Moving the Technology Department Center Stage thru Enhanced Customer Experience

September 27, 2019

Professional Background

- ✓ 25 years Corporations
- ✓ 25 years Construction Industry
- ✓ 24 years Management / Leadership
- ✓ 13 years Public Sector
- ✓ 7 years Consulting
- ✓ 13 years CIO

enclos

UnitedHealthcare®

amec

SCA NYC School Construction Authority

PORT AUTHORITY NY NJ AIR LAND RAIL SEA

penta TECHNOLOGIES

3M

DOW CORNING

Seagate

Harmon Innovative Façade Solutions™

Associations / Awards
- 2019 CIO Award Team Innovation & Leadership, cio.com
- 2019 State Government Experience Award, Center for Digital Government
- Society for Information Management
- HMG Strategy
- Columbia University Executive Mentor

Technology at The Port Authority

- ## Scope
  - The Technology Department delivers effective, sustainable solutions and support to the Port Authority and is knowledgeable, proactive, and responsive to the Port Authority's current and future technology needs.

- ## Scale
  - Transporting, supporting and keeping 138 Million (2018) travelers safe on a yearly basis. (44% increase over the last 18 years)

- ## History
  - **2015** – Introduction of the Cybersecurity Operations Center
  - **2016** – Cybersecurity Awareness Training is announced and becomes mandatory for all employee's
  - **2017 /2018** – Creation & deployment of Airport Specific Websites, Free Wi-Fi at Airports, RidePATH Mobile app officially launches

Port Authority Facility Map

Aviation
John F. Kennedy International Airport
LaGuardia Airport
Newark Liberty International Airport
Stewart International Airport
Teterboro Airport
Atlantic City International Airport

Bridges
Bayonne Bridge
George Washington Bridge
Goethals Bridge
Outerbridge Crossing

Terminals
Port Authority Bus Terminal
George Washington Bridge Bus Terminal
Journal Square Transportation Center

Tunnels
Holland Tunnel
Lincoln Tunnel

Port Commerce
Port Jersey-Port Authority Marine Terminal
Brooklyn-Port Authority Marine Terminal
Elizabeth-Port Authority Marine Terminal
Howland Hook Marine Terminal
Port Newark

Port Authority Trans-Hudson
PATH Rail Transit System

WTC

THE PORT AUTHORITY
OF NEW YORK & NEW JERSEY

FOR IMMEDIATE RELEASE
August 27, 2019

CONTACT: Port Authority of New York and New Jersey
   212-435-7777

PORT AUTHORITY PREPARED TO ACCOMMODATE MORE THAN SIX MILLION TRAVELERS OVER THE LABOR DAY WEEKEND

Agency is taking steps to ensure positive and safe traveling experience;
Free LaGuardia Link Q70 bus available through weekend

The Port Authority is prepared to accommodate the more than six million people expected to travel through its transportation facilities by air, car and rail during the upcoming Labor Day holiday weekend, the unofficial end of the summer season.

To ensure travelers have a safe, enjoyable trip to and from their destinations during the holiday weekend, the Port Authority is taking proactive measures at all its facilities. These steps include a free LaGuardia Link Q70 bus, a full complement of Customer Care Representatives at its airports, traveler access to online parking reservations and website alerts and Twitter updates on current conditions, as well as a full complement of toll collectors and police at bridges and tunnels to facilitate traffic flow.

To provide real-time sharing of traffic data, the Port Authority also has a data-sharing partnership with Waze, the free crowdsourced traffic and navigation app. The Port Authority will be feeding information on lane closures, traffic incidents and other events to the Waze platform in real time. In addition, the Port Authority will provide updates on conditions at its facilities through e-alerts, Twitter and other social media platforms.

Airports

From Thursday, August 29, through Monday, September 2, the Port Authority forecasts more than 1.9 million passengers using the Port Authority's airports – a projected 1.8 percent increase compared to the same period during last year's Labor Day weekend.

