## BWSip

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## **Chapter 1**

## **Class Index**

## 1.1 Class List

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com.bandwidth.bwsip.BWAccount
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com.bandwidth.bwsip.BWCall11
com.bandwidth.bwsip.delegates.BWCallDelegate
com.bandwidth.bwsip.constants.BWCallState
com.bandwidth.bwsip.BWCodec
com.bandwidth.bwsip.BWGps
com.bandwidth.bwsip.delegates.BWGpsDelegate
com.bandwidth.bwsip.constants.BWOutputRoute
com.bandwidth.bwsip.BWPhone
com.bandwidth.bwsip.constants.BWSipResponse
com.bandwidth.bwsip.BWTone
com.bandwidth.bwsip.constants.BWTransport
com.bandwidth.bwsip.models.CallStats
com.bandwidth.bwsip.receivers.ConnectivityChangeReceiver
com.bandwidth.bwsip.models.EndpointInfo
com.bandwidth.bwsip.receivers.KeepAliveReceiver
com.bandwidth.bwsip.services.KeepAliveService
com.bandwidth.bwsip.BWAccount.MyAccount

2 Class Index

## **Chapter 2**

## **Class Documentation**

## 2.1 com.bandwidth.bwsip.BWAccount Class Reference

#### **Classes**

class MyAccount

- BWAccount (BWPhone phone)
- boolean equals (Object o)
- BWAccountDelegate getDelegate ()
- void setDelegate (BWAccountDelegate delegate)
- void connect ()
- void close ()
- boolean islceEnabled ()
- void setIceEnabled (boolean iceEnabled)
- boolean isRegistrationActive ()
- void updateRegistration (boolean renew)
- int getRegistrationInterval ()
- void setRegistrationInterval (int interval)
- int getRegistrationRegistrarInterval ()
- int getRegistrationFirstRetryInterval ()
- void setRegistrationFirstRetryInterval (int interval)
- int getRegistrationRetryInterval ()
- void setRegistrationRetryInterval (int interval)
- BWSipResponse getLastState ()
- String getIdUri ()
- void setIdUri (String idUri)
- String getDisplayName ()
- void setDisplayName (String displayName)

- String getRegistrar ()
- void setRegistrar (String registrar)
- String getUsername ()
- String getPassword ()
- void setCredentials (String username, String password)
- long getServerPort ()
- void setServerPort (long serverPort)

#### **Protected Member Functions**

- void addCall (BWCall call)
- void removeCall (BWCall call)

#### **Protected Attributes**

- MyAccount myAccount
- List< BWCall > calls

## 2.1.1 Detailed Description

BWAccount is the class used to connect to the SIP server.

#### 2.1.2 Constructor & Destructor Documentation

## 2.1.2.1 com.bandwidth.bwsip.BWAccount.BWAccount (BWPhone phone)

Constructor: when a BWAccount object is initialized it checks if the BWPhone used as a parameter in the constructor is already initialized (i.e. the PJSUA2 library is already loaded and Endpoint is not null).

#### **Parameters**

phone BWPhone

## 2.1.3 Member Function Documentation

## 2.1.3.1 void com.bandwidth.bwsip.BWAccount.addCall ( BWCall call )

[protected]

Add a BWCall to the call list.

#### **Parameters**

call

2.1.3.2 void com.bandwidth.bwsip.BWAccount.close ( )
Closes all connections for that account.
2.1.3.3 void com.bandwidth.bwsip.BWAccount.connect( )
Establish a connection with the SIP server. This method must be called after a BW-Account object is created and the developer has already set all the connection parameters like registrar, user credentials, etc. Any change in the BWAccount object only has affect when a new connection is done.
2.1.3.4 boolean com.bandwidth.bwsip.BWAccount.equals ( Object o )
Compare two BWAccount objects.
Parameters
0
Returns
2.1.3.5 BWAccountDelegate com.bandwidth.bwsip.BWAccount.getDelegate ( )
Get the delegated class.
Returns
BWAccountDelegate
2.1.3.6 String com.bandwidth.bwsip.BWAccount.getDisplayName()
Get the display name.
Returns
the displayName
2.1.3.7 String com.bandwidth.bwsip.BWAccount.getIdUri()
Get the myAccount ID.
Returns
String

BWSipResponse com.bandwidth.bwsip.BWAccount.getLastState ( )
account's last state.
/SipResponse the account state.
String com.bandwidth.bwsip.BWAccount.getPassword ( )
user password.
ing
String com.bandwidth.bwsip.BWAccount.getRegistrar ( )
registrar URI.
ing
int com.bandwidth.bwsip.BWAccount.getRegistrationFirstRetryInterval (
interval that will retry to do the registration for the first time.
the first registration retry interval, in seconds.
int com.bandwidth.bwsip.BWAccount.getRegistrationInterval()
registration interval.
the registration interval in seconds.

