IGK Information System
Web Services

IGK RSCR Agent: Web Service ”IGK Credit Reports Agent”, REST/JSON (POST)

Application Developer’s Guide

22.12.2025 ag

Contents:

Description

Push technology assumes immediate delivery of completed report to the Customer – as opposed to *pull technology* where Customer needs to make periodical checking requests for available reports. According to its definition for client-server communication, push technology needs a *listener* or *agent* on client side, which accepts information sent by server.

Described service implements Customer-side API (client) to be called by *push* requests from IGK-side (server), thus being an *agent.* On receiving *push* request, the *agent* reacts by invoking a call to IGK “Credit Reporting” service for getting report. In result, the report is delivered immediately.

Customer gets the following benefits from using the *agent*:

(1) report is delivered as soon as it is completed at IGK-side
(2) no need in building a logic of serial requests getting available reports (*getAllCompletedOrders* operation)
(3) internet traffic is minimized to actual transmitting of ready reports

Proposed *RSCR Agent* is an example for communicating with IGK’s “Credit Reporting” REST/JSON service (IGK-RSCR), see https://online.igkservice.lv/docs/tech
Customers can use the example for developing their own API.

Implementation

The service is created in NetBeans IDE ver. 11.1.
Web service type: REST/JSON, HTTP/POST
Deployment address (context path): /igk_rscr_agent
Java version: JDK 8
Extra libraries: Jersey 2.46
WAR file: igk_rscr_agent.war

Methods of the service:

Method	Purpose	Notes
ping	Check if the service is active	-
getCompanyReport2	Get all report files for completed order	Calls getCompanyReport2 method of IGK-RSCR service

Configuration

Runtime parameters should be set in *igk.rscr.agent.AppConstants.java*

Parameter	Purpose (default value)	Used in class
AGENT_USER, AGENT_PASS	Validate "authHeader" in entry requests: username, password	igk.rscr.agent.DoOperation**
RSCR_BASE_URI, RSCR_USER, RSCR_PASS	Connect to IGK-RSCR service: address, username, password (https://online.igkservice.lv/rscr)	igk.rscr.agent.AppContext
DOWNLOAD_DIR	getCompanyReport2: Local directory for downloaded report files (/tmp/)	igk.rscr.client.RsCreditReportsClient
RSCR_CLIENT_ID	Returned errors: Identifier for IGK-RSCR service errors in ResponseText (IGK_RSCR)	igk.rscr.agent.resources.*Result/ResponseText
LOG_PREFIX	Logging user actions: build filename as <prefix><user>.log (igk_agent_)	igk.rscr.agent.AppLogger

** - *_isConnectionValid()* method can be replaced by customer's logic to follow internal security policy.

Note: setting parameters in *AppConstants.java* requires to re-build and re-deploy the war file; customer's implementation can choose other approach, e.g. from system properties, to avoid re-deploying.

Program components

Main application classes:

Package	Program	Description
igk.rscr.agent	RscrAgent	Entry class of the service
	AppConstants	Customer’s config parameters
	AppContext	
	AppLogger	
	ApplicationConfig	
	DoGetCompanyReport2	”getCompanyReport2” method processor
	DoOperation	
	DoPing	”ping” method processor
	ObjectConvertor	
	ProcessorFactory	
	ResponseFactory	
	RscrAgentResponseBuilder	Building response, incl. for errors
igk.rscr.agent.resources	GetCompanyReport2Request	
	GetCompanyReport2Response	
	GetCompanyReport2Result	
	GetCompanyReportRequest	
	PingRequest	
	PingRequestCodes	
	PingResponse	
	PingResponseCodes	
	PingResult	

Extended and other used classes:

Package	Program	Description
ag.base64	Base64Helper	Read binary files in igk.rscr.client.RsCreditReportsClient
ag.ws.base	AppConstantsBase	Base classes
	AppContextBase	
	AppLoggerBase	
	AppRuntimeException	
	DoOperationBase	
	Util	
ag.ws.common	AuthHeader	Common classes and interfaces
	IDoOperation	
	IResult	
	Result	
ag.ws.rest	AppContextRs	WS-REST classes
	AppLoggerRs	
	UtilRs	
igk.rscr.client	RsCreditReportsClient	Calls IGK-RSCR service to get reports
	Util	
igk.ws.resources.cr	AuthHeader	IGK-RSCR service classes
	BinaryReport2	
	GetCompanyReport2Request	
	GetCompanyReport2Response	
	GetCompanyReport2Result	
	GetCompanyReportRequest	
	GetCompanyReportResponseType	
	GetCompanyReportResult	
	JsonReport2	
	PingRequest	
	PingRequestCodes	
	PingResponse	

	PingResponseCodes PingResult Report Report2 TextReport2 XmlReport2	
igk.ws.resources.cr.add	AnyReport2	Common for above *Report2 classes

Implementation details

The agent’s methods execute calls to IGK-RSCR service in *synchronized* mode. This means that the method invokes a call to the service and waits for the call result before method’s response is constructed. If service call returns error, the agent’s method result shows this error with special indicator in ResponseText, see “RSCR_CLIENT_ID” parameter.

Agent’s method processing diagram:

(1) entry request received
(2) call to IGK service invoked
(3) response from IGK service received
(4) response returned

“getCompanyReport2” method interface

Purpose:

Using specified order number, the method reads report files for the order by making a call to IGK-RSCR service. Downloaded report files are stored in local directory pointed by DOWNLOAD_DIR parameter.

Request structure:

Parameter name	Type	Required	Explanation
providerOrderReference	string	yes	IGK order reference

Http response status codes:

Status code	Description	Explanation
200	ok	Always OK, see "responseCode|Text" for details

Response structure:

Parameter name	Type	Required	Explanation
getCompanyReport2Result	object	yes	
responseCode	string	yes	See “Application response codes”
responseText	string	yes	Details for “responseCode”

Application response codes:

responseCode / responseText	Explanation
OK / OK	Successful return
BadRequest / - No "authHeader" httpHeader. - Cannot unmarshal "authHeader" to JSON object. - AuthHeader: username is not set. - AuthHeader: password is not set. - ProviderOrderReference: Mandatory value is not set.	Incorrect request parameter value
ServerError / <program exception message>	Unexpected program error

IGK service response codes (indicated by IGK_RSCR prefix in ResponseText):

responseCode / responseText	Explanation
BadRequest / - No "authHeader" httpHeader. - Cannot unmarshal "authHeader" to JSON object. - AuthHeader: username is not set. - AuthHeader: password is not set. - ProviderPartyID: Mandatory value is not set. - ProviderOrderReference: Mandatory value is not set.	Incorrect request parameter value
UnknownProviderIDOrProviderOrderReference / - Unknown ProviderID: <partyID> - Unknown OrderReference <ref> for Provider <partyID>	Incorrect request parameter value
ReportNotAvailable / Order <ref> is not in Finished/FinishedNegative status, or no report is assigned.	Requested order is not in status that allows getting a report
ServerError / <program exception message>	Unexpected program error

Authentication

HTTP header "authHeader" of the request is a JSON presentation of AuthHeader object, as below:

```
public class AuthHeader {
  String username, password;
  public String toJsonString() {
    return "{\"username\":\""+username+"\",\"password\":\""+password+"\"}";
  }
}
```

./end