More than 900,000 passengers are expected to travel through John F. Kennedy International Airport, with about 600,000 passengers using Newark Liberty International Airport, approximately 378,000 passengers at LaGuardia Airport, and more than 12,000 passengers at New York Stewart International Airport.
Continuing its partnership with the MTA, the LaGuardia Link Q70 bus will be free through Monday, September 2. The Port Authority encourages customers to use mass transit rather than driving to and from LaGuardia Airport.

THE PORT AUTHORITY OF NY & NJ

Press Releases - RidePath

Press Release Article   PRINT

NEXT TRAIN ARRIVAL TIMES NOW AVAILABLE ON SMARTPHONES THROUGH THE RidePATH APP

Date: Feb 06, 2019
Press Release Number: 18-2019

New smartphone access feature follows installation of real-time countdown clocks in 11 of 13 PATH stations; Christopher and 9th streets to be activated by end of the month.

PATH riders can now access on their smartphones real-time updates on the next arriving trains. Real-time train arrival information on smartphones means riders have access to this information not only in stations, but also well before they enter the station through this new feature on the RidePATH mobile app. The app initially launched in 2018 and has been downloaded more than 70,000 times for both iOS and Android phones.

The introduction of easily accessible real-time train arrival information through smartphones is the latest Port Authority step toward maximizing riders' ability to access important travel information, current schedules and train arrival times. It is part of the agency's overall focus on improving customer experience across its facilities.

The app upgrade (which must be downloaded from the Apple App Store or Google Play) comes as countdown clocks that display up-to-the-minute train arrival times are now operational in all PATH stations, with the exception of Christopher and 9th Streets on the 33rd Street line. Clocks at those stations are expected to be activated later this month.
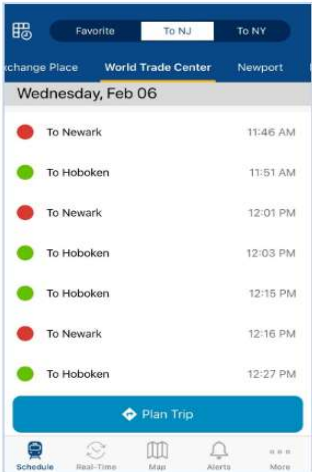
Customers are strongly encouraged to download the newest version of the RidePATH app. Incorporating real-time information has been the most requested app feature by riders seeking a better way to plan and complete their ride on PATH.

To see next-train arrival times, users simply click the "Real-Time" icon at the bottom of the app screen, select either "To NJ" or "To NY" as their travel direction at the top of the screen, and immediately below that select their departure station. Riders are encouraged to continue to provide feedback and further recommendations.

"When you're making the most of every minute of your day, it helps to know how much time you have before the next train arrives," said Port Authority Chairman Kevin O'Toole. "Our PATH and Technology teams have made real-time information the highest possible priority, and we thank them for their efforts in adding to our continually improving customer communications network."

"Today's customers want to know in real time when their train is coming – and PATH is now making that a reality. This feature is another important step in giving PATH customers actionable information," said Port Authority Executive Director Rick Cotton. "While we know we have a long way to go to fully modernize the PATH system, this improvement is one our customers want, need and expect."

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107,000 Downloads in less than 4 Months.

Press Release Article   PRINT

RidePATH DOWNLOADS ECLIPSE THE 100,000 MARK, DRIVEN BY NEW REAL-TIME, NEXT-TRAIN FEATURES NOW WIDELY AVAILABLE TO PATH CUSTOMERS

Date: Mar 15, 2019
Press Release Number: 37-2019

PATH riders are downloading and using the RidePATH mobile app for real-time travel information at dramatically increasing rates, achieving a milestone of more than 107,000 total downloads for iOS and Android phones – nearly 11,000 of them coming in the past month alone.

By downloading the mobile app, which was launched in 2018, PATH customers can quickly access the latest alerts, schedule information and when the next train is arriving, linked to PATH's new system of countdown clocks now operational in each of the system's 13 stations.

