

METHOD DETAILS

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

CODE NUMBERS

- Error Codes
- Status Codes

EVENTS

- OnStatusEvent
- OnTextEvent
- OnConnectionEvent

METHODS

1. Initialize()
2. UnInitialize()
3. SetLicenceKey()
4. GetVaxObjectError()
5. EnableVoiceActivityDetection()
6. DisableVoiceActivityDetection()
7. EnableCryptography()
8. DisableCryptography()
9. Connect()
10. Disconnect()
11. SetSpkVolume()
12. GetSpkVolume()
13. SetMicVolume()
14. GetMicVolume()
15. EnableMicBoost()
16. DisableMicBoost()
17. IsMicBoostEnable()
18. AcceptIncomingCall()
19. CancelIncomingCall()
20. SendTextMsg()
21. DisableBusyState()
22. EnableBusyState()
23. DisableNotAvailableState()
24. EnableNotAvailableState()
25. MuteMic()
26. MuteSpk()
27. GetOutBoundDataRate()
28. GetInBoundDataRate()
29. GetOutBoundTotalBytes()
30. GetInBoundTotalBytes()

ERROR CODES DETAIL:

ERROR CODES	DESCRIPTION
10	VAXOBJECT is not initialized properly, To initialize, the VaxVoice Object <i>Initialize</i> method should be called.
11	Connection is already established, this error occurs if you are already in the voice session and accepts another incoming connection
12	Connection is already established, this error occurs if you are already in the state of connecting and accepts an incoming connection
13	Cannot access the input device (Microphone) OR input device is already in use.
14	Cannot access the output device
15	Invalid IP or Port is provided to <i>AcceptIncomingCall</i> method to accept the incoming connection
16	Cannot open local communication port, port is invalid or is already in use.
17	License Key you are providing is not valid
18	Cryptography key is not provided while initializing the VaxVoice Object. Please see the <i>Initialize</i> method for further details
19	Fail to access the Mic/Input device Volume OR Sound device does not support Mic volume feature.
20	Fail to access the Speaker/Output device Volume OR Sound device does not support Speaker volume feature.

STATUS CODES DETAIL:

STATUS CODES	DESCRIPTION
50	Connection failed to connect to Remote Person
51	Trying to connect to remote end
52	Connection to the Remote end is Lost
53	Connection Connected, you may start Conversation now, using headphones/speakers and microphone.
54	Remote end/person closed the connection
55	Remote end/person is busy. The status of the Person to which you are trying to connect is busy.
56	Remote end/person is unavailable. The status of the Person to which you are trying to connect is unavailable.
57	Remote end/person cancelled the connection
58	This status code notifies 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

OnTextEvent

This Event is triggered by the VaxVoice control, when a text message is received from the remote end.

Parameter Values:

- Text Message String
- User Data

OnStatusEvent

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

Parameter Values:

- Status Code Number

OnConnectionEvent

This Event is triggered, to notify the listening end that the client is requesting to connect.

Parameter Values:

- Client IP
- Client Port
- User Data

Remarks:

When a client tries to establish a connection to the listening end, OnConnectionEvent event is triggered with Client's IP and Port values, to notify the listening end about the client connection request. To accept the connection, *AcceptIncomingCall()* method can be used.

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.

Parameter:

- Listening Port Number
- CryptographyKey or Secret Words

Return Value:

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

UnInitialize()

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

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:

You 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.

EnableVoiceActivityDetection()

To enable the VAD (voice activity detection) feature. In this feature, VaxVoice starts sending voice digital data only when you speak.

Parameter:

- Mic Sensitivity, any value from 0 to 255.
- Silence Duration in seconds.

Return Value:

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

Remarks:

Normally, you can set value 170 for Mic Sensitivity and Silence Duration: 5 seconds.

DisableVoiceActivityDetection()

To disable the VAD (voice activity detection) feature.

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.

Connect()

This method is called to send connection request to listening end.

