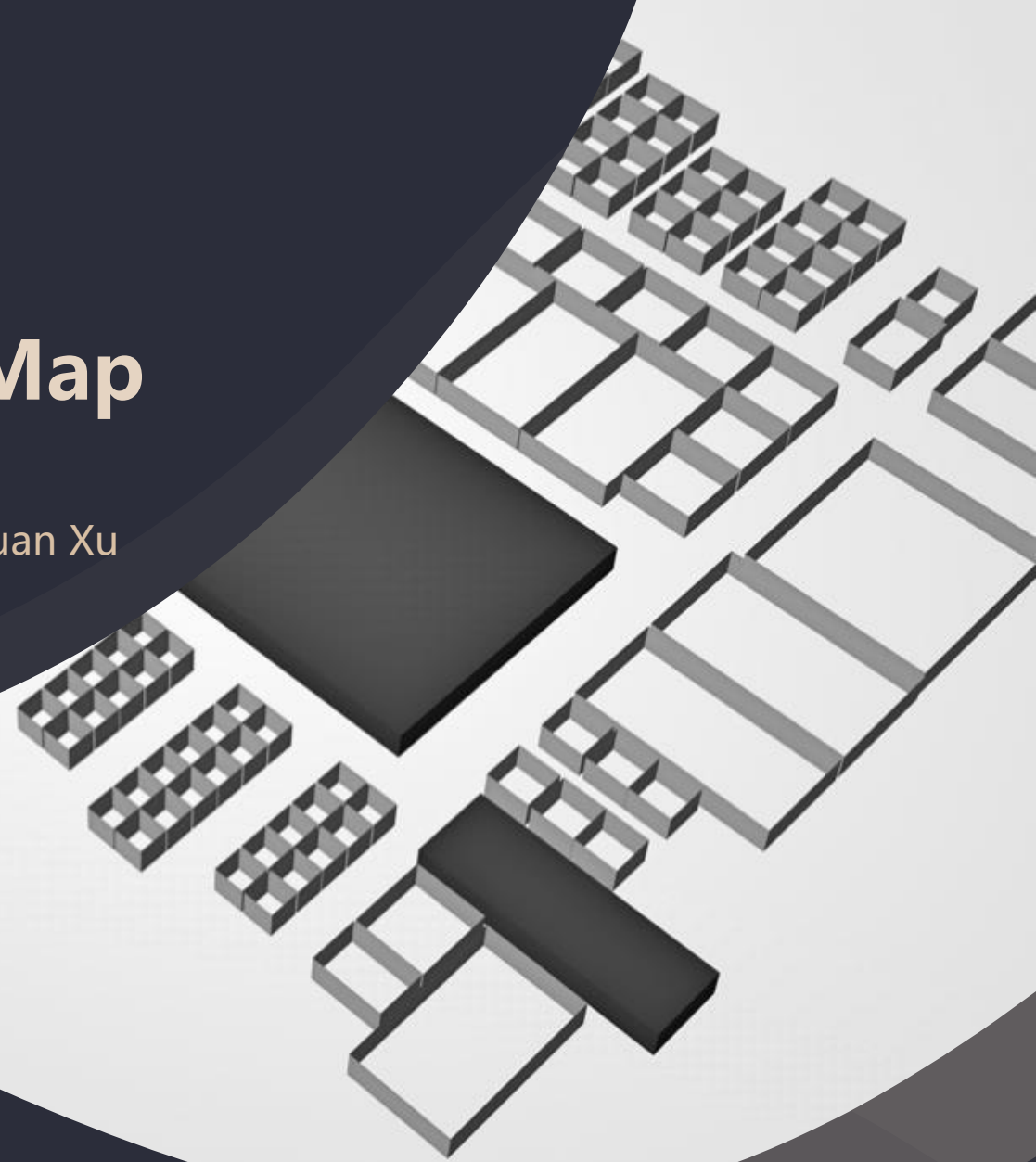


# Intelligent Interactive Indoor Map

Team Members: Linzi Xu   Darren (Yu) Yang   Mingxin Xie   Jiaxuan Xu  
Mentors: Yuanchao Shu   Börje Karlsson



