



**YALOVA UNIVERSITY**

---



**HUAWEI**

# **Android Programming with Huawei Mobile Services**

Yunus OZEN

Muhammed Salih KARAKASLI

Cenk Faruk CAVGA

Sezer Yavuzer BOZKIR

# WHAT WE DO TODAY

## Overview of Location Kit

- What is Location Kit?
- Usage Areas & Common Features
- Integrate Sample Application

## Overview of Map Kit

- 
- What is Map Kit?
- Usage Areas & Common Features
- Integrate Sample Application

## HMS Core Integration

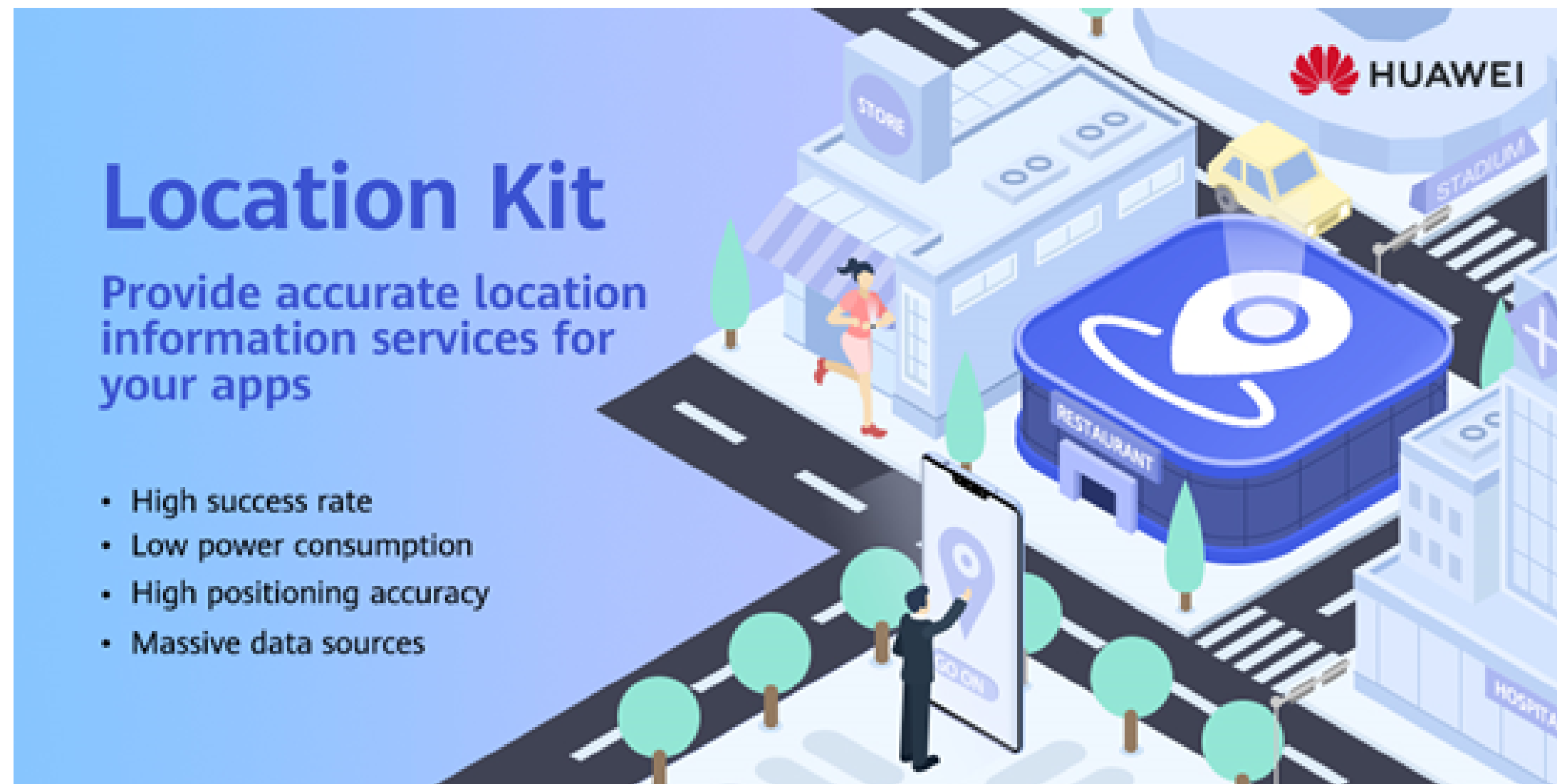
- How to create project using with HMS Core
- HMS Core Integration