The growing popularity of RidePATH reflects a series of key customer services initiatives that have been implemented throughout the PATH system, including the installation of in-station countdown clocks and real-time train arrival information now available through smartphones. It is part of the Port Authority's focus on improving customer experience across all of its facilities.

"Our PATH and Technology teams have worked tirelessly to provide the highest level of service to riders, and the customers' response to our RidePATH mobile app is further evidence that commitment is paying dividends," said Port Authority Chairman Kevin O'Toole.

"We are delighted that more than 100,000 PATH riders have voted so enthusiastically with their feet (or actually their fingers) by downloading the RidePATH app," said Port Authority Executive Director Rick Cotton. "Having real-time train arrival information and digital trip planning literally at riders' fingertips on their smartphones is part of our customer experience focus to provide useful, actionable information to all travelers who use our facilities."

Customers who have yet to do so are strongly encouraged to download the PATH mobile app, RidePATH, for updates.

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Founded in 1921, the Port Authority of New York and New Jersey builds, operates, and maintains many of the most important transportation and trade infrastructure assets in the country. The agency's network of aviation, ground, rail, and seaport facilities is among the busiest in the country, supports more than 550,000 regional jobs, and generates more than $23 billion in annual wages and $80 billion in annual economic activity. The Port Authority also owns and manages the 16-acre World Trade Center site, where the 1,776-foot-tall One World Trade Center is now the tallest skyscraper in the Western Hemisphere. The Port Authority receives no tax revenue from either the State of New York or New Jersey or from the City of New York. The agency raises the necessary funds for the improvement, construction or acquisition of its facilities primarily on its own credit. For more information, please visit http://www.panynj.gov.

THE PORT AUTHORITY OF NY & NJ

Press Release – Countdown Clocks

🔵 Journal Square to 33rd St (via Hoboken)		Now Arriving
🔴 Newark to World Trade Center		8 Min
🔵 Journal Square to 33rd St (via Hoboken)		Journal Square

Time: 1:46 PM 3 - JSQ will operate via Hoboken with a delay because of a switch problem between Chris St. and NWPT.

Which stations do you use most frequently?

Selecting favorite stations will help customize your app experience by prioritizing content specific to your trip.

Origin: Harrison
Destination: 23rd Street

Submit

33rd Street — 1 min
🔴 World Trade Center — 3 min
@ Harborside in Jersey City & Brookfield Pl Terminal in NYC

← Track 2
Track 1 →

Press Release Article

PRINT 🖨

PATH COUNTDOWN CLOCKS NOW OPERATIONAL AT ALL STATIONS ON THE NEWARK-WTC LINE; DISPLAYS TO BE ACTIVATED AT ALL OTHER PATH STATIONS BY THE END OF FEBRUARY

Date: Jan 16, 2019
Press Release Number: 8-2019

Next-train information to be available on the RidePATH app within 30 days

As part of its commitment to customer-focused initiatives that provide useful and actionable information to users of Port Authority facilities, the Port Authority has installed and activated countdown clocks at all PATH stations on the Newark-World Trade Center line and is in the process of installing real-time displays at all other stations in the system.

The countdown clocks in operation along the Newark-WTC line and being phased in at the remaining stations during January and February are designed to display real-time arrival information for the next two trains coming into the station.

In addition, next-train information is expected to be available within 30 days on PATH's mobile app, RidePath, which will enable riders to access next-train information on their smartphones. Customers are strongly encouraged to download the app for maximum information to enhance their commutes.

"This is an important milestone in our effort to provide real-time actionable and useful information to PATH riders," said Port Authority Executive Director Rick Cotton. "Countdown clocks mark an important advance from providing only schedule information to providing real-time data on when the next train will actually arrive at the station. That is the information that riders want."

"The encouraging feedback we've already gotten from our customers who take the Newark-WTC line tells us we're definitely on the right track," said Port Authority Chairman Kevin O'Toole. "Our PATH and tech teams have worked diligently to make this new amenity available as soon as possible."