# Agenda

## *Introduction:*

Problems/user needs

Current solutions

## *Building i3m:*

Goal

Challenges

Map understanding

User-friendly interface

Architecture





















## *Summary*

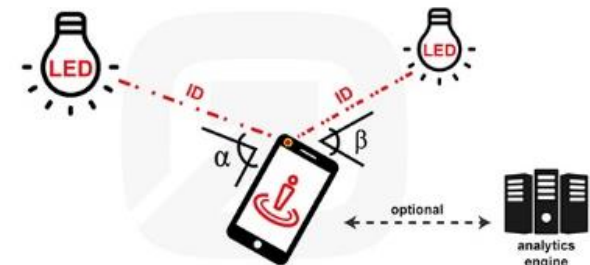
*Vision*

# Problems User Needs



# Current Solutions

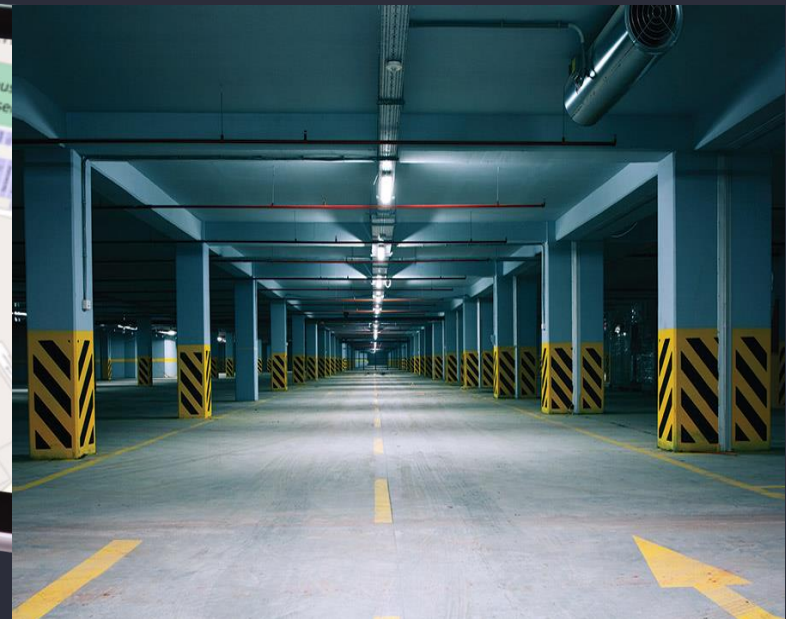
Technology	Indoor/Outdoor	Accuracy	Range	Cross-Platform	Power Supply
GPS		 5-20 m	 worldwide		
WiFi		 5-15 m	 < 150 m		
Bluetooth		 1-3 m	 < 30 m		
VLC		 < 50 cm	 < 8 m		





# Goal i3m

We aim to design an intelligent and interactive map that can navigate users indoors and provides users an easy way to label rooms & path information from both user-friendly interface and rich sensor information.

