

MOSCOW METRO: TRANSPORTATION AND PASSENGER SERVICES

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TRANSPORT TICKETING GLOBAL

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MOSCOW METRO IN NUMBERS¹

First line opened in May 1935

15 lines

269 stations

634 km of tracks²

20 depots

2.56 bln passengers annually

>5 900 cars

>9 mln passengers on weekdays

90 sec minimal headway³

60 600 employees

99.98% fulfillment of train schedule

In comparison with the largest transport companies in Russia (passengers per year):


32.8 mln

AEROFLOT

79.3 mln

 **Lufthansa**

1 bln

 **Российские железные дороги**

2.5 bln

 **Moscow Metro**

1. incl. Moscow Central Circle (MCC) and Monorail
2. revenue and non-revenue tracks
3. among non-automated metros

AMONG TOP 3 TOURIST ATTRACTIONS

Stations with
historic architecture

48 stations

are cultural heritage
objects

Stations with
new design

Design of new
stations is chosen by
citizens in «Aktivniy
grazhdanin» app
(Active citizen)
(2 mln active users)



MOSCOW CENTRAL CIRCLE MCC

31 stations

54 km of line

23 changes to metro

10 changes to rail

4 changes to MCD



> 400 mln passengers
in 3 years

> 560 000 passengers
daily

Unified ticket fares for the
MCC and Moscow metro

MCC development:

	At launch	2017-2019	NOW
# of trains	33	42	51
train pairs	134	177	242
headway	12	10	8
peak hours headway	6	5	4

MOSCOW CENTRAL DIAMETERS

New mode of transportation connecting
17 cities of Moscow region and 70
Moscow districts

Launch date: 21.11.2019

5 lines	UNIFIED FARES for metro, MCC and MCD	5-7 minutes headway	5:30-01:00 working hours
D1	Belorussko-Savelovskiy Odintsovo - Lobnya	28 stations	52 km
D2	Kursko-Rizhskiy Nakhbino - Podolsk	38 stations	80 km
D3	Leningradsko-Kazanskiy Zelenograd - Ramenskoe	44 stations	85 km
D4	Kievsko-Gorkovskiy Zheleznodorozhnyi - Aprelevka	38 stations	86 km
D5	Yaroslavsko-Paveletskiy Pushkino - Domodedovo	34 stations	72 km
2019 - 2025		182 stations	375 km