Parameters:

- IP Address of listening end
- Port Number of listening end
- Any text data
- TimeOut to connect in seconds

Return Value:

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

Remarks:

This method tries to establish the connection to the remote listening end and the Status Event Codes triggers accordingly.

You can also send any text data along with the connection request and remote end will receive that text data into `OnConnectionEvent` event.

Disconnect()

Calling this method closes the voice session.

Return Value:

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

EnableBusyState()

Call to this method enables the busy state.

Remarks:

Call to this method changes the current person status to busy.

Suppose two people (**A & B**) are having voice conversation. During the conversation Person **B** sets his status to busy and then if another Remote Person **C**, tries to connect to Person **B**, Person **C** will get the STATUS CODE: **55**, which represents the Person you are connecting to, is Busy.

DisableBusyState()

Call to this method, disables the busy state.

EnableNotAvailableState()

Call to this method enables the Not-Available state.

Remarks:

Call to this method, change the current Person's state to UN-AVAILABLE. For example, Person **A** is listening on a specific port and call to this method will change his status to unavailable, if any Remote Person **B** connects for voice conversation, the connection will not be established and the Remote Person **B** will get the STATUS CODE: **56**

DisableNotAvailableState()

Call to this method, changes the state from **UN-AVAILABLE** to **AVAILABLE**.

GetVaxObjectError()

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

Return Value:

- Error Code Number

SendTextMsg()

This method is used to send a text message to a remote end. You can also send any text data along with the text message and remote end will receive that text data into *OnTextEvent* event.

Parameter:

- Text Message to Send
- User data

Return Value:

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

AcceptIncomingCall()

This method is used to accept the incoming connection.

Parameter:

- Client IP
- Client Port
- Timeout to connect in seconds

Return Value:

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

CancelIncomingCall()

This method is used to ignore the incoming connection.

Parameter:

- Client IP
- Client Port

Return Value:

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

MuteSpk()

To mute the speaker, this method can be called. Muting the speaker does not affect the Master Mute Control.

Parameter:

- Boolean Value 0 or 1

Return Value:

Non-Zero on success, otherwise 0

MuteMic()

To mute the microphone, this method can be called. Muting the Microphone does not affect the Master Mute Control. It simply blocks the outbound voice streaming data.

Parameter:

- Boolean Value 0 or 1

Return Value:

Non-Zero on success, otherwise 0

GetSpkVolume()

Call to this method returns the speaker volume value between Range [0 to 255], where

0 = Min Volume
255 = Max Volume

Return Value:

Speaker Volume value on success, otherwise -1 and a specific error code can be retrieved by calling *GetVaxObjectError()* method.

SetSpkVolume()

To set the Output volume, this method can be called. the value range should between 0 to 255.

Parameter:

- Volume Value between [0 – 255] Range

Return Value:

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

GetMicVolume()

Call the method to get the Microphone Volume. Volume value is returned, in the range of [0 to 255], where

0 = Min Volume
255 = Max Volume

Return Value:

Microphone Volume value on success, otherwise -1 and a specific error code can be retrieved by calling *GetVaxObjectError()* method.

SetMicVolume()

Call the method to set the Microphone Volume, the value range should between 0 to 255, where

0 = Min Volume
255 = Max Volume

Parameter:

- Volume Value between [0 – 255] Range

Return Value:

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

EnableMicBoost()

Call the method to increase the Microphone sensitivity.

DisableMicBoost()

To decrease the Microphone sensitivity.

IsMicBoostEnable()

Call the method to get Mic Boost is enabled or disabled.

GetOutBoundTotalBytes()**Return Value:**

Total Outbound bytes, since the VaxVoice Object is initialized.

GetInBoundTotalBytes()**Return Value:**

Total Inbound bytes, since the VaxVoice object is initialized.

GetOutBoundDataRate()**Return Value:**

Outbound Bytes per second.

GetInBoundDataRate()**Return Value:**

Inbound Bytes per second.