

大数据——共享经济时代的“核武器”

Big Data — “Nuclear Weapon” in Shared Economy Era

摩拜单车物联网技术总监 韦臻

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mobike

摩拜单车



SUMMARY

1. 共享单车的前世今生

Shared bike's past and present

2. 共享的城市才是智慧城市

Shared city is smart city

3. 无大数据不物联网

IoT must be followed with big data

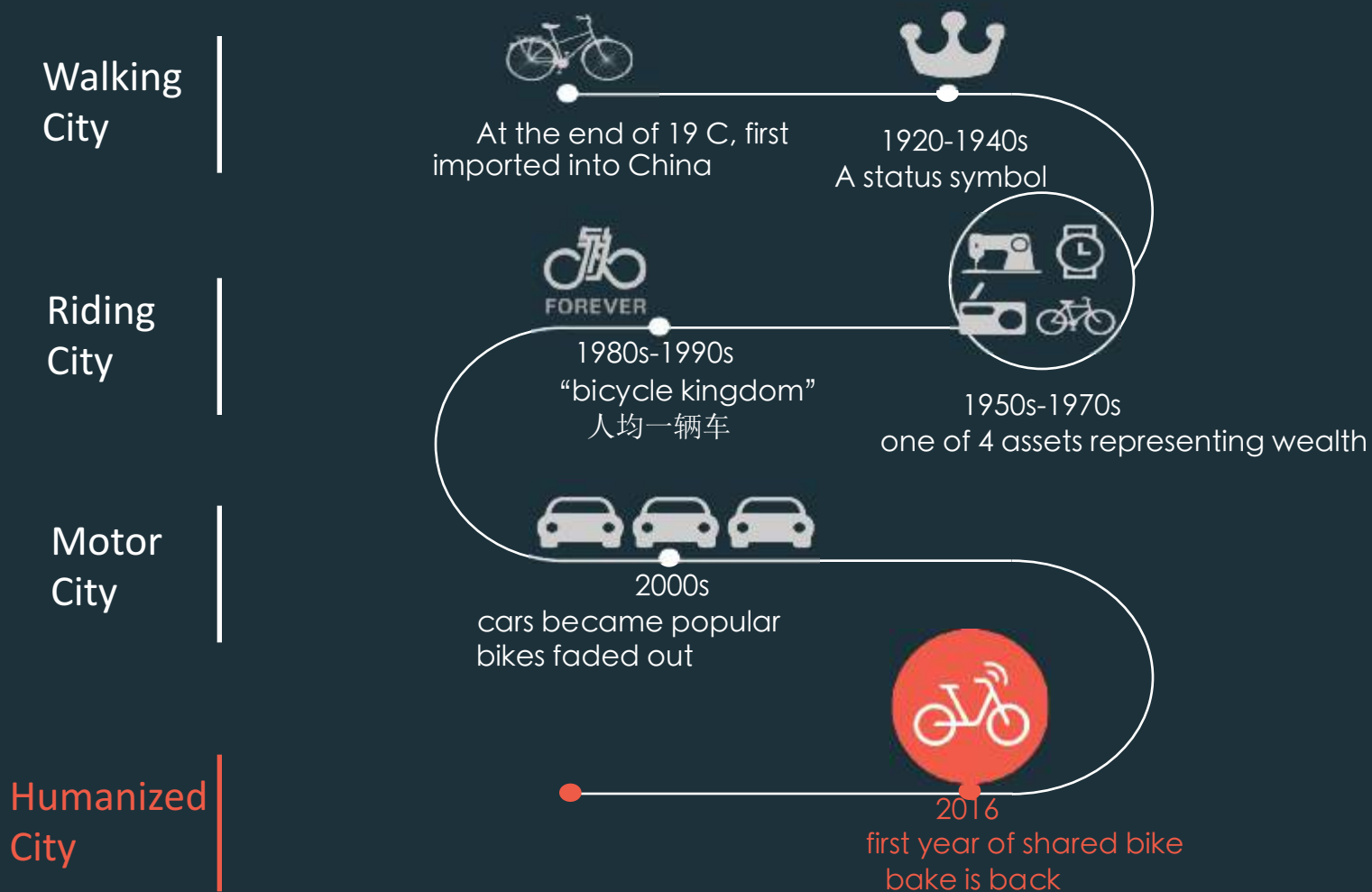
目录

1. 共享单车的前世今生

Shared bike's past and present

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■ Shared bike recalls bikes: the progress of history, the choice of people



Shared bike, Revive people - oriented city

The study found that innovative intelligent shared bike has become the fourth popular way of traveling in less than a year since its entering the city, seconded to cars, buses and subways. It revives the "bike kingdom". Intelligent shared bike represents a harmonious way of life, and a perfect combination of the "Internet +" and the real economy. It brings back the life breath by the running bikes, and it also encourages the public to participate in urban construction, making cities develop with civilization, low-carbon, wisdom and health.



1. 共享单车的前世今生

Shared bike's past and present

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- Shared bike rocketed, available in more than half of the provinces and cities nationwide



Intelligent shared bikes are available at home and abroad

160+ cities, covering the whole country

20+ provinces, autonomous regions and municipalities,

As well as Singapore, Manchester.

1. 共享单车的前世今生

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■ Destination survey of Shared bikes



70% Users are born in 1970s,80s and90s



About 1/3 users ride for
Fun and
exercises



users born in 1980s,90s
and 00s tend to:
ride to school
or work



users born in 1940s and 50s
Tend to
Ride to meals or shopping



about 1/5 users ride to
Subway and bus station



2. 共享的城市才是智慧的城市

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the world' s first
Unlock by scanning code

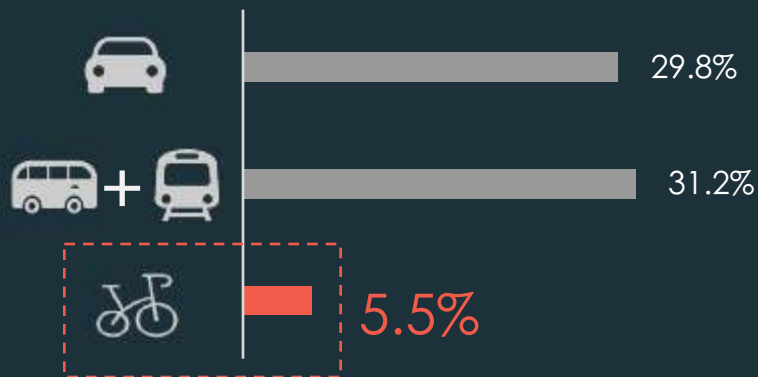
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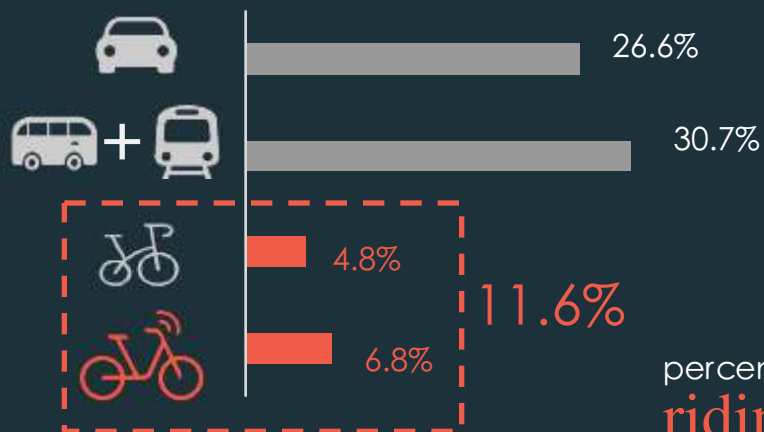
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- Riding changes the commute: percentage of commuting by riding has doubled

