



Whitepaper

COVID-19 Impacts & Best Practices Guide



The United States has become the global epicenter of the COVID-19 pandemic, with [over 5.5 million](#)¹ confirmed cases. In Canada, the curve has [tapered](#)¹, but the impacts of the virus are still widely felt among transit systems. Agencies face the critical challenge of managing operations during the pandemic and dealing with its many implications.

Best Practices For:

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Cleaning & Personal Safety
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Distancing & Crowd Management
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Employee Protection
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Fare Payments
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Impacts

The pandemic has had a significant and immediate impact on the global public transportation community. The lasting, long-term effects are vital to consider when assessing how to manage the crisis best.

Ridership Impacts

Transit ridership has reached a devastating low as a direct result of the pandemic. According to [EBS, US Inc.](#)², ridership levels have declined by at least 70% in the US between April 2019 and April 2020, with several agencies falling below that percentage. Ridership has declined by [over 90%](#)³ in San Francisco, CA at BART, and [around 80%](#)⁴ for Metro in Washington DC. Both agencies are among the most extensive transportation systems in the nation. According to [Transit](#)⁵, the demand for public transit in Canada has decreased by up to 80% since March. Again, several major networks were hit even harder. In Toronto, ON, ridership at the Toronto Transit Commission (TTC) and GO Transit fell [between 80-90%](#)⁶ by mid-April, and in Montréal, QC, Metro reported an [80% decline](#)⁷ in ridership by March 26.

Long-Term Implications

The long-term effects on ridership are still unfolding. The general public is concerned about being in shared spaces, and about traveling in general. There are serious discussions

regarding telecommuting instead of working in an office as a new normal – removing many commuters from their day-to-day transit use. Public gatherings and events will continue to face a considerable decline for potentially years to come. All of the pandemic's societal implications will have an impact on public behavior and, in turn, transit ridership from now on.

A [survey of APTA transit agency members](#)⁸ conducted in late April 2020 found:

- The overwhelming majority of agencies (83 percent) used their CARES Act funds to maintain their workforce and avoid layoffs.
- Public transit agencies increased the cleaning of vehicles and facilities, purchased personal protective equipment (PPE), and eliminated or stopped enforcing fare collection.
- More than one-half of agencies have developed a restoration or recovery plan that includes new safety precautions for riders and the workforce.

Initial Response by Public Transit

Public transit agencies have responded to the COVID-19 crisis by launching dedicated task forces and response teams, enforcing better and more frequent cleanings, promoting distancing and crowd management, implementing internal safety protocols, and launching communications and marketing campaigns. They have set up web pages, guidelines, virtual meetings and forums to clearly communicate their COVID-19 response plans to the public. In a [survey conducted by APTA in March](#)⁸, it was found that almost all transit members had taken significant action in response to the pandemic.

Cleanings & Personal Safety

Agencies like RTD in Denver, CO have shared [videos online](#)⁹ detailing how vehicles are cleaned and showing the process on camera. Through an extensive marketing campaign, the agency has shared steps they are taking to ensure passenger safety.¹¹ Moreover, the agency has streamlined their cleaning and sanitation processes using a cloud-based maintenance software from INIT. The software is used to track and maintain the cleaning efforts onboard the vehicles to reduce and prevent the spread of COVID-19. It also monitors and maintains RTD's Automatic Passenger Counting (APC) equipment and ensures it is working properly.

Several transit agencies have approached the pandemic through creative routes. Employees at Valley Transportation Authority (VTA) in Santa Clara, CA [assembled plastic barriers](#)¹⁰ for drivers using decommissioned bus parts as a faster, more economical means to enhancing protections onboard.

MTA in New York City, NY has deployed a [dozen personal protective equipment \(PPE\) vending machines](#)¹¹ at their subway stations in an effort to promote passenger safety. In Vancouver, BC, TransLink, among many other agencies, has launched a marketing campaign encouraging riders to wear masks and safely distance while using transit. Through the "Wearing Is Caring" campaign, the agency provided [15,000 masks](#)¹² at key transit hubs, and decorated buses with large face masks to get the message across.



