Your Ticket to Smarter Service

Transforming Transit with GIS

Improving Access to Your Community Using GIS

One of the central challenges transit agencies face is providing safe, reliable, and effective mobility for residents in our unique communities. We at Esri recognize there is no one size fits all technology or solution; however, Esri® geographic information system (GIS) technology is nimble and can be the cornerstone of your organization.

You can use GIS in these areas:

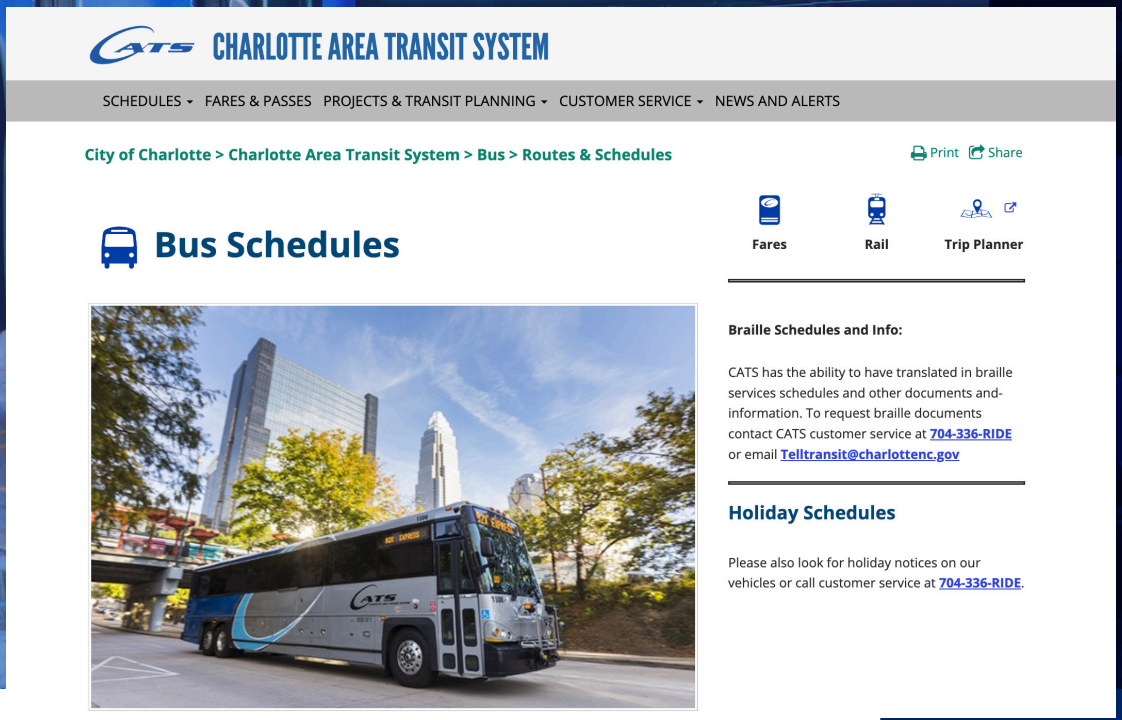
- Planning and optimization
- Equitable transit systems
- Performance monitoring
- Asset management
- Safety and security
- Operations
- Community engagement

It All Begins in Planning

Effective service planning is both an art and a science. It all begins with a thorough understanding of your community demographics, existing travel patterns and modes, accessibility issues, home and work locations, and other factors. Esri has access to some of the richest data plus powerful analytical tools for designing effective service to reflect community goals and values.

USER STORY

Centralina Regional Council and Charlotte Area Transit System



Centralina Regional Council, together with the Charlotte Area Transit System (CATS), created the CONNECT Beyond Regional Mobility Plan, designed to help address the comprehensive mobility issues of a rapidly growing but diverse region. CONNECT Beyond's project area includes 12 counties and spans across North Carolina and South Carolina. A principal aim of the plan is to help incorporate equity information into the planning and funding of transportation-related projects.