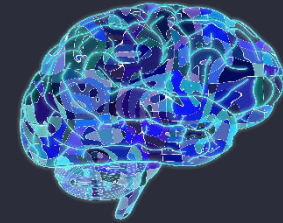


# Challenges

# Intelligent

## ONE Map

How to understand the map  
How to deal with real world data



## TWO Interface

How to make an intuitive map  
visualization and easy to use  
interaction







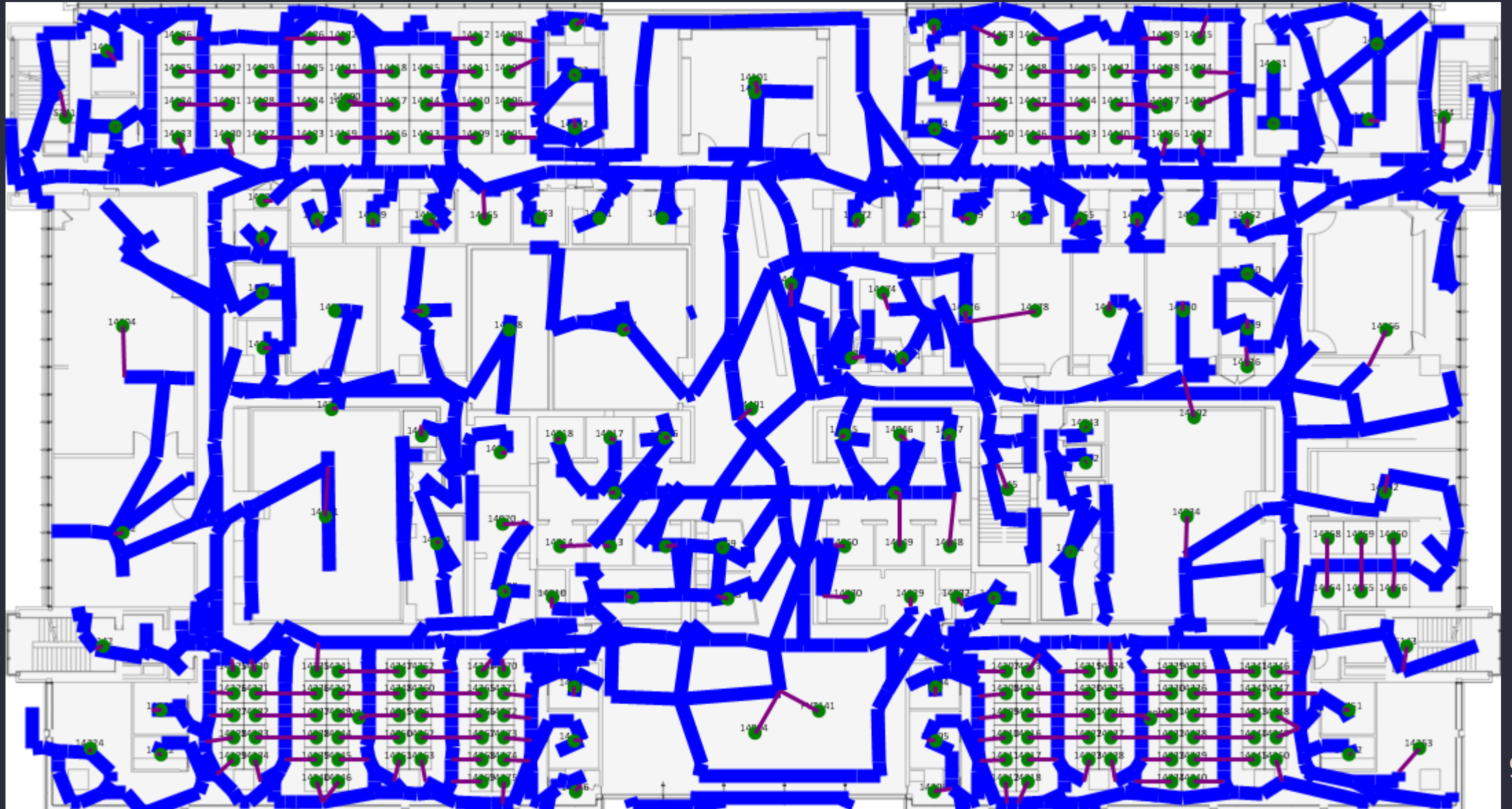