2.1.3.13 int com.bandwidth.bwsip.BWAccount.getRegistrationRegistrarInterval()
Get the registration interval returned by the registrar; it might be different than the registration interval set by the client.
int the registration interval, in seconds.
2.1.3.14 int com.bandwidth.bwsip.BWAccount.getRegistrationRetryInterval()
Get the interval that will redo the registration.
Returns int the re-registration interval, in seconds.
2.1.3.15 long com.bandwidth.bwsip.BWAccount.getServerPort()
Get the port number.
Returns the clientPort
2.1.3.16 String com.bandwidth.bwsip.BWAccount.getUsername ( )
Get the user name.
Returns String
2.1.3.17 boolean com.bandwidth.bwsip.BWAccount.islceEnabled ( )
Check if ICE (Interactive Connectivity Establishment) is enabled when doing the SIP connection.
Returns
true if it's enabled

2.1.3.18 boolean com.bandwidth.bwsip.BWAccount.isRegistrationActive ( )

Flag to tell if the account is currently registered.

#### Returns

boolean true if the account is currently registered; false if it's not.

2.1.3.19 void com.bandwidth.bwsip.BWAccount.removeCall ( BWCall  $\it{call}$  ) [protected]

Remove a BWCall from the call list.

#### **Parameters**

call

2.1.3.20 void com.bandwidth.bwsip.BWAccount.setCredentials ( String *username*, String *password* )

Set the credentials (username & password) to connect to the myAccount.

## **Parameters**

username	String
password	String

2.1.3.21 void com.bandwidth.bwsip.BWAccount.setDelegate (
BWAccountDelegate delegate )

Set the delegated class.

## Parameters

delegate	BWAccountDelegate class

2.1.3.22 void com.bandwidth.bwsip.BWAccount.setDisplayName ( String displayName )

The name that will be displayed with the phone number when you make calls.

#### **Parameters**

displayName	the displayName to set

2.1.3.23 void com.bandwidth.bwsip.BWAccount.setIceEnabled ( boolean *iceEnabled* )

Enable or disable ICE (Interactive Connectivity Establishment) connections.

#### **Parameters**

iceEnabled true if you want to enable ICE connection

2.1.3.24 void com.bandwidth.bwsip.BWAccount.setIdUri ( String idUri )

Set the myAccount ID.

• Example: "12223334444@bwsip.io"

#### **Parameters**

idUri String

2.1.3.25 void com.bandwidth.bwsip.BWAccount.setRegistrar ( String registrar )

Set the registrar URI that will get connected.

• Example: "bwsip.io"

#### **Parameters**

registrar String

2.1.3.26 void com.bandwidth.bwsip.BWAccount.setRegistrationFirstRetryInterval (int interval)

The interval, in seconds, when we will try to do the registration again after it fails for the first time.

## **Parameters**

interval

2.1.3.27 void com.bandwidth.bwsip.BWAccount.setRegistrationInterval (int interval)

Set the registration interval.

#### **Parameters**

interval the interval, in seconds, when the registration will be sent again.

2.1.3.28 void com.bandwidth.bwsip.BWAccount.setRegistrationRetryInterval ( int interval )

The interval, in seconds, when we will try to do the registration again after it fails for the second time.

#### **Parameters**

interval

2.1.3.29 void com.bandwidth.bwsip.BWAccount.setServerPort ( long serverPort )

Set the port number. (default = 5060)

#### **Parameters**

serverPort the clientPort to set

2.1.3.30 void com.bandwidth.bwsip.BWAccount.updateRegistration ( boolean renew )

Update registration or perform un-registration.

#### **Parameters**

renew true to renew the registration, false to cancel the registration.

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba BWAccount.java

# 2.2 com.bandwidth.bwsip.delegates.BWAccountDelegate Interface Reference

- · void onRegStateChanged (BWAccount account)
- void onIncomingCall (BWCall call)

#### 2.2.1 Detailed Description

Interface with methods used by the Delegation Pattern.