Learn more:
go.esri.com/centralina-case-study

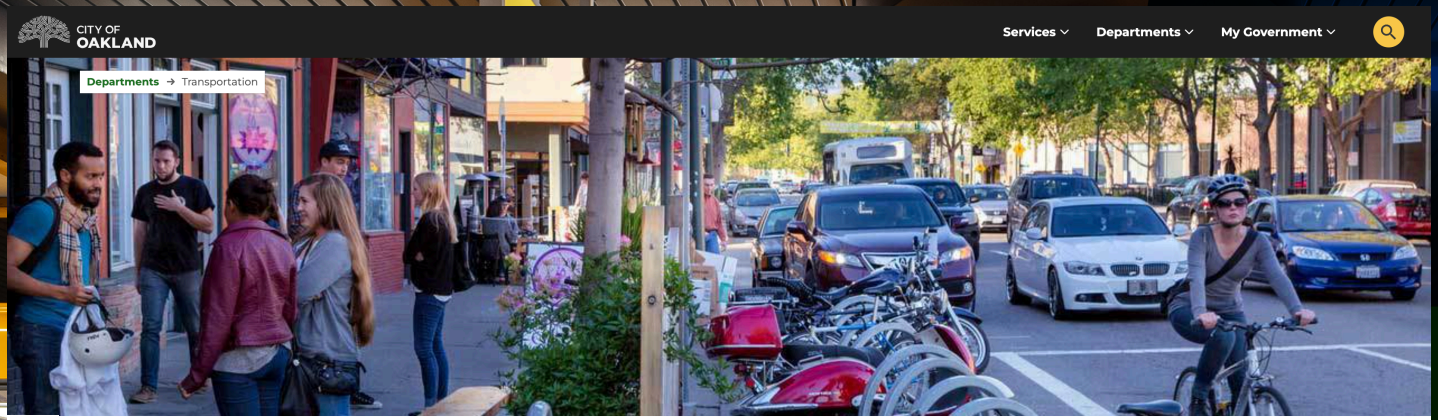
Rebuilding with Equity

Equitable and safe access to transit is a right. Esri solutions can not just help you go beyond identifying injustices but also give you the tools and a location-based foundation to address and rebuild with equitable outcomes in mind. With ArcGIS® software, you'll have access to a variety of rich datasets, mapping tools, and powerful technology that can process large amounts of data to perform spatial analysis. You can identify patterns of inequalities and then present opportunities for intervention.

Governments are applying a geographic lens to disparities in their jurisdictions such as access to mobility, economic opportunity, health equity, environmental justice, and education. A geographic approach has the ability to help transit professionals improve communication, allocate resources, and rethink public policy.

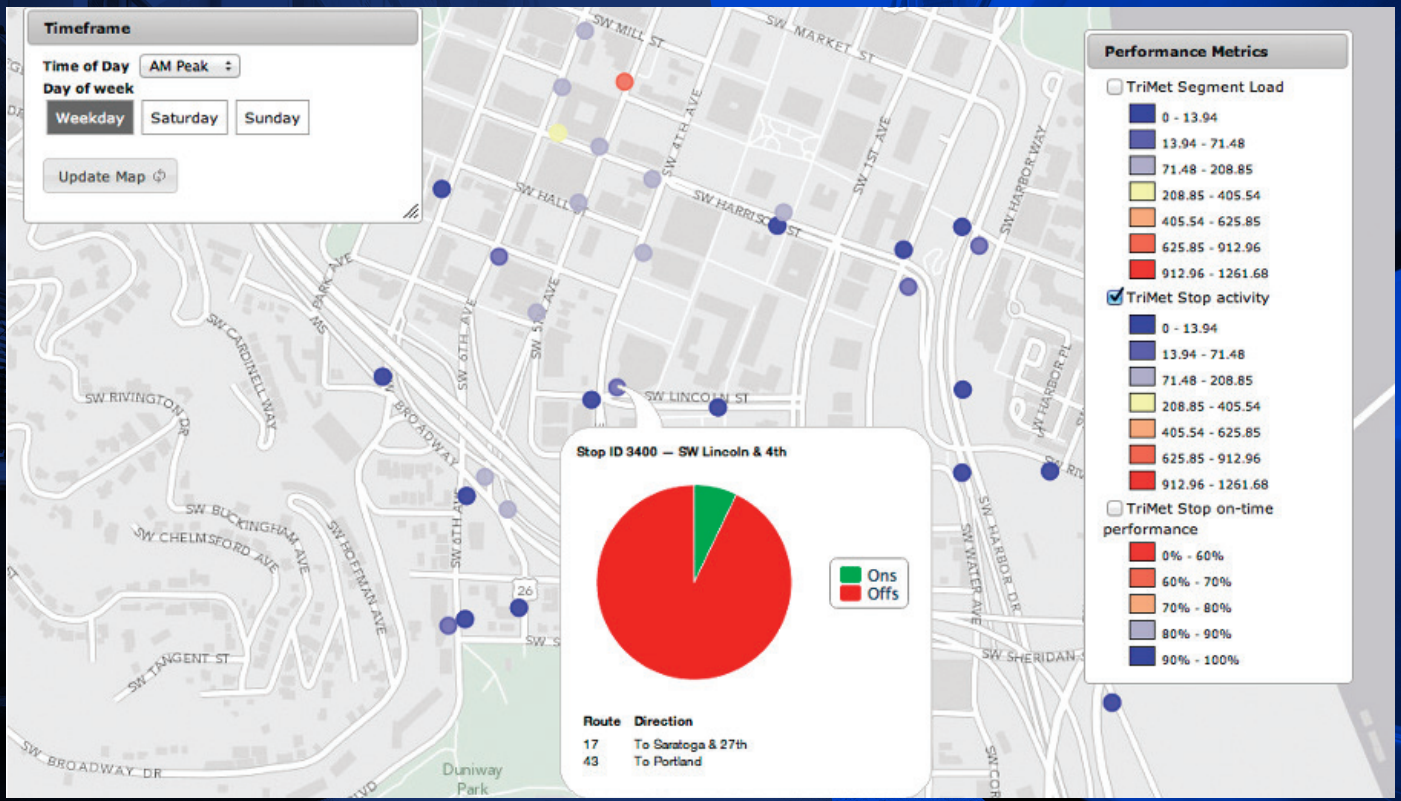
USER STORY

The City of Oakland Uses Location Intelligence to Surface, Report, and Act On Inequities



