

# Zoom iOS SDK

## Revision History

Date	History	Author
July 30, 2015	First Draft	Robust Hu
Sep 06, 2015	1. Add notification for app become active/inactive; 2. Add ignore signal "SIGPIPE"	Robust Hu
Sep 30, 2015	1. Import "libstdc++.6.dylib"; 2. Change some of items in "Building Setting" in RED	Robust Hu
Oct 17, 2015	1. Support to customize the content of "Message Invite" and "Copy URL"; 2. Support to enable/disable "Copy URL"	Robust Hu
Nov 03, 2015	1. Add Feature of Pause/Resume Meeting Audio;	Robust Hu
Dec 23, 2015	1. Remove interface "setZoomRootController"	Robust Hu
Jan 15, 2016	1. Support to enable/disable "Invite by Email"; 2. Support to customize the content and subject of "Invite by Email"	Robust Hu
Feb 02, 2016	1. Add Interface to turn on/off cloud record;	Robust Hu

## Main class description

- **ZoomSDK**: Zoom SDK base class, take charge of initializing Zoom SDK, and return the instance of ZoomSDKAuthService, ZoomSDKMeetingService and ZoomSDKMeetingSettings.
- **ZoomSDKAuthService**: Zoom SDK authenticate service class, before using Zoom SDK, partner app should request authentication with app key and app secret.
- **ZoomSDKAuthDelegate**: Zoom SDK authenticate delegate class, partner app can get the authentication result by this class.
- **ZoomSDKMeetingService**: Zoom SDK meeting service class, take charge of starting/joining meeting.
- **ZoomSDKMeetingServiceDelegate**: Zoom SDK meeting service delegate class, partner app can listen the meeting result and meeting state by the class

- **ZoomSDKMeetingSettings**: Zoom SDK meeting settings class, take charge of setting/getting the meeting audio/video state.
- **ZoomSDKInviteHelper**: Zoom SDK customize invite class, partner app can customize the behavior of inviting participant by the class

