LiveEngage Enterprise In-App Messenger SDK: iOS

Deployment Guide

Version 1.1.111

2016

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Introduction

This document describes the process for integrating the App Messaging SDK into mobile native apps based on iOS. It provides a high-level overview, as well as a step-by-step guide on how to consume the SDK, build the app with it, and customize it for the needs of the app.

Platform Support

- **Supported OS**: iOS 8+
- **Certified devices**: iPhone 6s+, iPhone 6s, iPhone 6+, iPhone 6, iPhone 5s, iPhone 5, iPhone 4s

Deployment:

- Embeddable library for iOS: Xcode
- Installers: Manual

Security

Security is a top priority and key for enabling trusted, meaningful engagements.
LivePerson's comprehensive security model and practices were developed based on years of experience in SaaS operations, close relationships with Enterprise customers' security teams, frequent assessments with independent auditors, and active involvement in the security community.

LivePerson has a comprehensive security compliance program to help ensure adherence to internationally recognized standards and exceed market expectations. Among the standards LivePerson complies with are: SSAE16 SOC2, ISO27001, PCI-DSS via Secure Widget, Japan's FISC, SafeHarbor, SOX, and more.

Our applications are developed under a strict and controlled Secure Development Life-Cycle: Developers undergo secure development training, and security architects are involved in all major projects and influence the design process. Static and Dynamic Code Analysis is an inherent part of the development process and, upon maturity, the application is tested for vulnerabilities by an independent penetration testing vendor. On average, LivePerson undergoes 30 penetration tests each year.

Deploying the In-App Messaging SDK

To deploy the In-App Messaging SDK, you are required to complete the following steps:

1. Download and unzip the SDK

2. Set up the SDK package in Xcode

3. Configure project settings

4. Initialization

5. Objective-C configuration

6. Build and test the SDK

1. Download and unzip the SDK

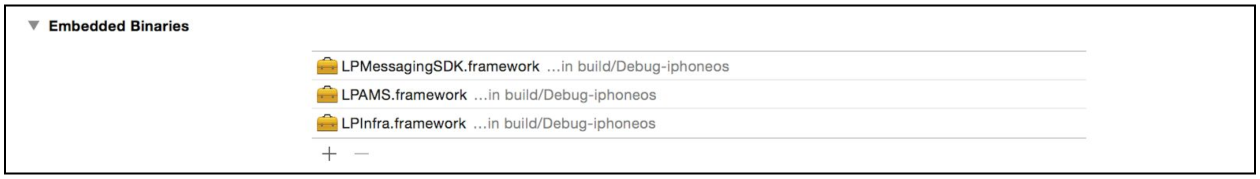
Click here to download the SDK package. Once downloaded, extract the ZIP file to a folder on your Mac.

2. Set up the SDK package in Xcode

1. In Xcode, from the menu, select **File** > **New** >**New project**.
2. From the list of templates, select **Single View Application**, and then click **Next**.
3. Complete the following fields:
    a. Product Name
    b. Organization Identifier
    c. Select Swift or Objective-C
4. Click **Next.**
5. Save the project to a folder of your choosing.
6. On the project explorer pane, navigate to the main folder for your project. Right-click it, and select "**Add Files to**..." Navigate to the folder where you extracted the SDK package files, and then add the files to the lib subfolder in your project.

3. Configure project settings

1. In project settings, navigate to the **General** tab, and add all Framework files to the Embedded Binaries section.



▼ Embedded Binaries

LPMessagingSDK.framework ...in build/Debug-iphoneos
LPAMS.framework ...in build/Debug-iphoneos
LPInfra.framework ...in build/Debug-iphoneos

2. In project settings, navigate to the **Build Phases** tab, and add with the '+' button "New Run Script Phase". Add the following script in order to support release architectures:

```
APP_PATH="${TARGET_BUILD_DIR}/${WRAPPER_NAME}"

# This script loops through the frameworks embedded in the application and
# removes unused architectures.
find "$APP_PATH" -name '*.framework' -type d | while read -r FRAMEWORK
do
   FRAMEWORK_EXECUTABLE_NAME=$(defaults read "$FRAMEWORK/Info.plist"
CFBundleExecutable)
   FRAMEWORK_EXECUTABLE_PATH="$FRAMEWORK/$FRAMEWORK_EXECUTABLE_NAME"
   echo "Executable is $FRAMEWORK_EXECUTABLE_PATH"

   EXTRACTED_ARCHS=()

   for ARCH in $ARCHS
   do
      echo "Extracting $ARCH from $FRAMEWORK_EXECUTABLE_NAME"
      lipo -extract "$ARCH" "$FRAMEWORK_EXECUTABLE_PATH" -o
"$FRAMEWORK_EXECUTABLE_PATH-$ARCH"
      EXTRACTED_ARCHS+=("$FRAMEWORK_EXECUTABLE_PATH-$ARCH")
   done

   echo "Merging extracted architectures: ${ARCHS}"
   lipo -o "$FRAMEWORK_EXECUTABLE_PATH-merged" -create "${EXTRACTED_ARCHS[@]}"
   rm "${EXTRACTED_ARCHS[@]}"

   echo "Replacing original executable with thinned version"
   rm "$FRAMEWORK_EXECUTABLE_PATH"
   mv "$FRAMEWORK_EXECUTABLE_PATH-merged" "$FRAMEWORK_EXECUTABLE_PATH"

done
```