# Overview of Location Kit

# What is Location Kit?

HUAWEI Location Kit combines GNSS, Wi-Fi, and base station location data to allow you to quickly obtain precise user locations, giving you a global positioning capability and helping you deliver services to a global audience.



# Provides accurate location information services

The hybrid locating mode of "GPS + WiFi + Bluetooth + Base Station" provides an easy-to-use locating interface for app developers, helping developers obtain user location quickly and accurately.



## High Success Rate

The offline + online location success rate reaches 99%.



## Low Power Consumption

The power consumption is low because the offline location request does not consume mobile data.



## High Positioning Accuracy

The "GPS + WiFi + Bluetooth + Base Station" hybrid positioning mode is used to improve accuracy.



## Massive Data Sources

There are billions of base stations and information databases.



# Code Samples

```
// Object
private FusedLocationProviderClient fusedLocationProviderClient =
    LocationServices.getFusedLocationProviderClient(this);
// Request
private LocationRequest locationRequest;
// Callback
LocationCallback mLocationCallback = new LocationCallback() {
    @Override
    public void onLocationResult(LocationResult locationResult) {
        Log.i(TAG, "requestLocationUpdatesWithCallback callback onLocationResult print");
    }
    @Override
    public void onLocationAvailability(LocationAvailability locationAvailability) {
        Log.i(TAG, "requestLocationUpdatesWithCallback callback onLocationAvailability print");
    }
};
```

```
fusedLocationProviderClient
    .requestLocationUpdates(locationRequest, mLocationCallback, Looper.getMainLooper())
    .addOnSuccessListener(new OnSuccessListener<Void>() {
        @Override
        public void onSuccess(Void aVoid) {
            LocationLog.i(TAG, "requestLocationUpdatesWithCallback onSuccess");
        }
    })
    .addOnFailureListener(new OnFailureListener() {
        @Override
        public void onFailure(Exception e) {
            LocationLog.i(TAG, "requestLocationUpdatesWithCallback onFailure:" + e.getMessage());
        }
    });
```

# Location Kit



## Usefull Links

### Homepage

<https://developer.huawei.com/consumer/en/hms/huawei-locationkit>

### Development Guide

<https://developer.huawei.com/consumer/en/doc/development/HMSCore-Guides/config-agc-0000001050183128>

### Sample Code

<https://developer.huawei.com/consumer/en/doc/development/HMSCore-Examples/android-sample-code-0000001050986087>

### Codelab:

<https://developer.huawei.com/consumer/en/codelab/HMSLocationKit/index.html#0>



# Overview of Map Kit



# What is Map Kit?

Personalizing how your map displays and interacts with your users tailors their experience to them, not the other way around. Make location-based services work better for you so your app works better for your users.



## RICH MAP DISPLAY

- Rich map elements
- Multiple interaction modes
- Powerful rendering capability
- Customised map UI



## ADVANCED NAVIGATION

- Real-time traffic
- Walking/cycling path
- Driving path planning
- Bus route planning
- 56.8+ million km navigation info