Before shared bikes



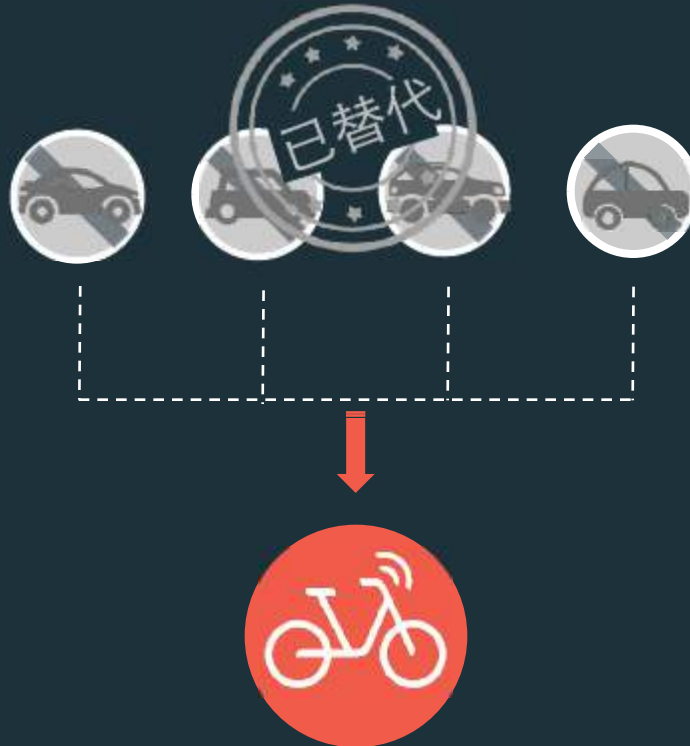
After shared bikes



percentage of commuting by riding has doubled

Note: % represents the percentage of travel means.

- Riding changes the commute: commuting with cars has reduced by 55% !



Shared bike users claim:

cars, **take as less as possible !**

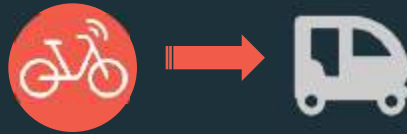
Since the introduction of shared bike, commuting with cars has reduced by **55%!**

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- Riding changes the commute: commuting with unlicensed cars has reduced by 53% !



Shared bike users say

Unlicensed cars, **We don't want you!**

After the launch of shared bikes, we use less unlicensed cars

53%!

True cases around a subway station in Beijing

Back to spring of 2016.....no shared bike then.....



200 +
unlicensed cars



40+ orders per day
Income of a driver was easy to obtain



200RMB/day

Till the day.....shared bike appeared !



50~60 Unlicensed cars
Reduced by about 70%



10+ orders per day



70% drivers of unlicensed cars
switched to other jobs

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- Riding facilitates energy-saving and emission reduction: reduce the emission, assist haze governance!



Nationwide totally ride **2.5B+** km

equivalent to **3,300 round-trip to the moon**

equivalent to



Reduce carbon emission of **540,000** t



Reduce the carbon emission of **170,000** cars in a year



Plant **30M** trees



Reduce **4.5B** μg PM2.5

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- Riding facilitates energy-saving and emission reduction: save the energy



Nationwide totally ride **2.5B+** km



equivalent to **3,300 round-trip**
to the moon

equivalent to



save **460M** L petrol



save **29M** Barrels of imported crude oil



oil production of Daqing Oilfield in **32Days**

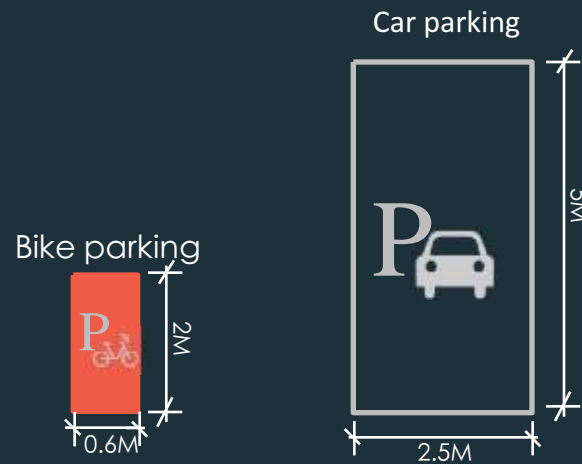
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- Riding reshapes city : save the space

Nationwide the space saved by shared bikes is equivalent to
600,000+ sets of school district housing



Beijing space saved is equivalent to **5** National Stadiums

Shenzhen space saved is equivalent to **2.5** Window of the World

Shanghai space saved is equivalent to **15** People' s parks

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Smart City



Low carbon City



Healthy City

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7M+bikes

Mobike shared bikes

Generate over 2TB
travel data everyday



The world's largest
mobile IoT platform

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7 million + bikes ▶ Manage Manually?

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IoT must be followed with big data

Smart parking recommendation—AI guided parking



Smart lock



Magic cube



Smart MPL

The electronic fence accurately senses the parking locations

A satellite is shown in orbit above a city at night. The satellite is white and has several solar panels and antennas. The city below is illuminated with lights, and the Earth's horizon is visible in the background. A bright sun is visible in the upper right corner, creating a lens flare effect.

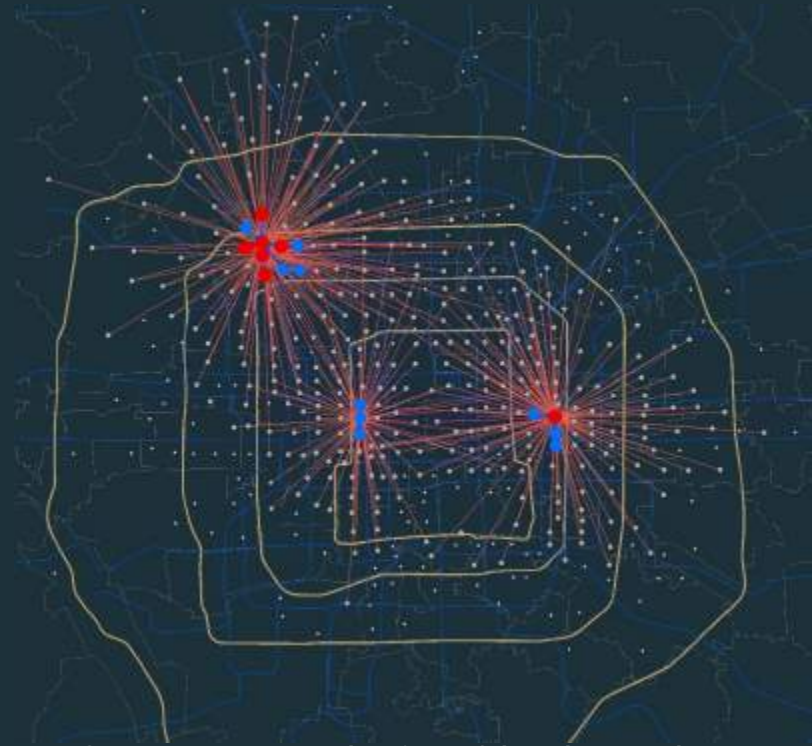
BDS + GPS + GLONASS

applied by Mobike for positioning

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- Riding reshapes city : riding big data power the smart city



Source analysis of hot spots



provide reasonable advice For city planning

Provide data support for optimization of low speed environment and land panning through riding data