The documentation for this interface was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsip-bwsip-framework/src/main/java/com/bandwidth/bwsip-framework/src/main/java

## 2.3 com.bandwidth.bwsip.BWCall Class Reference

#### Classes

· class MyCall

#### **Public Member Functions**

- BWCall (BWAccount bwAccount)
- BWCall (BWAccount bwAccount, int callId)
- BWAccount getParentAccount ()
- boolean equals (Object o)
- BWCallDelegate getDelegate ()
- void setDelegate (BWCallDelegate delegate)
- void close ()
- void makeCall ()
- void answerCall (BWSipResponse answerType)
- void hangupCall ()
- void addSipHeader (String name, String value)
- BWCallState getLastState ()
- void addGeolocation (BWGps gps)
- void setMute (boolean enabled)
- void diaIDTMF (String digits)
- String getLocalUri ()
- String getRemoteUri ()
- void setRemoteUri (String remoteUri)
- · CallStats getStats ()
- boolean isIncoming ()
- void setIncoming (boolean incoming)
- boolean isOnHold ()
- void setOnHold (boolean enabled)
- boolean isMuted ()
- int getDuration ()

### **Protected Attributes**

MyCall myCall

## **Package Attributes**

• String remoteUri

## 2.3.1 Detailed Description

Class used to receive and make phone calls.

## 2.3.2 Constructor & Destructor Documentation

2.3.2.1 com.bandwidth.bwsip.BWCall.BWCall ( BWAccount bwAccount )

Constructor.

## **Parameters**

2.3.2.2 com.bandwidth.bwsip.BWCall.BWCall ( BWAccount bwAccount, int callId )

Constructor.

### **Parameters**

bwAccount	BWAccount - the account that will generate the call.	
callId int - the call Id.		

#### 2.3.3 Member Function Documentation

2.3.3.1 void com.bandwidth.bwsip.BWCall.addGeolocation ( BWGps gps )

Add the Geolocation header to the call.

#### **Parameters**

gps BWGps - the BWGps object with the coordinates set.	
--	--

2.3.3.2 void com.bandwidth.bwsip.BWCall.addSipHeader ( String name, String value )

Add a header to the SIP INVITE.

## **Parameters**

name	String the header name.
value	String the header value.

2.3.3.3	void com.bandwidth.bwsip.BWCall.answerCall (	<b>BWSipResponse</b>
	answerType )	

Answers the call

#### **Parameters**

answerType int - the answer type (available in BWConsts).

## 2.3.3.4 void com.bandwidth.bwsip.BWCall.close ( )

Closes a BWCall object and removes if from the call list in the parent BWAccount object.

## 2.3.3.5 void com.bandwidth.bwsip.BWCall.dialDTMF ( String digits )

Send DTMF digits using RFC 2833 payload formats.

#### **Parameters**

digits String - the digits that will be sent to the other party.

## 2.3.3.6 boolean com.bandwidth.bwsip.BWCall.equals (Object o)

Compare two BWCall objects.

#### **Parameters**

 BWCall - the object that will be compared with the current instance of BWCall.

## Returns

boolean - true if the objects have the same call Id; false if they are different.

#### 2.3.3.7 BWCallDelegate com.bandwidth.bwsip.BWCall.getDelegate ( )

Get the delegated class.

## Returns

**BWCallDelegate** 

## 2.3.3.8 int com.bandwidth.bwsip.BWCall.getDuration ( )

Return the call duration.

```
Returns
    int - the call duration, in seconds.
2.3.3.9 BWCallState com.bandwidth.bwsip.BWCall.getLastState ( )
Get the call's last state.
Returns
    BWCallState the call state.
2.3.3.10 String com.bandwidth.bwsip.BWCall.getLocalUri ( )
Get the Local URI.
Returns
    String - the local URI.
2.3.3.11 BWAccount com.bandwidth.bwsip.BWCall.getParentAccount ( )
Get the call's parent account.
Returns
    BWAccount - the BWAccount that generated this call object.
2.3.3.12 String com.bandwidth.bwsip.BWCall.getRemoteUri ( )
Get the Remote URI.
Returns
    String - the remote URI.
2.3.3.13 CallStats com.bandwidth.bwsip.BWCall.getStats ( )
Get the call stats.
Returns
    CallStats - the key value representation of the call stats.
```

```
2.3.3.14 void com.bandwidth.bwsip.BWCall.hangupCall()
Hangs-up the call.
2.3.3.15 boolean com.bandwidth.bwsip.BWCall.isIncoming ( )
Check if it's an incoming call.
Returns
    boolean - true if it's an incoming call; false if it's an outgoing call.
2.3.3.16 boolean com.bandwidth.bwsip.BWCall.isMuted ( )
Check if the call is muted.
Returns
    boolean - true if the call is muted; false if it's not muted.
2.3.3.17 boolean com.bandwidth.bwsip.BWCall.isOnHold ( )
Check if the call is on hold.
Returns
    boolean - true if the call is on hold; false if it's not on hold.
2.3.3.18 void com.bandwidth.bwsip.BWCall.makeCall ( )
Calls the URI previously set in the method setRemoteUri.
2.3.3.19 void com.bandwidth.bwsip.BWCall.setDelegate ( BWCallDelegate delegate
        )
Set the delegated class.
Parameters
     delegate BWCallDelegate class
2.3.3.20 void com.bandwidth.bwsip.BWCall.setIncoming ( boolean incoming )
Set the call property to incoming or outgoing.
```

#### **Parameters**

incoming	boolean

## 2.3.3.21 void com.bandwidth.bwsip.BWCall.setMute (boolean enabled)

Mute or un-mute a call.

