



DIGITAL INFRASTRUCTURE FOR SMART CITY

#### **Pain**

- Outdoor Maps guide people everywhere. But the hardest things to find are indoors
- ☐ Indoor space is not properly digitized. Paper-based floor plans are usually outdated
- Heavy manpower in traditional indoor cartographic process
- □ iOS is Not Totally Open and Google Maps does not support indoor positioning resulting costly hardware-based indoor positioning solution









Global Indoor Map Services





## SOLUTION MAPPING PLATFORM

Mapxus works with Apple Maps and OGC Standards and Authoritative Standard

Mapxus Indoor Map Schema: Open and Compatible

**Compatible with IMDF** 

HK Government Common Spatial
Data Infrastructure

**Public + Private Area Management** 

One Map for Multiple Applications

- Fire services
- Green building
- Building & facilities management
- Data visualization
- Building progress monitoring
- Virtual tour

**High Quality to Support Barrier-free Navigation** 







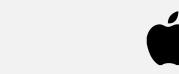












IMDF (Indoor Mapping Data Format)

More specific for Airport, Malls, Metro Stations

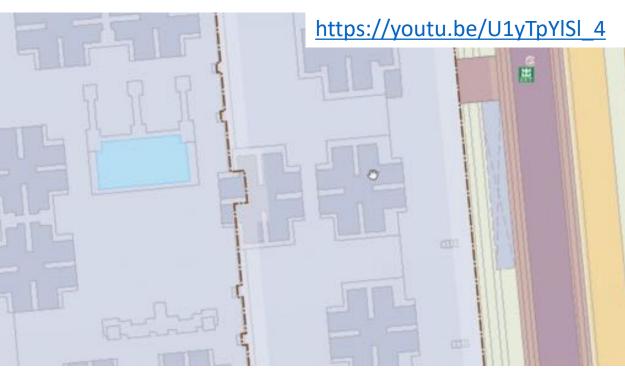
# MAP AS A SERVICE MAPXUS CLOUD SERVICE-SDK AND API

### CITY-BASED DATA VISUALIZATION IN A GLOBAL MAP PLATFORM



- DIGITAL AND VISUAL MAPS; POSITIONING AND NAVIGATION;
- OUTDOOR-INDOOR CONNECTION; BUILDING-BUILDING CONNECTION

## MAPPING SERVICE MAPXUS STUDIO PROFESSIONAL SERVICE



Digitization in Indoor GIS Platform

Connects Various OS, GIS And Indoor Models (E. g. Apple IDF, GeoJson, ArcGIS, BIM)

Online Map Editor Improves Updating Productivity (90% cut down in time vs traditional method)



## MAPPING SERVICE MAPXUS STUDIO PROFESSIONAL SERVICE

 $F_{\rm ield}$  survey for 360° visual map generation Automatic annotation of visual image in GIS system





Mobile Application for Onsite Validation

Improved efficiency (streamline the workflow, no paper, no hard copy floor plans)

# MAPPING SERVICE MAPXUS STUDIO PROFESSIONAL SERVICE



# MAPXUS Competitive Advantage



# Business model – 2B as an infrastructure saas service

#### MAPXUS STUDIO PROFESSIONAL SERVICE









DIGITIZATION AND MAPPING

FIELD SURVEY AND VALIDATION

MAP SDK & API SERVICES

- PRICING MODEL
- MAPPING AND SURVEYING: CHARGED BY SERVICE AREA SIZE
- CLOUD SERVICE: SUBSCRIPTION IN PUBLIC AND PRIVATE MODE: CHARGED BY NO. OF USERS

### JUSTOMERS AND VENUE USERS



























































Hong Kong Convention and Exhibition Centre

APP; GOVERNMENT; PROPERTY DEVELOPER AND MANAGEMENT; RAILWAY AND TRANSPORT; CONSTRUCTION MANAGEMENT; HOSPITAL AND NURSERY HOME; INDUSTRIAL CAMPUS

### Market potentials and details

☐ THE GLOBAL DIGITAL MAP MARKET SIZE BY 2024 REACHES 29.4 B USD AT 16.2% CAGR (MARKET

AND MARKET, 2020)