The City of Oakland and the Oakland Department of Transportation (OakDOT) collaborated to develop an equity-focused paving plan using GIS to determine which streets would get paved and when. Smart maps helped gain the support of residents by showing the condition of their roads and the number of residents the roads served versus some of the higher-priority areas with roads in far worse condition that served 10 to 20 times as many people. Residents throughout the city were able to see the evidence for decision-making in a compelling way.

Learn more:
go.esri.com/oakdot-case-study



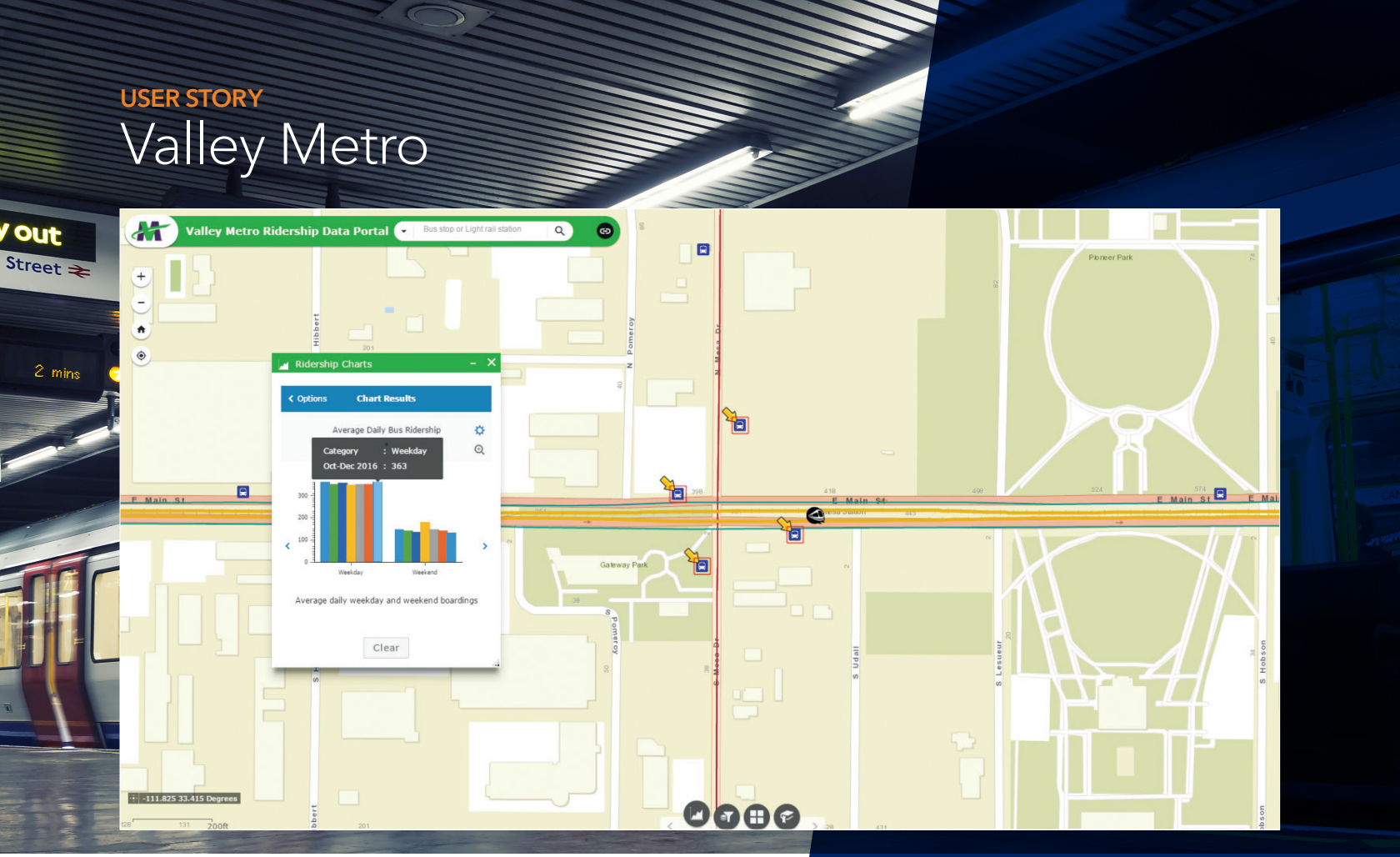
Monitoring Performance

The most dynamic public transport agencies are those focused on customer service. You'll find that they share a commitment to a process of continual improvement.