Countdown clocks are expected to be activated at the Hoboken and Newport stations, the fare zone at 33rd Street and the downtown /outbound platforms at the 14th and 23rd Street stations by the end of January.

Christopher Street, 9th Street and the uptown/inbound platforms at 14th and 23rd Street stations are scheduled for countdown clock activation by the end of February.

"We believe that by providing next-train information through their mobile devices, we're giving our customers essential information to help them plan and complete their ride on PATH," said Port Authority Chief Technology Officer Robert Galvin.

The addition of countdown clocks is part of an expanding digital commitment to PATH and its customers. Recently, AT&T, T-Mobile and Verizon customers became able to make calls and access the Internet from underground PATH stations. Sprint service is expected to begin for its customers in the coming weeks.

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Press Releases – MyTerminal & Airport Websites

All Airports receive their own dedicated websites. Helping customers with TSA and taxi wait times at each airport.

MyTerminal is introduced to improve the bus terminal experience for all customers.

MyTerminal

MyTerminal, The Port Authority of NY & NJ's official bus terminal app, provides you with information about bus departures and terminal services at the Port Authority Bus Terminal.

With the **MyTerminal** app, users will be able to:

- Get scheduled departure time and gate location for all buses departing from the terminal. Users can search for departures by destination city.
- View directories showing the location of services available at the terminal, including ticketing, shops and restaurants, restrooms, ATMs, charging stations and more.
- Check real-time alerts about incidents impacting bus service at the terminal.
- **NEW FEATURE!** Now you can pin your favorite departure routes for easy searching!

MyTerminal is available for iOS and Android.

Click to enlarge images.

Press Release Article   PRINT

REAL-TIME TRACKING OF SECURITY AND TAXI WAIT TIMES NOW AVAILABLE ON THE WEB FOR ALL PORT AUTHORITY AIRPORTS

Date: Feb 04, 2019
Press Release Number: 17-2019

Current information is available on airport websites and terminal monitors for passengers traveling to JFK, LaGuardia, Newark Liberty and New York Stewart

Aids passengers in planning trips

Passengers at John F. Kennedy International (JFK), Newark Liberty International (EWR), LaGuardia (LGA), and New York Stewart International (SWF) airports can now access up-to-date Transportation Security Administration (TSA) and taxi wait times on the Port Authority's respective airport websites.

The real-time tracking information is part of the Port Authority's aggressive efforts to deliver an enhanced customer experience for passengers using its airports. TSA wait times at LaGuardia's Terminals C and D went live on the LGA website this month, becoming the latest terminals to be activated. Wait time information also is available inside terminals.

Launched in phases beginning in late November, the tracking system allowed passengers in most airport terminals the opportunity to remotely check on TSA checkpoint wait times during the recent government shutdown. All 14 terminals across the agency's four airports now have the capability, with the lone exception of United Airline's Terminal C at Newark Liberty. United hopes to have its system go live later this year.

The Port Authority, in coordination with the TSA and other agency partners, has installed BlipTrack, a real-time measurement tool to track and display wait times at TSA checkpoint screening areas and taxi stands. The goal is two-fold: first, to provide this information so that travelers know what to expect and to enable them to plan their travels better and on a more informed basis; second to enable the airports to develop strategies and to target resources to reduce wait times.

"We are focused on enhancing the customer experience at our airports by providing this critical information," said Port Authority Chairman Kevin O'Toole. "The installation of BlipTrack allows us to provide customers with the real-time information they need to plan their travels. Even more importantly, it provides us data to focus on how to reduce wait times going forward."

"In today's increasingly interconnected world, the passenger's journey begins before they leave for the airport," said Port Authority Executive Director Rick Cotton. "With this real-time data posted on each of the airport's websites, wait times are now readily available to help reduce passenger stress and enable travelers to plan based on the wait times they will encounter. At the same time, as we saw during the recent government shutdown, the information makes it easier for airport staff to monitor checkpoint wait times and call for additional resources to congested areas."

