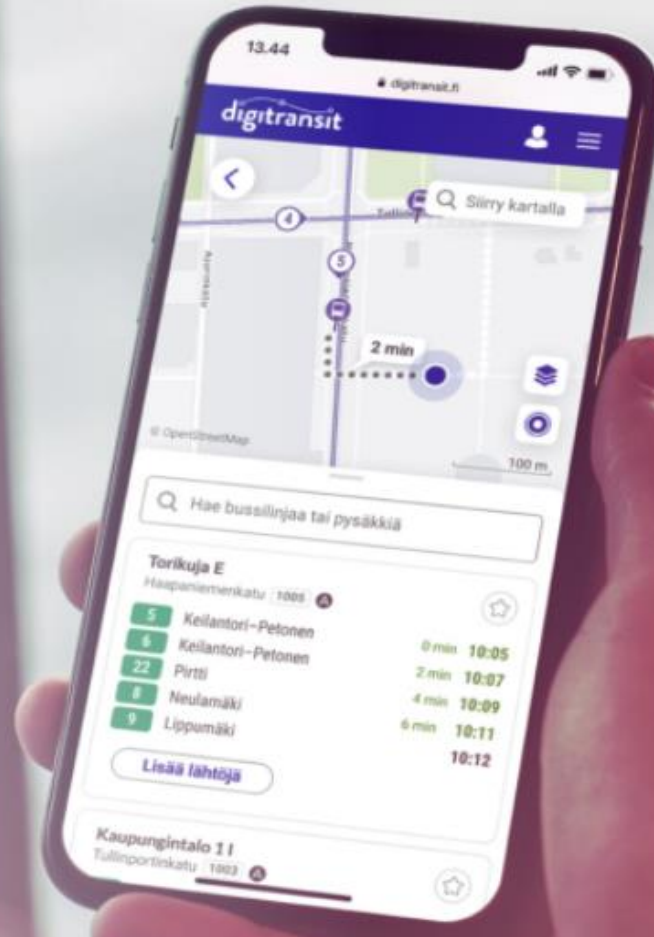


Digitransit

Open source platform for public transit services



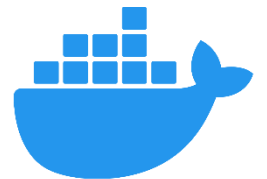
Architecture

- Consists of about 40 microservices running on Azure
- Kubernetes
- Docker containers
- Provides all components required for implementing a modern public transit routing service

<https://www.digitransit.fi/en/developers/architecture/>



kubernetes



docker

Open source

- <https://github.com/hsldevcom> repositories
- International co-operation with upstream sources and downstream forks. Contributions from individual developers are accepted, too.
- Languages: mostly javascript, some java, python and go components
- CI based on github actions
- Examples:
 - <https://github.com/HSLdevcom/digitransit-ui>
 - <https://github.com/HSLdevcom/OpenTripPlanner>
 - <https://github.com/HSLdevcom/pelias-api>

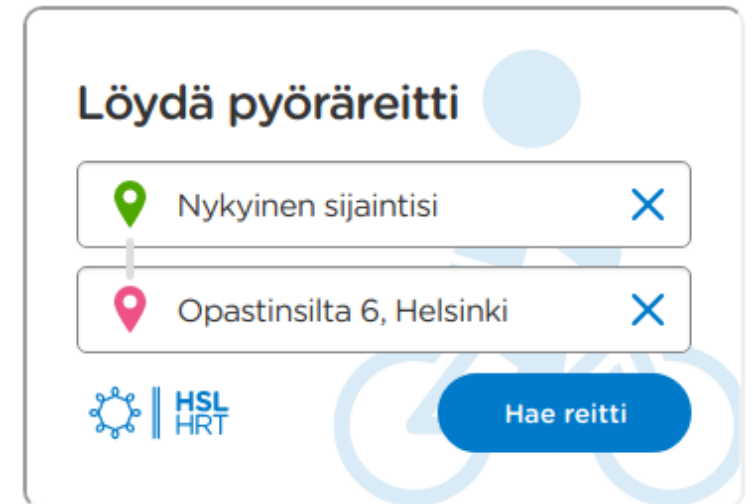


Open APIs

- OpenTripPlanner routing API delivers public transit data and computes multi-modal itineraries (graphql interface)
- Geocoding API for finding coordinates of place names and addresses, and for finding the nearest location to a given coordinate (reverse geocoding). Traditional REST api.
- Map API for raster and vector maps (REST)
- Currently fully open and unlimited services. New API management layer for restricting the access will be deployed in the near future.
- Developer documentation: digitransit.fi

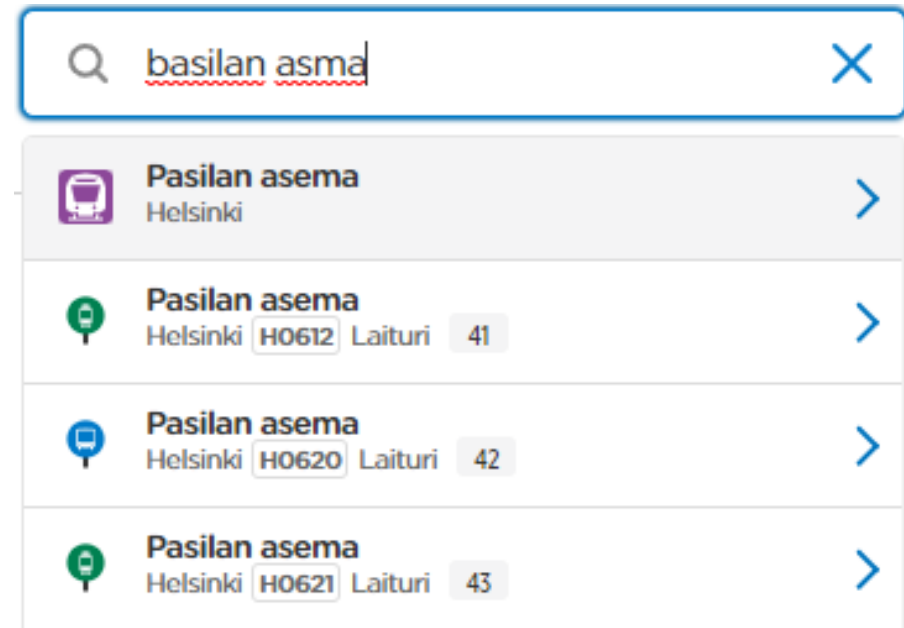
Other possibilities

- Some functionality (such as UI elements for search and query tools) is distributed as encapsulated libraries
 - Javascript, npm
 - React components
- A dedicated search view will be available for embedding into other web pages. This provides an easy way to integrate routing services.
 - Easy to use configuration view
 - Search view which can be placed into an iframe
- Stop monitor service



Recent developments

- Park and Ride
- Improved search component shows traffic modes and platforms
- Trunk route visualization
- Fuzzy address searches
- Embedded search form
- Stop monitor service
- Improved accessibility



Roadmap 2022

- OTP2 routing engine with a new GraphQL interface
- Seamless integration of new mobility options: GTFS Flex, GBFS
- National Park and Ride
- Utilization of real time capacity information

<https://www.digitransit.fi/roadmap>