## Development Description

### Configuration

- iOS version: iOS 6.0 or later
- Support ARC: Yes

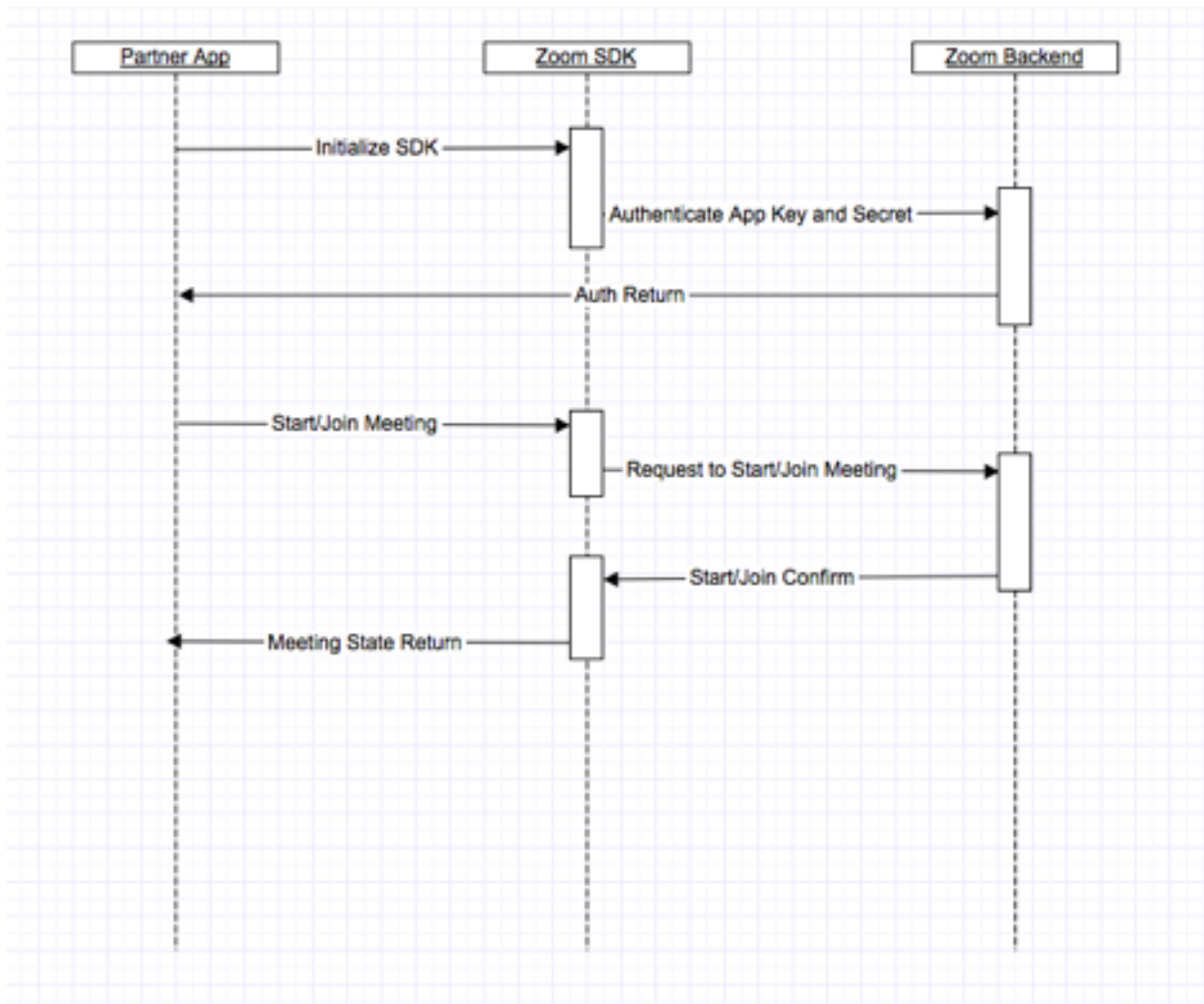
### Frameworks

- Import ZoomSDK.framework, ZoomSDKResources.bundle and DropboxSDK.framework from zoom-ios-sdk/lib directory;
- Import system library: libsqlite3.dylib, **libstdc++.6.dylib** and CoreGraphics.framework;

### Deployment

- Set "Targeted Device Family" to "iPhone/iPad";
- Set "iOS Deployment Target" to "**iOS 6.0/7.0/8.0**"
- Add "-ObjC~~-lstdc++~~" in "Other Linker Flags" of Build Settings
- **Set "C++ Language Dialect" to "Compile Default"**
- **Set "C++ Standard Library" to "Compile Default"**

## Sequence Diagram



## Code Integration

We provided a project named ZoomSDKSample, for the detailed usage, please refer to the sample project.

### 1. SDK Initialize.

To integrate with Zoom SDK, SDK should be initialized in [application: didFinishLaunchingWithOptions](#): in AppDelegate class, code snippets as following:

```
//1. Set ZoomSDK Domain
[[ZoomSDK sharedSDK] setZoomDomain:@"zoom.us"];

//2. Set ZoomSDK Root Navigation Controller
[[ZoomSDK sharedSDK] setZoomRootController:navController];
```

```
//3. ZoomSDK Authenticate
ZoomSDKAuthService *authService = [[ZoomSDK sharedSDK] getAuthService];
if (authService)
{
    authService.delegate = self;

    authService.clientKey = @"xx-xx-xxx";
    authService.clientSecret = @"yy-yy-yyy";

    [authService sdkAuth];
}
```

## 2. Listener for ZoomSDKAuthDelegate.

To check the authentication from Zoom, the listener can be added in AppDelegate, code snippets as following:

```
#pragma mark - Auth Delegate

- (void)onZoomSDKAuthReturn:(ZoomSDKAuthError)returnValue
{
    NSLog(@"onZoomSDKAuthReturn %d", returnValue);
}
```

