Apple MeetingSDK v0.15 Release Notes. (November 16, 2023)

NOTE:
Please see previous MeetingSDK Release Notes for an overview of what was introduced in earlier releases of the SDK.

API CHANGES

Added the following `MeetingSDKDelegate` methods that provide more information about the local user's network status, the network status associated with each of the remote video feeds (from other participants) and the status of the local user's connection to the meeting:

```
func participantNetworkQuality(participant: Participant,
streamId: String, quality:NetworkQuality)

func networkQuality(quality: NetworkQuality)

func connectionStatus(status:ConnectionStatus)
```

In these callbacks, both quality and status are integer values.   Two integer-based enums have been added to represent the values passed by these methods:

```
public enum NetworkQuality : Int {
    case none = 0
    case compromised = 1
    case fair = 2
    case good = 3
    case verygood = 4
    case excellent = 5
}

public enum ConnectionStatus : Int {
    case connected = 0
    case connecting = 1
    case disconnected = 2
    case failed = 3
    case reconnecting = 4
}
```

Additionally, the SDK will now automatically exit the local user from a meeting if it can't communicate with the server for over 60 seconds.   When this happens, the SDK internally

invokes the `exitMeeting` API call and notifies the application this has happened with another new `MeetingSDKDelegate` method:

```swift
func meetingDisconnected()
```

For macOS **only**, a new API call has been added to allow you to retrieve a thumbnail image of a currently open window on the Mac.   You identify the window by the windowID returned from a call to getWindowList():

```swift
public func getWindowThumbnail(id: String, format: String,
dirPath: String, width: Int32, height:Int32)–>Data?
```

The `format` parameter can either be "`rgb`" or "`jpeg`. If you'd like to have the image written to a directory instead of returned as a memory block, pass a valid directory path in the `dirPath` parameter (otherwise pass an empty string).   Specify the width and height of the image you'd like in `width` and `height` parameters.   If you do not specify a directory to write a file to, the image will be returned as a `Data` object.

CHANGES/FIXES

Miscellaneous bug fixes in underlying audio and video engines

Added additional logging code into the SDK that will indicate a successful processing of video frames (per video stream) from IGVideo every 200th frame at DGB3 level debugging.   This will allow us to know if the SDK is sending frames up to the application in situations where the application's UI may have frozen.

KNOWN ISSUES
When sharing a window into the meeting, the remote user may see the share freeze if the shared window is resized while being actively shared.

The new `previewVideoUpdated` delegate method may *not* be called when a device rotates.   This will be resolved in a future SDK release.

In support of the new threading model, all delegate methods are executed on a serial OperationQueue that is created by the SDK.   Future versions will allow you to specify an OperationQueue that you create (or use the main queue)

The `VideoView.isScreenShare()` API call will likely return `true` for non screen-share video streams if they are being sent at 4K resolution.