RAYV

Subscription Proxy Partner API Reference

Contents

1 Introduction

1.1 Document Scope

Define the API and implementation guidelines for Subscription Proxy Partner component as a reference for partner access control client integration.

1.2 Terminology

Term	Description
REST	Representational State Transfer. Requests and responses are built around the transfer of representations of resources.
VOD	Video on demand.
SSP	Subscription Proxy

2 API

2.1 Overview

- SSP to Subscription Proxy Partner communication over REST/POX

2.2 Subscription Proxy Partner API (REST/POX)

Uri	Method	Description
/LoudLogin/	GET	Authorizes content and checks username against password and optionally security code.
/SilentLogin/MultiContent/	GET	Authorizes content **without** checking username against password nor security code.
/stream/	GET	Retrieves information about a stream.

2.2.1   Method: /LoudLogin/

Purpose	Used to authorize content for specific user and to authenticate user by password or security code.

2.2.1.1   Request Parameters:

Parameter	Value	Description
contentID (channel/VOD/program)	String(mandatory)	An identifier of the content to be authorized for the end-user. This can be a comma-separated list of IDs.
user	String(mandatory)	An identifier of the end-user to check authorization for.
clientIPAddress	String(optional)	The end-user's IP address, for logging purposes.
password	String(mandatory)	The password for the user-id for user authentication.
requestID	String(mandatory)	The request identifier that was sent to SSP, for logging purposes.
securityCode	String(optional)	A security code that goes along with the password and user-id, for the end-user. Some sites use this as additional security measure. Treat it as a second password.
timeStamp	String(optional)	A time stamp for the request, for logging purposes.
contentType	String(mandatory)	One of the following, identifying the type of content: "Channel","Vod","Program"

2.2.1.2   REST API:

GET Request URL

http://[SSP-Partner-URL]/LoudLogin/

Sample Request:

http://[SSPPartnerURL]/LoudLogin/?contentID=DefaultChannelForSSPTest&user=SSPTestUserName&clientIPAddress=192:192:192:192&password=SSPTestUserPassword&requestID=8f942&requestType=Loud&securityCode=&timeStamp=2011-02-13T14:24:32&contentType=Channel

2.2.1.3 Response XML

Response is returned in the following XML format:

```xml
<AuthorizeResponse
xmlns="http://schemas.datacontract.org/2004/07/RayV.WebApps.SubscriptionProxy
.PartnerService.Contracts" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">

    <RequestID>8f942</RequestID>
    <ResponseExternalLink/>
    <ResponseList>
        <ResponseListItem>
            <ContentID>DefaultChannelForSSPTest</ContentID>
            <PlaybackWindowSeconds>36000</PlaybackWindowSeconds>
            <ResponseCode>Success</ResponseCode>
            <ResponseMessage/>
        </ResponseListItem>
    </ResponseList>
    <IsFree>false</IsFree>
</AuthorizeResponse>
```

2.2.1.4 Response Fields

Field	value	description
RequestID	String	Request identifier.
ResponseExternalLink	String	A URL which is passed from the partner to SSP and to the viewer.
IsFree	Boolean	For performance boost, this field, when true, specifies that the content requested is free and therefore SSP can authorize anyone to watch it without hitting the SSP-partner with a request per user.
ResponseListItem	Set of values	Each item corresponds to a content item tested for authorization, from the requests comma separated contentID field.
ContentID	String	The partner's content ID. This will be a specific content's ID, explicitly one value.
PlaybackWindowSeconds	String	After validating the security token, this field specifies for RayV's grid-server how long a viewer may play the content. The value is in seconds.
ResponseCode	String	Authorization status, explained below.
ResponseMessage	String	A verbose response, passed from the partner, and may be used to include further information.