#### LOCATION BASED SERVICE MARKET SIZE

#### **□** 184 B USD

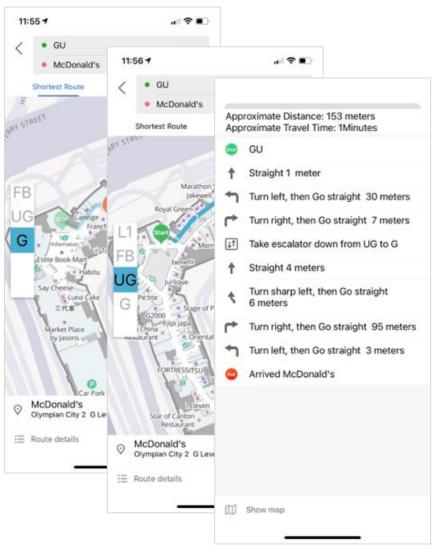
- POTENTIAL GLOBAL MARKET SIZE IN 2027
- AT CAGR: 26.3% FROM 2020 TO 2027 (ALLIED MARKET RESEARCH, JUNE 2020)
- ASIA-PACIFIC WOULD EXHIBIT THE HIGHEST CAGR OF 30.0%

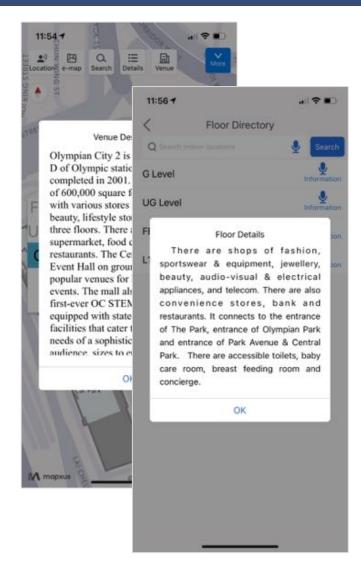
#### **□** 120B USD

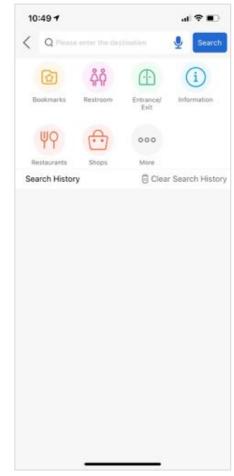
■ SIZE WILL GROW BEYOND OUTDOOR MARKET FROM 2020 (PYRAMID RESEARCH, ABIRESEARCH, LD&A ESTIMATES)

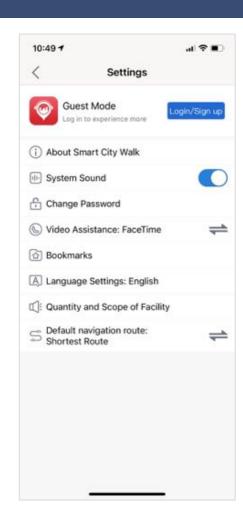


### MART CITY WALK: FIRST BARRIER-FREE APP FOR VISUALLY IMPAIRED









Barrier-free way-finding with turn-by-turn instructions

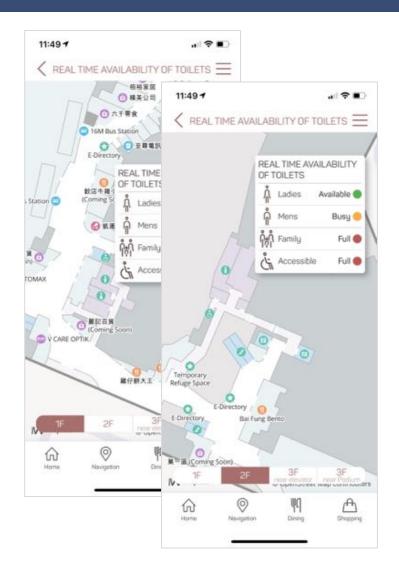
Venue and floor descriptions or the visuallyimpaired