Configuration and String files

Make sure to update the changes in the "**configFile.plist**" and other localization (.string) files with each new version of the SDK.

4. Initialization

Now that you have the configuration file for your project, you're ready to begin implementing. To initialize the SDK, you must have a LivePerson account number.

To initialize the SDK using Objective-C:

1. Initialize SDK throws an error in case of initialization failure and may not be used in case of an initialization error.
   Inside **`AppDelegate`**, under **`didFinishLaunchingWithOptions`**, add the following code:

```
NSError *error = nil;
if (![[LPMessagingSDK instance] initialize:accountNumber error:&error]) {
   // SDK has an initialization error...
}
```

2. In order to create/view the conversation view, run the following code:

```
id <ConversationParamProtocol> conversationQuery = [[LPMessagingSDK instance]
   getConversationBrandQuery:accountNumber];
[[LPMessagingSDK instance] showConversation:conversationQuery
   authenticationCode:@"Your authentication code" containerViewController:self];
```

3. In order to remove the conversation view when your container is deallocated, run the following code:

```
id <ConversationParamProtocol> conversationQuery = [[LPMessagingSDK instance]
   getConversationBrandQuery:accountNumber];
[[LPMessagingSDK instance] removeConversation: conversationQuery];
```

4. Inside `AppDelegate, add:`

```
#import <LPMessagingSDK/LPMessagingSDK.h>
#import <LPAMS/LPAMS.h>
#import <LPInfra/LPInfra.h>
```

5. In build settings, make sure of the following:

- “Embedded content contains Swift code” is set to Yes.

6. In general tab, make sure that the framework files are under ‘Embeded Libraries’.

To initialize the SDK using Swift:

1. Initialize SDK throws an error in case of initialization failure and may not be used in case of an initialization error.
   Inside **`AppDelegate`**, under **`didFinishLaunchingWithOptions`**, add the following code:

```
do {
   try LPMessagingSDK.instance.initialize()
} catch {
   // SDK has an initialization error...
   return
}
```

2. In order to create/view the conversation page, run the following code:

```
let conversationQuery =
   LPMessagingSDK.instance.getConversationBrandQuery(accountNumber)
LPMessagingSDK.instance.showConversation(conversationQuery, authenticationCode:
   accountNumber, containerViewController: self)
```

3. In order to remove the conversation view when your container is deallocated, run the following code:

```
let conversationQuery =
   LPMessagingSDK.instance.getConversationBrandQuery(accountNumber)
LPMessagingSDK.instance.removeConversation(conversationQuery)
```

4. Inside **`AppDelegate`** add:

```
import LPMessagingSDK
```

5. Objective-C configuration

1. In your app delegate:

```
#import <LPMessagingSDK/LPMessagingSDK.h>
#import <LPInfra/LPInfra.h>
#import <LPAMS/LPAMS.h>
```

2. In build settings:
   a. Make sure “Embedded content contains Swift code” is set to Yes.

3. In general tab, make sure that the framework files are under ‘Embeded Libraries’.

6. Build and test the SDK

That’s it! You are now ready to run the app with a basic implementation of our SDK. Keep reading to find out what else you can do with our SDK.

Advanced options

Push registration

1. Register to LPMessagingSDK push notification with the following code in AppDelegate:

“alternateBundleID” is an optional value for you to use if you would like our pusher service to identify your app with this bundle identifier.