#### **Parameters**

enabled boolean - true to mute the call; false to un-mute.

## 2.3.3.22 void com.bandwidth.bwsip.BWCall.setOnHold (boolean enabled)

Put a call on hold or release the hold.

#### **Parameters**

enabled boolean - true to put a call on hold; false to release the hold.

## 2.3.3.23 void com.bandwidth.bwsip.BWCall.setRemoteUri ( String remoteUri )

Set the URI that is making the phone call.

#### **Parameters**

remoteUri String the remote URI.

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba BWCall.java

# 2.4 com.bandwidth.bwsip.delegates.BWCallDelegate Interface - Reference

**Public Member Functions** 

- void onCallStateChanged (BWCall call)
- void onlncomingDTMF (BWCall call, String digits)

## 2.4.1 Detailed Description

Interface with methods used by the Delegation Pattern.

The documentation for this interface was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsip-BWCallDelegate.java

## 2.5 com.bandwidth.bwsip.constants.BWCallState Enum Reference

**Public Member Functions** 

• int getValue ()

**Static Public Member Functions** 

- [static initializer]
- static BWCallState get (int value)

#### **Public Attributes**

- **NULL** = (0)
- **CALLING** = (1)
- INCOMING = (2)
- **EARLY** = (3)
- CONNECTING = (4)
- CONFIRMED = (5)
- **DISCONNECTED** = (6)

## 2.5.1 Detailed Description

Created by vegidio on 3/19/15.

The documentation for this enum was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsip-BWCallState.java

## 2.6 com.bandwidth.bwsip.BWCodec Class Reference

- String getId ()
- · void setId (String id)
- short getPriority ()
- void **setPriority** (short priority)

#### **Static Public Member Functions**

- static List< BWCodec > listAvailable ()
- static void setPriority (List< BWCodec > codecs)

## 2.6.1 Detailed Description

Class used to create and set codec priorities.

#### 2.6.2 Member Function Documentation

```
2.6.2.1 static List<BWCodec> com.bandwidth.bwsip.BWCodec.listAvailable ( ) [\verb|static||]
```

List the available codecs.

2.6.2.2 static void com.bandwidth.bwsip.BWCodec.setPriority ( List< BWCodec > codecs ) [static]

Set the codec priorities.

#### **Parameters**

```
codecs
```

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba BWCodec.java

## 2.7 com.bandwidth.bwsip.BWGps Class Reference

Inherits LocationListener.

- void updateCoordinates (Activity activity)
- String generatePIDFLOXml ()
- void onLocationChanged (Location location)
- · void onProviderDisabled (String provider)
- void onProviderEnabled (String provider)
- void onStatusChanged (String provider, int status, Bundle extras)
- double getLatitude ()
- void setLatitude (double latitude)

• double getLongitude () • void setLongitude (double longitude) • Date getTime () void setTime (Date time) • boolean isSuccess () • BWGpsDelegate getDelegate () void setDelegate (BWGpsDelegate delegate) 2.7.1 **Detailed Description** Class used the get GPS coordinates. **Member Function Documentation** 2.7.2 2.7.2.1 String com.bandwidth.bwsip.BWGps.generatePIDFLOXmI ( ) Generate a XML in the PIDF-LO format representing the GPS coordinates. **Returns** 2.7.2.2 double com.bandwidth.bwsip.BWGps.getLatitude ( ) Returns the latitude 2.7.2.3 double com.bandwidth.bwsip.BWGps.getLongitude ( ) Returns the longitude 2.7.2.4 Date com.bandwidth.bwsip.BWGps.getTime ( ) Returns the time

2.7.2.5 void com.bandwidth.bwsip.BWGps.onLocationChanged ( Location location )

Location Manager Listeners

2.7.2.6 void com.bandwidth.bwsip.BWGps.setLatitude ( double latitude )

#### **Parameters**

latitude	the latitude to set

 $2.7.2.7 \quad \text{void com.bandwidth.bwsip.BWGps.setLongitude} \ ( \ \text{double} \ \textit{longitude} \ )$ 

#### **Parameters**

longitude	the longitude to set

2.7.2.8 void com.bandwidth.bwsip.BWGps.setTime ( Date time )

#### **Parameters**

time	the time to set		

2.7.2.9 void com.bandwidth.bwsip.BWGps.updateCoordinates ( Activity activity )

Update the GPS coordinates. Delegated method: BWGpsDelegate#onCoordinates-Updated(BWGps)

#### **Parameters**

```
activity
```

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba BWGps.java

# 2.8 com.bandwidth.bwsip.delegates.BWGpsDelegate Interface - Reference

**Public Member Functions** 

• void onCoordinatesUpdated (BWGps gps)

## 2.8.1 Detailed Description

Interface with methods used by the Delegation Pattern.