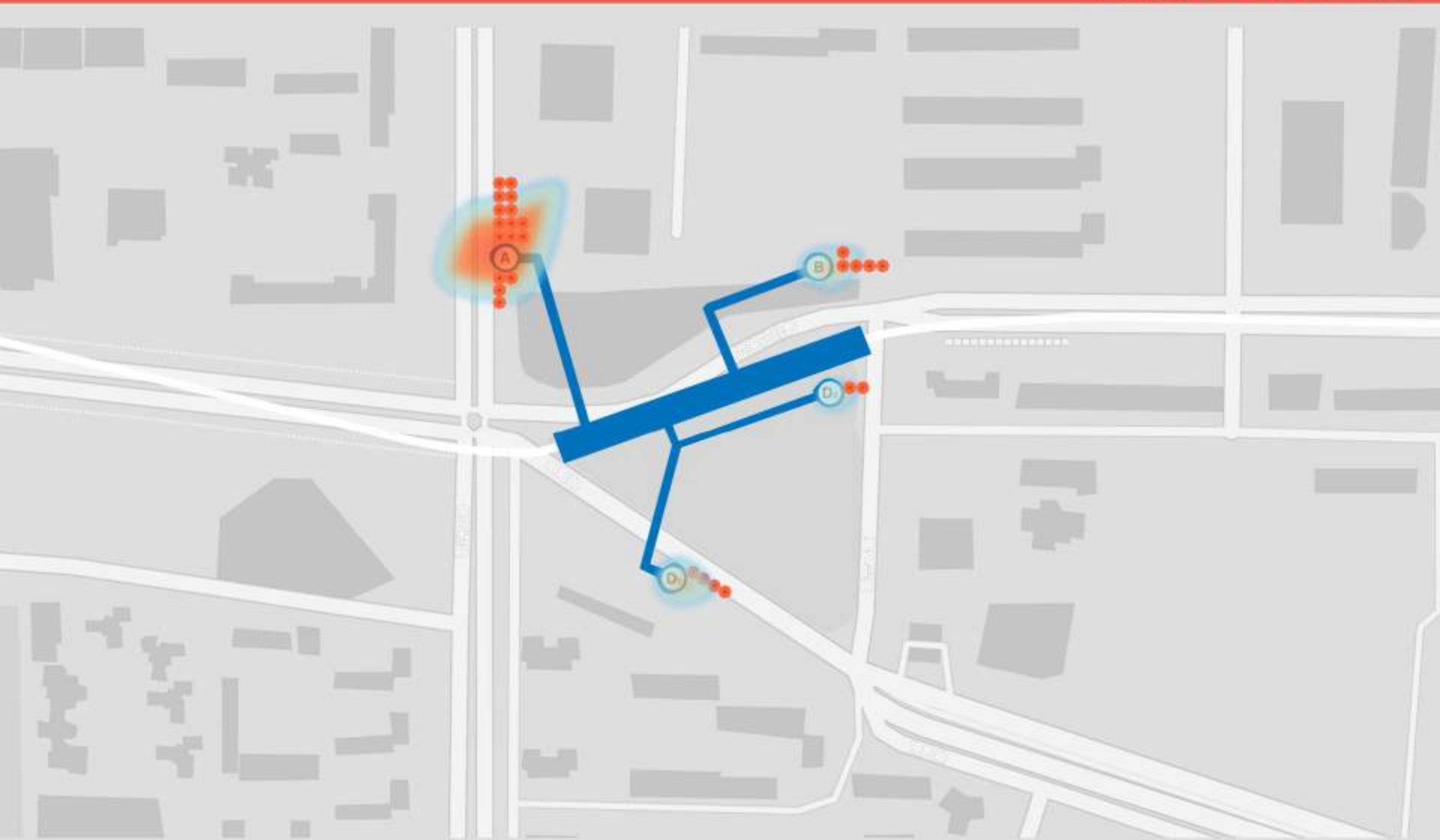


Provide intelligent scheduling for urban traffic

Make bikes more efficient, make the connection between public vehicles more convenient and promote the green traffic by applying the big data of riding

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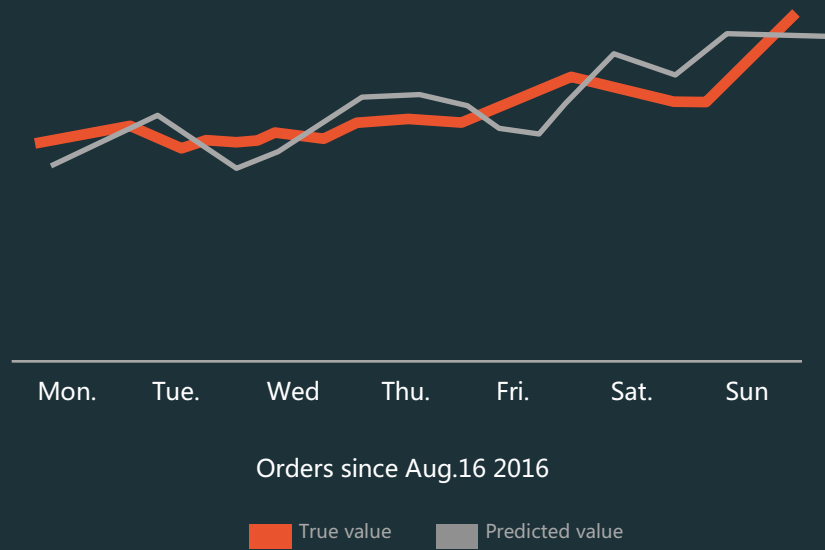


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Predict tomorrow's riding orders based on weather forecast

History orders



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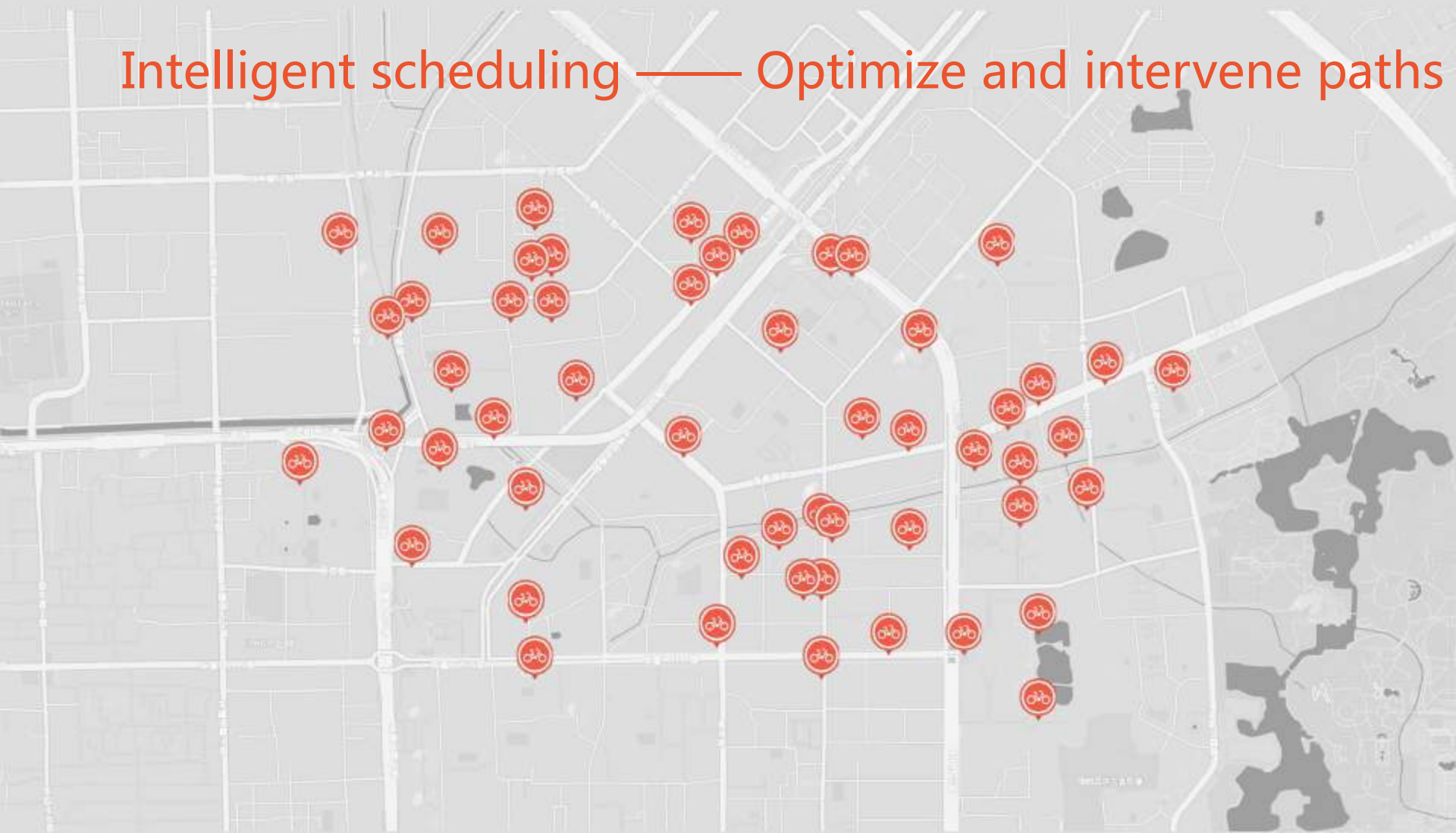
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Reasonable, efficient and safe operation of
Millions even 10 millions of intelligent shared bikes

