The New York City Subway serves 6 million customers on a daily basis...
The New York City Subway is the only big city on the globe whose entire system runs 24/7.
The system operates across 24 lines and **665 miles of track**.
We have more track than any other subway system in the United States, including Boston, Chicago, Atlanta, L.A. and Washington, D.C.
The network includes 472 stations, which is more stations than any other system in the world.
THE NYC SUBWAY DOESN’T EXIST IN A VACUUM

FDNY
Con-Ed
LIRR
NYPD
Verizon
NYCDOT
Surface Transit

NYC EMS
Utility Companies & Power Supply
Metro-North
NYC Sanitation
PANYNJ
NYCDEP
NYCDOT
Surface Transit
We are here today because the New York City Subway system is in distress and we need solutions.
For context, the system has come a long way since the dark days of the 1970s and 80s...
In 1981 alone, the NYC Subway experienced:

- 5,747 track fires
- 21 collisions
- 4,977 robberies
But there is no doubt the New York City Subway is failing its customers...
NYC Subway

RECORD VOLUME OF CUSTOMERS
NYC Subway

AGING INFRASTRUCTURE

RECORD VOLUME OF CUSTOMERS
NYC Subway

- Aging Infrastructure
- Lack of Capital Investment
- Record Volume of Customers
NYC Subway

AGING INFRASTRUCTURE

SUBWAY SYSTEM IS FAILING NEW YORKERS

LACK OF CAPITAL INVESTMENT

RECORD VOLUME OF CUSTOMERS
In its first full year of operation in 1905, annual subway ridership was 73 million.
Since then, ridership has dramatically increased to **1.76 billion** today...
In the past 10 years alone, ridership has increased 15% – by a quarter-billion riders...
Ushered in by growth in the city’s population and a rise in tourism.
The system itself is 113 years old; the average track was laid 41 years ago; and 40% of signal equipment is more than half a century old. Much of the system contains WW II-era signaling and communications equipment.
The NYC Subway is owned by NYC, and they are responsible for funding the Capital Plan and can veto it, but...
In the 1980s, when the City was in fiscal crisis, the State stepped in to provide financial support – both for capital investments...
And also for operating support.
However, in the 1990s, both the City and the State failed to adequately fund the system.
Only the State government has begun to make the investments the system requires for the next century of growth.
In recent months, these issues have come to a head – exacerbated by Amtrak emergency repairs that had a ripple effect across the entire system.
Governor Cuomo appointed me Chairman of the Metropolitan Transportation Authority on June 21 to fix the current situation.
Governor Cuomo also declared the NYC Subway system in a *State of Emergency* to cut through red tape and speed processes needed to rapidly fix the subway.
Governor Cuomo then directed us to develop a plan for immediate action to be delivered in 30 days.
Over the last four weeks, we have conducted a top-to-bottom analysis of how we transform the NYC Subway to deliver for our customers.
An **Advisory Board** of experts, innovators and community representatives support the plan and will advise in its execution and going forward...
<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td><strong>David N. Dinkins</strong></td>
<td>Former Mayor, New York City</td>
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<tr>
<td><strong>Kathryn S. Wylde</strong></td>
<td>President and CEO, Partnership for New York City</td>
</tr>
<tr>
<td><strong>Daniel L. Doctoroff</strong></td>
<td>CEO, Sidewalk Labs</td>
</tr>
<tr>
<td><strong>Peter Kalikow</strong></td>
<td>President, Kalikow &amp; Company</td>
</tr>
<tr>
<td><strong>John Samuelsen</strong></td>
<td>President, TWU International &amp; President, TWU Local 100</td>
</tr>
<tr>
<td><strong>Dennis Rivera</strong></td>
<td>Senior Advisor to the President, SEIU &amp; Founder and Former Chair, SEIU Healthcare</td>
</tr>
<tr>
<td><strong>Hector Figueroa</strong></td>
<td>President, 32BJ Service Employees International Union</td>
</tr>
<tr>
<td><strong>Sarah Feinberg</strong></td>
<td>Former Administrator, Federal Railroad Administration</td>
</tr>
<tr>
<td><strong>Gene Russianoff</strong></td>
<td>Straphangers Campaign</td>
</tr>
<tr>
<td><strong>Mitchell L. Moss</strong></td>
<td>Director, NYU Rudin Center for Transportation Policy and Management</td>
</tr>
</tbody>
</table>
NYC Subway Action Plan