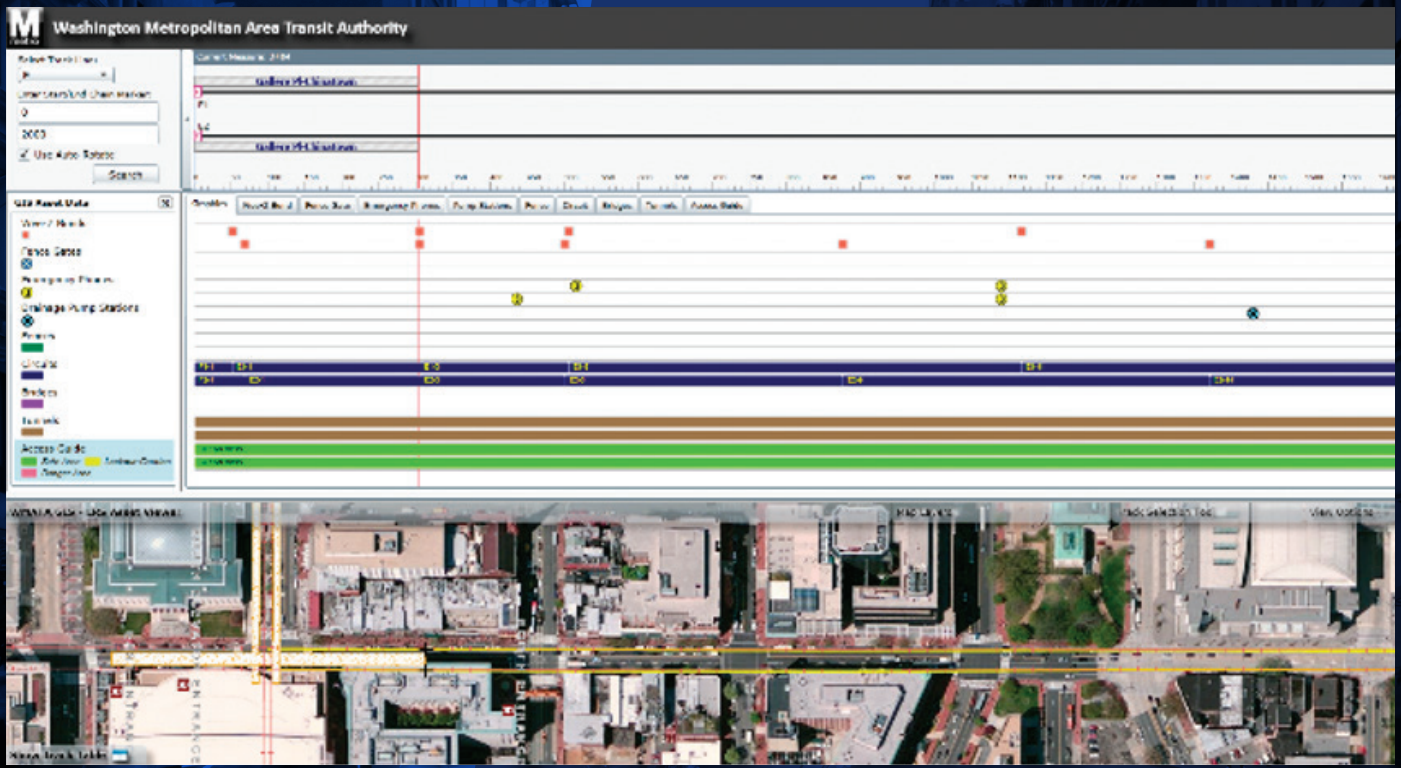
Esri can provide the tools you need to work toward excellence. You'll have the ability to visualize almost every metric by which you judge your performance.

USER STORY

Valley Metro



Valley Metro empowers all its employees with access to the data and information they need to efficiently perform their daily tasks. By organizing the agency's data and easy-to-use maps in a central location, Valley Metro delivers powerful insights to its employees, driving better performance and improved customer service.



Maintaining a State of Good Repair

GIS provides the technology to accurately collect and organize your asset information and integrates with leading asset management solutions to help you effectively utilize your assets.

With Esri's mobile technology, the information collected in the field is seamlessly integrated into your corporate databases, giving you greater confidence in the accuracy and currency of your data.