Employees at VTA in Santa Clara, CA make barriers out of decommissioned bus parts. Source: [vta.org](#)¹⁰



TransLink's Wearing Is Caring Campaign bus. Source: [TransLink on Twitter](#)¹⁴

In Chicago, the railroad center of the nation, Metra's commuter rail system is using [high-grade filters](#)¹³ to clean and circulate air within their rail cars. Daily cleanings, seat spacing, and installed fresh air dampers help support greater passenger safety.

Distancing & Crowd Management

Making sure passengers and staff are distancing onboard transit vehicles is another key action item in public transit's response to COVID-19. Agencies, including those in Los Angeles, New York and Philadelphia have [restricted front-door boarding](#).¹⁵ [TriMet](#)¹⁶ in Portland, OR and [VIA Metropolitan Transit](#)¹⁷ in San Antonio, TX have limited vehicle capacities by marking off seats, and displaying "At Safe Capacity" signs, respectively.

Some agencies are going a step further and implementing new technologies to promote distancing. For example, [CTA in Chicago, IL](#)¹⁸ and [MBTA in Boston, MA](#)¹⁹ have collected data on vehicle crowding and shared it with riders in an effort to promote social distancing and crowd control. Sharing this kind of information also helps passengers to feel more secure and more in control of their safety when it comes to travel.

The real-time passenger counting solution from INIT allows dispatchers to view the occupancy rates of a vehicle, control passenger loads in real-time, and display the information to passengers, e.g. in a passenger information app or on a display. Agencies with an INIT Automatic Passenger Counting (APC) system, MOBILE-PLAN software, and MOBILE-ITCS based on cellular radio are able to achieve this within a 2-month implementation timeframe.



With the real-time passenger counting solution from INIT, dispatchers can put a vehicle in "Drop Off Only" mode if it has reached maximum capacity.



Sharing vehicle occupancy information helps passengers feel more secure and more in control of their safety when it comes to travel.



Financial Impact

According to an early May analysis by [EBS, US Inc.](#)², transit agencies in the United States face a potential deficit of \$23.8 billion between Q2 of 2020 and Q4 of 2021, even considering the \$25 billion provided by the CARES Act.

Since fares are one of the largest revenue sources for transit providers, the decline in ridership has resulted in a substantial revenue loss. Fare revenues in the US dropped by 86% between April 2019 and April 2020.² Other important revenue sources, like state and local taxes and motor fuel tax revenues, are set to decline by up to 25% and 66%, respectively.²



Tweet from RTD's social media campaign on COVID-19 response efforts. Source: [RTD on Twitter](#)²⁰

Capital investments and construction are affected by revenue shortages, and as a result, agencies may experience additional damage from delays, cancellations or job losses associated with these projects.²

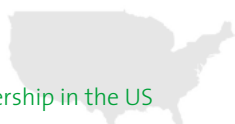
Canadian transit providers have shared their own financial distress while calling on their federal government with urgent requests for funding. Among them is Vancouver, BC's TransLink, one of Canada's largest transportation networks, which reported a loss of [CAD 75 million per month](#) by April.²¹ In response, the Canadian federal government has enacted the Safe Restart Agreement, contributing up to [CAD 2 billion](#)²² to municipalities over the next several months.

BY THE NUMBERS



70%

decrease in ridership in the US between April 2019 and April 2020



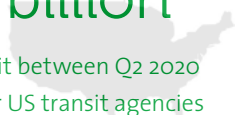
64%

decrease in the demand for transit in Canada between March and July 2020



\$23.8 billion

projected deficit between Q2 2020 and Q4 2021 for US transit agencies



86%

decrease in fare revenues between April 2019 and April 2020 for US transit agencies

