The Next Operating System (OS) is the “brain” of the entire transportation system. It is a digital platform that uses technology and data to connect and manage different modes of transportation—passenger vehicles, buses, ridesharing vehicles, delivery trucks, autonomous vehicles, bikes, scooters, and more—to improve overall efficiency and accessibility for people and goods to move throughout the region.

The Next OS will modernize the existing transportation system by using technology to better manage supply and demand. The result will be roadways and transit services that operate more smoothly and serve people better.

**Features**

The Next OS makes the transportation system smarter allowing it to adapt and respond to changing conditions throughout the day. For example, travel lanes on Complete Corridors can be dedicated to different uses or modes at different times of day, depending on traffic levels. Transit services can become more responsive to user demand, such as Uber and Lyft are today. Different quantities and sizes of transit vehicles can be deployed as needed to serve specific areas. Next OS also provides people with timely and accurate information about travel choices, so that people can make more informed decisions on the best modes or routes to use.

Next OS features benefit three primary groups of users:

- **Residents & Businesses:** Next OS creates a seamless transportation experience for residents by making travel by any mode more reliable and predictable, and by providing an integrated application to browse, book, and pay for any mobility service.

- **Transportation Operators & Service Providers:** Next OS supports transportation operators such as public transit agencies, and dynamically manages their services and equipment through dashboards and tools that use advanced analytics and real-time data.

- **Planners & Policymakers:** Next OS helps planners and policymakers make informed decisions with data that provide a clear perspective on how the transportation system is functioning, and what improvements might be needed and where.

**WHERE DOES NEXT OS WORK BEST?**

As the capstone of the 5 Big Moves, the Next OS works best when applied systemwide to operate and coordinate Complete Corridors, Transit Leap, Mobility Hubs, and Flexible Fleets. The Next OS allows the transportation system to adapt to changing conditions in real time, thereby creating the best travel experience regardless of the transportation mode.
Anticipated Benefits

The value of Next OS is defined by its ability to synchronize the 5 Big Moves and create an integrated platform to serve the needs of users that span government, operators, residents, and businesses. The benefits of Next OS are categorized into themes of improved or increased visibility, optimization, collaboration, equity, cost reduction, and customer experience:

- **Customer experience**
  Travelers benefit from real-time information, as well as the ability to seamlessly plan, book, pay for, and receive rewards for trips across multiple public and private modes of transportation.

- **Visibility**
  Enhanced data management and analytics allow for more informed and responsive planning and decision making about public infrastructure investments.

- **Optimization**
  Advanced analytics, combined with user incentives and engagement, balance supply and demand across modes and services.

- **Collaboration**
  Streamlined collaboration and operations across agencies and mobility service providers (public and private) make operations more efficient and provide a smooth transportation experience for people and goods.

- **Equity**
  Through partnerships, Next OS can help improve equitable access to a wide range of transportation services throughout the region.

- **Cost reduction**
  Centralizing operations leads to reduced costs, as well as the ability to roll out services faster and easier across agencies. Better access to a wide range of public and private transportation services also can reduce transportation costs for users.

SUCCESS STORIES

- In Finland, the City of Helsinki implemented the world's first integrated app for commuters to access trip choices and pay for their trips. Since implementation in 2016, Helsinki’s public transportation agency has provided 375 million trips through the Whim app.

- As part of the U.S. Department of Transportation’s Smart City initiative, the City of Denver launched its SMARTCITY program that integrates data across several county and local city departments and services to better connect consumers with public services, bridging people with services, goods, travel choices, and information through technology.