2 PHASES

SHORT TERM

LONG TERM
We will begin **Phase I** immediately, and have Phase I in place and delivering improvements within **the year**.
Phase I will stabilize and improve the system and lay the foundation for modernizing the New York City Subway.
To stabilize and improve the system, we will focus on...
Improve reliability and capacity

NYC SUBWAY CUSTOMER
Improve reliability and capacity

Enhance stations and safety

NYC SUBWAY CUSTOMER
Improve reliability and capacity

Enhance stations and safety

Provide clear and accurate communication

NYC SUBWAY
CUSTOMER
Our strategy: Target additional personnel and equipment focused on the critical components of the system that we have determined have the highest incidence of failure.
Phase I includes addressing five critical components.
Phase I includes addressing **five** critical components.

**PHASE I: BEGINS IMMEDIATELY**

- Track & Signal Maintenance
- Car Reliability
- System’s Safety & Cleanliness
- Customer Communication
- Critical Management Group
Phase I will attack the key drivers of 79% of the major incidents causing delays on the system.
Phase I will attack the key drivers of 79% of the major incidents causing delays on the system.
Addressing Signal & Track Maintenance
Addressing **Signal** & Track Maintenance
30% of all major incidents are caused by signal issues.
Today 40% of our signal equipment is more than a half-century old, and the equipment is breaking down at an increasing rate. Over the last year, the number of major incidents due to signal failures has increased by 24%.
To reduce the rate at which signal equipment is breaking down, we are creating dedicated teams to execute an expedited repair program that will fix 1,300 signals detected to be most problematic by the end of 2018.
We will prioritize the signals in the busiest parts of the system...
The entire system is dependent on a reliable and consistent supply of power. Disruptions in power can result in shutdowns, and surges in power can destroy electrical equipment. Over the last 12 months, these power issues have caused tens of thousands of delays.
Power supply is a major problem.
The MTA does not control the power supply, but depends on public utilities. The State Public Service Commission has agreed to help and will announce a power improvement plan this week.
Addressing Signal & Track Maintenance
Addressing Signal & Track Maintenance
New York City is surrounded by water, and 420 miles of the NYC Subway is underground.

The root causes of more than 20% of track incidents that cause delays are from water-related damage and debris-related fires...
WATER VULNERABILITIES DETECTED ACROSS SYSTEM

Actual detections
June 2017
Manhattan, Queens, Brooklyn, Bronx
We are launching an emergency Water Management Initiative.

As part of the Initiative, special new teams will seal leaks with chemical grouting, clean 40,000 street grates to ensure proper water diversion, and eliminate debris clogging drains.
We will also **clean the entire underground subway system** to remove debris and reduce fire hazards.
And we are accelerating the repair of potential track issues across the entire underground system.

31 specialized teams will be dispatched to expedite track repair targeted at the places with the highest rate of incidents...
52,000 FEET OF DETECTED TRACK ISSUES

Actual detections
June 2016-17
Manhattan, Queens, Brooklyn, Bronx
Half of our tracks still include rail joints, which cause most rail incidents. These rail joints also lead to increased wear and tear and a less comfortable ride for our customers.
To reduce the number of breakdowns, we are moving to newer, **seamless** track across the entire system. 50% of the system already has this new rail, including two-thirds of the system underground.
We are tripling the rate of installing continuous welded rail and increasing track welding capacity by 30%.