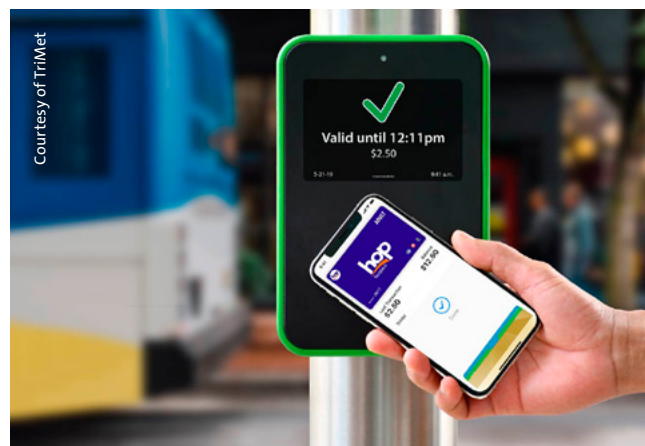


Most agencies have had to suspend routes and operate on reduced service schedules due to the decline in ridership and its financial consequences. Some have experienced challenges in maintaining social distancing and a loss in additional riders due to impacts to service and frequency.

Contactless Fare Payments

Despite serious financial losses, many agencies have opted to suspend fares as an added safety precaution. Others are opting for contactless payment options, which will become much more prevalent in the near-future, [according to transit experts](#).²³ In San Francisco, CA, BART has [accelerated its transition](#)²⁴ to a contactless payment system in response to the pandemic. Other agencies like the Regional Transit Authority (RTA) in New Orleans, LA and VIA Metropolitan Transit in San Antonio, TX are [utilizing mobile apps](#) to facilitate contactless payments.²⁵

[In Portland](#), where TriMet operates an account-based fare system from INIT, passengers can take advantage of Open Payments by purchasing tickets with contactless bank and credit cards. In fact, they can pay for fares using a variety of contactless media options, including virtual fare cards through Google, Samsung and Apple Pay, mobile wallets, and smart watches.



¹ In Portland, where TriMet operates an account-based fare system from INIT, passengers can pay using a variety of contactless media options.

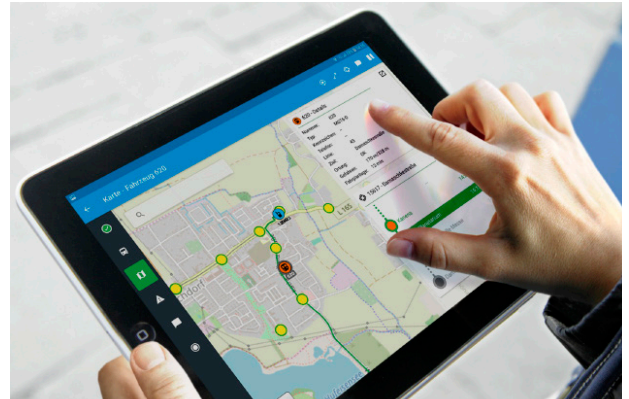
Employee Protection

Protecting employees - many of whom are essential workers on the frontlines of the pandemic - is a top priority for transit agencies. APTA has published a guide, [The COVID-19 Pandemic: Public Transportation Responds: Safeguarding Riders and Employees](#)²⁶ highlighting best practices for employee safety based on guidelines from the Center for Disease Control and Prevention (CDC). The guide advises agencies to, among other things, find ways to distance employees in the control center, e.g. using backup facilities or outside areas to reduce close quarters, and to provide each dispatcher their own separately-stored desk equipment.²⁶

Most agencies have instructed capital and administrative staff to telecommute when possible.²⁶ The LA Metro Recovery Task Force, for example, has identified telecommuting expansion as one of their early response action items, [making the recommendation to major employers](#).²⁷

Agencies aiming to distance both in and outside the control center could take advantage of a mobile or tablet-based dispatching solution. Mobile dispatching would relieve staff from the obligation of remaining at their workstation, in close quarters, to carry out their duties. INIT's tablet-based in-field dispatching tool equips users with similar functionalities as dispatchers in the control center, so they can work from another room, in the field, or even from home. Additionally, with INIT's CAD/AVL system, remote workstations can be setup using the CITRIX software.

Along with implementing practices to keep passengers safe onboard transit vehicles, agencies are placing an additional emphasis on driver protection. Palm Tran in Palm Beach, CA has emphasized bus driver safety by retrofitting the entire fleet with driver barriers. "[Bus operator office doors](#),"²⁸ as they are referred to by the agency, are heavy-duty glass shields that serve as a protector against driver and passenger contact.