With respect to taxi lines, the technology helps travelers make informed decisions regarding ground transportation, and also enables the airport to identify taxi shortages and bottlenecks, thereby enabling airport staff to request additional taxis when needed.

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Achievements

PA Technology Is Industry Leader
The Port Authority has been recognized by IDG's CIO, the executive-level IT media brand providing insight into business technology leadership. CIO has selected the PA as one of its 2019 CIO 100 award winners for "Digital Customer Experience."

The award honors the agency for its successful rollout of several technological upgrades over the past few years to elevate the customer experience, including the launch of four mobile-friendly airport websites (JFK, EWR, LGA, and SWF) and three smartphone apps (RidePATH, CrossingTime, and MyTerminal).

The CIO 100 program is highly competitive, with more than 400 applicants evaluated by an external panel of judges.

Pictured are members of the Technology Department, which spearheaded development of the apps and websites (from left): **Geoffrey Walano**, **Keith Armonaitis**, Chief Technology Officer **Rob Galvin**, **Rebeka Agolli**, and **Amit Parikh**. Other members not pictured: **Bradley Wilson** and **Jennifer Masserano**.

THE PORT AUTHORITY OF NY & NJ

Press Releases – Cell Service & Wi-Fi

All major cellphone providers now provide coverage across all PATH stations & platforms.

Press Release Article   PRINT

SPRINT JOINS OTHER MAJOR CELLPHONE PROVIDERS IN OFFERING IN-STATION CELLULAR SERVICE TO PATH CUSTOMERS

Date: Feb 25, 2019
Press Release Number: 28-2019

PATH riders with Sprint cellular service now have cell coverage in all PATH stations in New York and New Jersey. The service became available over the weekend, and Sprint joins Verizon, AT&T and T-Mobile in providing expanded service across all PATH stations and on platforms. Cell service from the other providers started in December 2018.

The addition of Sprint access completes the Port Authority's effort to install cellular connections in all PATH underground stations for more than 270,000 riders using the system each workday, and an additional 150,000 who ride PATH on weekends. Connectivity is available on platforms and throughout stations, but not while passengers are on trains in tunnels between stations.

Expanded cellphone service is part of new Port Authority customer service initiatives and improvements that include countdown clocks at all PATH stations and the RidePATH mobile app that enables riders to access next-train schedule information on their smartphones (download).

"We continue to work toward a better customer experience for PATH riders at all of our stations and facilities," said Port Authority Board Chairman Kevin O'Toole. "Adding Sprint service is another big step forward in helping us meet that goal."

"Improving customer service to the traveling public is a priority of the Port Authority," said Executive Director Rick Cotton. "Access to cell coverage in underground PATH stations is an important expectation of our customers."

Contact:
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Press Release Article   PRINT

UNLIMITED FREE HIGH-SPEED WI-FI FOR PASSENGERS NOW AVAILABLE AT EWR, JFK, LGA & SWF

Date: Oct 24, 2018
Press Release Number: 164-2018

High-speed Wi-Fi allows passengers to easily stream, download and browse internet throughout airports during unlimited free sessions

Part of agency's commitment to best-in-class customer service offers seamless, high-speed experience at all Port Authority airports at time of record passenger volumes

In a major improvement from past practice, Port Authority airports will now provide passengers with free, unlimited access to high-speed Wi-Fi. The airports newly providing access to free high speed Wi-Fi are John F. Kennedy International (JFK), Newark Liberty International (EWR), LaGuardia (LGA) and New York Stewart International (SWF) airports – part of the Port Authority's ongoing and renewed commitment to improved customer service and amenities for air travelers at a time when the airports continue to experience record passenger volumes.

The new high-speed Wi-Fi service offers faster speeds – a minimum of 20 megabits per second (Mbps) and up to 50 Mbps – and now available with easy two-click access. Passengers will be able to enjoy unlimited four-hour sessions of free high-speed Wi-Fi access.

"The Port Authority has a goal to develop world-class airports and operate them at the highest level of service and quality," said Port Authority Chairman Kevin O'Toole. "With trending passenger growth across our airports, connecting to a free Wi-Fi network is not just an enhancement in customer service, but also an improvement in efficiency for our business and leisure travelers."

