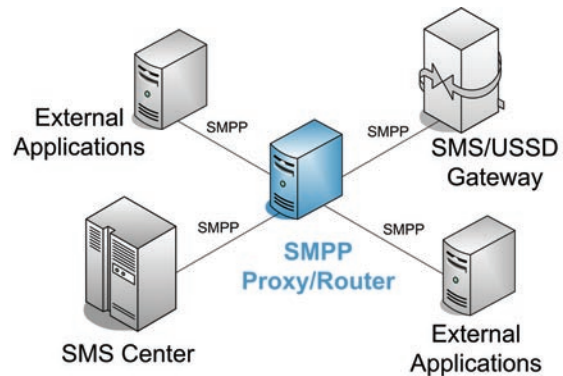
To prevent possible SMS spam from ESME, a special mechanism of dynamically created windows can be used. It allows ESME to send only a limited number of messages to the subscribers and only in the specified time interval after the subscriber sent his request to the ESME.

Together with PROTEI SMS Gateway, SMPP proxy can be used for efficient implementation of 'First DeliveryAttempt' functionality to offload the operator's main SMSC during mass SMS sending.

System Usage

1) Connection of external applications to the SMS Center/ Gateway

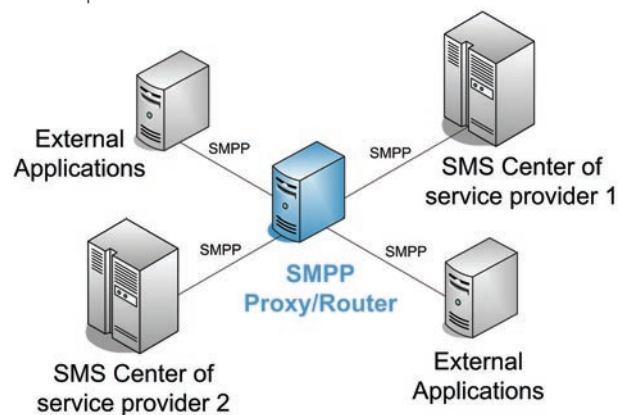
SMPP proxy/router can be installed between the SMS Center/Gateway and external applications (Pic. 1). The main advantage of this scheme is the ability to route requests directly from external applications to the SMS gateway. In this case, only undelivered messages will be sent to the SMSC for postponed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



Pic.1. Scheme for using SMPP proxy/router together with SMS Gateway implementing FDA functionality

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 (Pic. 2). In this case, subscribers of different service providers can exchange SMS messages and take advantage of unified SMS services. When the SMPP proxy/router is operating in this mode, content providers get access to different networks via a single access point.



Pic.2. Scheme for using SMPP proxy/router for organizing message exchange between SMS centers of different service providers



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