## 3. Start Meeting

After SDK was initialized, partner app can start a zoom meeting, code snippets as following:

```
ZoomSDKMeetingService *ms = [[ZoomSDK sharedSDK] getMeetingService];
if (ms)
{
    ms.delegate = self;

    //for scheduled meeting
    ZoomSDKMeetError ret = [ms startMeeting:kSDKUserID userToken:kSDKUserToken
    userType:ZoomSDKUserType_ZoomUser displayName:kSDKUserName
    meetingNumber:kSDKMeetNumber];

    NSLog(@"onMeetNow ret:%d", ret);
}
```

## 4. Join Meeting

After SDK was initialized, partner app can join a zoom meeting, code snippets as following:

```
ZoomSDKMeetingService *ms = [[ZoomSDK sharedSDK] getMeetingService];
if (ms)
```

```

{
    ms.delegate = self;

    // ZoomSDKMeetError ret = [ms joinMeeting:@"123456789" displayName:@"abc"];
    ZoomSDKMeetError ret = [ms joinMeeting:@"123456789" displayName:@"abc"
password:@"111111"];

    NSLog(@"onJoinaMeeting ret:%d", ret);
}

```

## 5. Listener for Meeting Service

Once Partner App started/joined a zoom meeting, SDK will return the meeting state by Meeting Service Delegate, code snippets as following:

```

#pragma mark - Meeting Service Delegate

- (void)onMeetingReturn:(ZoomSDKMeetError)error internalError:(NSInteger)internalError
{
    NSLog(@"onMeetingReturn:%d, internalError:%zd", error, internalError);
}

- (void)onMeetingStateChange:(ZoomSDKMeetingState)state
{
    NSLog(@"onMeetingStateChange:%d", state);
}

```

## 6. Get/Set Meeting Audio/Video State

After SDK was initialized, partner can change the meeting audio/video state, the change will take action in the subsequent meeting, code snippets as following:

```

ZoomSDKMeetingSettings *settings = [[ZoomSDK sharedSDK] getMeetingSettings];
if (!settings)
    return nil;

BOOL isAutoConnected = [settings autoConnectInternetAudio];

BOOL isAudioMuted = [settings muteAudioWhenJoinMeeting];

BOOL isVideoMuted = [settings muteVideoWhenJoinMeeting];

BOOL disabled = [settings driveModeDisabled];

BOOL disabledCallIn = [settings callInDisabled];

```

```
BOOL disabledCallOut = [settings callOutDisabled];
```

```
//Set Meeting Audio/Video State  
UISwitch *sv = (UISwitch*)sender;
```

```
[[[ZoomSDK sharedSDK] getMeetingSettings] setAutoConnectInternetAudio:sv.on];
```

```
[[[ZoomSDK sharedSDK] getMeetingSettings] setMuteAudioWhenJoinMeeting:sv.on];
```

```
[[[ZoomSDK sharedSDK] getMeetingSettings] setMuteVideoWhenJoinMeeting:sv.on];
```

```
[[[ZoomSDK sharedSDK] getMeetingSettings] disableDriveMode:sv.on];
```

```
[[[ZoomSDK sharedSDK] getMeetingSettings] disableCallIn:sv.on];
```

```
[[[ZoomSDK sharedSDK] getMeetingSettings] disableCallOut:sv.on];
```

## 7. Pause/Resume Meeting Audio

After started/joined meeting, partner can pause/resume the meeting audio, code snippets as following:

```
BOOL isNoAudio = [[[ZoomSDK sharedSDK] getMeetingService] isNoMeetingAudio];  
[[[ZoomSDK sharedSDK] getMeetingService] pauseMeetingAudio:!isNoAudio];
```

## 8. Customize to invite participant

Once Partner App started/joined a zoom meeting, Partner app can customize the behavior of inviting participant, code snippets as following:

//To enable to customize Invite Participant, Partner should add the following code at first, the “InviteViewController” is the Partner provided view controller.

```
[ZoomSDKInviteHelper sharedInstance].enableInvite = YES;  
[ZoomSDKInviteHelper sharedInstance].inviteVCName = @"InviteViewController";
```

And partner cannot get meeting ID and join meeting URL by the following properties:

```
NSString *meetingID = [ZoomSDKInviteHelper sharedInstance].meetingID;  
NSString *meetingURL = [ZoomSDKInviteHelper sharedInstance].joinMeetingURL;
```

