Big Data and Transit Innovations
DiDi's Transportation Solution

~30 million daily completed rides

- DiDi Taxi
- DiDi Express
- DiDi Hitch
- DiDi Bus
- DiDi Designated Driving
- DiDi Premier
- DiDi Enterprise Solutions
- Qingju Bike

550mn Registered Users
31mn Job Opportunity Provided
400+ cities

Note: # of daily rides above is peak number. Uber China is included in the private car business.
DiDi | Technology Driven

Big Data

106TB+ new data generated every day

Artificial Intelligence

The accuracy rate of predicting demand in 15 mins reaches 85%

The accuracy rate of destination prediction reaches 90%

Cloud Computing

High system stability ensuring reliable 24/7 operations

Large-scale real-time data processing platform

Top-class servers

~50% of employees are engineers or data scientists

World-class technology team with top R&D and data analysis capabilities
DiDi Urban Infrastructure | Transportation Brain

The core improvements at this stage: Perception and Data

- Big Data Analysis
- Real-time Warning
- Traffic Planning
- Measurement System
- Cloud Computing

Analysis Center (A)

Transportation Brain

Control Center (C)

Perception Center (S) & Data Center (D)

- Smart Signal Control
- AI Police Dispatching
- Information Notice
- Traffic Guidance
- Vehicle-Infrastructure Cooperation

Government Data | Industry Data | Crowdsourcing Data | Online Data

DiDi Cloud
DiDi Urban Infrastructure | Integrated Solutions

- **Smart Traffic Lights**
- **Reversible Lane Management**
- **Big Data based Planning**
- **Traffic Guidance System**
DiDi Public Transit

**Smart Transit Brain**
- Big Data
- Cloud Computing
- AI
- Information Security

**Customized Bus Services**
- Seat guaranteed
- Direct service

**Information Services**
- Multimodal transfer plan
- Real-time inquiry

**Planning Advisory Services**
- Data-driven optimization
Job-housing mismatch brings vast amount of travel demands
Lack of effective ways to collect travel demands
Existing bus lines cannot satisfy diverse travel demands

DiDi’s Advantages
- Internet traffic acquisition and online operation
- Demand estimation and route planning
- Smart control and cloud-based dispatch

Customized Bus: Online & Offline
- Internet traffic acquisition and online operation
- Demand estimation and route planning
- Smart control and cloud-based dispatch
DiDi Public Transit | Demand Responsive Bus

**Dynamic Routes + Virtual Stations**
In response to real-time and reserved travel demands

- **Qingdao**
- **Jinan**

**Community**

**Gathering & Dispersing**
DiDi Public Transit | Transfer & Real-time Information

**Problems**
- Long waiting time, unpredictable arrival time
- Inconvenient public transit transfer and insufficient feeder services

**Technology**

**DiDi’s Advantages**
- Industry-leading technology for bus ETA prediction
- Nationwide leading service coverage
- MaaS Platform

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**Real-time bus OD data**

**Road network info**

**Vehicle info**

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**Smart Transportation Cloud**

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**Features**

- Trip Planning
- Transfer Guidance
- Stations Nearby
- ETA
DiDi | Mobility-as-a-Service (MaaS) Platform

Serving 7 scenarios
- Business
- Leisure
- Tour
- Commute
- Gathering & Dispersing
- Community
- Extreme weather

Services:
- DiDi Taxi
- DiDi Express
- DiDi Premier
- DiDi Car Share
- Trip Planning
- Booking
- DiDi Bike/E-bike
- Walking
- Public Transit
- DiDi Mini Bus
- DiDi Bus

Rideshare

More to come…
DiDi Public Transit | Macroscopic Transit Planning Model

Technology
- OD Demand Estimation
- Model Building

Data Processing
- OD Calculation
  - Travel Pattern
  - OD Estimation
- Vehicle Timetable
  - Location Identification
  - Passenger Volume

Data Analysis
- Based on Demand and Capacity
  - Analyze following indicators:
    - Occupancy Rate
    - Empty Vehicle
    - Empty Station

Road Network
Traffic Analysis Zone
Bus Station
Bus Route
**DiDi Public Transit | Timetable & Network Optimization**

<table>
<thead>
<tr>
<th>Problems</th>
</tr>
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<tbody>
<tr>
<td>❌ Fixed timetable unsatisfied with real time travel needs</td>
</tr>
<tr>
<td>❌ In need of refined operation methods to improve efficiency</td>
</tr>
<tr>
<td>❌ Unrealized routes generated extra operational cost</td>
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<tr>
<td>❌ Unsatisfying routes compromised the attractiveness for all</td>
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<th>Timetable Optimization</th>
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<td>Based on transit data and DiDi data, analyze travel pattern and passenger distribution, provide optimization advises for transit authorities</td>
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**DiDi’s Advantage**

- **Data**: passenger origin and destination data in the platform
- **Algorithm**: DiDi od estimation algorithm and model building capability
DiDi Public Transit | Public Transit Route Planning Platform

- Data Processing
- Demand Estimation
- Route Planning
- Route Evaluation

The accuracy of demand estimation:

The speed of route selection:
The timeline for route launch:

An innovative model combining Internet and public transit.
DiDi Public Transit | Case – Customized Bus Route Planning