INIT's tablet-based in-field dispatching tool equips users with similar functionalities as dispatchers in the control center, so they can work from another room, in the field, or even from home.

The Future of Mobility in a COVID-Transformed World

Although the impact of COVID-19 poses a considerable threat to public transit, its providers and their partners are forging a new path in uncharted territory and will continue to lead by example on the global stage. Agencies have:

- Enhanced cleanings in an effort to protect employees and passengers
- Utilized new methods to ensure social distancing in and around transit
- Adjusted fare payment processes to meet the requirements of today's circumstances
- Inacted powerful communications and marketing campaigns to get their messages across to those who depend on it

Digital technologies have proven to be an integral part of the solution in each of these response areas, helping agencies to accomplish their goals in an efficient and intuitive manner. From crowd management, to employee distancing, and contactless fare collection, INIT is able to assist agencies in a COVID-transformed world, ensuring it will be smarter, safer and more essential than ever.

References

1. [Coronavirus Map](#), Google News
2. [The Impact of the COVID-19 Pandemic on Public Transit Funding Needs in the U.S.](#), EBP US, Inc.
3. [COVID-19 Has Killed Public Transport. How Will It Recover?](#), Jarrett Walker, Brink
4. [What is the impact of Covid-19 on the public transport sector?](#), Cate Lawrence, Intelligent Mobility Xperience
5. [How coronavirus is disrupting public transit](#), Transit
6. [Transit ridership, revenue in steep decline during COVID-19 pandemic](#), Shawn Jeffords, The Canadian Press
7. [Public transit agencies in the Montreal area cut services due to impact of COVID-19](#), Katelyn Thomas; Daniel J. Rowe, CTV News
8. [Policy Brief: Impact of COVID-19 on Public Transit Agencies](#), APTA
9. [RTD COVID-19 Bus Cleanings](#), YouTube
10. [VTA Workers Rise to Challenge, Find Creative Solution to Protect Their Own](#), Ken Blackstone, VTA
11. [MTA deploys PPE vending machines across subway system](#), MTA – New York City Transit, MassTransitMag.com
12. [TransLink launches Wearing is Caring campaign](#), TransLink
13. [Commute with Confidence on Metra](#), Metrail
14. [@TransLink](#), Twitter
15. [Rear-Door Bus Boarding Is Becoming More Common In The COVID-19 Outbreak. But RTD Won't Allow It](#), Nathaniel Minor, CPR News
16. [COVID-19 \(Coronavirus\) Updates](#), TriMet
17. [VIA Sets 'Safe Capacity' Limits on Buses Starting Wednesday](#), VIA Metropolitan Transit
18. [Historical Bus Crowding Dashboard](#), Chicago Transit Authority
19. [Crowding Information for Riders](#), MBTA
20. [@RideRTD](#), Twitter
21. [TransLink says it's losing \\$75M a month and faces ,really unpleasant options' without emergency funding](#), CBC News
22. [Transit to benefit from additional federal funding through Canada's Safe Restart Agreement](#), Mischa Wanek-Libman, MassTransitMag.com
23. [As Transit Reopens, Long-Term Impacts of COVID-19 Unknown](#), Skip Descant, Government Technology
24. [Paper or plastic? BART will soon offer no choice.](#), Carly Graf, San Francisco Examiner
25. [What's normalizing first for transit? Fare collection.](#), Mischa Wanek-Libman, MassTransitMag.com
26. [The COVID-19 Pandemic: Public Transportation Responds: Safeguarding Riders and Employees](#), APTA
27. [L.A. Metro identifies expanding telecommuting as early action item to fight against COVID-19](#), Los Angeles County Metropolitan Transportation Authority (Metro), MassTransitMag.com
28. [Palm Tran Focuses On Bus Operator Safety by Retrofitting Entire Bus Fleet with Bus Operator Office Doors](#), Joe Harrington, Palm Tran, MassTransitMag.com

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