## INTELLIGENT SEARCH

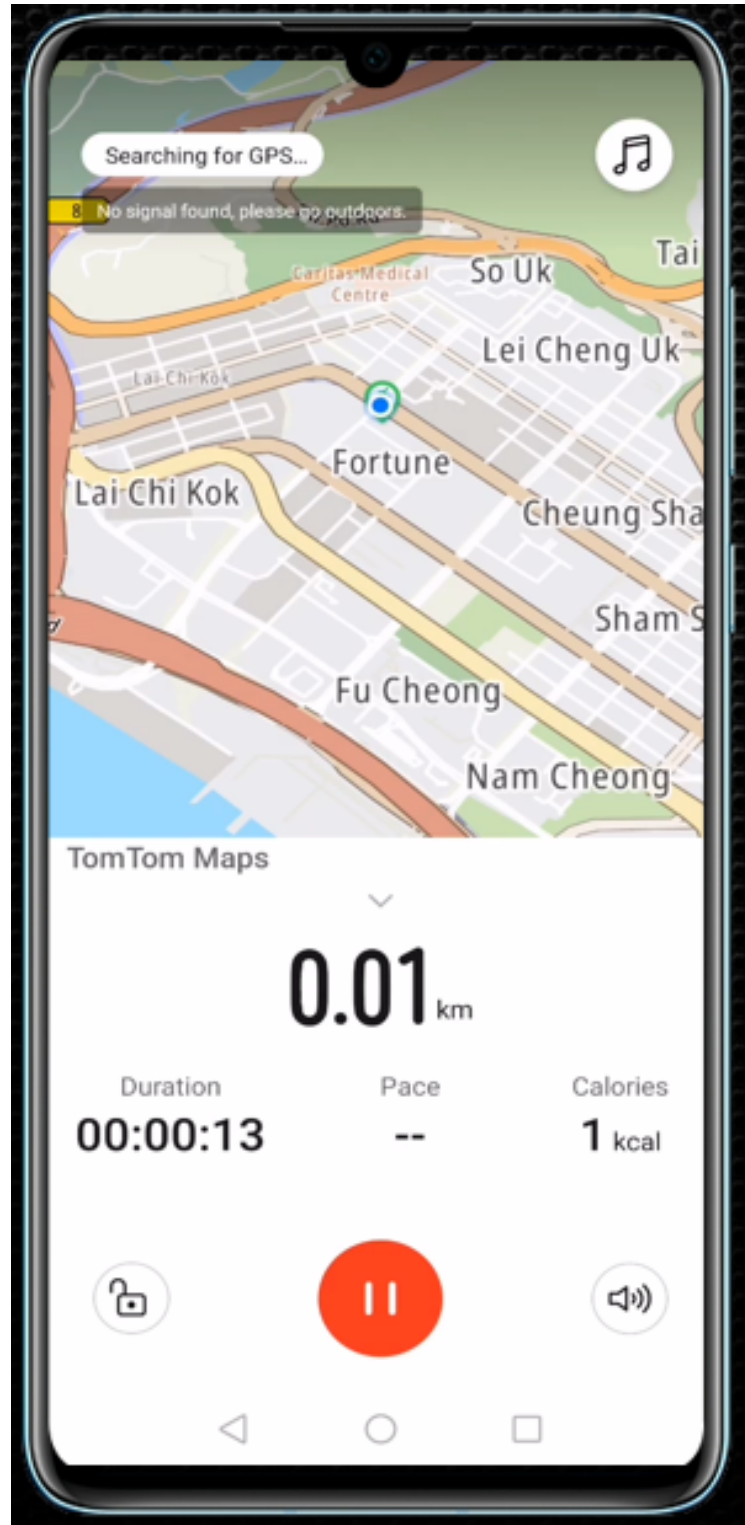
- Prompt search autocompletion
- 120 million POI info
- 10 million AOI info