2.2.1.4.1 ResponseCode

Constant	Explanation
Success	The request was successful. The user may view the requested channel
SuccessWithInfo	The request was successful. The partner platform has high priority information for the user
LoginError	The account does not exist or the password is incorrect
SecurityCodeError	Incorrect security(e.g. parental access) code
ChannelNotIncluded	The channel is not included in the bundles purchased by the user
ChannelExpired	The channel may no longer be viewed by the user
AccountExpired	The user may no longer view any channels
LocationNotAllowed	The user may not watch the channel in the current location (Web site, Geo location, etc.)
ChannelUnavailalbe	The channel is not available to any user
SystemError	The partner platform cannot respond to the request at the moment
RequestError	The request was not properly formatted
VersionError	The request version is incorrect

2.2.2   Method: /SilentLogin/MultiContent/

Purpose	**Authorizes content without** user authentication. Subscription proxy is responsible to authenticate user according to silent login token generated by the partner website.

2.2.2.1   *Request Parameters:*

Parameter	Value	Description
contentID (channel/VOD/program)	String(mandatory)	An identifier of the content to be authorized for the end-user. This can be a comma-separated list of IDs.
user	String(mandatory)	An identifier of the end-user to check authorization for.
clientIPAddress	String(optional)	The end-user's IP address, for logging purposes.
requestID	String(mandatory)	The request identifier that was sent to SSP, for logging purposes.
timeStamp	String(optional)	A time stamp for the request, for logging purposes.
contentType	String(mandatory)	One of the following, identifying the type of content: "Channel","Vod","Program"

2.2.2.2   *REST API:*

GET Request URL

http://[SSPPartnerURL]/SilentLogin/MultiContent/

Sample Request:

http://[SSPPartnerURL]/SilentLogin/MultiContent/?contentID=DefaultChannelForSSPTest&user=SSPTest
UserName&clientIPAddress=::1&requestID=59134065&requestType=Silent&timeStamp=2011-04-
06T13:08:26&contentType=Program

2.2.2.3 Response XML

Response is returned in the following XML format:

```xml
<AuthorizeResponse
xmlns="http://schemas.datacontract.org/2004/07/RayV.WebApps.SubscriptionProxy
.PartnerService.Contracts" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">

    <RequestID>8f942</RequestID>
    <ResponseExternalLink/>
    <ResponseList>
        <ResponseListItem>
            <ContentID>DefaultChannelForSSPTest</ContentID>
            <PlaybackWindowSeconds>36000</PlaybackWindowSeconds>
            <ResponseCode>Success</ResponseCode>
            <ResponseMessage/>
        </ResponseListItem>
    </ResponseList>
    <IsFree>false</IsFree>
</AuthorizeResponse>
```

2.2.2.4   Response Fields

Field	value	description
RequestID	String	Request identifier.
ResponseExternalLink	String	A URL which is passed from the partner to SSP and to the viewer.
IsFree	Boolean	For performance boost, this field, when true, specifies that the content requested is free and therefore SSP can authorize anyone to watch it without hitting the SSP-partner with a request per user.
ResponseListItem	Set of values	Each item corresponds to a content item tested for authorization, from the requests comma separated contentID field.
ContentID	String	The partner's content ID. This will be a specific content's ID, explicitly one value.
PlaybackWindowSeconds	String	After validating the security token, this field specifies for RayV's grid-server how long a viewer may play the content. The value is in seconds.
ResponseCode	String	Authorization status, explained below.
ResponseMessage	String	A verbose response, passed from the partner, and may be used to include further information.

2.2.2.4.1   ResponseCode

Constant	Explanation
Success	The request was successful. The user may view the requested channel
SuccessWithInfo	The request was successful. The partner platform has high priority information for the user
LoginError	The account does not exist or the password is incorrect
SecurityCodeError	Incorrect security(e.g. parental access) code
ChannelNotIncluded	The channel is not included in the bundles purchased by the user
ChannelExpired	The channel may no longer be viewed by the user
AccountExpired	The user may no longer view any channels
LocationNotAllowed	The user may not watch the channel in the current location (Web site, Geo location, etc.)
ChannelUnavailalbe	The channel is not available to any user
SystemError	The partner platform cannot respond to the request at the moment
RequestError	The request was not properly formatted
VersionError	The request version is incorrect

2.2.3 Method: /stream/

Purpose	Retrieves information about a stream.

