Android MeetingSDK Release 0.4

VIS -3922

Update Android projects to use C++ 17

Also updated cmake version to 3.10

Added cppFlags "-std=c++17 -fexception" to MeetingSDK build.gradle

VIS-4102

Catch errors and disconnect from Android Camera service, stop capture and clean up, and add notification to alert apps. A disconnect occurs when Meeting app in background and user opens camera in different app or if screen sleeps for a while or is turned off. Application should show a message when this notification is received but not restart capture until app is in the foreground.

INotification new callback

void videoError(String errorName, String errorDescription);

```
errorName – "video_device_camera_error"
errorDescription – "Device Camera Failure"
```

VIS-4153

Add OpenCV support in Android SDK. Built OpenCV library for Android and included it in Android igvideo build. Also added method to show active speaker:

public static void showActiveSpeaker(boolean show)

Shows or hides active speaker highlighting. This turns on monitoring of output amplitude and sets loudest speaker in meeting. This will send message to igvideo to highlight his video. **NOTE:** When IGVideo highlights the frames of the active speaker, it will draw a rectangle around the border of the video frame it hands up to the SDK. If your application employs rounded rectangles and/or if it sizes the frames to fit a given rectangle while maintaining aspect ratio, you may inadvertently clip some of the highlighting applied by IGVideo.

VIS-4355

Add ability to set trace debug level in SDK.

New MeetingSDK method:

public static void setTraceLevel(DebugLevel level) level – one of the debug levels from Trace.h

VIS-4407

Change definition of SD resolution to VP8 Large (VGA) instead of VP8 Medium (CIF). This was originally a temporary change for testing against competitors but was decided to keep as VGA seemed to be less problematic.

VIS-4532

Stop writing IGAudio and IGVideo trace messages to logcat in release builds.

VIS-4675

Detect when user cancels from Android's recording or casting permission dialog. Added new **INotification** callback to inform user operation was cancelled. Apps will use this notification to turn off any ui element showing that screen capture is in effect.

void screenShareCancelled();

VIS-4844

Add line-at-a-time logging callback for trace messages

New MeetingSDK method:

public static void setTraceMessageCallback(ITraceMessageCallback callback)

New interface for application to receive log messages

```
public interface ITraceMessageCallback {
    void onTraceMessage(int level, String message);
}
```

Non-null callback starts receiving IGAudio and IGVideo trace messages and passes to app via

Interface method onTraceMessage(int level, String message)

```
level = debug level from Trace.h
```

Message – log message

Null callback stops sending of Trace messages.

VIS-5083

Set local participant name when object created in join() method. Previously was not set until first video site changed event. Added new Participant method to retrieve name

public String getName()

OTHER CHANGES:

Added ability to play WAV (audio) via IGAudio. Any audio played in this manner will be included in local echo-cancellation algorithms employed by IGAudio when sending sound up to the audio bridge. The playSound method returns a long which is used as an identifier for the sound being played. Returns 0 if there was a problem playing the sound. Use stopSound (passing the sound id returned by playSound) to stop playing a given sound.

```
public static long playSound(byte[] soundBytes, int len)
public static void stopSound(long id)
```

Added new INotification callbacks to inform user of the status of sounds being played via playSound.

```
void binaryPlaybackEnded(long id);
void binaryPlaybackFailed(long id);
```

Added method to the VideoInfo class to determine if the associated video stream is a screen share (as opposed to a camera):

```
boolean isScreenShare();
```

Added two convenience methods to MeetingSDK to retrieve a Participant object based on audio stream id, and to retrieve a VideoInfo object based on a video stream id:

```
public static Participant getParticipantByAudioStreamId(String streamId)
public static VideoInfo getVideoInfoByStreamId(String streamId)
```

Added overloaded joinMeeting method to MeetingSDK that allows the user's unique identifier (UUID) to be specified by the caller as opposed to being generated as a guest id by the SDK:

public static int joinMeeting(String name, String userUUID)