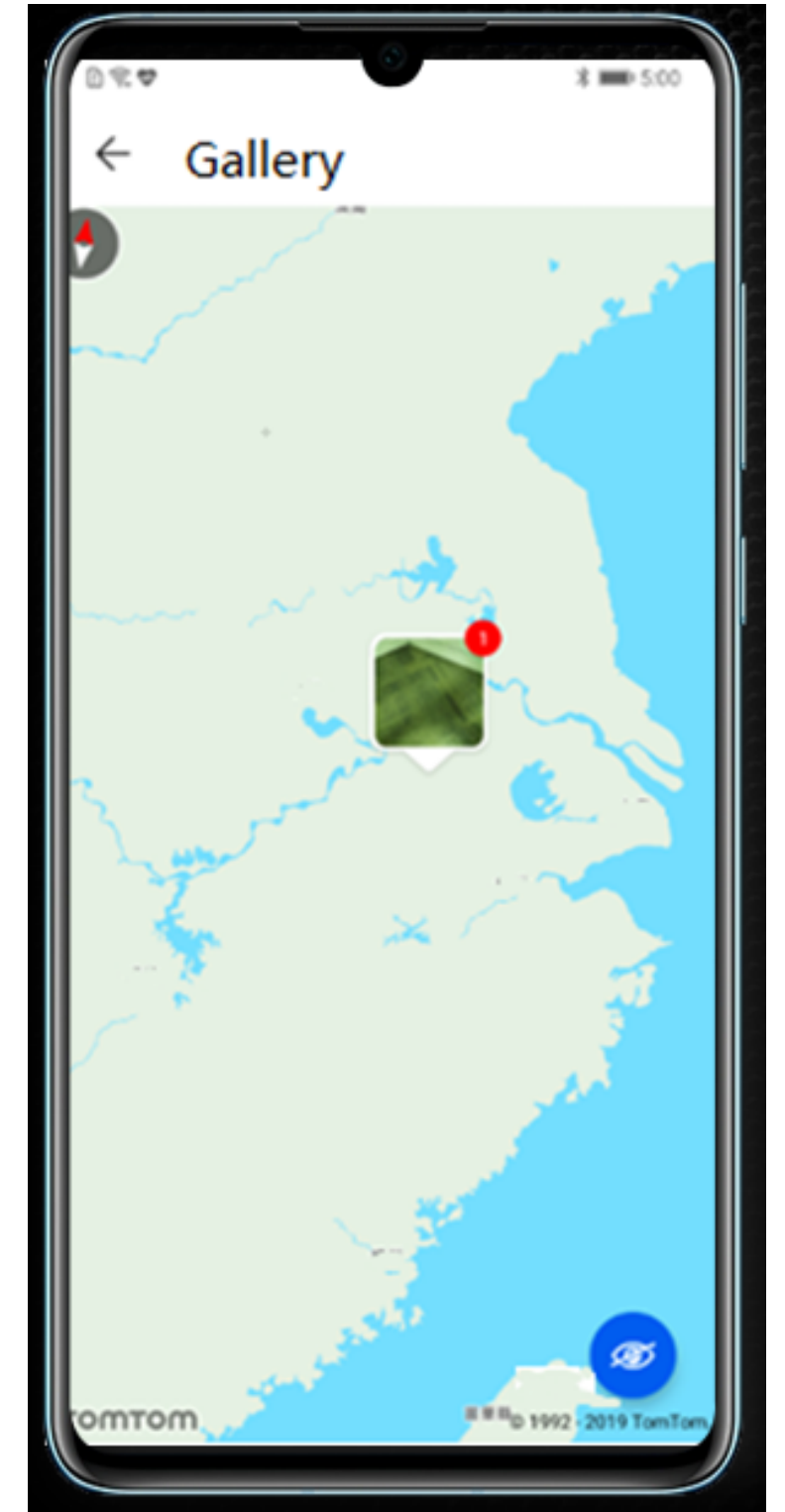
## GLOBAL COVERAGE

- 200+ countries/regions
- 40+ languages.

