

BROADCAST SERVER SDK METHOD DETAILS

This document specifies the Status and Error Code Numbers and also describes the events and functions supported by VaxVoice BroadCast Server SDK Components:

CODE NUMBERS

- Error Codes
- Status Codes

EVENTS

- OnStatusEvent
- OnClientTextEvent
- OnClientConnectEvent
- OnClientDisconnectEvent
- OnClientConnectionLostEvent

METHODS

- Initialize()
- UnInitialize()

- GetVaxObjectError()
- SetLicenceKey()

- EnableCryptography()
- DisableCryptography()

- GetTotalConnectedClient()
- SetConnectionLimit()

- SendTextToClient()
- GetClientChatRoom()

- DisconnectClient()
- BlockClient()
- UnblockClient()

- RejectConnection()
- AcceptConnection()

- GetOutBoundDataRate()
- GetInBoundDataRate()
- GetOutBoundTotalBytes()
- GetInBoundTotalBytes()

ERROR CODES DETAIL:

ERROR CODES	DESCRIPTION
10	VAXOBJECT is not initialized, To initialize, the VaxVoice Object <i>Initialize</i> method should be called.
11	Cannot open local communication port, port is invalid or is already in use.
12	Provided License key is not valid
13	Provided client IP & Port is not valid OR Client is not connected to the Server
14	Cryptography key is not provided while initializing the VaxVoice Object. Please see the <i>Initialize</i> method for further details.
15	Cannot access the input device (Microphone) OR input device is already in use.

STATUS CODES DETAIL:

STATUS CODES	DESCRIPTION
50	Voice Compression manager problem
51	Mixing Channel problem
52	It indicates that Encrypted data is being received from the remote end and VaxVoice object is unable to decrypt it because Cryptography key is not provided while initializing the VaxVoice Object. Please see the <i>Initialize</i> method for further details.

EVENTS:

OnStatusEvent

This Event is triggered by the VaxVoice control to notify about the client status.

Parameters Values:

- Status Code Number
- Client IP
- Client Port

OnClientTextEvent

Event is triggered by the VaxVoice control to notify about the Text message sent by the client.

Parameters Values:

- Text Message
- Client IP
- Client Port

OnClientConnectEvent

Event is triggered, when a client sends connection request or try to connect to the Server.

Parameters Values:

- Chat Room
- Login
- Password
- User Data
- Client IP
- Client Port

Remarks:

Two methods *AcceptConnection()* or *RejectConnection()* can be called to accept or reject the incoming connection.

OnClientDisconnectEvent

It notifies that client has closed the connection.

Parameters Values:

- Chat Room
- Client IP
- Client Port

OnClientConnectionLostEvent

It notifies that the connection to the specific client has lost.

Parameters Values:

- Chat Room
- Client IP
- Client Port

METHODS:

Initialize()

This method is called to initialize the VaxVoice control. It requires Port Number to listen for incoming connections and/or data. After initializing, VaxVoice control starts listening for incoming Connections.

It also requires the cryptography key or secret words to decrypt the incoming data and/or Encrypt the outgoing Voice/Text data. BLOW FISH cryptography is used for Encryption/Decryption.

Two methods *EnableCryptography* and *DisableCryptography* can be used to enable/disable the encryption on outbound Voice Stream and Text Messages.

Please see the sample source code for more details.

Parameters:

- Listen Port Number
- Listen IP (To bind the broadcast server application to a specific IP)
- CryptographyKey or Secret Words

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

Remarks:

Listen IP is required, if the machine on which you are running proxy server application has more than one IP addresses.

Broadcast server requires single sound card in order to perform certain voice operations. It internally works with the sound card, so at-least one sound card must be present in the computer on which you are going to run the Broadcast Server application.

Value -1 can be provided, if your computer has single sound device OR you want VaxVoice control to select the first/default sound device capable of recording.

VaxVoice controls use '*waveInOpen*' windows API to initialize the Input device.

If you want to run multiple instances of your client software and your computer has multiple sound devices then WinMM (Windows Multimedia API) can be used to determine the device-Ids.

VaxVoice controls use the following PCM Format to initialize the input device:

FormatTag	= 1
Channels	= 1
SamplesPerSec	= 8000
AvgBytesPerSec	= 16000
BlockAlign	= 2
BitsPerSample	= 16
cbSize	= 0

The following WinMM APIs can be used to determine the input device-Id.

- waveInGetNumDevs()
- waveInGetID()
- waveInGetDevCaps()

UnInitialize()

To uninitialized the VaxVoice control, this method can be used.

GetVaxObjectError()

Call this method, to get the error for the last operation that failed.

Return Value:

- Error Code Number

SetLicenceKey()

Call this method, to set the License key.

Parameter:

- License Key Provided by VaxVoice

Return Value:

Non-zero on success, otherwise 0, and a specific error code can be retrieved by calling *GetVaxObjectError()* method.

Remarks:

User must pay one-time License fee in order to get the License Key. After getting the License key, you will set it using this method and it will remove the evaluation message box & expiry.

EnableCryptography()

To enable the Encryption on outgoing Voice Stream and Text data. When this method is called, VaxVoice component starts encrypting the outbound Voice Stream and Text messages before sending it to the Remote end over the internet.

Remote end receives the encrypted Voice Stream/Text messages and decrypt it using the provided Cryptography key. So on both ends the Cryptography keys must be the same.

BLOW FISH cryptography is used for Encryption/Decryption.

DisableCryptography()

To disable the Cryptography feature on outgoing Voice Stream and Text data. When this method is called, VaxVoice component stops encrypting the Voice Stream and Text messages and starts sending the plain data to the remote end over the Internet.

GetTotalConnectedClient()

To get the total number of connected clients.

SetConnectionLimit()

To set the connections limit.

Parameters:

- Number of connections (0 = Unlimited)

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

SendTextToClient()

Method to send text message to any client.

Parameters:

- Client IP
- Client Port
- Text Message

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

GetClientChatRoom()

Method to get the chat room of a specific client.

- ClientIP
- ClientPort

Return Value:

Chat room on success, otherwise no value, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

DisconnectClient()

Method to close connection of any client.

Parameters:

- Client IP
- Client Port

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

BlockClient()

To block IP & port of a client.

Parameters:

- Client IP
- Client Port

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

UnBlockClient()

To unblock IP & port of a client.

Parameters:

- Client IP
- Client Port

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

AcceptConnection()

Method to accept the connection request sent by the client.

Parameters:

- ChatRoom in which you want to add the client.
- Client IP
- Client Port
- UserData (To send any text back to client)

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

Remarks:

Any text info that can be sent back to client with the accept connection reply and client receives that text info in *OnAcceptConnectionEvent* event.

RejectConnection()

Method to reject the connection request sent by the client.

Parameters:

- Client IP
- Client Port
- UserData (To send any text back to client)
- Custom Error

Remarks:

Any text info that can be sent back to the client with the reject connection reply and client receives that info in *OnRejectConnectionEvent* event.

You can also send any user defined error code along with the rejection and client receives that custom error code in *OnRejectConnectionEvent* event.

Return Value:

Non-zero on success, otherwise 0, and an appropriate error code can be retrieved by calling *GetVaxObjectError()* method.

GetOutBoundTotalBytes()

Total Outbound bytes, since the VaxVoice Object is initialized.

GetInBoundTotalBytes()

Total Inbound bytes, since the VaxVoice object is initialized.

GetOutBoundDataRate()

Outbound Bytes per second.

GetInBoundDataRate()

Inbound Bytes per second.