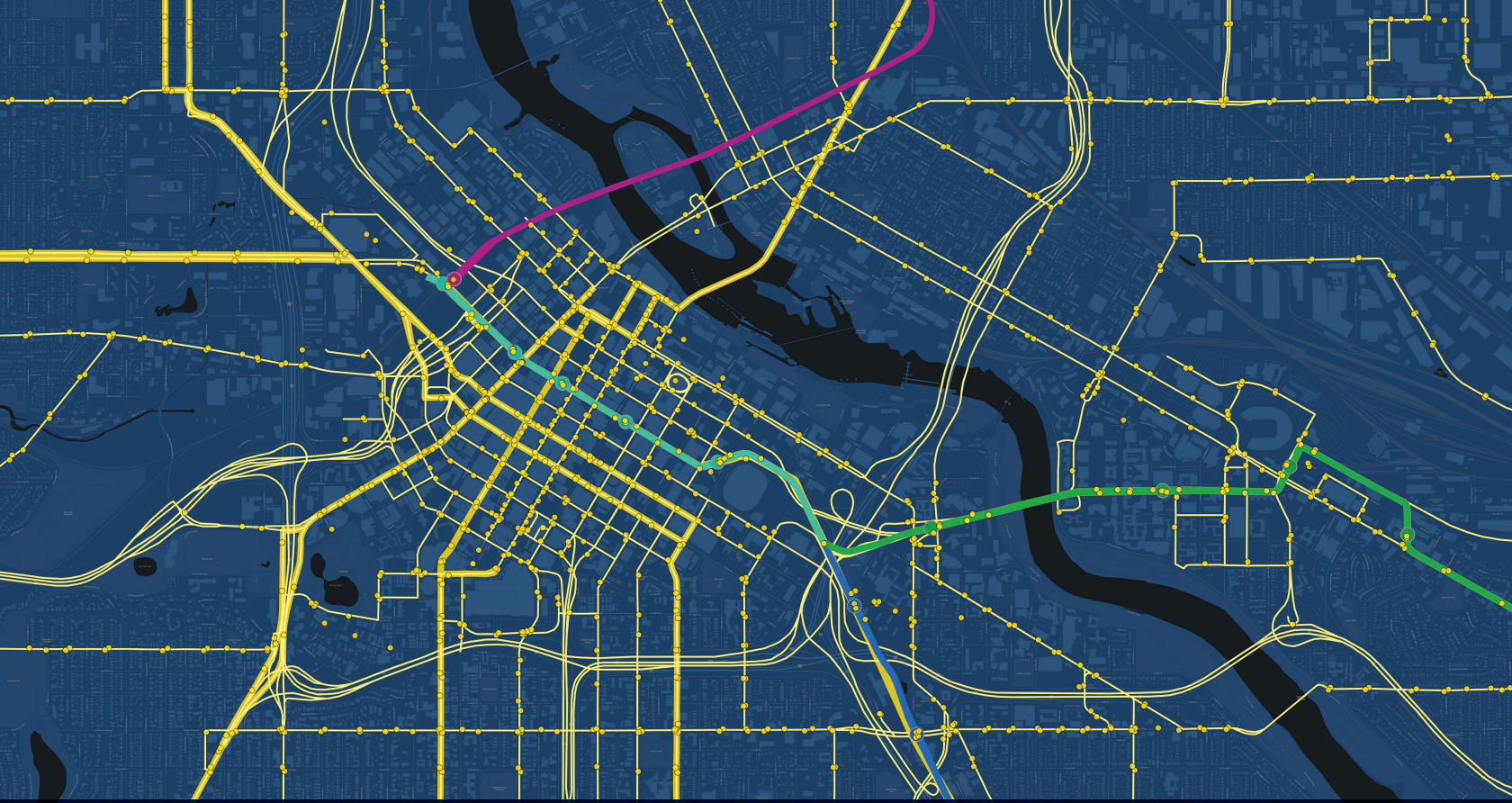
USER STORY

New York Metropolitan Transportation Authority

The New York Metropolitan Transportation Authority (MTA) had been working for years toward better asset management. Being one of the world's largest subway systems, it's no small feat to understand where every asset is located, let alone keep each one in working order to ensure that millions of hard-to-please New Yorkers can crisscross the city every day.

"To maintain the subway system in a 24/7 fashion, we have to employ smart technology. Geospatial technology—GIS—is critical to that."