2.2.3.1 Request Parameters:

Parameter	Value	Description
contentID (channel/VOD/program)	String(mandatory)	An identifier of the content to be authorized for the end-user. This can be a comma-separated list of IDs.

2.2.3.2 REST API:

GET Request URL

http://[SSP-Partner-URL] /stream/

Sample Request:

http://[SSPPartnerURL] /stream/?contentId=DefaultChannelForSSPTest

2.2.3.3 Response XML

```xml
<StreamDetailsResponse
xmlns="http://schemas.datacontract.org/2004/07/RayV.WebApps.SubscriptionProxy
.PartnerService.Contracts" xmlns:i="http://www.w3.org/2001/XMLSchema-
instance">
    <ContentId>DefaultChannelForSSPTest</ContentId>
    <ConnectionName>SSPTestConnectionName</ConnectionName>
    <StreamName>DefaultChannelForSSPTest_stream</StreamName>
    <CdnType>Rayv</CdnType>
    <ContentType>RayvLive</ContentType>
    <ResponseCode>Success</ResponseCode>
</StreamDetailsResponse>
```

2.2.3.4 Response Fields

Field	description
ContentId	The partner's content ID. RayV and the Partner may have different ID systems for the content.
ConnectionName	This parameter is used to receive CDN tokens.
StreamName	This parameter is used to receive CDN tokens.
CdnType	The type of CDN, see enumeration list below.
ContentType	The type of the content delivery, see enumeration list below.
ResponseCode	Either "Success" or "ChannelUnavailable"

2.2.3.4.1 CdnType

Constant	Explanation
AkamaiHD	The stream is hosted on Akamai servers in HD mode
Akamai	The stream is hosted on Akamai servers in normal mode
LimeLight	The stream is hosted on LimeLight servers
CDNetworks	The stream is hosted on CDNetworks servers
Rayv	The stream is hosted on RayV Servers

2.2.3.4.2 ContentType

Constant	Explanation
RayvLive	This is a live RayV stream
FlashLive	A flash stream
FlashVod	A flash VOD file

3 Open Issues

4 Appendix A: REST protocol design

4.1 URL Construction

Most API requests will use GET. If the specific documentation requires POST, see the section on POST URL construction below.

All search request URLs start with the hostname and resemble the following sample:

```
http://api.rayv-inc.com
```

After the hostname are the service name and version number:

```
/WebSearchService/V1/
```

Next is the method followed by a question mark.

```
webSearch?
```

Those components form the base URL.

```
http://api.rayv-inc.com/WebSearchService/V1/webSearch?
```

The method is followed by the actual query parameters, which take the form argument=value, where the arguments and values are url encoded. Multiple parameters are separated by an ampersand (&).

4.2 POST URL Construction

Using POST to communicate with the API is very similar to using GET. All search request URLs still begin with the hostname, service name, version number and method:

```
http://api.rayv-inc.com/WebSearchService/V1/webSearch
```

Note that there is no question mark following the method.

The query parameters are passed in the POST data block. They still take the form argument=value and are properly url encoded. Multiple parameters are separated by an ampersand (&).

4.3 Errors

4.3.1 The Error Codes

Following is a list of the HTTP error codes you may encounter, specific errors will be documented for each service:

Code	Description
400	Bad request. The parameters passed to the service did not match as expected. The Message should tell you what was missing or incorrect.
403	Forbidden. You do not have permission to access this resource, or are over your rate limit.
503	Service unavailable. An internal problem prevented us from returning data to you.

4.3.2 The XML body of error response

For each error, you'll receive an XML response of the following form:

```
<error xmlns="api.rayv.com">
        <statuscode>400</statuscode>
        <message>Parameter <list type> has invalied value</message>
</error>
```