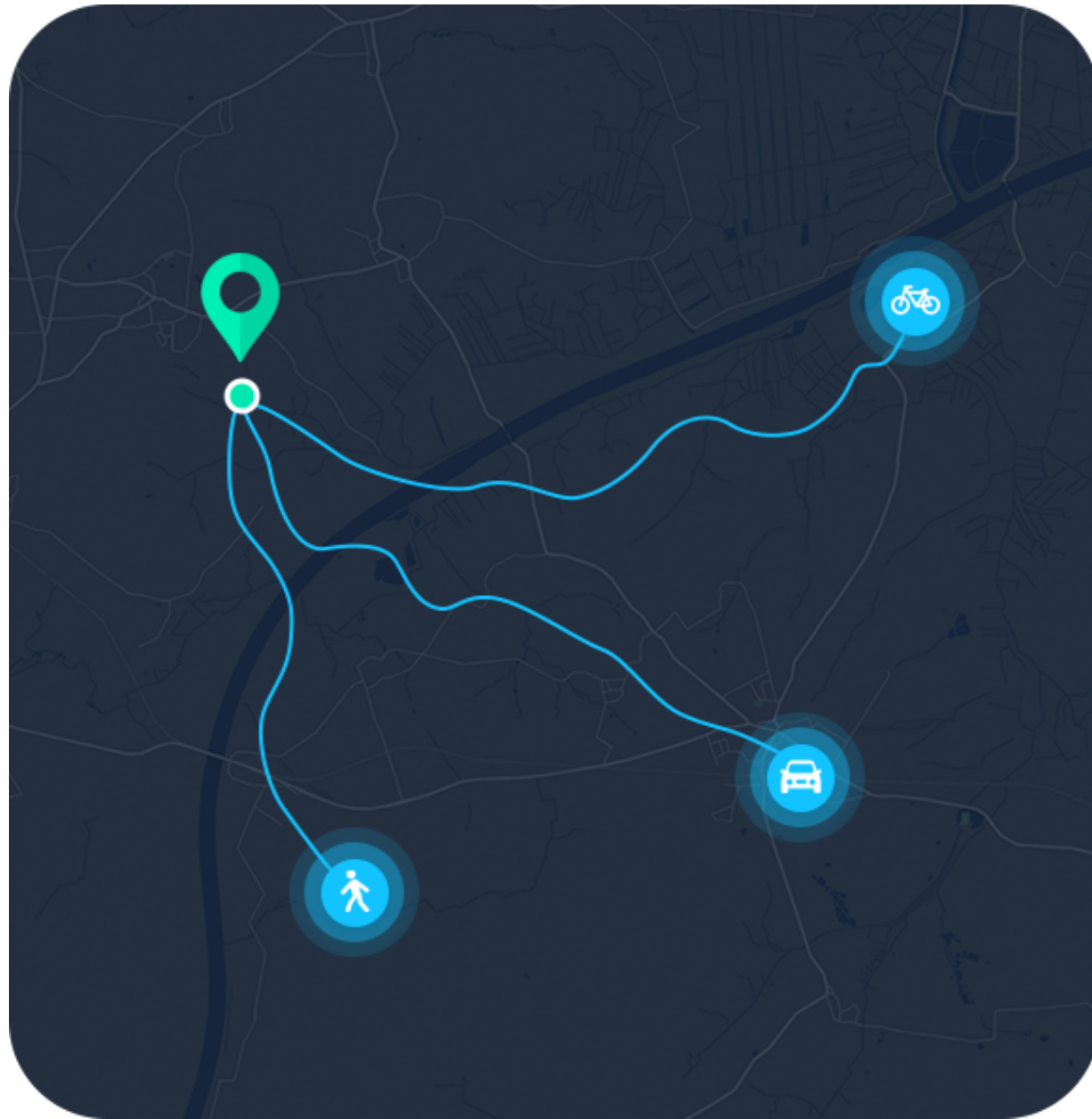
# OPEN CAPABILITIES FOR DEVELOPERS



- Display maps
- Geographic coverage, roads, water systems, and interests
- Draw the location mark, circle, line & polygon
- Control the interaction gestures and buttons
- Search for POI in the nearby or designated area



# Map Functions



## Map display

Provides standard maps as well as UI elements such as markers, shapes, and layers for you to customize maps that better meet service scenarios.