Sean Fitzpatrick
Director of Enterprise Asset Management, NY MTA



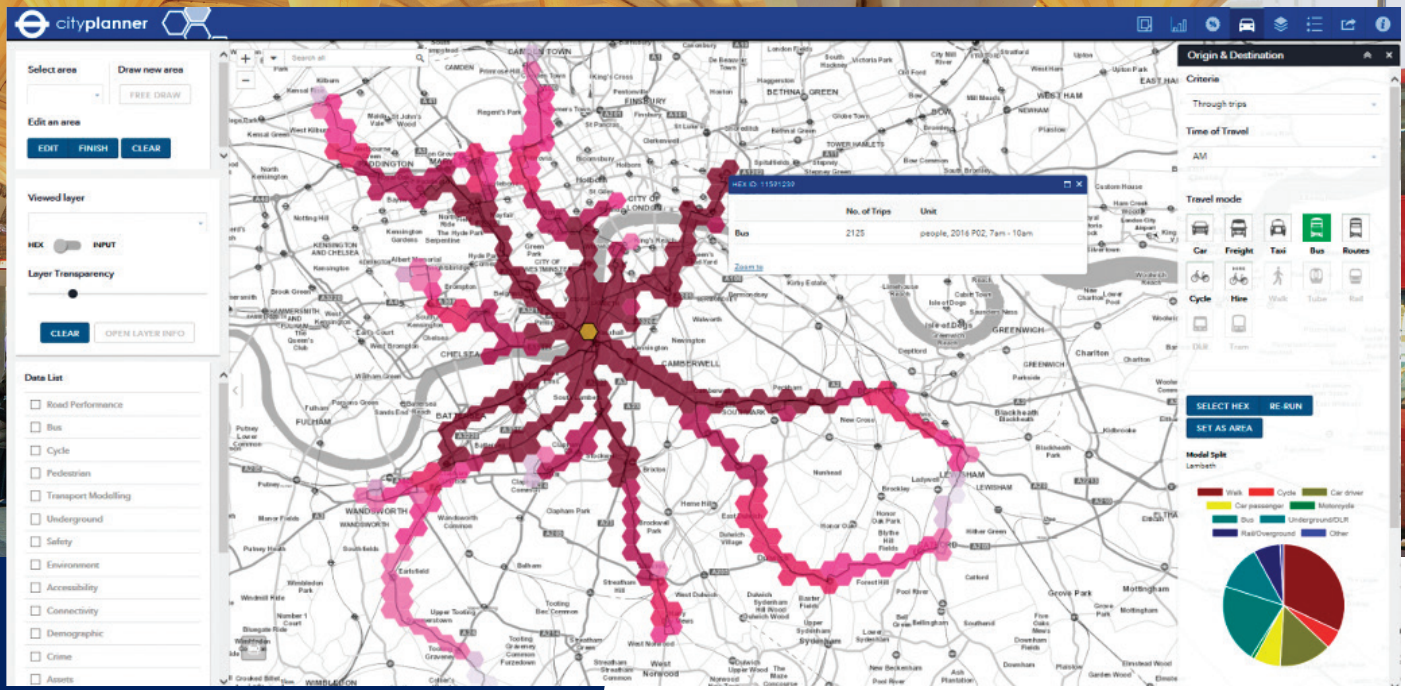
Leveraging Data for Better Mobility

This is where GIS technology and location intelligence can help you bring your data together, analyze patterns, help you better understand your customers, and evaluate your current performance.

You can unlock your riders' travel patterns and design more appropriate services to better meet their expectations. GIS can help you leverage data and perform analysis to solve your most pressing mobility challenges.

USER STORY

Transport for London



In his *Mayor's Transport Strategy*, the mayor of London called for 80 percent of all trips to be made by foot, bicycle, or public transit by 2041.

Transport for London turned to ArcGIS to analyze the data for the city and devise the strategies to meet this goal.

> *"ArcGIS has enabled us to create an invaluable new support tool that will help us make the right decisions sooner and accelerate the delivery of schemes to create Healthy Streets for Londoners."*

Henry Cresser
Principal Strategy Planner, Transport for London

The Power of GIS

ArcGIS provides the tools to manage your assets in real time, allowing you to make adjustments to maintain schedules, respond to unforeseen events, and share information with others. GIS brings the spatial dimension to your real-time information, giving you a comprehensive common operational picture to help you track vehicles, assets, and events and deliver actionable intelligence.

USER STORY

New York Metropolitan Transportation Authority

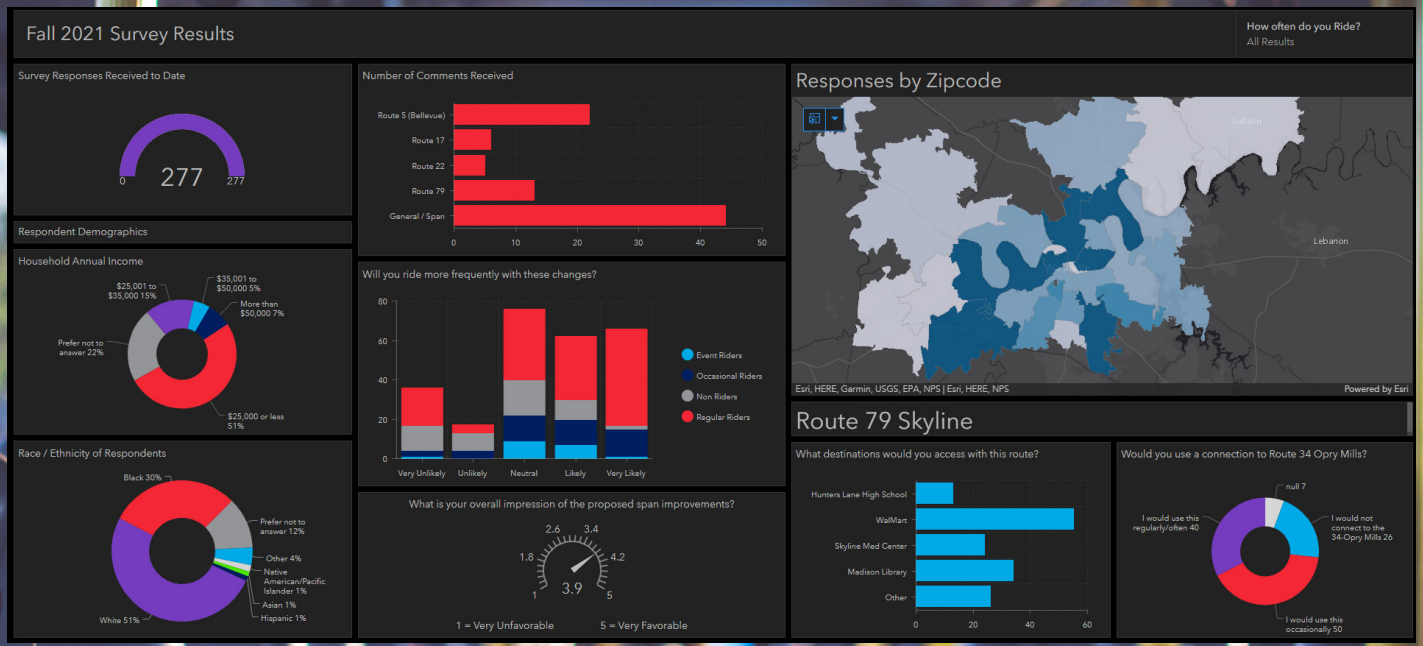
New York MTA is able to track all its trains and buses in real time, ensuring schedule adherence and identifying bottlenecks, delays, or other events impacting schedules.