The documentation for this interface was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsip-BWGpsDelegate.java

# 2.9 com.bandwidth.bwsip.constants.BWOutputRoute Enum Reference

**Public Member Functions** 

• int getValue ()

**Static Public Member Functions** 

- · [static initializer]
- static BWOutputRoute get (int value)

**Public Attributes** 

- **EARPIECE** = (0)
- LOUDSPEAKER = (1)

## 2.9.1 Detailed Description

Created by vegidio on 3/19/15.

The documentation for this enum was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsip-BWOutputRoute.java

## 2.10 com.bandwidth.bwsip.BWPhone Class Reference

Classes

• class BWLogWriter

- void initialize ()
- void updateNameServers ()
- boolean isInitialized ()
- void createTransport () throws Exception
- void close ()

- void setAudioOutputRoute (Context context, BWOutputRoute outputRoute)
- EndpointInfo getEndpointInfo (Context context)
- int getLogLevel ()
- void setLogLevel (int logLevel)
- long getClientPort ()
- void setClientPort (long clientPort)
- BWTransport getTransportType ()
- void setTransportType (BWTransport transportType)
- String getTransportTag ()
- String getUserAgent ()
- void setUserAgent (String userAgent)
- boolean hasSrvResolution ()
- void setSrvResolution (boolean srvResolution)
- boolean isKeepAliveActive ()
- void setKeepAlive (Context context)
- float getInputVolume ()
- void setInputVolume (float volume)
- float getOutputVolume ()
- void setOutputVolume (float volume)

#### **Static Public Member Functions**

• static BWPhone getInstance ()

## **Public Attributes**

- StringVector stunServers = new StringVector()
- StringVector nameServers = new StringVector()
- Context context = null
- List< BWAccount > accounts

## **Protected Member Functions**

- void addAccount (BWAccount account)
- · void removeAccount (BWAccount account)

## **Protected Attributes**

- Endpoint endpoint
- String remotelpAddress = ""
- · Handler handler

## **Static Package Functions**

· [static initializer]

Z. 10. 1 Detailed Describito	2.10.1	Detailed	Descri	ptior
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Main class of the framework. You must initialize and configure this class before you use any other class in the framework.

## 2.10.2 Member Function Documentation

2.10.2.1 void com.bandwidth.bwsip.BWPhone.close ( )

Deletes any PJSUA2 object. You must call this function when SIP connection is no longer used.

2.10.2.2 void com.bandwidth.bwsip.BWPhone.createTransport ( ) throws Exception

Configure the transport for the current endpoint.

## **Exceptions**

Exception

## 2.10.2.3 long com.bandwidth.bwsip.BWPhone.getClientPort()

Get the port number.

Returns

the clientPort

## 2.10.2.4 EndpointInfo com.bandwidth.bwsip.BWPhone.getEndpointInfo ( Context context )

Get the local/remote IPs, name servers and the Wifi SSID (if used).

#### **Parameters**

context the Application context.

**Returns** 

EndpointInfo

2.10.2.5 float com.bandwidth.bwsip.BWPhone.getInputVolume ( )

Get the input volume.

```
Returns
    int input the volume value.
2.10.2.6 static BWPhone com.bandwidth.bwsip.BWPhone.getInstance ( )
        [static]
Get the BWPhone instance.
Returns
    BWPhone object
2.10.2.7 int com.bandwidth.bwsip.BWPhone.getLogLevel ( )
Get the log level.
Returns
   the logLevel
2.10.2.8 String com.bandwidth.bwsip.BWPhone.getTransportTag ( )
Returns
    the transportTag
2.10.2.9 BWTransport com.bandwidth.bwsip.BWPhone.getTransportType ( )
Returns
    the transportType
2.10.2.10 String com.bandwidth.bwsip.BWPhone.getUserAgent ( )
Get the user agent.
Returns
    the userAgent
```

2.10.2.11 boolean com.bandwidth.bwsip.BWPhone.hasSrvResolution ( )
Check if the SRV Resolution is enabled.
Returns
true if SRV Resolution is enabled; false if it's disabled.

2.10.2.12 void com.bandwidth.bwsip.BWPhone.initialize ( )
Initialize the BWPhone object.