"While the unprecedented rebuilding of our region's airports is a multi-year effort, passengers shouldn't have to wait for better Wi-Fi," said Port Authority Executive Director Rick Cotton. "Simply put, free, reliable, high-speed Wi-Fi has become a bedrock expectation for today's customers. This step represents one of many that will seek to lift NY & NJ airports from the bottom rung of customer experience surveys up the curve toward greatly improved levels of customer service."

"Whether you're looking to stream Netflix, conduct an important video conference call, or simply download a large file before you board your flight, our testing consistently showed speeds that will comfortably allow for that," said Robert Galvin, the Port Authority's Chief Technology Officer.

"As we enter the peak holiday travel season, in which we anticipate 7.5 million passengers to pass through our airports, it's imperative that they have easy access to fast, high-speed Wi-Fi that will elevate their airport experience," said Port Authority Aviation Director Huntley Lawrence.

"With New York City's metropolitan airports serving as gateways to the world, offering enhanced Wi-Fi for travelers is another indispensable amenity that the Port Authority is offering its customers, making for a more productive and memorable visit," said Fred Dixon, President and CEO of NYC & Company. "We applaud the agency for this and other upgrades to customer amenities."

Free Wi-Fi becomes available at all of our airports in efforts to provide the best-in-class customer service at our facilities.

Passengers will see signage at the airports, throughout the terminals and in the parking garages, describing an easy two-step process to access the airport's Wi-Fi quickly and seamlessly. Customers select the wireless network at their respective airport, such as "_Free LGA Wi-Fi," and then hit "Select Free Unlimited Wi-Fi." A short ad may play before the four-hour browsing session begins.

Port Authority customer surveys have continually put free high-speed Wi-Fi high on the lists of what passengers seek in terms of improved airport amenities, and it comes at a time of record-setting passenger numbers. In the first six months of 2018, more than 66.5 million flyers passed through Port Authority airports, the highest six-month period on record and a 4.3 percent increase over the same period in 2017.

The Wi-Fi rollout is one of several updated customer service amenities the agency is bringing to travelers at each of its airports. The agency recently launched mobile-friendly websites to provide easier access to information such as taxi wait times, enhanced lost-and-found access with improved technology on airport websites and coordination between airport partners, and has made a number of onsite improvements, including upgraded restroom facilities and real-time monitoring of bathroom conditions via a Feedback Now customer push-button. Additionally, the airports are offering an array of new dining options, as well as technology that allows customers to order food directly from the gate.

Providing world-class customer service amenities is a vital part of the ongoing Port Authority effort to modernize each of its airports and transform them into true 21st century regional gateways. The $8 billion wholesale redevelopment of LaGuardia Airport will see its first new gates open by the end of the year, Newark Liberty recently broke ground on a $2.7 billion construction of a new Terminal One that will replace the severely outdated Terminal A, and earlier this month the $13 billion plan to transform JFK was unveiled featuring two major new international terminals that will anchor the south and north ends of the airport.

Customer support is available for the Wi-Fi access 24/7 at 1-800-880-4117 or online by visiting FreeLGAwifi.com, FreeJFKwifi.com, FreeEWRwifi.com or FreeSWFwifi.com.

Contact:
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From Dysfunction to Functional Business Partner

- August, 2017 – New Executive Director, Rick Cotton

- Customer Experience Focus:
  - Key Emphasis
  - Pay attention to everything
  - Address Rising Expectations of Travelers

- October, 2017 Board Meeting
  - Announced Apps & Mobile Websites for all facilities in 90 days

90 Day Challenge

1. Eliminate 'Can't' from your vocabulary
2. Daily Meetings
3. Work Directly with Business on Exposing Actionable Info to Public

Results:

- Deliverables in 90 days
- Product Roadmaps for 12-18 mos.

What Did We Deliver?