"We are able to see train movements in real time, together with train consist along with crew information."

Sean Fitzpatrick
Director of Enterprise Asset Management
NY MTA

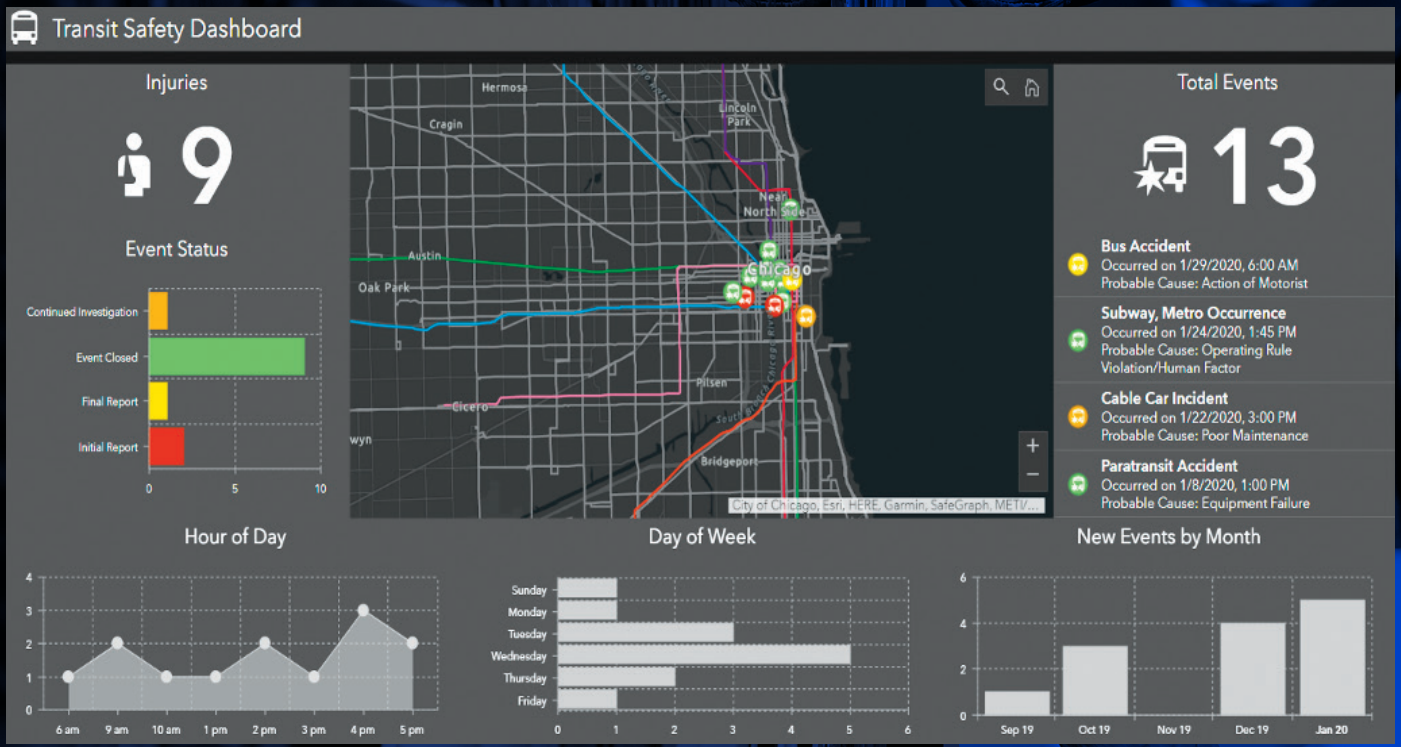
Accessing Customer Information Systems

Journey information is critical to keep your riders' trips accurate. You can make access to transit easy and convenient with the right technology. Whether through journey planners or customer-focused information portals, Esri's geographic technology allows you to create live web maps of your routes and stops (including schedules), giving your customers the most accurate and accessible information to guide their transit journey. Because your data is connected to GIS, it can be continuously updated to ensure that your customers receive the latest and most accurate information.