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Intelligent scheduling — Optimize and intervene paths

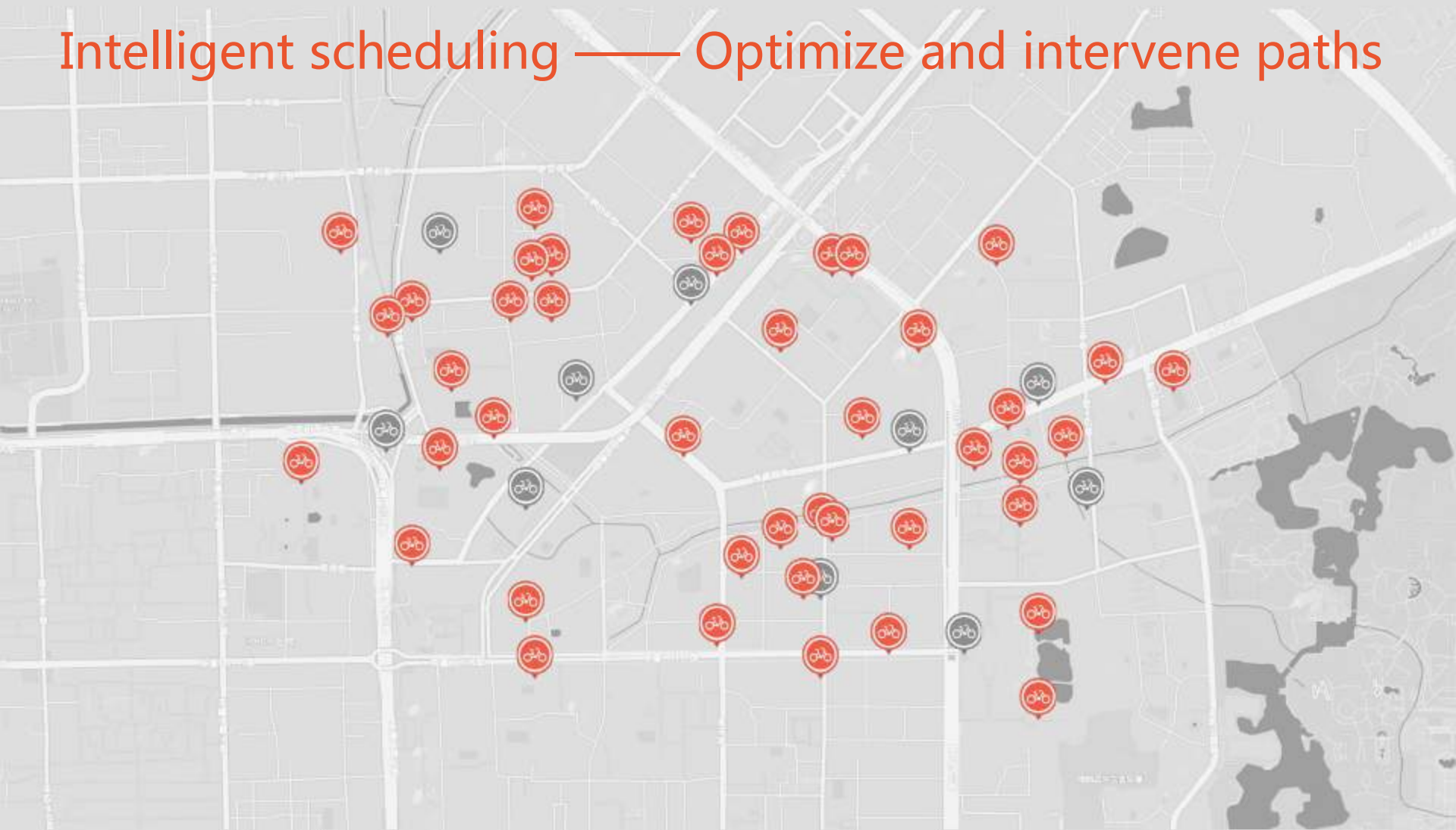


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Intelligent scheduling — Optimize and intervene paths

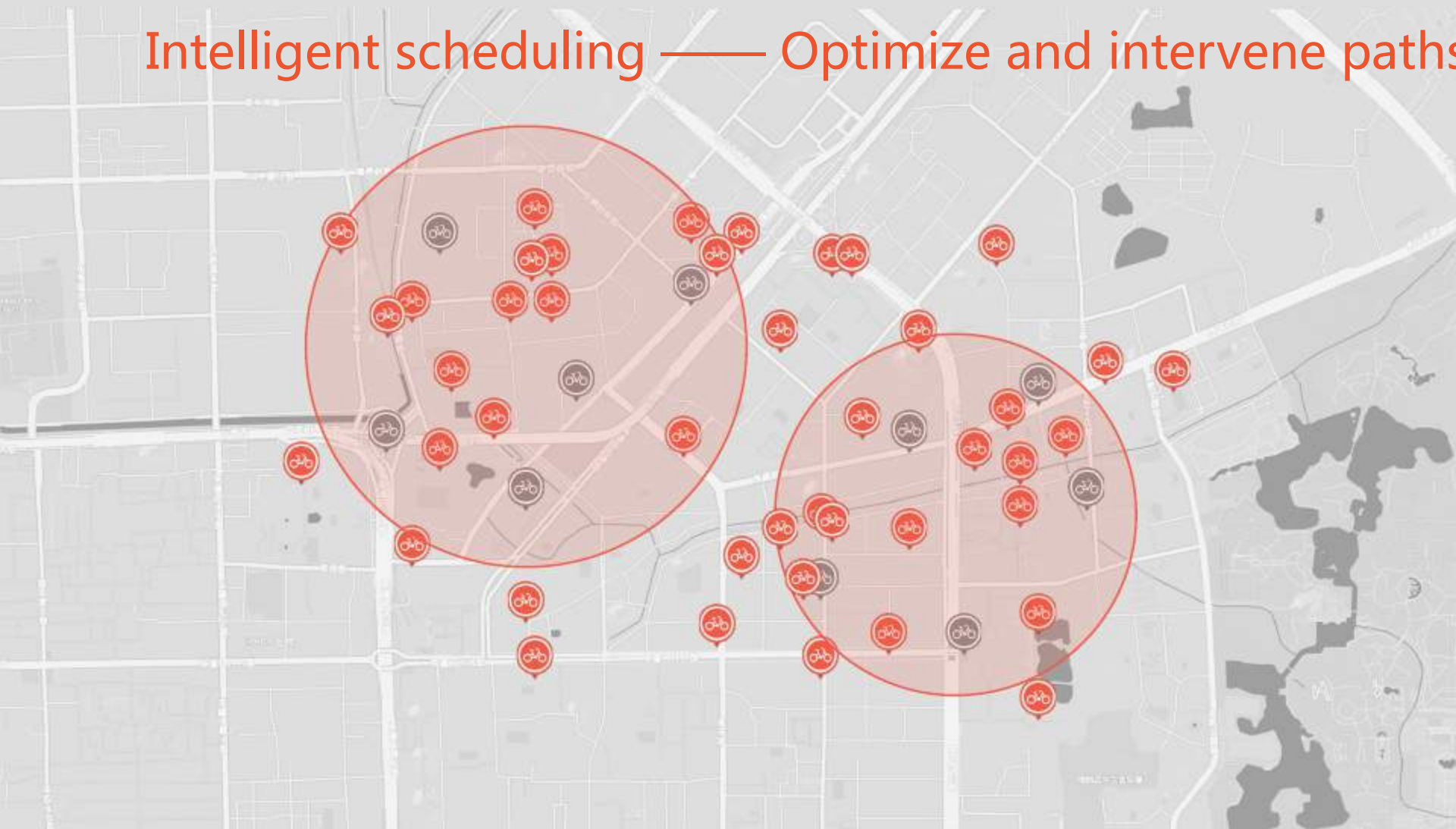


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Intelligent scheduling — Optimize and intervene paths