Aviation Mobile-Responsive Websites:

- Taxi Wait Time (had)
- Security Wait Time (manual until automated system)
- Parking Lot Availability + on-line reservation

RidePATH:

- Schedule (had)
- Trip Planner (built)
- Beacon Warnings before entering Fare Zone (built)
- Alerts (had)
- Ability to work offline
- System Map

What Did We Deliver?

MyTerminal:

- Route & Gate Departures (had)
- Alerts (had)
- Directory with Isometric maps (built)

CrossingTime:

- Times & Speeds (had)
- Planned Work & Lane Closings (had)
- Truck Restrictions (had)
- Custom Notifications (built)

Second-Order Effects

Overall:

- RealTime IoT infrastructure
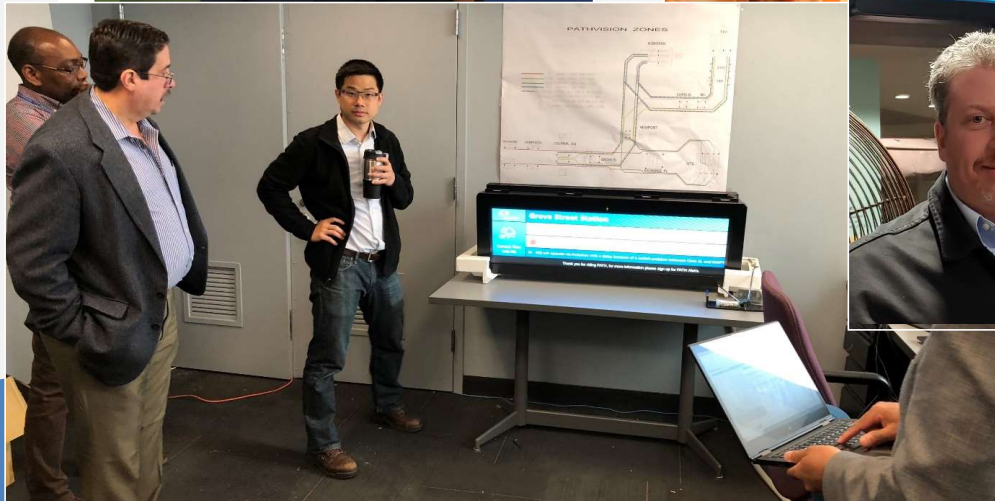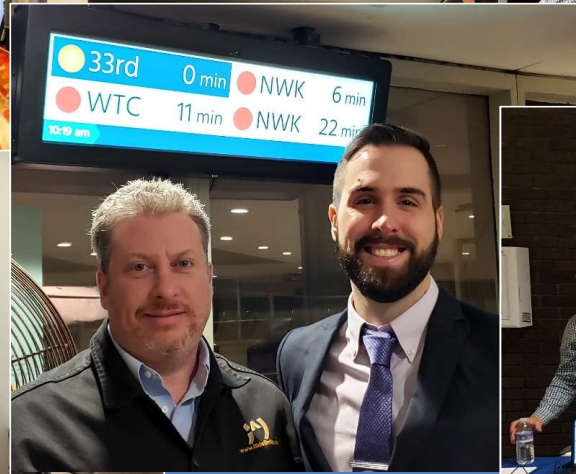- Measurably Improved Customer Satisfaction

Aviation:

- Security Wait Times
- CBP Wait Times

PATH:

- Cell Signals in all PATH Stations
- Real Time next train arrival information

The Team

33rd 0 min NWK 6 min
WTC 11 min NWK 22 min

COMMUTER CHAT

PABT

THE PORT AUTHORITY OF NY & NJ

Digital Customer Experience Program - Results

Mobile App	Downloads	Ratings
RidePATH	151 k	3.0
MyTerminal	66 k	2.0
CrossingTime	11.2 k	4.5

Responsive Website	Number of Unique Visitors	
	Past Day	Past 28 Days
JFK	15 k	317 k
Newark	14 k	275 k
LaGuardia	11 k	200 k
Stewart	1.3 k	32 k