Objective-C:

```
[[LPMessagingSDK instance] registerPushNotifications:deviceToken
   notificationDelegate:self alternateBundleID:”__alternateBundleID__”];
```

Swift:

```
func application(application: UIApplication,
   didRegisterForRemoteNotificationsWithDeviceToken deviceToken: NSData) {

LPMessagingSDK.instance.registerPushNotifications(token: deviceToken,
   notificationDelegate: self, alternateBundleID: “__alternateBundleID__”)

}
```

2. In order to receive all incoming push notifications in a single function and handle them, add the following method:

Objective-C:

```
[[LPMessagingSDK instance] handlePush:userInfo];
```

Swift:

```
func application(application: UIApplication, didReceiveRemoteNotification userInfo:
   [NSObject : AnyObject], fetchCompletionHandler completionHandler:
   (UIBackgroundFetchResult) -> Void) {

LPMessagingSDK.instance.handlePush(userInfo)

    }
```

3. When tapping a local notification message bar, the following delegate is called:

Objective-C:

```
[((AppDelegate *) [[UIApplication sharedApplication]
delegate]).mainViewController.centerViewController navigateTo:@"chatView"
data:@{@"brand":@YES}];
```

Swift:

```
 func LPMessagingSDKNotification(notificationTapped notification: LPNotification) {

       ((UIApplication.sharedApplication().delegate as!
AppDelegate).mainViewController?.centerViewController as?
LPNavigationController)?.navigateTo("chatView",data: ["brand":true])

  }
```

API Methods

Set a user profile - add custom parameters about the user and set them for the messaging agent.

Passed object is an instance of LPUser (a subclass of NSObject) with the following properties:

```
var firstName: String?
var lastName: String?
var profileImageURL: String?
var phoneNumber: String?
var employeeID: String?
var uid: String?
```

Objective-C:

```
LPUser *user = [[LPUser alloc] initWithFirstName:@”First name” lastName:@”Last name”
uid:nil profileImageURL:@"Image url" phoneNumber:@"000-0000000"];
[[LPMessagingSDK instance] setUserProfile:user accountID:@”Account ID”];
```

Swift:

```
let user = LPUser(firstName: “John”, lastName: “Doe”, profileImageURL: “URL of
image”, phoneNumber: “555-555555”)
LPMessagingSDK.instance.setUserProfile(user)
```

Reconnect when token expires with new Authentication Code

Objective-C:

```
id <ConversationParamProtocol> query = [[LPMessagingSDK instance]
getConversationBrandQuery:account];
[[LPMessagingSDK instance] reconnect:conversationQuery authenticationCode:@"Your
authentication code"];
```

Swift:

```
let query = LPMessagingSDK.instance.getConversationBrandQuery("brandID")
LPMessagingSDK.instance.reconnect(query, authenticationCode: "Authentication code")
```

Set a custom button that will call a delegate to your project (usually used to call a client center)

```
LPMessagingSDK.instance.delegate = self
```

When this button is pressed, it will call the following delegate:

```
func LPMessagingSDKCustomButtonTapped() {
    UIApplication.sharedApplication().openURL(NSURL(string: "tel://55555555")!)
}
```

Subscribe to log events (Trace, Debug, Info, Warning, Error) - Each time a log event with the passed log level will occur, the callback will be invoked with the log object.

Passed object is an instance of LPLog (a subclass of NSObject) with the following properties:

```
var timestamp: String?
var className: String?
var funcName: String?
var text: String?
var logLevel: LogLevel?
```

LogLevel enum:

```
case TRACE
case DEBUG
case INFO
case WARNING
case ERROR
case OFF
public var description: String { get }
public init(string: String)
```

Objective-C:

```
[[LPMessagingSDK instance] subscribeLogEvents:LogLevelINFO logEvent:^(LPLog *log){

}];
```

Swift:

```
LPMessagingSDK.instance.subscribeLogEvents(LogLevel.INFO) { (log) -> () in
    NSLog(log.text)
}
```

Check if there is an active conversation: active conversation can be available only after the callback:

LPMessagingSDKConnectionStateChanged(isReady: Bool, brandID: String)
Was called with isReady = true.