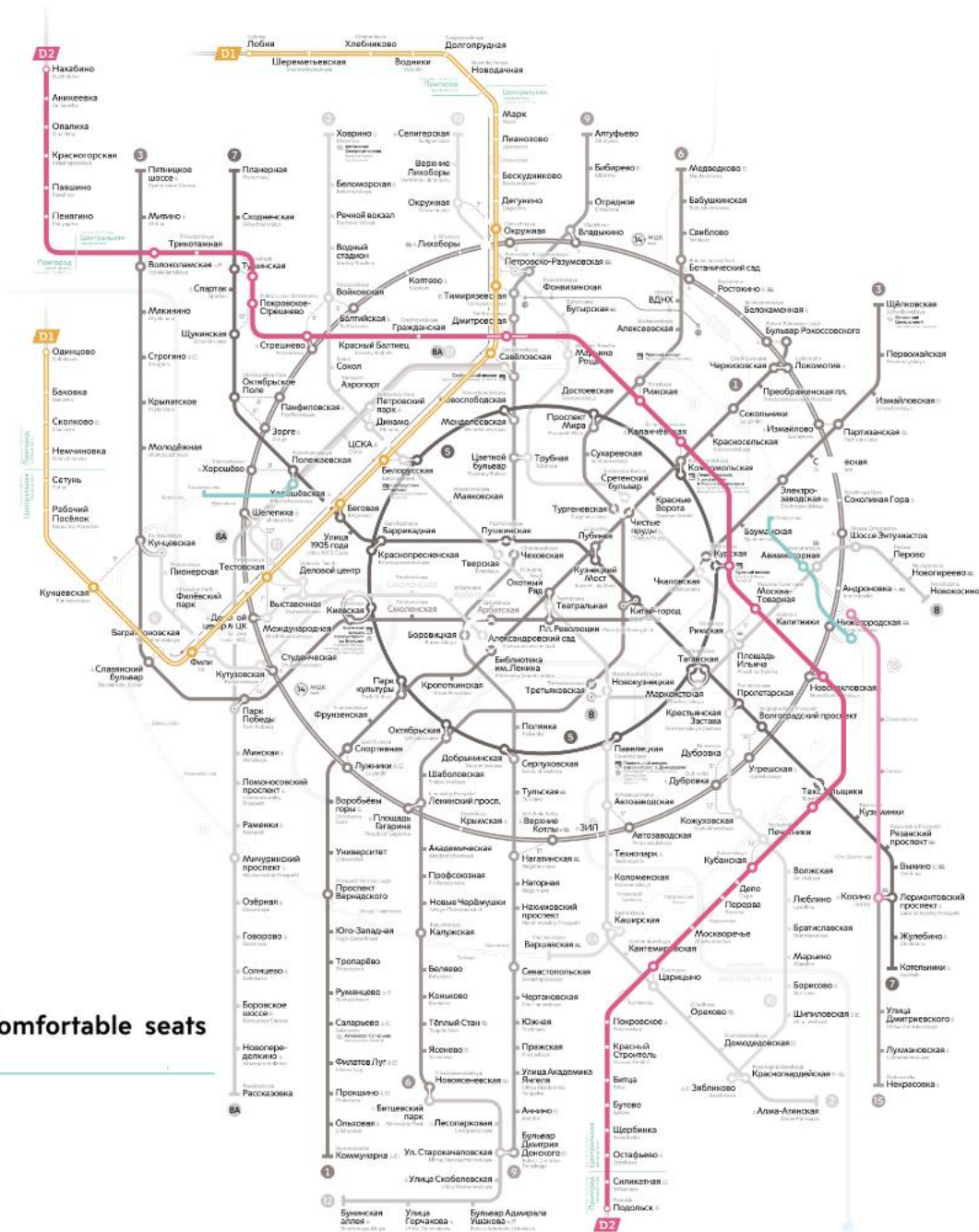


Rolling stock:

Ivolga 2.0

Key features:

Made in Russian Federation	Wider doors (+15cm/12%)	WiFi and USB sockets	Better acceleration (up to 0.9m/sec)	Climate control, air purification	Comfortable seats
Information displays	Areas for PRM	Bike racks and more handrails	Toilets with sensors and diaper boards	Quiet running, reduced noise (-22%)	



SERVICES CREATED FOR PASSENGERS

Main directions:



Ticketing system and other sales



Travel assistance



Navigation and Informing



Comfort

In 2014 Moscow Metro launched the Comprehensive Passenger Services Development Program that aimed to improving regulatory system and standards.

Services we provide today:

- Innovative informing system
- Optimization of ticket sales
- Easy-to-understand navigation system
- Passenger Mobility Center – assisting PRM while traveling in the metro
- Mobile app
- Chargers
- ATMs & vending machines
- Mobile e-library
- Gift shops and Live Communication desks

MOSCOW METRO HAS A UNIQUE TICKETING SYSTEM



More than **27 mln** "Troika" cards were purchased by passengers

Transport:

- Bus
- Trolleybus
- Tram
- Metro
- Aeroexpress
- MCC
- MCD
- Monorail
- Suburban trains
- Cable car

Other services:

- Museums, planetarium, zoo entrance
- Payment in the largest Moscow parks
- Integration in other towns ticketing systems
- Rent a bike and others
- Integration into cards of 7 largest Russian banks

Portable "Troika" card devices



Tokens



Bracelets



Rings



Key chains

>400 000

portable "Troika" card devices have already been sold



Contactless payment:



All modern payment systems are accepted directly at turnstiles

TICKETING SYSTEM HAS NUMEROUS CLIENT SERVICES

"Gorod" loyalty



More than 6 000 partners were joined "Gorod" program:

- Cafes
- Restaurants
- Pharmacies
- Transportation
- Others

How it works:

- ✓ Registration
- + Make purchases with our partners or top up "Troika" card
- 😊 Get rewarded for your purchases

Cards co-branding

Big organizations can order special design cards to commemorate special events:

- Gorky park's 90th anniversary
- Release of the guidebook: "Bulgakov's places in Moscow"
- Pushkin museum 60th anniversary etc.

