SMS Proxy User's Guide

Version 1.0

Table of Contents

1

About This Guide

This guide explains how to use the SMS proxy in conjunction with the following Ex Libris products:

- Aleph (version 19.01 and later)
- Primo (version 2.0 and later)
- Voyager (version 8.0 and later)

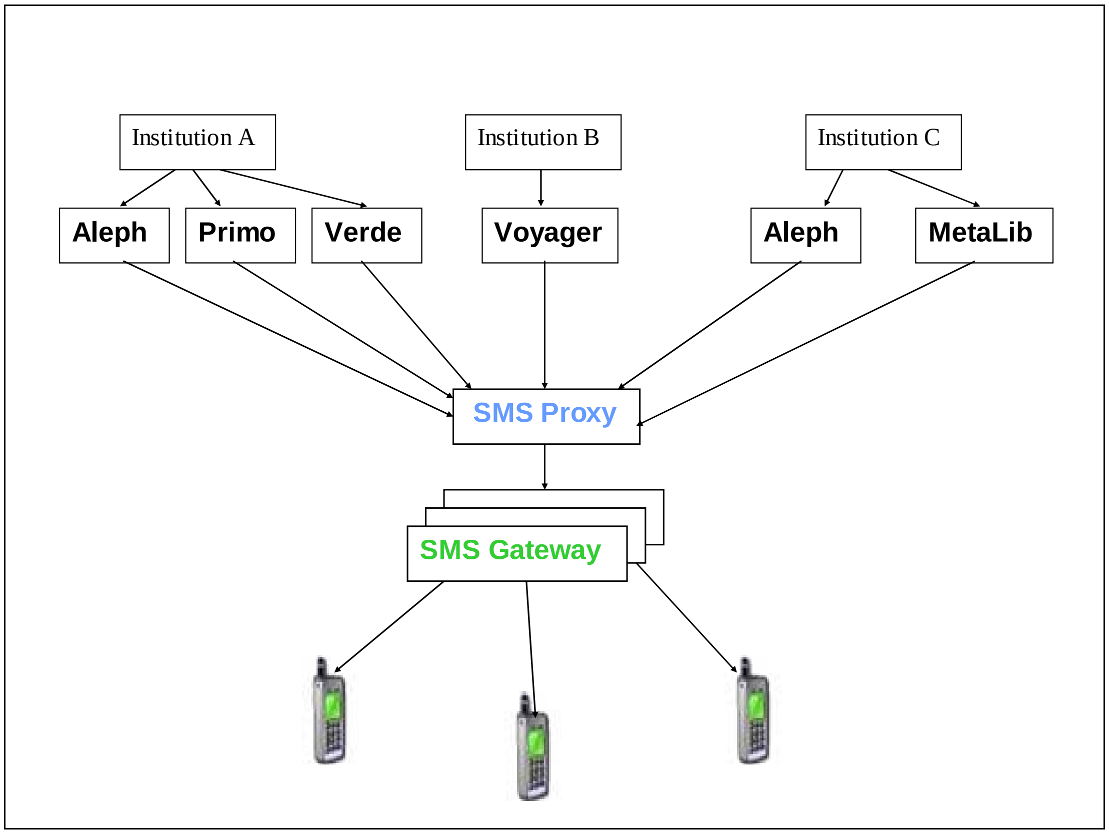
2

Overview of the SMS Proxy

The SMS proxy is a Java .war application running on a JBoss server. It is used to pass SMS messages to providers who specialize in sending mass amounts of text messages over cellular networks. Since each provider has a different method (API) of receiving the requests, the main functionality of the SMS proxy is to convert requests it receives to the appropriate format as defined by the providers.

The SMS proxy serves as an intermediary. Instead of contacting the provider directly, the main application (for example, Aleph, Voyager, or Primo) contacts the SMS proxy with X-services, and the SMS proxy contacts the provider according to its defined methods. See **The SMS Proxy APIs** for more information.

One SMS proxy installation can serve different applications at several institutions, as illustrated in the following image:



Terms and Definitions

- **Provider** – A company such as SimpleWire or Clickatell that provides SMS gateways. The provider accepts requests for SMS messages (usually over the Internet) and forwards them to a cellular network.
- **Adapter** – A component inside the SMS proxy that is responsible for contacting a specific provider.