## Map interaction

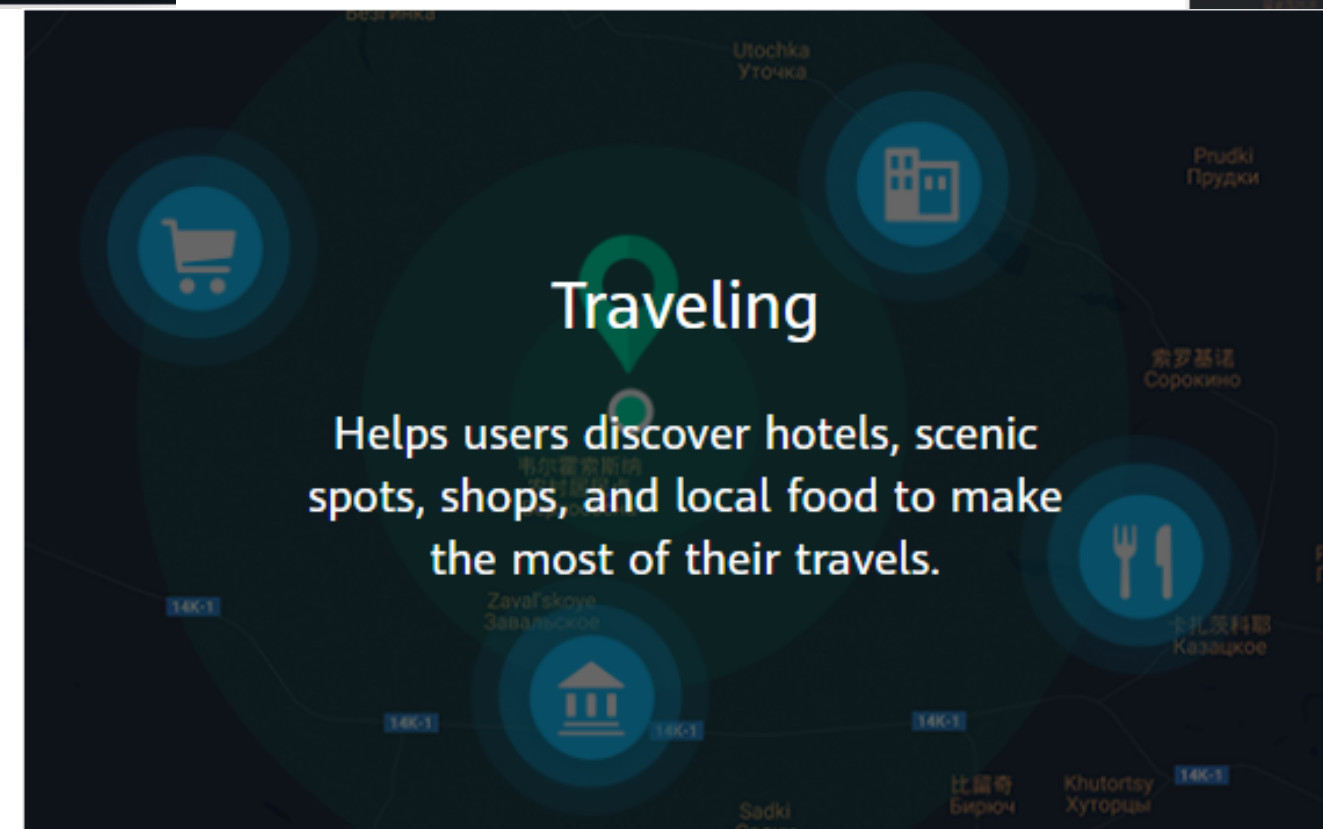
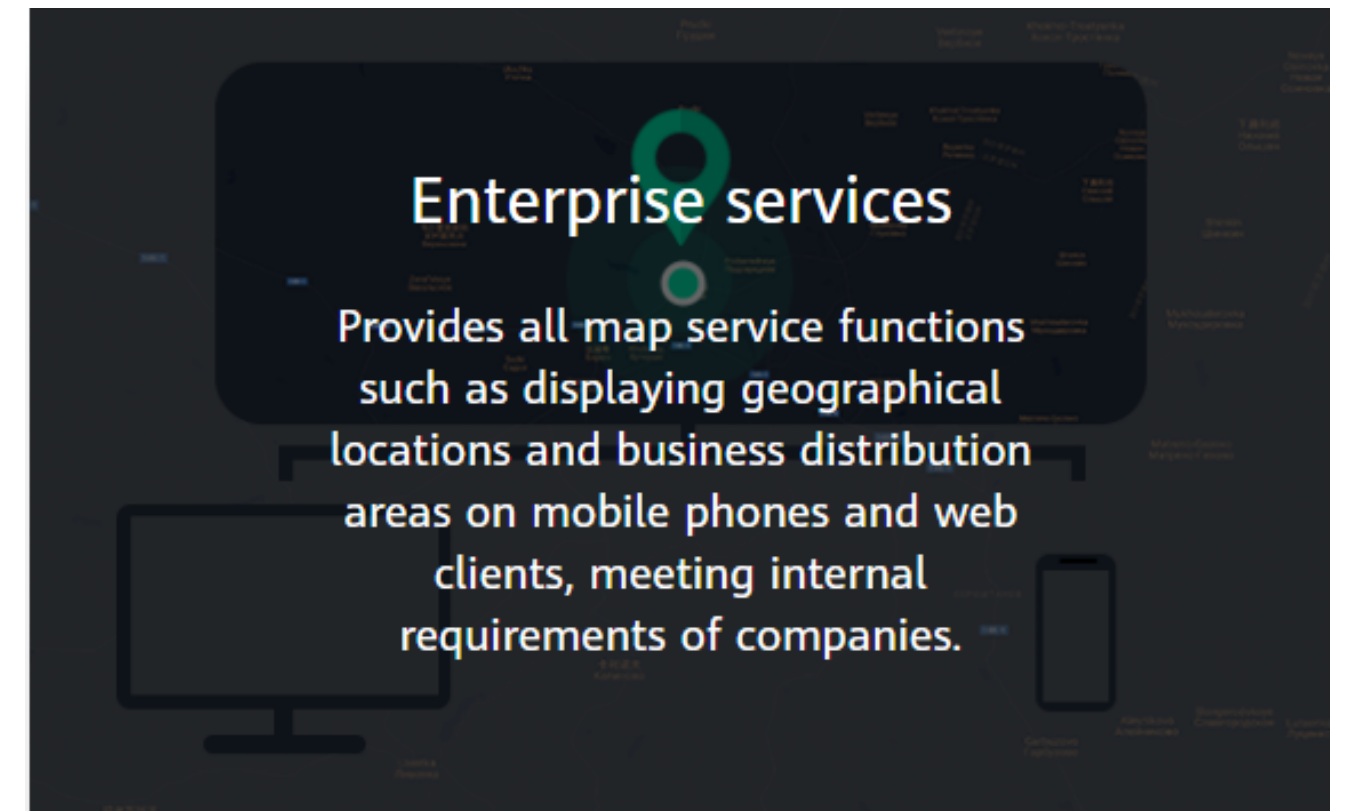
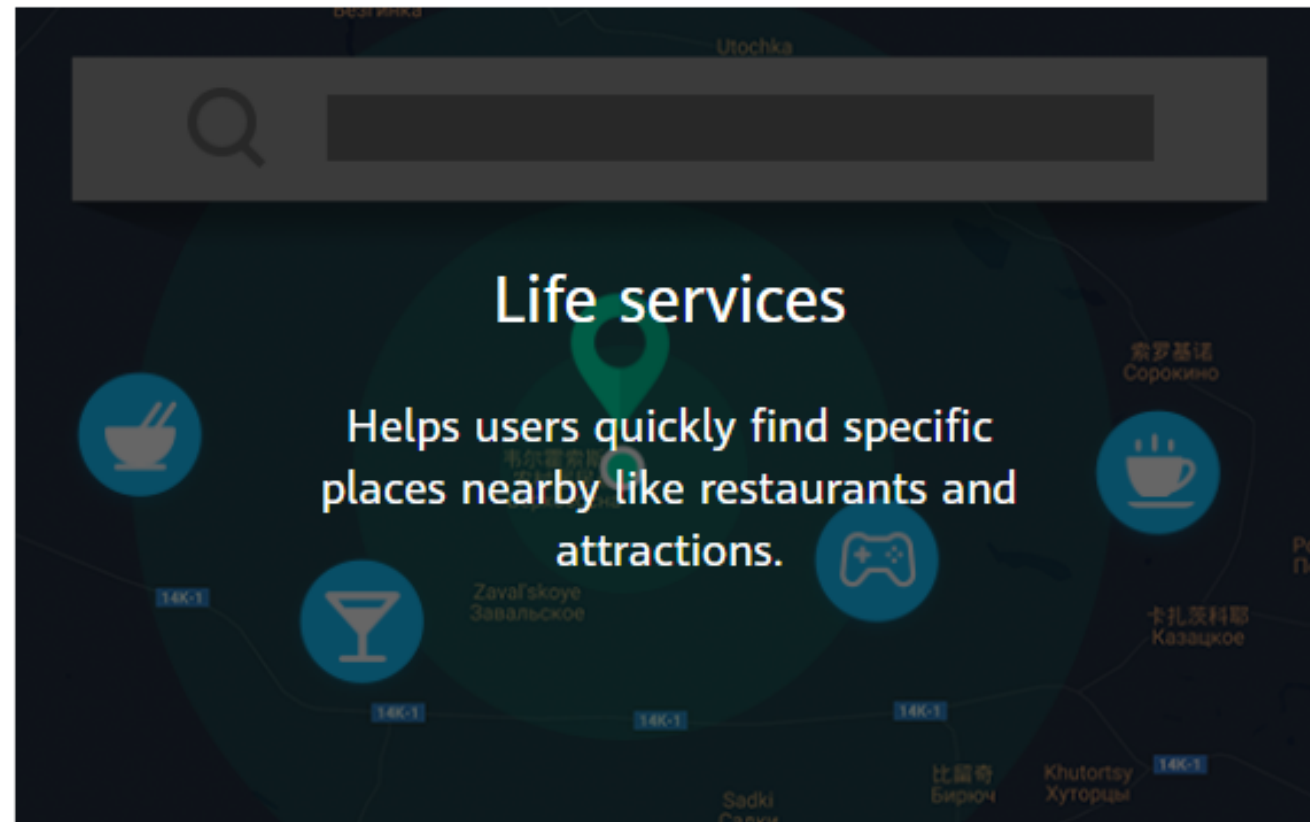
Enables users to interact with a map in your app through gestures and buttons in different scenarios.