User-friendly POI search by Language and audio/video category assistance

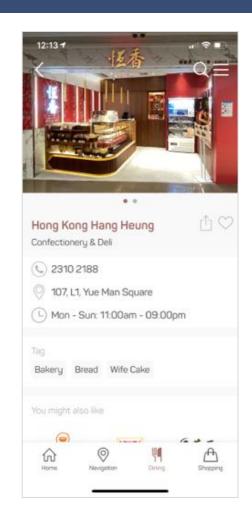


# Y UE MAN SQUARE SHOPPING MALL APPLICATION: ONLINE IOT DATA









Customizable map style and view angle

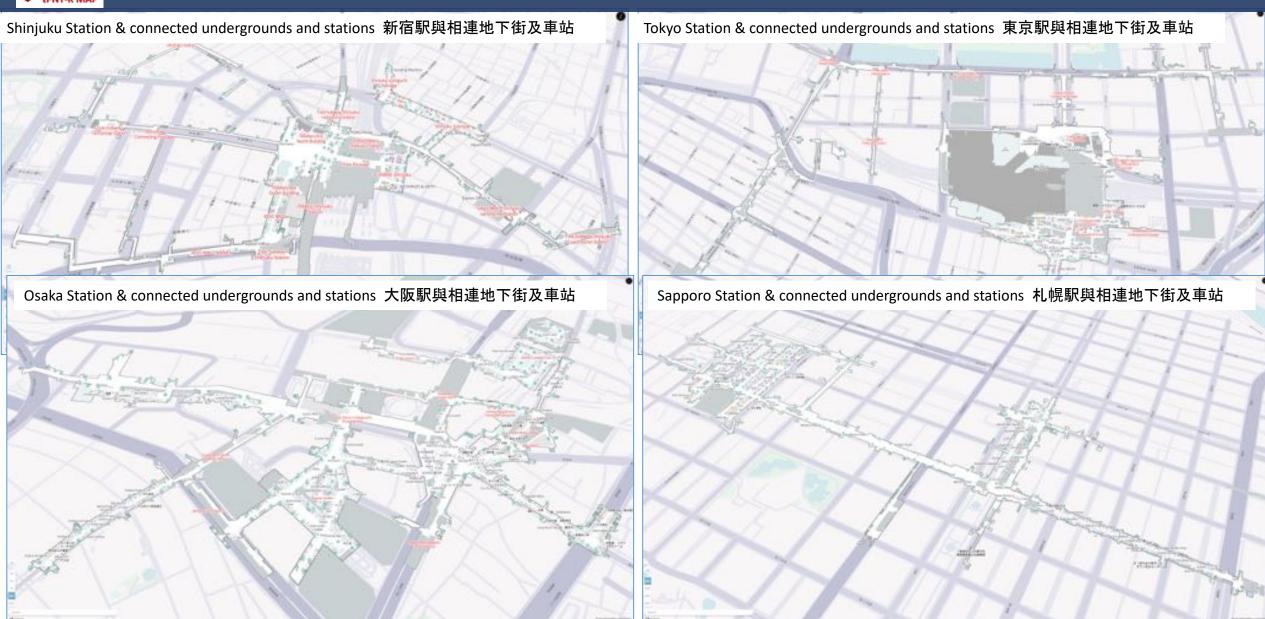
Integration with existing IoT devices to provide enhanced user experience

Cross-floor way-finding with turn-by-turn instructions

Integration with mall's shops and facilities directory



## 1PNT-K MAP INDOOR POSITIONING FOR EVERYONE IN JAPAN





# Building and construction: Process visualization



☐ FIRST ADOPTION: NEW WORLD CHINA



## STRATEGY – BUSINESS EXPANSION IN JAPAN



#### MARKET EXPANSION IN JAPAN

- iPNT-K MOBILE APPLICATION
- INDOOR POSITIONING SERVICE AS AN INFRASTRUCTURE
- NATURAL DISASTER RESECURE ASSISTANCE AND DAY-DAY NAVIGATION
- NATIONAL COVERAGE; 10 MAJOR CITIES MAPPING AT THE MOMENT
- EXCLUSIVE TECHNOLOGY PROVIDER TO KAWASAKI HEAVY INDUSTRY

### INVESTMENT HIGHLIGHT

DISRUPTIVE CITY SCALE 3D INDOOR MAP & NAVIGATION SERVICES FOR HUMAN AND MACHINE

FAST GROWTH BLUE OCEAN MARKET & WELL PROVEN BUSINESS MODEL

GREAT SOCIAL IMPACT ON BARRIER-FREE SMART CITY DEVELOPMENT

POTENTIAL EXPONENTIAL GROWTH OF BUSINESS IN APAC

### Create A Smart City With Mapxus Global Indoor Map