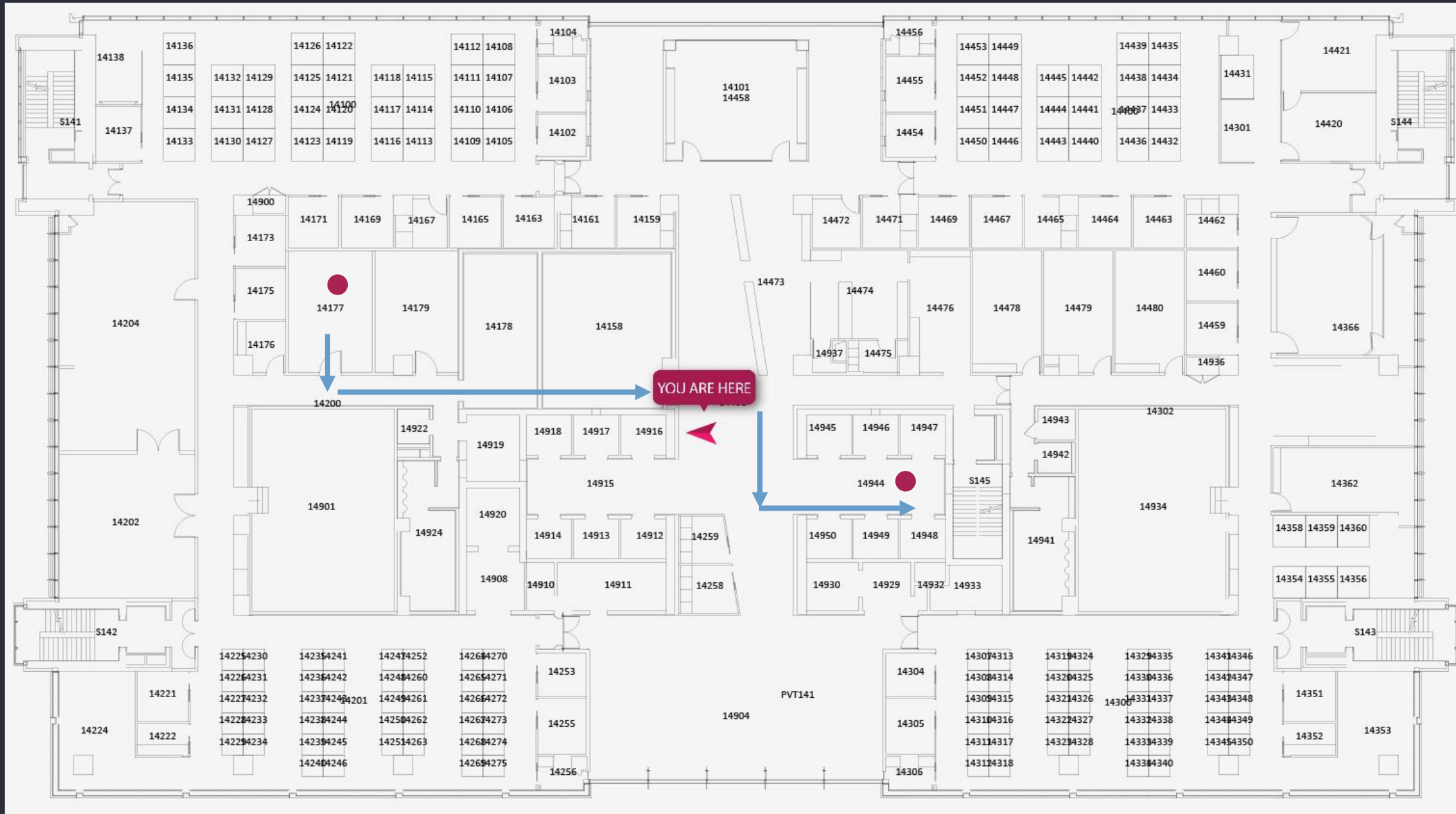


# Map understanding





# After Intelligent map is built...



## User-friendly interface



## Follow a track

## Create a track



## Floor

14

## Departure

Conference room

14225

Destination

Conference room

14476

Reset

Save

 Go through this door...

