

RESTRICTED



Intelligent In-Station Wayfinding to Enhance Customer Service

Original Concept

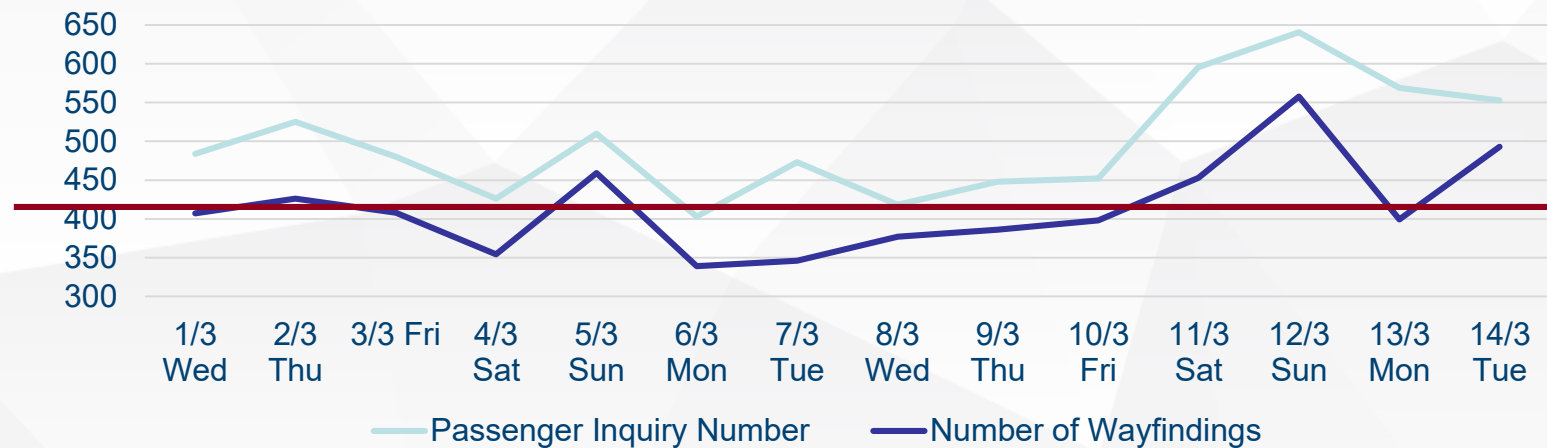
50% Inquiry | **80%** How to go to high speed railway station

- 50% Staff Time → Direction Inquiries
- 400+ daily direction inquiries (~80% are route-related)
- Only ~2.9% DAU in existing mini-program; passengers mostly rely on staff



Average number: 414

Passengers Inquiring Survey Result at Shenzhen North Station



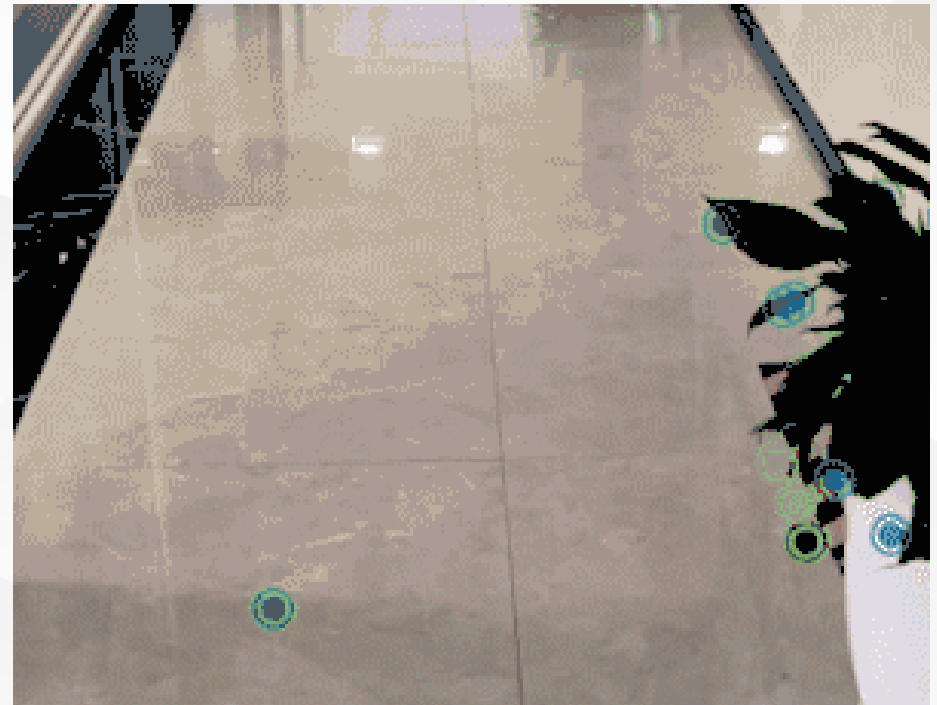
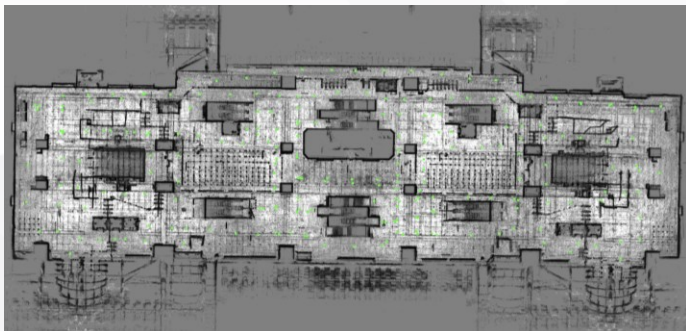
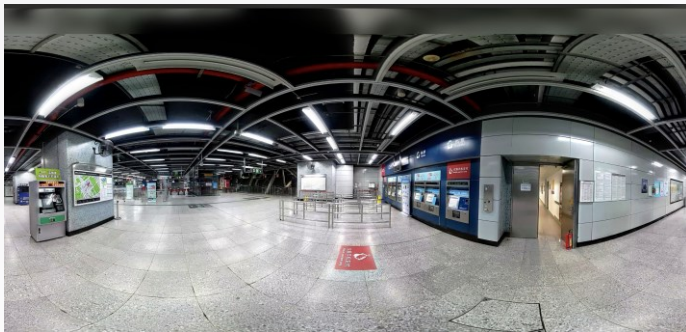
Original Concept