2.10.2.13 boolean com.bandwidth.bwsip.BWPhone.isInitialized ( )
Check if PJSUA2 native library is loaded and the Endpoint is initialized.
Returns
true if it's loaded

2.10.2.14 boolean com.bandwidth.bwsip.BWPhone.isKeepAliveActive ( )
Check if the Keep Alive is active or not.
Returns
boolean true if the Keep Alive is active; false if it's not.

2.10.2.15 void com.bandwidth.bwsip.BWPhone.setAudioOutputRoute ( Context context, BWOutputRoute outputRoute )

Selects the device's audio output (Earpiece, Loudspeaker or Bluetooth)

#### **Parameters**

context	the Application context.
outputRoute	the output route constant.

2.10.2.16 void com.bandwidth.bwsip.BWPhone.setClientPort ( long clientPort )

Set the port number. (default = 0)

#### **Parameters**

<i>clientPort</i> the	e clientPort to set
-----------------------	---------------------

2.10.2.17 void com.bandwidth.bwsip.BWPhone.setInputVolume ( float volume )

Update the input volume (usually the device's mic).

#### **Parameters**

volume the volume level (0 - mute, 1 - normal, > 1 - louder than r	normal)
--	---------

2.10.2.18 void com.bandwidth.bwsip.BWPhone.setKeepAlive ( Context context )

Set up the Keep Alive feature. With Keep Alive active, every successful BWAccount connection will be automatically renewed. When the registration reaches half of its time, the framework will wake up the device and renew all active registrations.

#### **Parameters**

contex	the application context.	
--------	--------------------------	--

2.10.2.19 void com.bandwidth.bwsip.BWPhone.setLogLevel ( int logLevel )

Set the log level. (default = 0)

## Parameters

logLevel	the logLevel to set

 ${\tt 2.10.2.20} \quad {\tt void\ com.bandwidth.bwsip.BWPhone.setOutputVolume\ (\ float\ {\tt volume\ })}$ 

Update the output volume (usually the device's speaker).

#### **Parameters**

<i>volume</i> the volume level (0 - mute, 1 - normal, > 1 - louder than normal)	
---	--

2.10.2.21 void com.bandwidth.bwsip.BWPhone.setSrvResolution ( boolean srvResolution )

Enable of disable the SRV Resolution.

#### **Parameters**

srv-	true to enable the SRV Resolution; false to disable it.
Resolution	

The transport type (UDP, TCP or TLS).

#### **Parameters**

transport-	the transportType to set
Туре	

2.10.2.23 void com.bandwidth.bwsip.BWPhone.setUserAgent ( String userAgent )

Set the user agent. (default = 'BWSip Framework v1.0')

#### **Parameters**

userAgent	the userAgent to set

2.10.2.24 void com.bandwidth.bwsip.BWPhone.updateNameServers ( )

Update the name servers used by the endpoint.

The documentation for this class was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsip-BWPhone.java

# 2.11 com.bandwidth.bwsip.constants.BWSipResponse Enum - Reference

**Public Member Functions** 

• int getValue ()

**Static Public Member Functions** 

- [static initializer]
- static BWSipResponse get (int value)

#### **Public Attributes**

- **TRYING** = (100)
- **RINGING** = (180)
- CALL\_BEING\_FORWARDED = (181)
- **QUEUED** = (182)
- **PROGRESS** = (183)
- OK = (200)
- **ACCEPTED** = (202)
- MULTIPLE CHOICES = (300)
- MOVED\_PERMANENTLY = (301)
- MOVED TEMPORARILY = (302)
- **USE PROXY** = (305)
- ALTERNATIVE\_SERVICE = (380)
- **BAD\_REQUEST** = (400)
- UNAUTHORIZED = (401)
- PAYMENT\_REQUIRED = (402)
- **FORBIDDEN** = (403)
- **NOT\_FOUND** = (404)
- METHOD\_NOT\_ALLOWED = (405)
- NOT\_ACCEPTABLE = (406)
- PROXY\_AUTHENTICATION\_REQUIRED = (407)
- **REQUEST\_TIMEOUT** = (408)
- **GONE** = (410)
- REQUEST\_ENTITY\_TOO\_LARGE = (413)
- REQUEST\_URI\_TOO\_LONG = (414)
- UNSUPPORTED\_MEDIA\_TYPE = (415)
- UNSUPPORTED\_URI\_SCHEME = (416)
- **BAD\_EXTENSION** = (420)
- EXTENSION REQUIRED = (421)
- SESSION\_TIMER\_TOO\_SMALL = (422)
- INTERVAL\_TOO\_BRIEF = (423)
- TEMPORARILY\_UNAVAILABLE = (480)
- CALL\_TSX\_DOES\_NOT\_EXIST = (481)
- LOOP\_DETECTED = (482)
- **TOO\_MANY\_HOPS** = (483)
- ADDRESS INCOMPLETE = (484)
- **AMBIGUOUS** = (485)
- **BUSY HERE** = (486)
- REQUEST\_TERMINATED = (487)
- NOT\_ACCEPTABLE\_HERE = (488)
- **BAD\_EVENT** = (489)
- REQUEST\_UPDATED = (490)
- **REQUEST\_PENDING** = (491)
- UNDECIPHERABLE = (493)
- INTERNAL\_SERVER\_ERROR = (500)
- NOT\_IMPLEMENTED = (501)