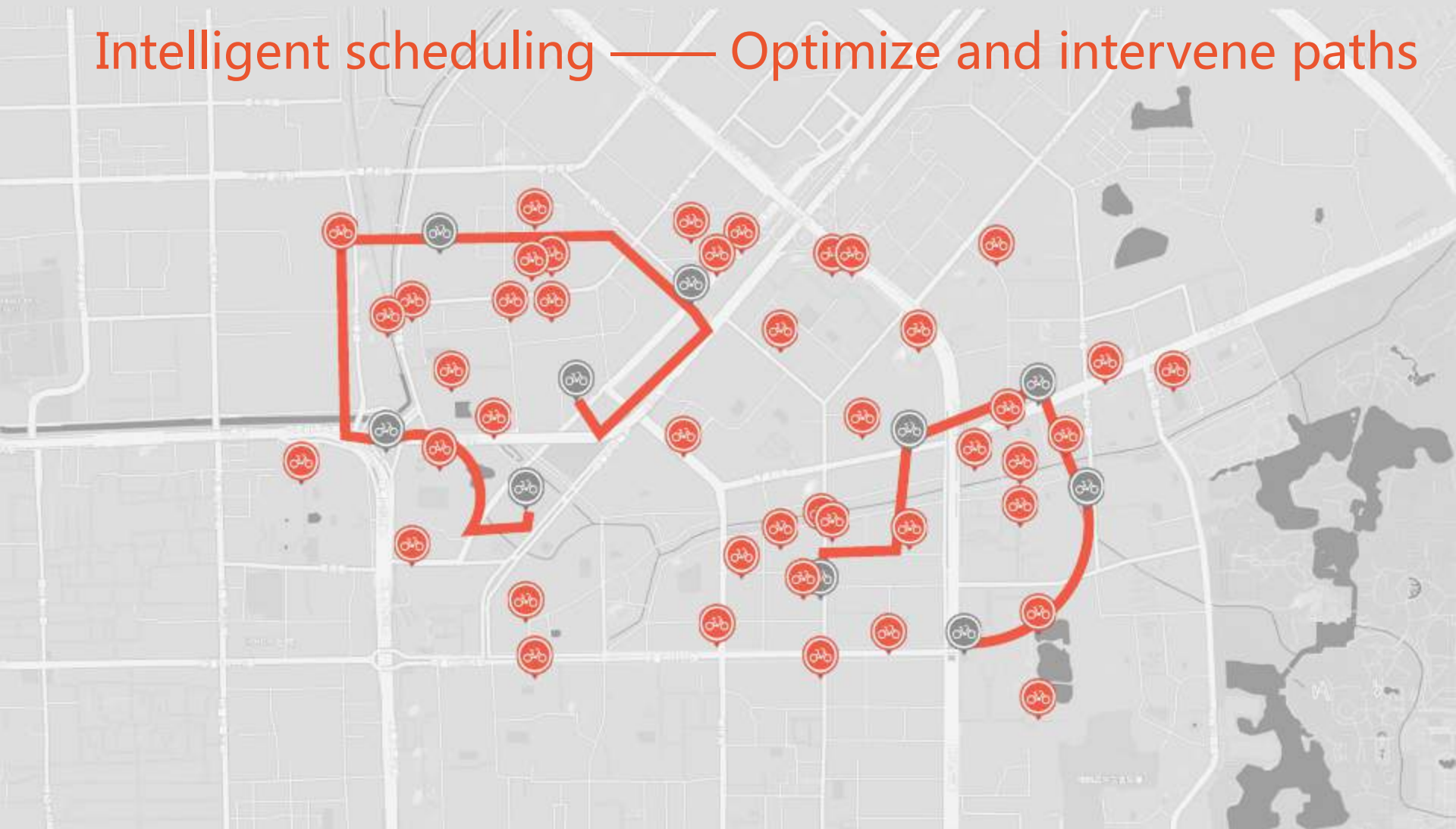


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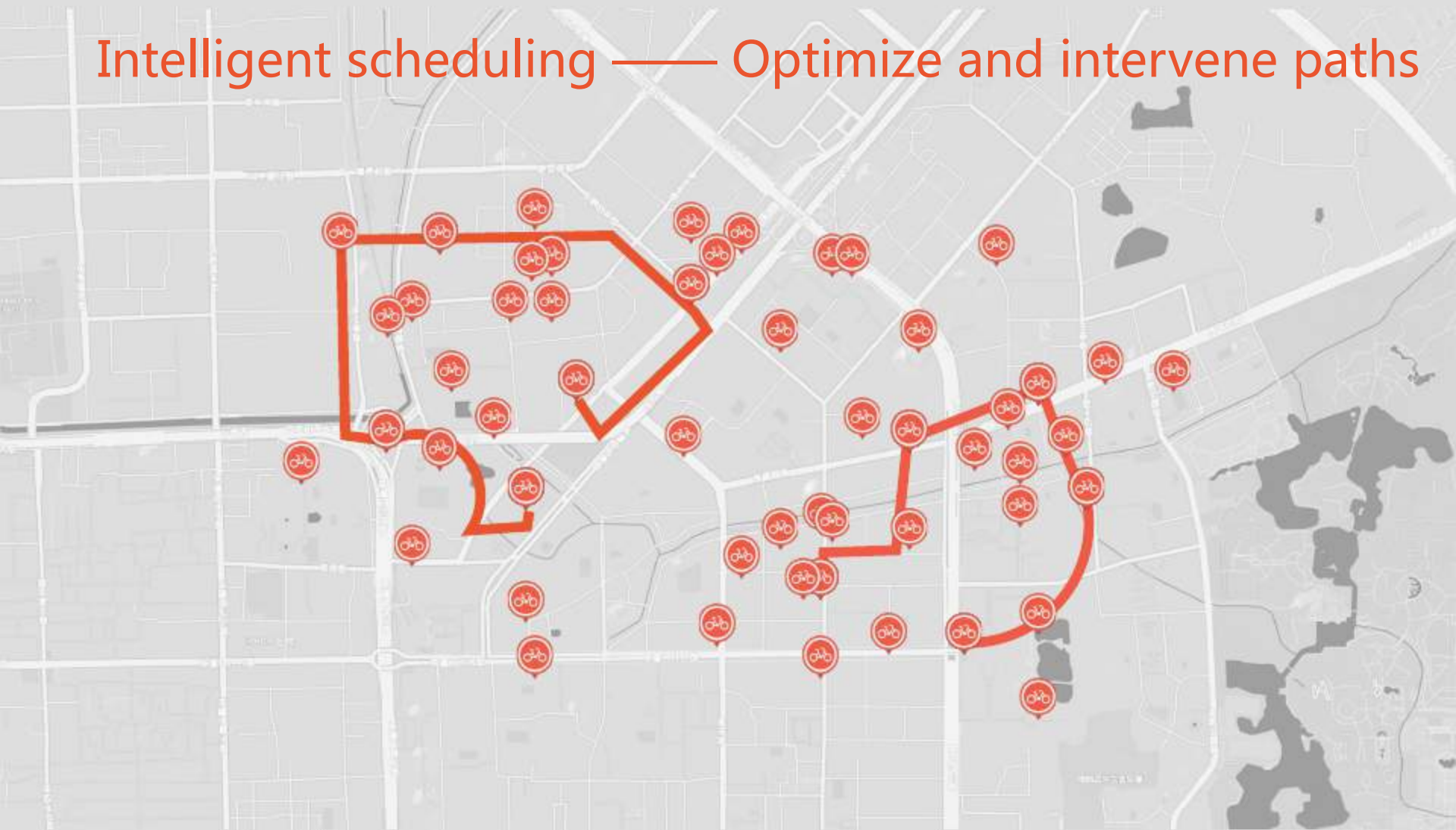
Intelligent scheduling — Optimize and intervene paths



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Intelligent scheduling — Optimize and intervene paths



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■ Massive users participate in the intelligent scheduling