Objective-C:

```
BOOL hasActiveConversation = [[LPMessagingSDK instance] checkActiveConversation:
conversationQuery];
```

Swift:

```
LPMessagingSDK.instance.checkActiveConversation(conversationQuery)
```

Check if the active conversation is marked as ‘Urgent’

Objective-C:

```
BOOL isMarkedAsUrgen = [[LPMessagingSDK instance] isUrgent: conversationQuery];
```

Swift:

```
let isMarkedAsUrgent = LPMessagingSDK.instance.isUrgent(conversationQuery)
```

Mark the active conversation as ‘Urgent’

Objective-C:

```
[[LPMessagingSDK instance] markAsUrgent: conversationQuery];
```

Swift:

```
LPMessagingSDK.instance.markAsUrgent(conversationQuery)
```

Dismiss the active conversation from ‘Urgent’ to ‘Normal’

Objective-C:

```
[[LPMessagingSDK instance] dismissUrgent: conversationQuery];
```

Swift:

```
LPMessagingSDK.instance.dismissUrgent(conversationQuery)
```

End the active conversation

Objective-C:

```
[[LPMessagingSDK instance] resolveConversation: conversationQuery];
```

Swift:

```
LPMessagingSDK.instance.resolveConversation(conversationQuery)
```

Get current SDK version string

Objective-C:

```
NSString *sdkVersionString = [[LPMessagingSDK instance] getSDKVersion];
```

Swift:

```
let sdkVersionString = LPMessagingSDK.instance.getSDKVersion()
```

Destruct/Shutdown the SDK - Close all active connections and remove conversations views

Objective-C:

```
[[LPMessagingSDK instance] destruct];
```

Swift:

```
LPMessagingSDK.instance.destruct()
```

Logout from SDK - Clear all SDK persistent data and destructing/shutting down the SDK

Objective-C:

```
[[LPMessagingSDK instance] logout];
```

Swift:

```
LPMessagingSDK.instance.logout()
```

Get assigned agent details of the last or current conversation

Objective-C:

```
LPUser *agent = [[LPMessagingSDK instance] getAssignedAgent: conversationQuery];
```

Swift:

```
let agent = LPMessagingSDK.instance.getAssignedAgent(conversationQuery)
```

Clear history of all ended conversations

Objective-C:

```
NSError *error = nil;
if (![[LPMessagingSDK instance] clearHistory: conversationQuery error:&error]) {
   // Clear history error...
}
```

Swift:

```
do {
    try LPMessagingSDK.instance.clearHistory(conversationQuery)
 } catch {
     // Clear history error...
 }
```

Callbacks

1. protocol LPMessagingSDKdelegate
    a. `LPMessagingSDKCustomButtonTapped()` - Called when the custom button on the navigation was tapped.
    b. `LPMessagingSDKAgentDetails(agent: LPUser)` - Called when the agent details was received or updated. For every message the SDK check for agent details in order to determine whether the assigned agent was changed.
    c. `LPMessagingSDKActionsMenuToggled(toggled: Bool)` - Called when the action menu was toggled.
    d. `LPMessagingSDKHasConnectionError(error: String?)` - Called whenever the SDK received in connection error from the socket.
    e. `LPMessagingSDKObseleteVersion(error: NSError)` - Called when the SDK version is obsolete and needs to be updated.
    f. `LPMessagingSDKAuthenticationFailed(error: NSError)` - Called when the current session was failed due to authentication error.
    g. `LPMessagingSDKTokenExpired(brandID: String)` - Called when the current session's token is expired.
    h. `LPMessagingSDKAgentIsTypingStateChanged(isTyping: Bool)` - Called when the typing state of the agent was changed.
    i. `LPMessagingSDKConversationStarted(conversationID: String?)` - Called when a new conversation was started.
    j. `LPMessagingSDKConversationEnded(conversationID: String?)` - Called when an open conversation was ended by the user or by the agent.
    k. `LPMessagingSDKConnectionStateChanged(isReady: Bool, brandID: String)` - Called when the SDK connection was changed. isReady will be true only after the socket is open and login and fetch history processes are done.
    l. `func LPMessagingSDKError(error: NSError)` - Called when the SDK has a general error and cannot proceed.
    m. `LPMessagingSDKCSATScoreSubmissionDidFinish(accountID: String, rating: Int)` - Called after the survey feedback has been submitted (rating 1 to 5) or skipped (rating = 0)

2. protocol LPMessagingSDKNotificationDelegate
    a. `LPMessagingSDKNotification(didReceivePushNotification notification: LPNotification)`
    b. `LPMessagingSDKNotification(shouldShowPushNotification notification: LPNotification) -> Bool`
    c. `LPMessagingSDKNotification(customLocalPushNotificationView notification: LPNotification) -> UIView`
    d. `LPMessagingSDKNotification(notificationTapped notification: LPNotification)`

Configuring the SDK

The SDK allows you to configure the look and feel of your app with your **`configFile.plist`** file. This file MUST contain all the exact resource names as listed below:

General

Resource name	Description
`brand_name`	The brand name will be shown as a title on toolbar when there is no active conversation.
`language`	The language is defined by a two-letter ISO 639-1 language code, for example, “en” for English. If no value is provided, the SDK will use the language according to the device's locale.
`country`	Country code. If no value is provided, the SDK will use the country according to the device's locale.
`conversation_background`	Color code for the entire view background.
`date_separator_title_backgroud_color`	Color code for date separator title background color
`date_separator_text_color`	Color code for date separator text color
`date_separator_line_backgroud_color`	Color code for date separator line background color
`TTRfirstTimeDelay`	TTR - Time To Respond Number of seconds before the first TTR notification appears
`show_urgent_button_in_ttr_notification`	TTR - Time To Respond Enable presentation of ‘Urgent’ button in the TTR notification
`TTRShouldShowTimeStamp`	TTR - Time To Respond **Enable:** Shows a time stamp in the TTR notification. **Disable:** Shows: “An agent will respond shortly”
`edit_text_underline_color`	Color code for underline background in ‘edit’ view

`send_button_disabled_text_color`	Color code for ‘Send’ button title in disabled mode
`send_button_enabled_text_color`	Color code for ‘Send’ button title in enabled mode
`retrieve_assigned_agent_from_last_closed_conversation`	When using “getAssignedAgent” method, this option let you decide whether to get assigned agents from active conversation only, or also from the last closed conversation in case there is no active conversation. If not assigned agent is available this method will return nil.

URLs

Resource name	**Description**
`csds_domain`	CSDS Domain URL

Custom Button

Resource name	Description
`custom_button_icon_description`	Accessibility voiceover string for the custom button.
`custom_button_icon_name`	Custom button icon filename without extension. This will be displayed on the navigation bar.

Agent Message Bubble

Resource name	**Description**
`agent_bubble_stroke_width`	Integer number for the outline width.
`agent_bubble_stroke_color`	Color code for the outline color.
`agent_bubble_message_text_color`	Color code for the text of the agent bubble.
`agent_bubble_message_link_text_color`	Color code for links in the text of the agent bubble.

agent_bubble_timestamp_text_color	Color code for the timestamp of the agent bubble.
agent_bubble_background_color	Color code for the background of the agent bubble.

Visitor Message Bubble

Resource name	**Description**
visitor_bubble_message_text_color	Color code for the text of the visitor bubble.
visitor_bubble_stroke_width	Int number for the outline width.
visitor_bubble_stroke_color	Color code for the outline color.
visitor_bubble_message_link_text_color	Color code for links in the text of the visitor bubble.
visitor_bubble_timestamp_text_color	Color code for the timestamp of the visitor bubble.
visitor_bubble_background_color	Color code for the background of the visitor bubble.

System messages

Resource name	**Description**
system_bubble_text_color	Color code for the text of the system messages.

Checkmarks Visibility

Resource name	**Description**
message_receive_icons	Integer number representing number of read indications
checkmarks_color	Color of read indication signs
readReceipt_distributed	Text for distributed indication
readReceipt_read	Text for read indication

readReceipt_sent	Text for sent indication
read_receipt_mode	Two options for read indication: ● read_receipt_mode_text ● read_receipt_mode_icon

Survey screen

Resource name	**Description**
csat_submit_button_corner_radius	Corner radius of the Submit button
csat_submit_button_background_color	Background color code of the Submit button
csat_submit_button_text_color	Text color code of the Submit button
csat_rating_button_selected_color	Background Color code of the rating buttons
csat_resolution_button_selected_color	Color code for the resolution confirmation buttons (YES/NO) when selected
csat_resolution_feedback_text	Text for the feedback label
csat_resolution_question_text	Text for the resolution confirmation question
csat_all_titles_text_color	Titles text colors for all labels
csat_resolution_hidden	Hides the yes/no question
csat_navigation_background_color	Background color of the navigation of the survey
csat_navigation_title_color	Text color of the the title in the survey navigation

Conversation Settings

Resource name	Description
max_conversations_to_fetch	The amount of conversations to fetch on loading

`max_previous_conversations_to_present`	Amount of conversations to show in advance

Avatars

Resource name	Description
`agent_avatar_background_color`	Background color of the agent’s avatar
`agent_avatar_icon_color`	Icon’s avatar color within the avatar’s background

Open source list

The following open source code is used within the LiveEngage SDK. Licensing terms for use of this code require you to mention the list of these sources in the end customer product or documentation. No additional fees or costs are associated with use of these sources.

Name	Licence
Reachability	Apple inc
Starscream	Apache
UIRefreshControl+UITableView	MIT
TTTAttributedLabel	Apache
NSDate+Extension	License