Objective

- Deploy an in-station AR navigation solution to improve passenger experience and reduce station workload

Key Ideas

- **3D Modeling:** We create a real-time, 3D environment of the station
- **No Traditional Signals:** No reliance on beacons/Wi-Fi—lower cost, easier maintenance



Potential Applications and Impact

Why Is This a Breakthrough Innovation?

Industry First

- **First large-scale AR indoor navigation in China's metro**

Revolutionary Wayfinding

- Real-time visual overlays, WeChat mini program—**no extra apps**

Proven Differentiation

- **Outperforms Wi-Fi/Beacon** methods (lower maintenance, higher accuracy)

Strategic Position

- Aligned with MTR's Smart Mobility Strategy
- Deployed at Shenzhen North Station, recognized by local authorities
- **Scalable** across all lines, forming a unified AR ecosystem

法定主动公开内容 > 其他 > 工作动态

索引号: 11440300595674310M/2024-01168

分类:

发布机构: 深圳市龙华区人民政府

成文日期: 2024-07-16

名称: 地铁4号线深圳北站上线多功能智能终端

文号:

发布日期: 2024-07-16

主题词: 4号线 智能终端 上线



Potential Applications and Impact

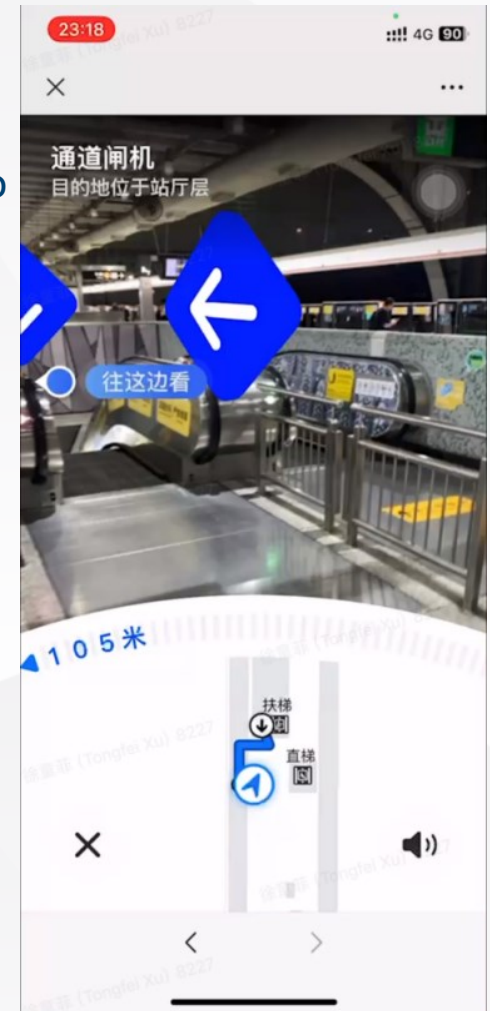
User-Friendly Access via Kiosks & WeChat Mini Program

Kiosk (Self-Service Device)

- 1. Search route → 2. Scan QR Code to continue on phone

WeChat Mini Program

- **No downloads**, AR features within WeChat → simple scan-and-go



Potential Applications and Impact

1 ~200 daily inquiries handled via AR, reducing staff workload by ~50%

2 Improved passenger satisfaction: faster wayfinding, shorter wait times

3 Scalable to other lines and major transit hubs (e.g., Shenzhen Bay Checkpoint Station)



IP Considerations & Technical Uniqueness

Current IP Status

- Utility Model Patent: “Method to Improve Station Navigation Efficiency” – application in progress
- Design Patent (exterior/interface)– application in progress

Technical Differentiators

- Proprietary **AR + image recognition engine** (minimizes hardware)
- Seamless WeChat Mini Program integration, unique user flow

Protection & Licensing Strategy

- Consulting with legal counsel for broader coverage
- Potential licensing to other metro lines & large transit hubs
- Offering API licensing to third-party map service providers for seamless integration of our Shenzhen North Station indoor navigation service





心系生活每一程