Mobile's Red packet bikes

Users find the bikes with red packet by GPS, get the bonus, complete a scheduling



During rush hour **200+ people per second** Participate in the scheduling



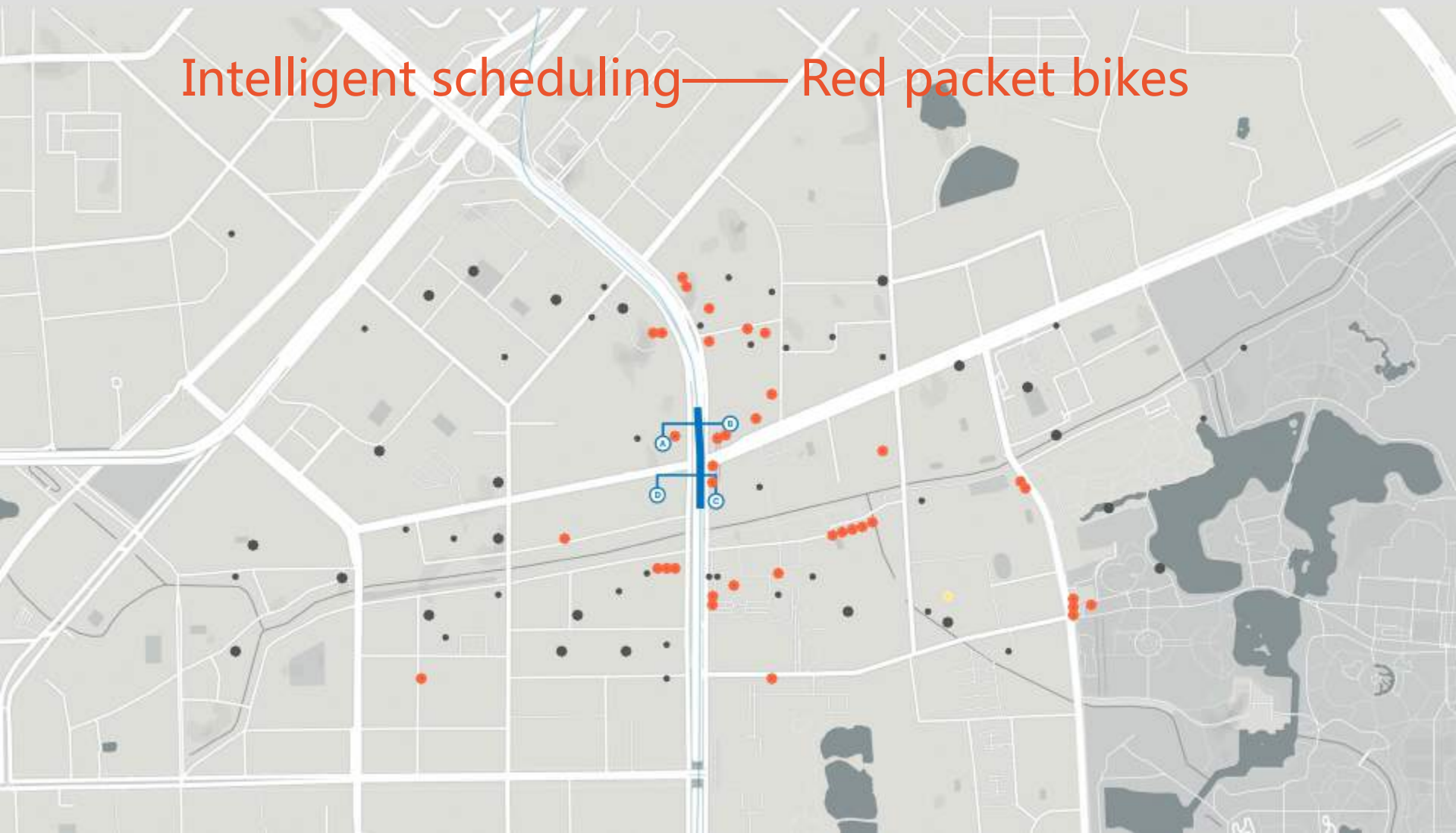
The operational efficiency of bikes increases by **20%**

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Intelligent scheduling——Red packet bikes

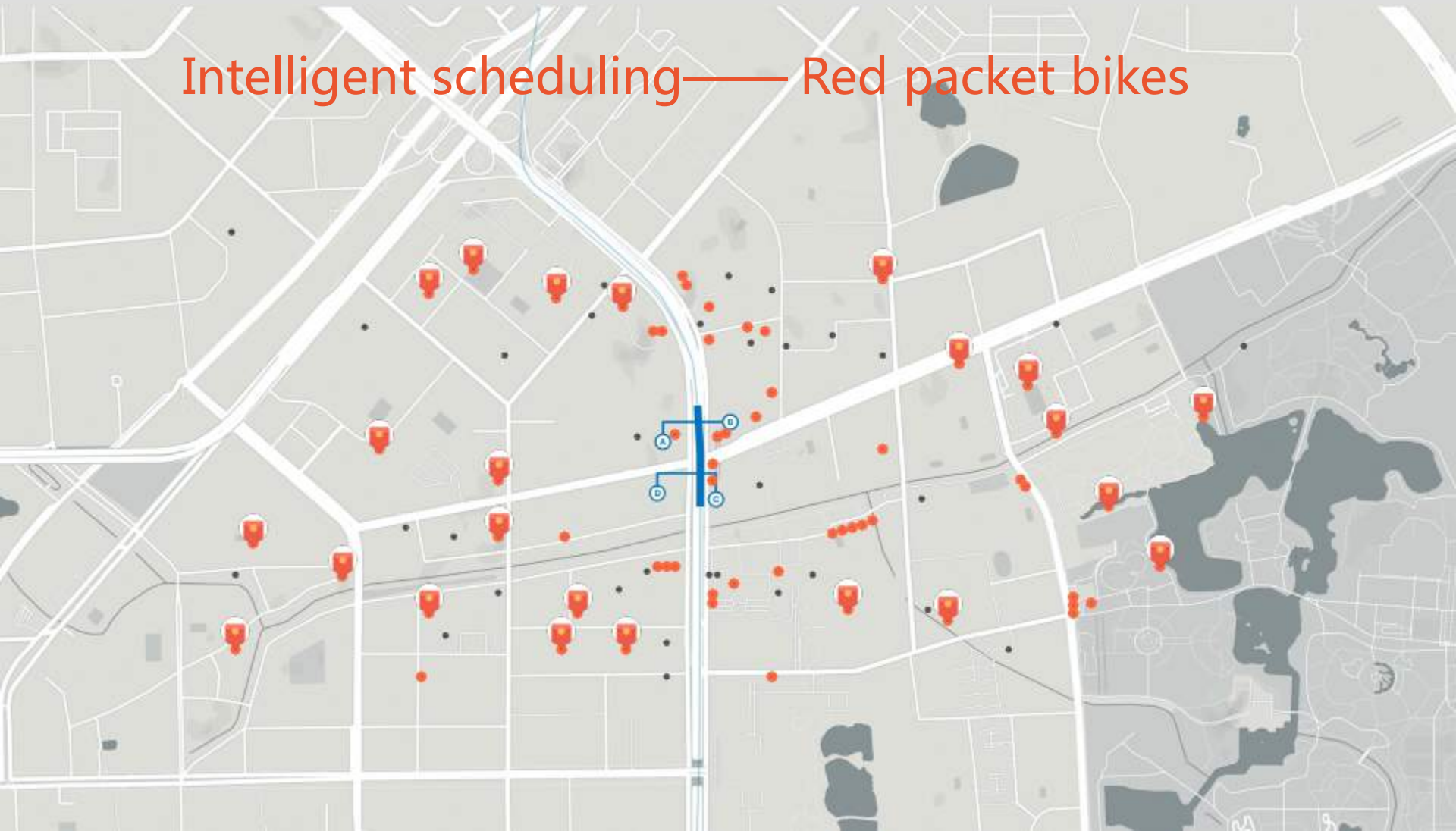


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Intelligent scheduling——Red packet bikes