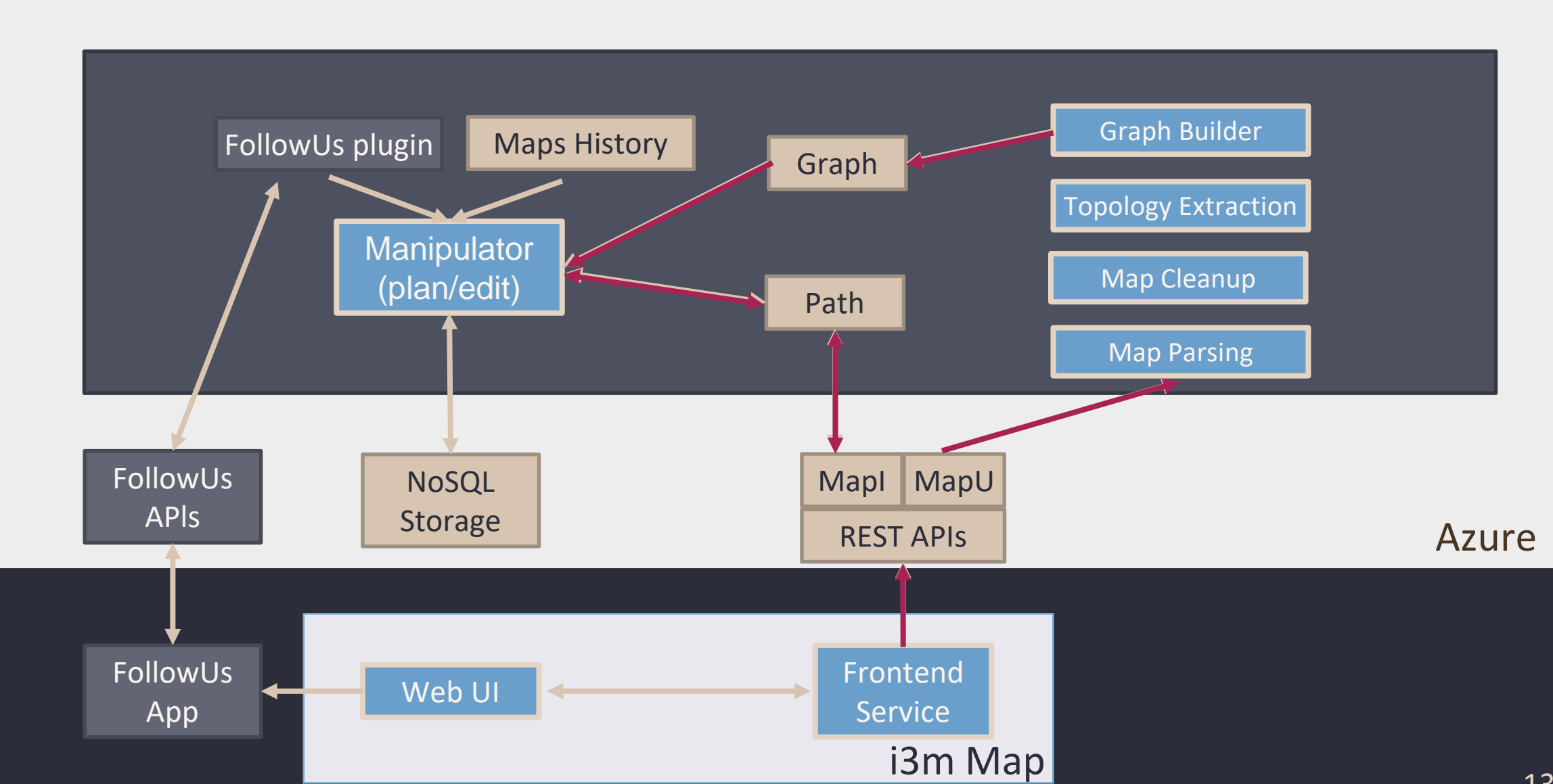








# Architecture



# Summary



## A cloud service

- Receive and parses original maps
- Store and generate paths
- Find a path on map from sensing information



## A web interface

- Indoor navigation
- Allows users to add paths and annotate on map

# Vision





**Thank you!**