"Troika" card special design serves to promote cultural events, places and initiatives



CONTACTLESS PAYMENTS

Contactless payments have already got 46% of total ticket sale at Moscow Metro (including ticket windows, ticket machines and partners)

Types of contacless payment methods:



Samsung pay

Yandex Money

Alipay™

Partners:



VISA



>1000

ticket windows are equipped for contactless payment



>1200

ticket machines are installed at Moscow Metro stations

>120

multifunctional payment terminals in metro and MCC



>7000

kiosks, ATMs, partners' web sites for "Troika" card top-up

>18 500 000

transactions are made at Moscow Metro ticket windows monthly

>9 700 000

transactions are made via Moscow Metro ticket machines monthly

>700 000

top-up transactions for "Troika" card via partners web sites monthly

ENTRANCE HALL INFRASTRUCTURE

Turnstiles at Moscow
Metro entrance halls
are to be equipped
for contactless
payment



2017

110

Turnstiles were equipped for
contactless payment

2018

259

Turnstiles were equipped
for contactless payment

2019

850

All metro turnstiles are
equipped with PayPass /
PayWave system: 2 of them at
every entrance hall

1 300 000

passengers have used
turnstile contactless payment
since June of 2019

Summer campaign results:

>6 000 000

Passengers have used turnstile contactless payment
during the promotion days in cooperation with the
payment system "MIR": 27₽ special fare

x4 times

More passes using innovative methods of turnstile
fare payment after promotion

MASS EVENT MANAGEMENT



Passengers could use a match ticket and a Fan passport for a **free ride at MCC and Moscow Metro** during the FIFA match days in Moscow

5 000 000

free trips were made via all public transport

3 800 000

passengers of metro and MCC

2 900 000

passengers of metro



UHF technology

Special UHF antennas were installed at 28 entrance halls of the stations, which read RFID tags placed in fans' passports

NEW NAVIGATION SYSTEM



Maps

City maps for pedestrians have first appeared in Moscow

Interconnection of routes

The new system is developed for underground and overground transportation, pedestrian areas, bicycle rent, and transfer hubs. It helps citizens to navigate around the city during their entire journey



Assigning number to metro exits

Exits from metro to the city are now numbered clockwise, which makes navigation more passenger-friendly

Transliteration

All navigation elements are spelled in Latin



City sights

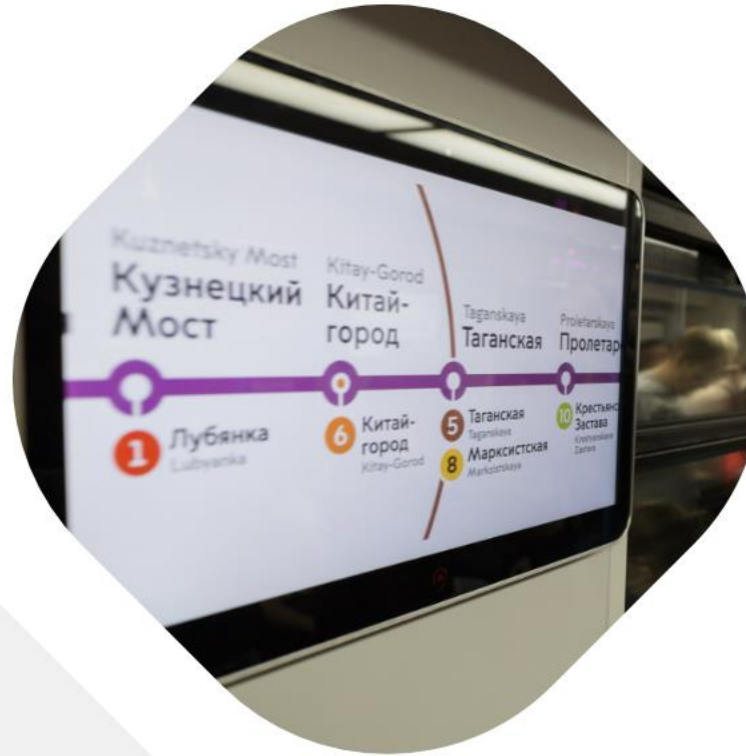
Main city sights are marked with icons which makes them easy to find