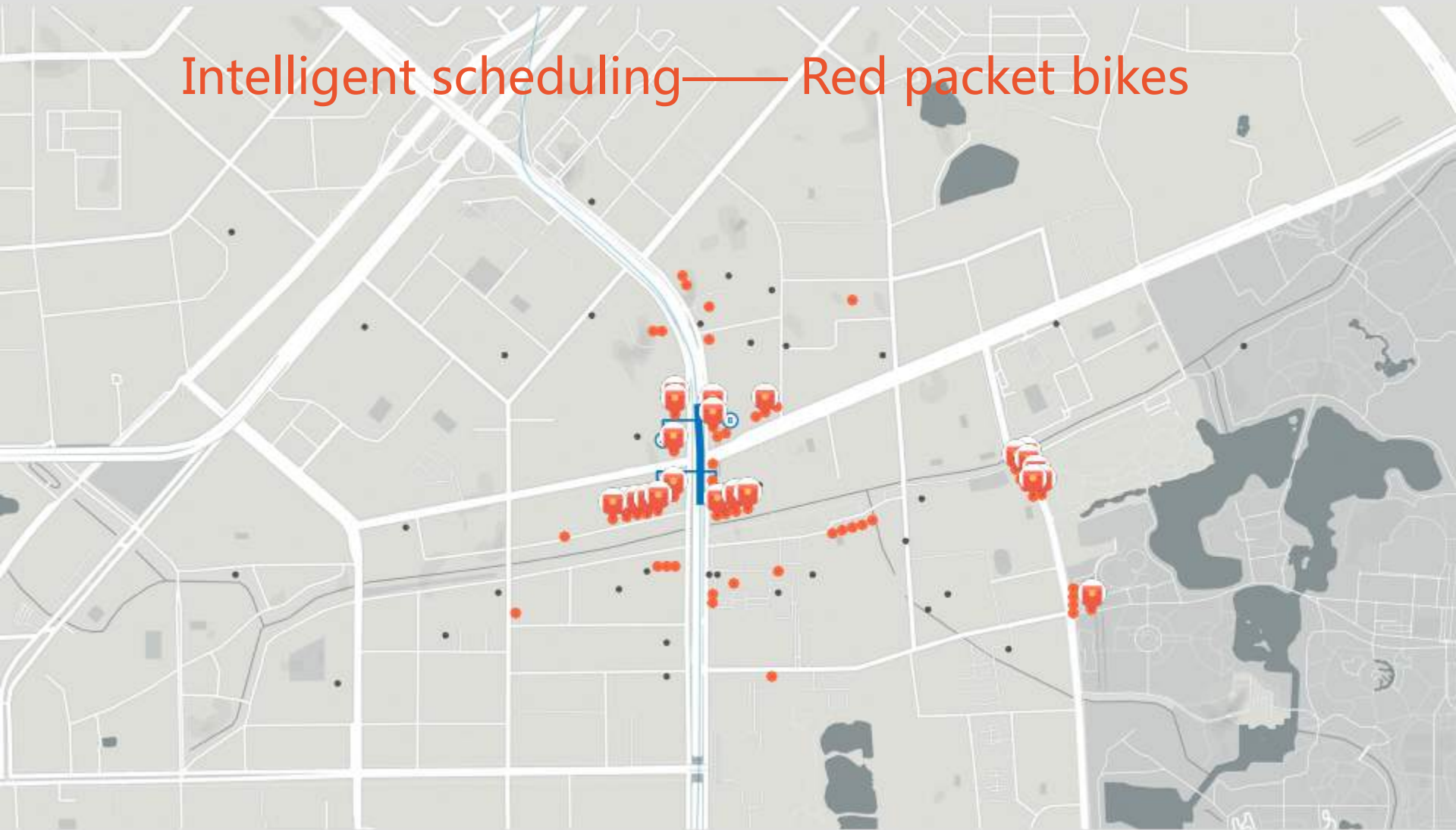


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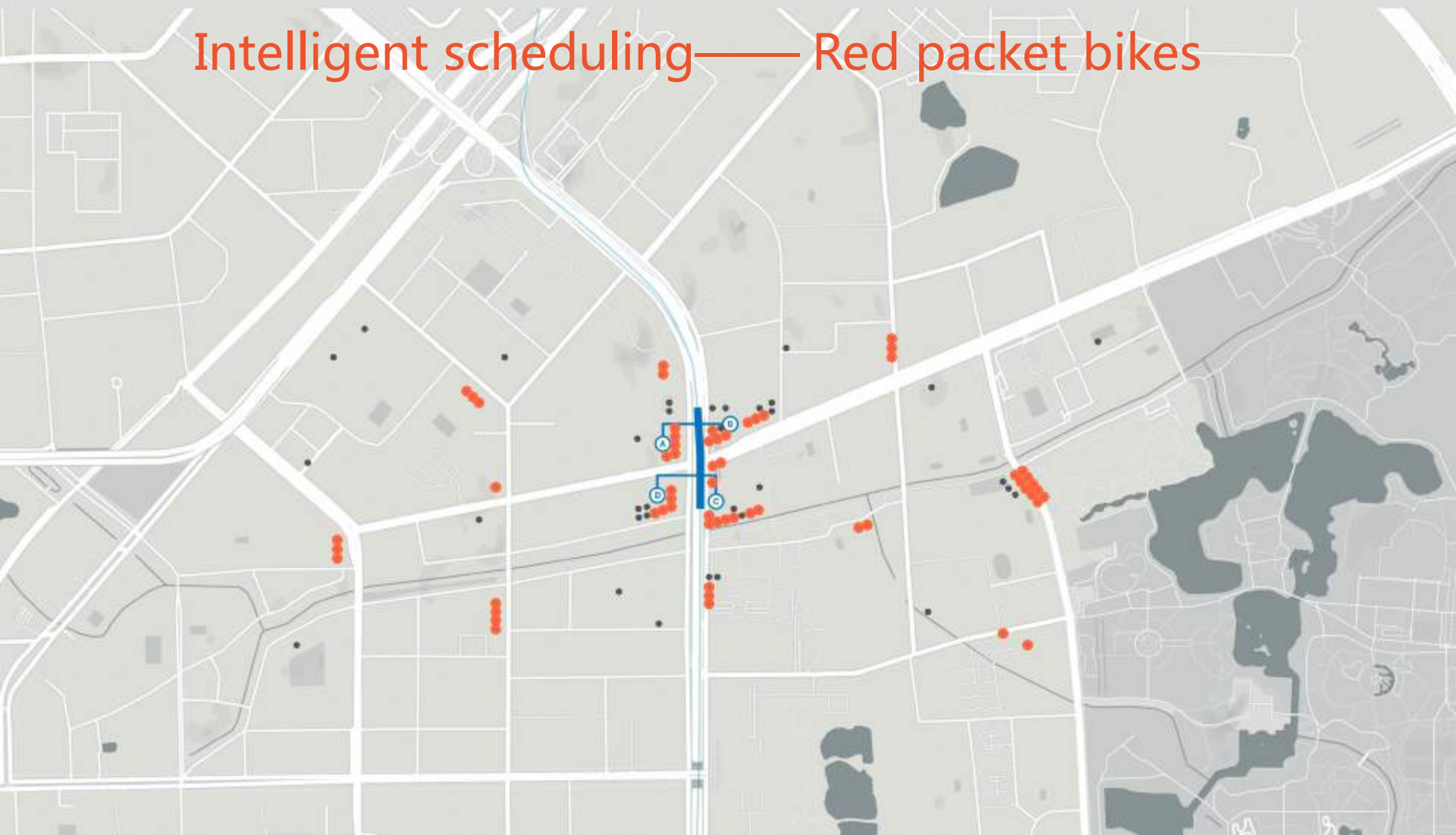
Intelligent scheduling——Red packet bikes



