Copyright © 2016 Glympse, Inc.

Glympse EnRoute SDK for Xamarin

Glympse®

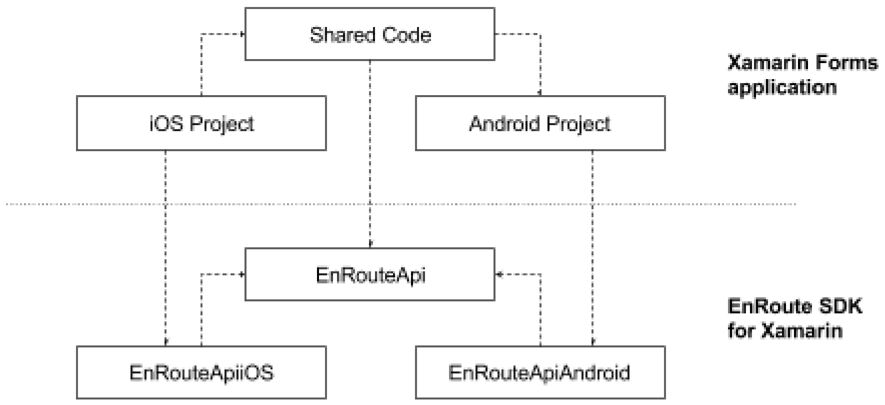
Contents

Introduction

Glympse EnRoute SDK for Xamarin enables Xamarin Forms applications with Glympse EnRoute capabilities.

Components

The following diagram illustrates dependencies between various components of the SDK and Forms Application built on top of it.



Android Configuration

Permissions

The following permissions are required in order for EnRoute SDK to function properly.

Copyright © 2016 Glympse, Inc.

```xml
<uses-permission android:name="android.permission.INTERNET"/>
<uses-permission android:name="android.permission.ACCESS_COARSE_LOCATION"/>
<uses-permission android:name="android.permission.ACCESS_FINE_LOCATION"/>
<uses-permission android:name="android.permission.WAKE_LOCK" />
<uses-permission android:name="android.permission.ACCESS_NETWORK_STATE"/>
```

PUSH

The following permissions are required to enable Glympse PUSH.

```xml
<permission
  android:name="APP_PACKAGE.permission.C2D_MESSAGE"
  android:protectionLevel="signature" />
<uses-permission android:name="APP_PACKAGE.permission.C2D_MESSAGE" />
<uses-permission android:name="com.google.android.c2dm.permission.RECEIVE" />
<uses-permission android:name="android.permission.GET_ACCOUNTS" />
```

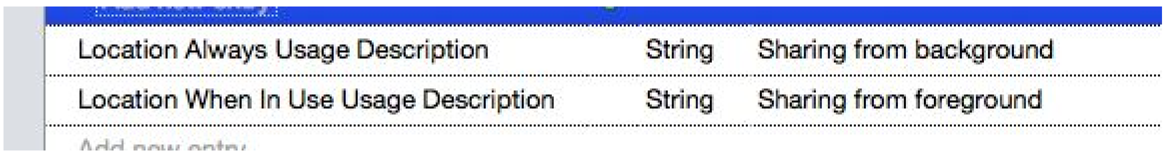
EnRoute SDK comes with receiver responsible for handling PUSH messages initiated by Glympse cloud.

```xml
<receiver
  android:name="com.glympse.android.hal.GCMReceiver"
  android:permission="com.google.android.c2dm.permission.SEND"
  android:exported="true" >
  <intent-filter>
    <action android:name="com.google.android.c2dm.intent.RECEIVE" />
    <action android:name="com.google.android.c2dm.intent.REGISTRATION" />
    <category android:name="APP_PACKAGE" />
  </intent-filter>
</receiver>
```

iOS Configuration

Location

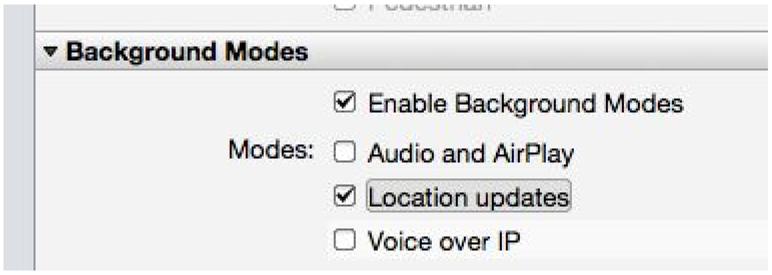
IOS application needs to be configured to use background services in "always" mode.



Location Always Usage Description	String	Sharing from background
Location When In Use Usage Description	String	Sharing from foreground

Background location updates should also be enabled.

Copyright © 2016 Glympse, Inc.



☑ Enable Background Modes

Modes: ☐ Audio and AirPlay

☑ Location updates

☐ Voice over IP

PUSH

NOTE There is no way to configure Xamarin.iOS application to leverage from Glympse PUSH. This capability will be added in follow up release.

Usage

Initialization

The following snippets demonstrate how portable code is initialized with the instance of `GEnRouteFactory`. Note that this initialization takes place in iOS and Android parts of Forms application.

Android

```c#
using Android.App;
using Glympse.EnRoute;
using Glympse.EnRoute.Android;

GEnRouteFactory enRouteFactory = new EnRouteFactory(Application.Context);
LoadApplication (new App(enRouteFactory));
```

iOS

```c#
using Glympse.EnRoute;
using Glympse.EnRoute.iOS;

GEnRouteFactory enRouteFactory = new EnRouteFactory();
LoadApplication(new App(enRouteFactory));
```

Authentication

Users can be authenticated on EnRoute via providing username and password directly.

```c#
GEnRouteManager manager = ...;
if ( manager.isLoginNeeded() )
{
    manager.login(" EMAIL ", " PASSWORD ");
}
else
{
    manager.start();
```

Copyright © 2016 Glympse, Inc.

```
}
```

NOTE It is critical that application checks if authentication is needed (via `GEnRouteManager.isLoginNeeded()`) before initialing login sequence.

NOTE This approach is temporary and is subject to change.

Task Management

Active and pending tasks are accessible via `GTaskManager` interface.

```c#
// Enumerate tasks.
foreach ( GTask taskFromList in taskManager.getTasks() )
{
    // Do something with each task
}
```

```c#
// Start pending task.
GTask task = ...;
taskManager.startTask(task);
```

```c#
// Change task phase to "live".
taskManager.setOperationPhase(
    task.getOperation(), EnRouteConstants.PHASE_PROPERTY_LIVE());
```

```c#
// Complete task.
taskManager.completeOperation(task.getOperation());
```