- **BAD GATEWAY** = (502)
- SERVICE\_UNAVAILABLE = (503)
- SERVER\_TIMEOUT = (504)
- VERSION\_NOT\_SUPPORTED = (505)
- MESSAGE\_TOO\_LARGE = (513)
- PRECONDITION FAILURE = (580)
- BUSY\_EVERYWHERE = (600)
- **DECLINE** = (603)
- DOES\_NOT\_EXIST\_ANYWHERE = (604)
- NOT\_ACCEPTABLE\_ANYWHERE = (606)

## 2.11.1 Detailed Description

Created by vegidio on 3/19/15.

The documentation for this enum was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsi BWSipResponse.java

## 2.12 com.bandwidth.bwsip.BWTone Class Reference

## **Public Member Functions**

- void startRingback ()
- void stopRingback ()
- boolean isRingbackPlaying ()
- void startDigit (String digit)
- void startDigit (String digit, float volume)
- void stopDigit ()
- void playDigit (String digit)
- void playDigit (String digit, float volume)
- void playDigit (String digit, int duration)
- void playDigit (String digit, int duration, float volume)

## 2.12.1 Detailed Description

Class used to generate tones in the device.

#### 2.12.2 Member Function Documentation

#### 2.12.2.1 boolean com.bandwidth.bwsip.BWTone.isRingbackPlaying ( )

Return true if the ringback tone is playing; false if it's not playing.

#### Returns

ringbackPlaying boolean

2.12.2.2 void com.bandwidth.bwsip.BWTone.playDigit ( String digit )

Plays a DTMF tone (default duration = 200 ms)

#### **Parameters**

digit String - the DTMF digit to be played.
---

2.12.2.3 void com.bandwidth.bwsip.BWTone.playDigit ( String digit, float volume )

Plays a DTMF tone (default duration = 200 ms)

#### **Parameters**

digit	String - the DTMF digit to be played.
volume	float - the tone volume [0 - mute; 1 - full volume].

2.12.2.4 void com.bandwidth.bwsip.BWTone.playDigit ( String digit, int duration )

Plays a DTMF tone for X miliseconds.

#### **Parameters**

digit	String - the DTMF digit to be played.
duration	int - the number of milliseconds to play the tone.

2.12.2.5 void com.bandwidth.bwsip.BWTone.playDigit ( String digit, int duration, float volume )

Plays a DTMF tone for X miliseconds.

#### **Parameters**

digit	String - the DTMF digit to be played.
duration	int - the number of milliseconds to play the tone.
volume	float - the tone volume [0 - mute; 1 - full volume].

2.12.2.6 void com.bandwidth.bwsip.BWTone.startDigit ( String digit )

Starts a tone with an indefinite duration.

#### **Parameters**

diait	String - the DTMF digit to be played.
- 0 -	

2.12.2.7 void com.bandwidth.bwsip.BWTone.startDigit ( String digit, float volume )

Starts a tone with an indefinite duration.

#### **Parameters**

	digit	String - the DTMF digit to be played.
Γ	volume	float - the tone volume [0 - mute; 1 - full volume].

## 2.12.2.8 void com.bandwidth.bwsip.BWTone.startRingback ( )

Starts the ringback tone. You must have the BWPhone initialized to call this method.

2.12.2.9 void com.bandwidth.bwsip.BWTone.stopDigit ( )

Stops any tone currently playing.

2.12.2.10 void com.bandwidth.bwsip.BWTone.stopRingback ( )

Stops the ringback tone. You must have the BWPhone initialized to call this method.

The documentation for this class was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsip-BWTone.java

## 2.13 com.bandwidth.bwsip.constants.BWTransport Enum Reference

**Public Member Functions** 

• int getValue ()

**Static Public Member Functions** 

- [static initializer]
- static BWTransport get (int value)

#### **Public Attributes**

- **UDP** = (0)
- TCP = (1)
- TLS = (2)

## 2.13.1 Detailed Description

Created by vegidio on 3/19/15.