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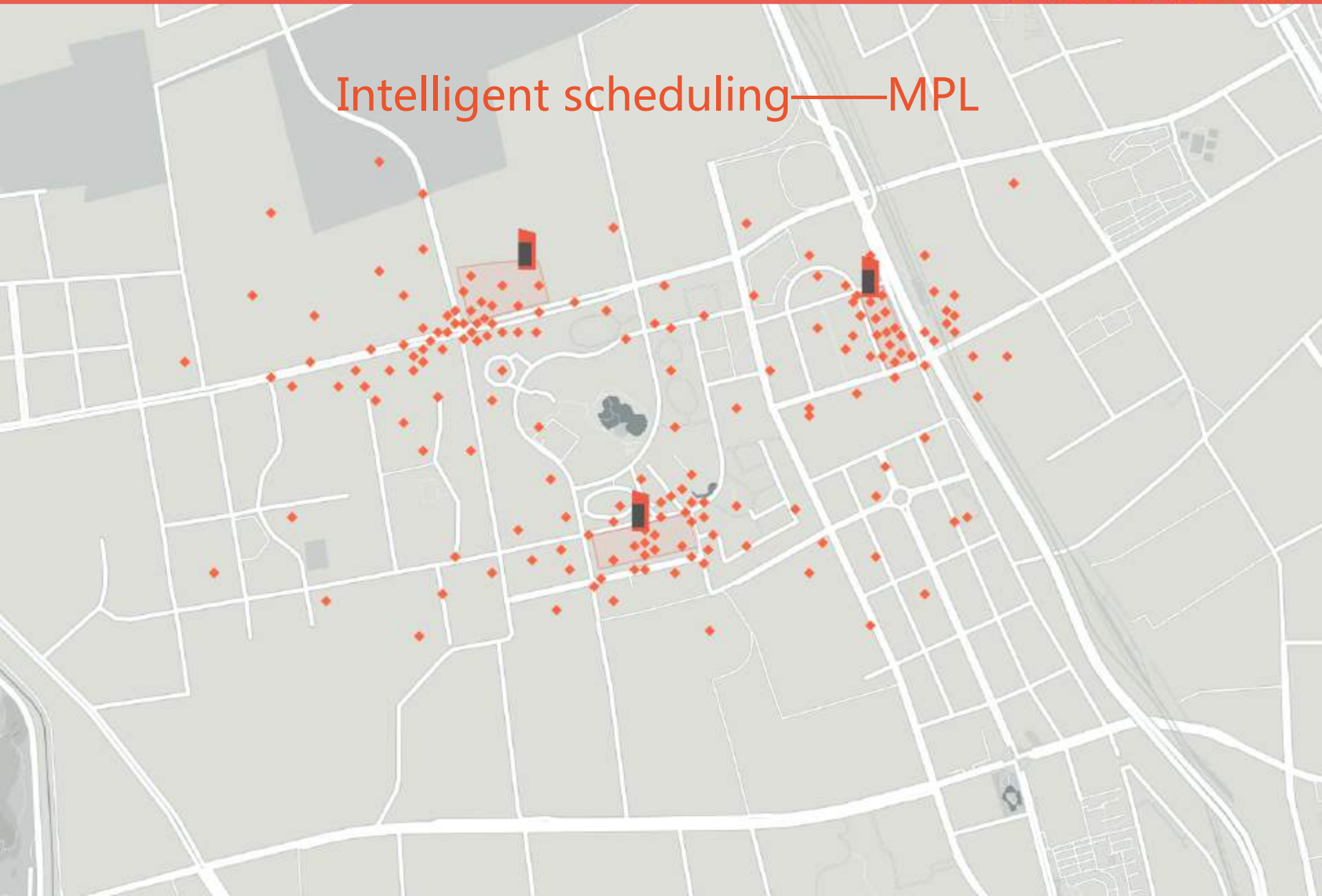
Intelligent scheduling——Red packet bikes



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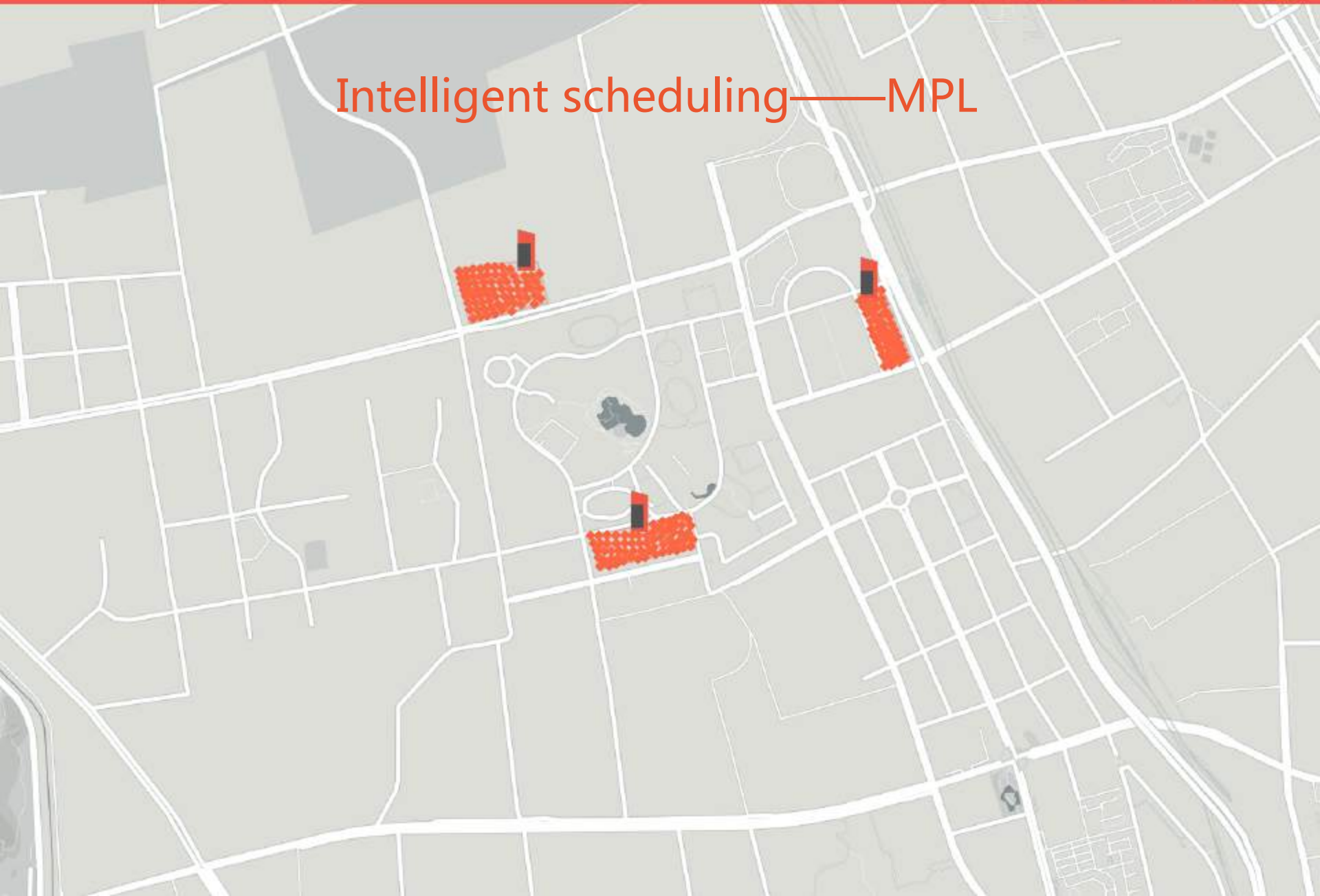
Intelligent scheduling—MPL



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IoT must be followed with big data

Intelligent scheduling——MPL



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IoT must be followed with big data



Magic Cube

AI Platform of Mobike

An AI platform based on big data

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Magic Cube

“Magic Cube” knows exactly how many shared bikes are needed in a city

“Magic Cube” even knows exactly the need of each entrance of a subway station.

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The significance of “Magic Cube” to a city

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Powered by big data of Mobike,
City Traffic Open Research Institute

was co-founded by top 12 institutions at home and abroad,
including the Highway Science Research Institute of the
Ministry of Traffic, Tsinghua University, Tongji University,
Beijing Municipal Institute of City Planning & Design.



Aaron 

北京 朝阳



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Q

&

A



谢谢

T H A N K S



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