We are also installing 50,000 friction pads over the next 16 months to increase resiliency of the rail and reduce incidents impacting service.
We are also tripling our **Combined Action Teams**, which are able to respond to a range of track, power and signal issues without requiring additional support...
12 COMBINED ACTION TEAMS ACROSS SYSTEM

- 148th St. Terminal
- 149th St.
- 125th St.
- 65th St.
- Court Square
- Lex Ave-59th St
- Columbus Circle
- Franklin Ave.
- Brooklyn Bridge
- DeKalb Ave.
- Broadway Junction
- 96th St.
By adding new teams, we are cutting response time dramatically...

45 minutes to 15 minutes
Improving Car Reliability
The New York City Subway fleet is on average 22 years old, and 16% of it is more than 40 years old. 40% of car breakdowns are caused by door malfunctions.
To rapidly improve performance of our fleet, we are:

- **Expanding major overhaul capacity** from 950 to 1,100 cars per year
- **Maximizing 24/7 shop capacity** by adding an additional full repair and maintenance shift
Our maintenance effort will also prioritize the inspection and repair of doors above and beyond existing protocol. Our goal is to inspect and repair every car door system within a year.
To ensure faster response times, and to make minor repairs on-location instead of in our workshops, we are adding 20 pre-positioned Emergency Subway Car Response Teams at 12 locations supported by 5 mobile repair trucks...
12 LOCATIONS FOR 20 EMERGENCY SUBWAY CAR RESPONSE TEAMS

- E 180th St.
- 74 St. / Roosevelt
- W 4th St.
- Myrtle / Wykoff
- 36 St. / 4 Ave.
- Flatbush-Nostrand
- Kings Highway
- Parsons Archer
- Broadway Junction
- New Lots Ave.
- Broad channel
- Far Rockaway
To address the main issue, which is the increasing volume of passengers, we will add cars to trains where possible. Each car holds approximately 145 more passengers. We are limited to lines where platforms are long enough – for example, the C.
We are also launching a pilot program to remove seats from some cars. Removing seats from select cars will increase capacity on the S and L by 25 riders per car.
And to improve the customer experience, we will include **interior upgrades** as part of the regular maintenance cycle.
Improving Public Safety & Cleanliness in the System
Safety on the subway is a top priority and law enforcement must focus on enforcing the laws that affect station operation as well as customer safety.
We are calling on the NYPD to increase its police presence in our stations and to enforce the law and deter illegal activity such as harassment, sexually inappropriate behavior, loitering, aggressive panhandling and even littering.
Littering is a real problem in the NYC Subway. It contributes to 700 fire-related incidents every year and yet has resulted in fewer than 80 violation tickets this year.
We are launching an aggressive public awareness campaign to educate customers on the consequences of littering: a fine and possible delays for everybody. Informational materials will be posted and public announcements made on subway trains and in stations.
**Homelessness** is on the rise. It affects the quality of life in the subway system and we need to enhance our outreach program working with the NYPD.
When a customer becomes ill on the subway, it effectively stops the train as train staff are required to remain with the passenger until help arrives. Over the last year, sick passengers caused 34,118 total train delays.
Help must arrive sooner. To reduce wait time, this month we launched a pilot program pre-positioning EMTs on the A C E, which experienced nearly 30 incidents each month – totaling 6 hours of delays.
We are expanding the pilot by more than doubling the number of stations across the system with dedicated EMTs from 5 to 12 in the coming weeks.
The MTA will also ask NYC EMS to increase its presence and pre-deploy teams, and the MTA will coordinate with FDNY EMS for best joint coverage of the system.
12 PRE-POSITIONED EMT TEAMS

- 149th St. Grand Concourse
- 96 St.
- 125th St.
- 14th St.
- West 4th St.
- Fulton Center
- Brooklyn Bridge
- Atlantic-Barclay's
- Grand Central
- Lex/59 St.
- Jackson Hts.
- 86 St.
Additionally, to transform the customer experience in our stations, we are increasing the frequency of heavy-duty station cleaning by 30%, from every 6 weeks to every 4 weeks.
We are launching a station program to repaint, repair tile, service elevators and escalators, and conduct a deep cleaning at priority stations across the network.
Transforming Customer Communication
We are not effectively communicating the **timely or reliable** information our customers need and deserve – while they’re on the subway, on the platform or at home.
We are transforming how we communicate information to our customers. We are:

- Revising communications protocols
- Providing clearer, more timely information to our customers during incidents
- Providing better information about the work we’re doing to the system
We are also *overhauling* all of the MTA’s *digital communication assets* to provide clearer, more detailed, and personalized information. A new, integrated MTA app will also be available for download by the end of the year.
We are providing our data in an open protocol basis for app developers to integrate into their own innovative solutions for our customers.
We are also:

- Placing MTA Customer Representatives at high-traffic stations to provide guidance to customers.
- Accelerating the system-wide installation of countdown clocks – completing by the end of this year.
- Rolling out clearer signage for planned service changes.
- Retraining staff to improve communication with customers.
Launching Critical Management Group
The management and operations organization will be rebuilt—eliminating silo-based decision making—resulting in faster and more effective solutions.
We are going to establish an **MTA-wide Emergency Operations Center** at MTA HQ that brings together key decision makers who monitor incidents in real time and rapidly dispatch resources.
We have asked the State Public Service Commission to add a power utility representative to this Critical Management Group.
We will also **empower our staff** to encourage initiative and invest in training across all disciplines.

And to execute major capital improvements on time and on budget, we are streamlining procurement processes and transforming the agency’s approach.
Measuring Performance

To monitor our progress and hold us accountable, we will be launching a public dashboard. Like CompStat, the dashboard will measure categories important to our customers, including reliability, safety and the customer experience.
In total, Phase I of the NYC Subway Action Plan – stabilize to modernize – includes more than 30 tangible actions...
<table>
<thead>
<tr>
<th>Signals &amp; Track</th>
<th>Cars</th>
<th>Stations</th>
<th>Comms</th>
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<td>Cleaning the entire underground subway system to remove debris and reduce fire hazards.</td>
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<td>Launching an aggressive public awareness campaign to educate customers on the consequences of littering: a fine and possible delays for everybody.</td>
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<td>Establishing an MTA-wide Emergency Operations Center at MTA HQ that brings together key decision makers who monitor incidents in real time and rapidly dispatch resources.</td>
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<td>Accelerating the repair of potential track issues across the entire underground system, dispatching 31 specialized teams targeting the places with the highest rate of incidents.</td>
<td>Prioritizing the inspection and repair of doors, with the goal of inspecting and repairing every car door system within a year.</td>
<td>Increasing the frequency of heavy-duty station cleaning by 30%, from every 6 weeks to every 4 weeks.</td>
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<td>Adding State PSC power utility representative to Critical Management Group</td>
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<td>Streamlining procurement processes and transforming the MTA’s approach to major capital investments.</td>
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In short, this report recommends deploying 2,700 additional personnel and specialized equipment dedicated to repairing critical components, improving stations, increasing public safety and delivering timely and effective communications.
In order to stabilize the system, our current estimate is that we are going to need an immediate investment of $456 million in operating costs and make a $380 million capital investment.
During the next year, we will aggressively monitor our progress and make the necessary changes to guarantee efficiency and effectiveness for the long term.
NYC Transit must be self-sustaining by law. The agency has five sources of income:

- TBTA
- City
- State
- Federal
- Customer fares
Given the nature and severity of the crisis, the most viable and fair alternative is for NYC and NYS to split the costs.
Phase II of the NYC Subway Action Plan will focus on modernizing the system.
Phase II is incorporating ideas from the Genius Challenge and addressing systemic and system-wide improvements.
Phase II is incorporating ideas from the Genius Challenge and addressing systemic and system-wide improvements.

1. New signaling system
2. New subway cars
3. Modern communications technology to facilitate new signaling and enable customer benefits
To bring the system into the 21st century, we will need **new cars** and a **modern signal system**. This will be at the heart of our next capital plan.
The long-term plan will require an additional capital investment of approximately $8 billion.
We will have a better estimate when results from the recent “Genius Competition” are evaluated to expedite car purchase, repair and a new signal system.
Our commitment, both senior management and the workforce, is to get the system **back on track** and deliver for our customers.