Nashville WeGo Reimagines Transit through a Geographic Approach

WeGo Public Transit has combined GIS-supported online surveys and dashboards to gain a profound understanding of how best to shape the future of public transit services.



Ensuring Safety and Security

With the heightened use of public transit, providing a safe and secure system is critical to continued success. GIS delivers a comprehensive real-time view of your transit security operations, whether in the station or on the bus, to help you gain situational awareness. ArcGIS gives you mobile tools to capture data in the field and analyze this data in the office to understand patterns and improve safety.

USER STORY

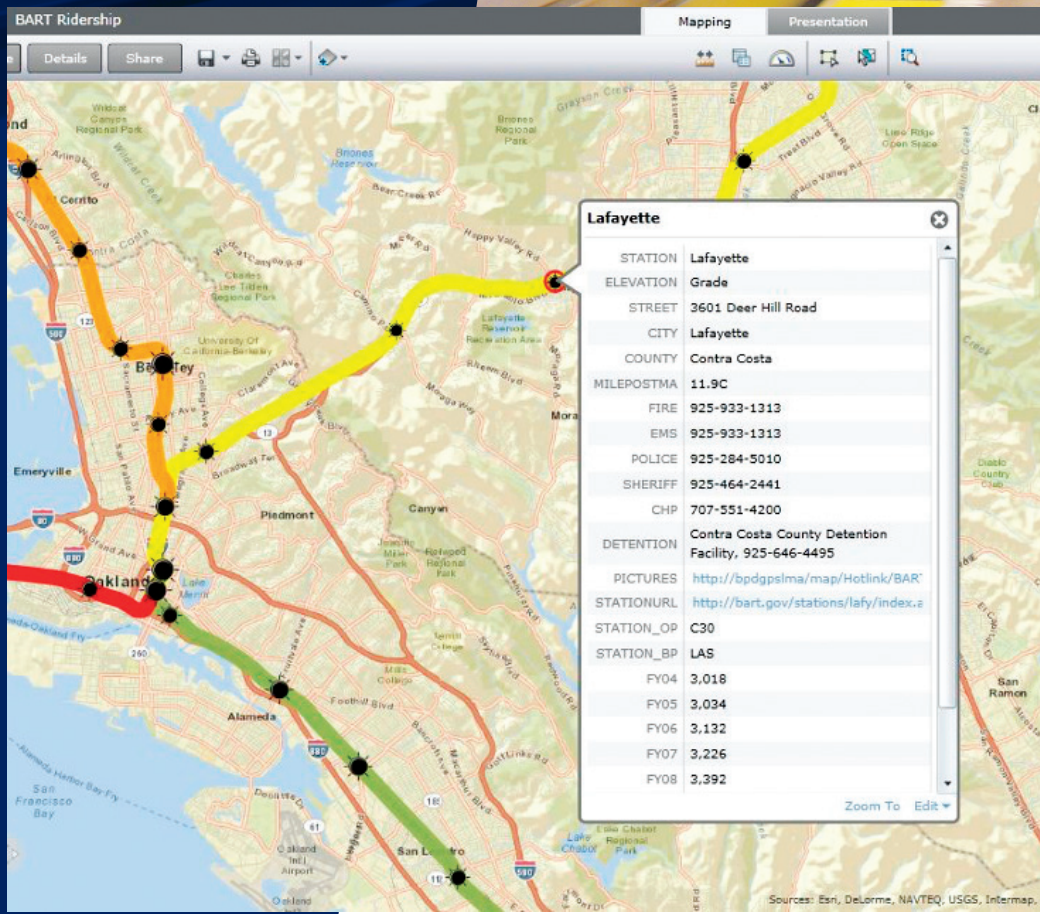
Bay Area Rapid Transit

"We really need hard-core concrete data in this day and age in order to make decisions, and that requires new technology. GIS is what brought that to the table."

Travis Engstrom
Manager of Information Systems, BART

"I could not do my job without [ArcGIS] Enterprise GIS."

Abigail Thorne-Lyman
Principal Planner, BART



Your Ticket to Smarter Service: Transforming Public Transit

When Esri was founded in 1969, we realized even then that GIS technology could make a difference in society. Working with others who shared this passion, we were and are encouraged by the vast possibilities of GIS. Today our confidence in GIS is built on the belief that geography matters—it connects our many cultures and societies and influences our way of life. GIS leverages geographic insight to ensure better communication and collaboration. We hope you will be inspired to use GIS for your transit to create a better world.

Contact the Esri transit account team to discuss the best solution for you. Email transportation@esri.com.

For additional resources, visit go.esri.com/esri-transit-2022, and submit your contact information.

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