Unique design

Navigation elements are made of materials that are resistant to vandalism. The design of the new navigation system is inspired by the architecture of Moscow

PASSENGER ONLINE INFORMING SYSTEM

Project's goal
urgent informing of
passengers about
the transport
situation and
emergencies



Since May 2018 the cars are
equipped with screens to broadcast
local and international news

>2 600 000

viewers per day

8720

screens



FIFA WORLD CUP
RUSSIA 2018

During FIFA-2018 World Cup Moscow
became the first city in the world to
organize live broadcasts of football
matches in metro

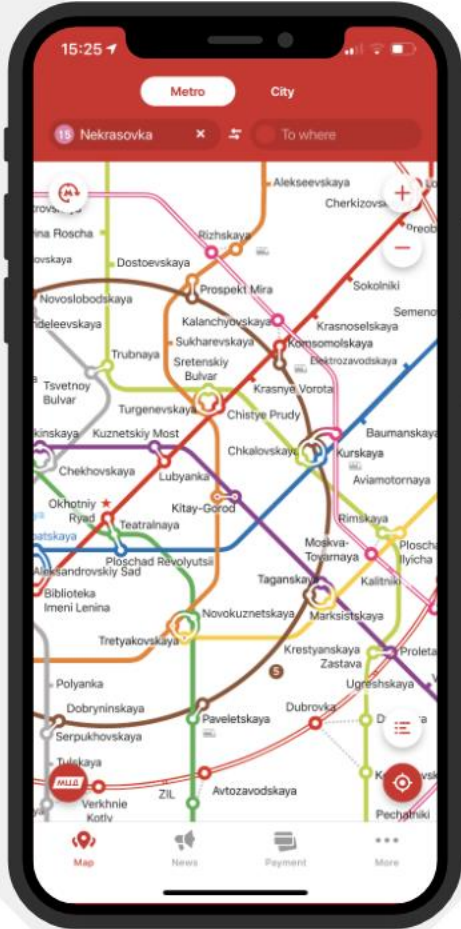
60

broadcasted matches

20 000 000

viewers

"MOSCOW METRO" APP



Moscow Metro implement the innovative payment methods via "Moscow Metro" App

3 000 000

downloads

700 000

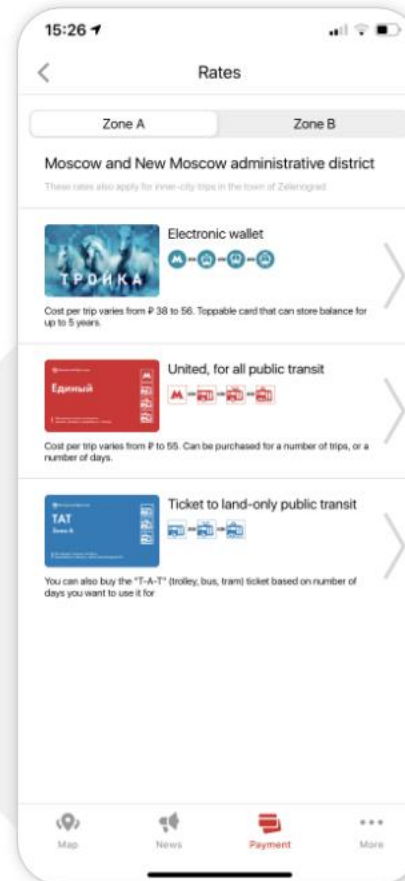
active users monthly

Top 7

App store

Top 16

Google Play



Most popular features: metro and city routes planning, "Troika" card and other tickets top-up and metro news

Payment options:

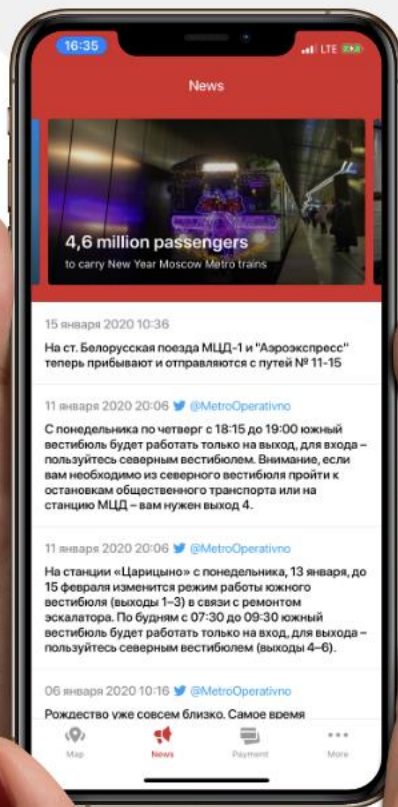
"Wallet" top-up via smartphones without NFC