The documentation for this enum was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba BWTransport.java

## 2.14 com.bandwidth.bwsip.models.CallStats Class Reference

- long getCodecClock ()
- void setCodecClock (long codecClock)
- String getCodecName ()
- void setCodecName (String codecName)
- int getRoundTripTimeMean ()
- void **setRoundTripTimeMean** (int roundTripTimeMean)
- long getRxBytes ()
- void setRxBytes (long rxBytes)
- int getRxJitterMean ()
- void setRxJitterMean (int rxJitterMean)
- int getRxLossPeriodMean ()
- void setRxLossPeriodMean (int rxLossPeriodMean)
- long getRxPackageDiscard ()
- void setRxPackageDiscard (long rxPackageDiscard)
- long getRxPackageDuplicated ()
- void setRxPackageDuplicated (long rxPackageDuplicated)
- long getRxPackageLost ()
- void setRxPackageLost (long rxPackageLost)
- long getRxPackageNumber ()
- void **setRxPackageNumber** (long rxPackageNumber)
- long getRxPackageReordered ()
- void setRxPackageReordered (long rxPackageReordered)
- long getTxBytes ()
- void setTxBytes (long txBytes)
- int getTxJitterMean ()
- void setTxJitterMean (int txJitterMean)

- int getTxLossPeriodMean ()
- void setTxLossPeriodMean (int txLossPeriodMean)
- long getTxPackageDiscard ()
- void setTxPackageDiscard (long txPackageDiscard)
- long getTxPackageDuplicated ()
- void setTxPackageDuplicated (long txPackageDuplicated)
- long getTxPackageLost ()
- void setTxPackageLost (long txPackageLost)
- long getTxPackageNumber ()
- void setTxPackageNumber (long txPackageNumber)
- long getTxPackageReordered ()
- void setTxPackageReordered (long txPackageReordered)

## 2.14.1 Detailed Description

Created by vegidio on 5/26/15.

The documentation for this class was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsicallStats.java

## 2.15 com.bandwidth.bwsip.receivers.ConnectivityChangeReceiver Class Reference

Inherits BroadcastReceiver.

## **Public Member Functions**

· void onReceive (Context context, Intent intent)

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsi ConnectivityChangeReceiver.java

## 2.16 com.bandwidth.bwsip.models.EndpointInfo Class Reference

- String getIpLocalAddress ()
- · void setIpLocalAddress (String ipLocalAddress)
- String getlpRemoteAddress ()

- void **setIpRemoteAddress** (String ipRemoteAddress)
- List< String > getNameServers ()
- void setNameServers (List< String > nameServers)
- String getWifiSSID ()
- void setWifiSSID (String wifiSSID)

## 2.16.1 Detailed Description

Created by vegidio on 5/26/15.

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba EndpointInfo.java

# 2.17 com.bandwidth.bwsip.receivers.KeepAliveReceiver Class - Reference

Inherits BroadcastReceiver.

#### **Public Member Functions**

• void **onReceive** (Context context, Intent intent)

## 2.17.1 Detailed Description

Created by vegidio on 2/25/15.

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba KeepAliveReceiver.java

# 2.18 com.bandwidth.bwsip.services.KeepAliveService Class Reference

Inherits Service.

- IBinder onBind (Intent intent)
- · void onCreate ()
- int onStartCommand (Intent intent, int flags, int startId)

## **Static Public Member Functions**

- static int getShortestRegistrationInterval ()
- static void cancelAlarms ()
- static void scheduleAlarm (int registrationInterval)

## 2.18.1 Detailed Description

Created by vegidio on 2/25/15.

#### 2.18.2 Member Function Documentation

2.18.2.1 static void com.bandwidth.bwsip.services.KeepAliveService.cancelAlarms
( ) [static]

Cancel any existing alarm.

2.18.2.2 static int com.bandwidth.bwsip.services.KeepAliveService.getShortest-RegistrationInterval() [static]

Get the shortest registration interval across all accounts.

### Returns

int the registration interval, in seconds.

2.18.2.3 static void com.bandwidth.bwsip.services.Keep-AliveService.scheduleAlarm ( int registrationInterval ) [static]

Schedule an alarm to run X seconds after the current time.

#### **Parameters**

registration-	the registration interval, in seconds.
Interval	

The documentation for this class was generated from the following file:

/mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/bandwidth/bwsikeepAliveService.java

## 2.19 com.bandwidth.bwsip.BWAccount.MyAccount Class Reference

Inherits Account.

## **Public Member Functions**

- MyAccount (BWAccount bwAccount)
- void **onRegState** (OnRegStateParam prm)
- void **onIncomingCall** (OnIncomingCallParam prm)

The documentation for this class was generated from the following file:

 /mnt/workspace/BWSip-Android/android/android-studio/bwsip-framework/framework/src/main/java/com/ba BWAccount.java