## 9. Customize the content of “Message Invite”, “Copy URL” and “Invite by Email”

Partner App can customize the content of “Message Invite(SMS)”, “Copy URL” and “Invite by Email” after the meeting is ongoing, and can enable/disable the feature of “Copy URL”/“Invite by Email”, code snippets as following:

```
//For Enable/Disable Copy URL
[ZoomSDKInviteHelper sharedInstance].disableCopyURL = YES;

//For Enable/Disable Invite by Email
[ZoomSDKInviteHelper sharedInstance].disableInviteEmail = YES;

if (state == ZoomSDKMeetingState_InMeeting)
{
    //For customizing the content of Invite by SMS
    NSString *meetingID = [[ZoomSDKInviteHelper sharedInstance] meetingID];
    NSString *smsMessage = [NSString stringWithFormat:NSLocalizedString(@"Please join meeting with ID: %@, @""), meetingID];
    [[ZoomSDKInviteHelper sharedInstance] setInviteSMS:smsMessage];

    //For customizing the content of Copy URL
    NSString *joinURL = [[ZoomSDKInviteHelper sharedInstance] joinMeetingURL];
    NSString *copyURLMsg = [NSString stringWithFormat:NSLocalizedString(@"Meeting URL: %@, @""), joinURL];
    [[ZoomSDKInviteHelper sharedInstance] setInviteCopyURL:copyURLMsg];

    //For customizing "Invite by Email"
    [ZoomSDKInviteHelper sharedInstance].inviteEmailSubject = @"Invite by Email";
    [ZoomSDKInviteHelper sharedInstance].inviteEmailContent = [NSString stringWithFormat:NSLocalizedString(@"Please join meeting with ID: %@, @""), meetingID];
}
}
```

## 10. Turn on/off cloud record

```
ZoomSDKMeetingService *ms = [[ZoomSDK sharedInstance] getMeetingService];
//To check whether support cloud record or not
[ms isCMREnabled];

//To check whether cloud record is in progress
[ms isCMRInProgress];

//Turn on cloud record
[ms turnOnCMR:YES];

//Turn off cloud record
[ms turnOnCMR:NO];
```

## 11. Notify app become active/inactive.

Zoom SDK should notify the common layer that app will become inactive in `applicationWillResignActive`: in AppDelegate class, code snippets as following:

```
[[ZoomSDK sharedSDK] appWillResignActive];
```

Zoom SDK should notify the common layer that app did become active in `applicationDidBecomeActive`: in AppDelegate class, code snippets as following:

```
[[ZoomSDK sharedSDK] appDidBecomeActive];
```

## 12. Ignore Signal SIGPIPE.

Zoom SDK should ignore Signal “SIGPIPE” to avoid crash when app switch from background to foreground, the code can be added in function `main(int argc, char * argv[])` in main.m file, code snippets as following:

```
struct sigaction sa;  
sa.sa_handler = SIG_IGN;  
sigaction(SIGPIPE, &sa, NULL);
```

### Note:

To integrate with Zoom iOS SDK successfully, iOS SDK should be run in main thread.

For fixing bug that view will move up about 20px after leaving meeting:

1. Add the following code in method “viewWillAppear” in the view controller which call the interface of starting/joining meeting

- (void)viewWillAppear:(BOOL)animated

```
{
```

```
    [super viewWillAppear:animated];
```

```
    //for bug that there exist 20 pixels in the bottom while leaving meeting quickly
```

```
    [[UIApplication sharedApplication] setStatusBarHidden:YES
```

```
withAnimation:UIStatusBarAnimationNone];
```

```
    [[UIApplication sharedApplication] setStatusBarHidden:NO
```

```
withAnimation:UIStatusBarAnimationNone];
```

```
}
```

2. Add flag in xxx-info.plist in the partner’s project:



```
<key>UIViewControllerBasedStatusBarAppearance</key>  
<false/>
```

**For hiding warning from iOS SDK:**

Set “Debug Information Format” = “DWARF” in project’s build setting.