Direct downloads of various tickets: "Ediniy", "TBT", "SCS/SKU" via smartphones with Android OS and with NFC

All modern payment methods :



STATISTICS OF "MOSCOW METRO" APP



x10

«Troika» card top-up via
"Moscow Metro" App after
integration with Apple Pay

>46 000 000

"Wallet" ticket top-up
since implementation

70 000

Student ticket top-ups since
implementation in October
2018

"Ediniy" for
60 trips

Is the most popular ticket in
the App

>9 000 000

"Ediniy" tickets sold via the
App monthly

UPCOMING APP FEATURES

Mobile "Troika"

"Troika" is available to purchase with the digital Wallet

Online assistance

Chat-bot integration into the App that will help users solving all the problems concerning the Moscow Metro

Train arrival time

Displaying trains' time of arrival at the MCC lines. This feature will allow passengers to choose a comfortable boarding time and travel option

MaaS

Mobility as a service. Implementation of car sharing, taxi and other transport services in the App to create a seamless transport ecosystem. The system tracks passengers' journeys and offers the most convenient fare payment at the end of the day

Loyalty program

Loyalty program integration into "Troika" personal account: bonus balance, transactions, promotions and list of partners. Over 650 000 participants

Expectations:

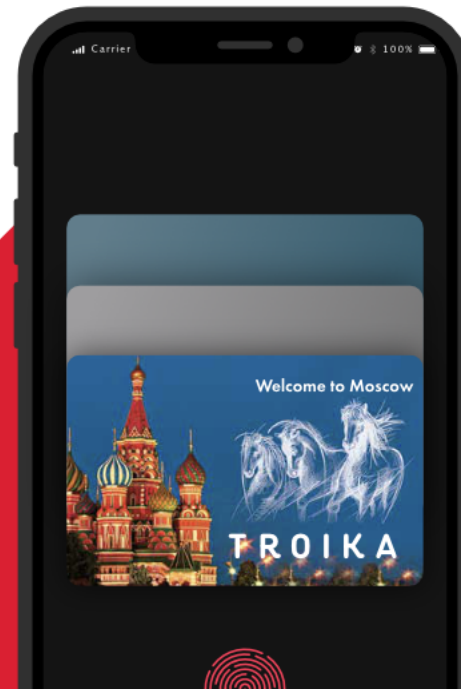
4 000 000 total app downloads

300 000 cards top-up monthly

200 000 social card top-ups

"Troika" personal account:

- registration of passengers
- binding "Troika" cards
- payment history
- passes history
- payment



BARRIER-FREE METRO



366

employees of
Passenger Mobility Center

1 000 000

passengers have been assisted since
inauguration of Passenger Mobility Center

39 000

help requests (~ 140 thousand passengers)
are fulfilled in 2018 (+6% to 2017)

64

stations equipped with lifts and lift platforms
(197 lifts and 11 lift platforms)

We help:

PRM	66.5%	<div></div>
Children	11.1%	<div></div>
Parents	13.2%	<div></div>
Eldery people	6.4%	<div></div>



RETAIL AND ADVERTISEMENT

Subrent is prohibited since 2016

Benefits:

- Rent revenues for Moscow metro have increased 10-15 times
- Rent prices remained unchanged

Advertisement content is managed by Moscow Metro



570
kiosks

located at 46 stations. Every kiosk is designed in accordance with the unified standard. 310 more kiosks are to be opened

Ads are placed in train cars, underpasses, and vestibules

Public toilets are located at interchange passages. They are available with "Troika" card



305
vending machines

installed at 46 stations. An increase to 460 machines is planned

303
ATMs at 145 stations

An increase to 450 ATMs is planned



**THANK YOU
FOR YOUR ATTENTION**