## Route planning

Supports driving, cycling, walking, and other traveling modes, covering multiple countries and regions around the world.



# Service Scenarios



# Map Kit



## Usefull Links

### Homepage

<https://developer.huawei.com/consumer/en/hms/huawei-MapKit>

### Development Guide

<https://developer.huawei.com/consumer/en/doc/development/HMSCore-Guides/android-sdk-config-agc-0000001050158641>

### Sample Code

<https://developer.huawei.com/consumer/en/doc/development/HMSCore-Examples/sample-code-0000001050162104>

### Codelab:

<https://developer.huawei.com/consumer/en/codelab/HMSMapKit/index.html#0>





# HMS Core Integration

# HMS Core Integration



1. App Creation
2. Integrate HMS Core into App
3. Installing the application in the AGC environment

Online Guide for HMS Core Integration

<https://developer.huawei.com/consumer/en/codelab/HMSPreparation/index.html#0>



# Map Kit and Location Kit Sample Application



# LET'S TALK

## CONTACT INFORMATION

Muhammed Salih KARAKASLI  
[muhammed.salih.karakasli@huawei.com](mailto:muhammed.salih.karakasli@huawei.com)

Telegram Channel  
will be created

Cenk Faruk CAVGA  
[cenk.faruk.cavga@huawei.com](mailto:cenk.faruk.cavga@huawei.com)

Official Website  
<https://developer.huawei.com>

Sezer Yavuzer BOZKIR  
[sezer.bozkir1@huawei.com](mailto:sezer.bozkir1@huawei.com)