3

SMS Proxy Configuration

The SMS proxy uses a single configuration file called `SmsProxyConf.xml` that includes all of the component parameters. It is located in the `./system/conf` directory, under the server JBoss HOME. The JBoss Home is the base directory of JBoss distribution. For example, in Aleph this could be: `$aleph_dev/ng/aleph/home`. The `SmsProxyConf.xml` configuration file contains the following lists:

- **IP address** – The SMS proxy only accepts requests arriving from these addresses.
- **Institutions** – Each institution has a code, a name, and a `ProviderCode` that identifies the provider it uses. Each institution can have only one provider. Since two institutions can use the same provider, but with different user names and passwords, each institution has fields for the user name and password as well.
- **Providers** – Each provider has a code (which connects it to an institution), a name, and a component, which is the name of the Java class that is used to handle the connection to the provider.

```
<?xml version="1.0" encoding="UTF-8"?>
<SmsProxyRoot xmlns="http://com/exlibris/core/sms/proxy/conf">

   <Senders>
          <Sender>127.0.0.1</Sender>
          <Sender>10.1.234.78</Sender>
   </Senders>

   <Institutions>
          <Institution name="Exlibris Demo Library" code="USM50">
                 <ProviderCode>simplewire</ProviderCode>
                 <ProviderUser>415-562-401-111111</ProviderUser>
                 <ProviderPassword>123456</ProviderPassword>
          </Institution>
          <Institution name="Another Demo Library" code="USM51">
```

```
                <ProviderCode>simplewire</ProviderCode>
                <ProviderUser>415-562-401-22222</ProviderUser>
                <ProviderPassword>6543221</ProviderPassword>
          </Institution>
          <Institution name="Clickatell Demo Library" code="CLI50">
                <ProviderCode>clickatell</ProviderCode>
                <ProviderUser>uuuunnnn</ProviderUser>
                <ProviderPassword>qwerty:123456</ProviderPassword>
          </Institution>
   </Institutions>

   <Providers>
       <Provider name="SimpleWire" code="simplewire">

   <component>com.exlibris.core.sms.proxy.SimpleWireProvider</compon
ent>
       </Provider>
       <Provider name="Clickatell" code="clickatell">

   <component>com.exlibris.core.sms.proxy.ClickatellProvider</compon
ent>
       </Provider>
   </Providers>

</SmsProxyRoot>
```

4

SMS Proxy Workflow

The SMS proxy operates according to the following workflow:

1 The SMS proxy is invoked via HTTP GET requests. The HTTP GET URL should have the prefix `core-sms-proxy/sms?` followed by the request parameters. For example: `http://localhost:1801/core-sms-proxy/sms?&action=submit &institution=CLI50&phone=972509170097 &message=see%20you%20there`

2 The SMS proxy checks the list of senders to confirm that the request arrived from a valid IP address. After this is confirmed, the institution name is located in the configuration file, and the `ProviderCode` is used to locate the configuration for the provider.

3 The parameters from the URL, together with the user name and password from the configuration file, are used to contact the provider via the methods in the Java class written for this provider.

4 The SMS proxy analyzes the response it receives from the provider and returns an XML with information about the success or failure of the operation.

Note that a successful response from the provider does not indicate that the SMS message was actually received by the recipient cellular phone. It only indicates that it was received by the provider, and it will be sent after processing. The duration of the processing can vary between a few seconds and several hours.

The returned XML might also include a message ID that identifies the specific SMS message as received by the provider. The message ID can be used to check the status of the message (if it was received by the recipient cellular phone or if it is still queued) using the **GetStatus** API.

The SMS Proxy APIs

Aside from the main API (action=submit) that was described above, the SMS proxy has three more APIs:

- **GetStatus** – Queries the provider regarding the status of an SMS message that was sent using the submit API
- **UpdateParam** – Updates the configuration file
- **LoadConfig** – Reads the configuration file (after changing it manually)

Updating the configuration can be done in two ways:

- Using the **UpdateParam** API.
- Manually, with a text editor. After saving the file, the JBoss server needs to be restarted for the configuration to be read again. Alternatively, the **LoadConfig** API can be used instead.

5

Adding Support for Additional SMS Providers

By default, the SMS proxy supplies two adapters. Each adapter supports sending SMS messages via one of the following providers:

- SimpleWire www.openmarket.com
- Clickatell www.clickatell.com

The architecture of SMS proxy is designed to allow for adapters written by customers and, thereby, enable support for providers that institutions are already using.

The code should be written in the Java programming language and deployed on the JBoss as a .jar file.

The configuration should be updated with the name of the Java class file by adding a new provider record in the `SmsProxyConf.xml` file.

For more information, refer to the Developer Zone on the EL Commons collaborative Web site (http://www.exlibrisgroup.org).