

## The Transportation Framework Implementation Team Mission:

To compile and maintain Oregon's GIS Transportation Network (OTN) as a seamless set of data that is uniform in content and consistent across jurisdictions.

## Purpose

The OTN provides a single source for transportation centerline data for use in Geographic Information Systems (GIS). The OTN will integrate with other Oregon Framework Layers to build a foundation which supports GIS analysis at many levels. The OTN will integrate with similar efforts underway in the State of Washington resulting in a Northwest transportation network.

## Background

The need for a single source of transportation data has long been apparent. Many Oregon government agencies have recognized the need for a GIS data set that utilizes the most recent local data to support various programs including emergency response, infrastructure maintenance, spatial analysis, mapping and traditional planning purposes. Over the past four years, government agencies have been coordinating an effort to develop a transportation layer designed to meet those needs. The OTN has grown to include many city, county, state, federal and regional governments. The OTN development has moved forward with significant funding from the Oregon Geographic Information Council, ODOT's Transportation Development Division and Transportation Safety Division, and from significant in-kind contributions from regional and local governments.

## Objectives

1. Develop and implement a database model for Oregon's Transportation Network where data adheres to accepted standards based on business and analytical needs.
2. Identify and engage data partners in the collection, development, maintenance and use of transportation data to meet business and analytical needs.
3. Design and implement a web-based interactive process to integrate data received from data partners. Provide safe access to statewide OTN data that is supported by FGDC compliant metadata.
4. Design and implement a long-term data maintenance plan for the OTN which supports the business and analytical needs of the project.

## Benefits

The OTN will provide partners with accurate, timely and well-documented geospatial data to support a wide variety of transportation network business and analysis needs including:

### 1. Emergency Management

- a. E-911 dispatch: assist in the dispatch of first responders by providing geographic location information for the emergency incidents.
- b. Emergency or disaster planning and communication: provide evacuation routes and key transportation infrastructure to develop models for decision support and analysis.

- c. Wildfire defense: analyze operational options and plan logistics for deployment of equipment and personnel.

### 2. Infrastructure Management

- a. Planning for the future transportation needs: develop alternative route analysis to help balance capacity across the network. Crash data across jurisdictions can be analyzed, delivering a true network analysis. The results can be visualized and deficiencies clearly communicated.
- b. Road design and construction: provide notification of projects, perform root-cause analysis of deficiencies with related roadways, bridges, trails, railroads, ferries, and freight data available or communicate project-related information to stakeholders and constituents more easily.
- c. Maintenance and operations: utilize OTN data for routing emergency response vehicles and routing traffic around a crash or spill. Other vehicles can also be dispatched and routed. ITS applications can be enhanced, particularly those that illustrate traffic congestion and problems over the Internet. (Currently those applications are only for state highways.) Tracking assets along a roadway is facilitated with this kind of data.
- d. State and Federal mileage and road jurisdiction reporting: extract certified mileage by jurisdiction.

### 3. Environmental Assessment and Management

- a. Analyze watersheds for impervious surfaces would be facilitated with roads, trails, and rails in a watershed.
- b. Evaluate other infrastructure in place for water including tracking storm water systems along roadways could be accomplished.
- c. Conduct Salmon enhancement planning involving ecosystem assessments of road and hydro relations would be facilitated.

## OTN Partners

Association of Oregon Counties  
Baker County  
Benton County  
Bonneville Power Administration  
Bureau of Land Management  
Central Oregon Community College  
City of Springfield  
Clackamas County  
Clatsop County  
Columbia County  
Coos County  
Crook County  
Curry County  
Deschutes County  
Douglas County  
Federal Highway Administration  
Gilliam County  
Grant County  
Harney County  
Hood River County  
Jackson County  
Jefferson County  
Josephine County  
Klamath County  
Lake County  
Lane Council of Governments  
Lane County  
Lincoln County  
Linn County  
Local 911 Call Centers  
Malheur County  
Marion County  
Metro  
Morrow County  
Multnomah County  
Oregon Department of Administrative Services-  
GEO  
Oregon Department of Forestry  
Oregon Department of Revenue  
Oregon Department of Transportation  
Oregon Emergency Management

Oregon Geographic Information Council  
Oregon Parks and Recreation  
Polk County  
Sherman County  
Tillamook County  
Umatilla County  
Union County  
University of Oregon  
US Census  
US Department of Forestry  
US Geologic Survey  
Wallowa County  
Wasco County  
Washington County  
Washington Department of Transportation  
Wheeler County  
Yamhill County

In cooperation with:



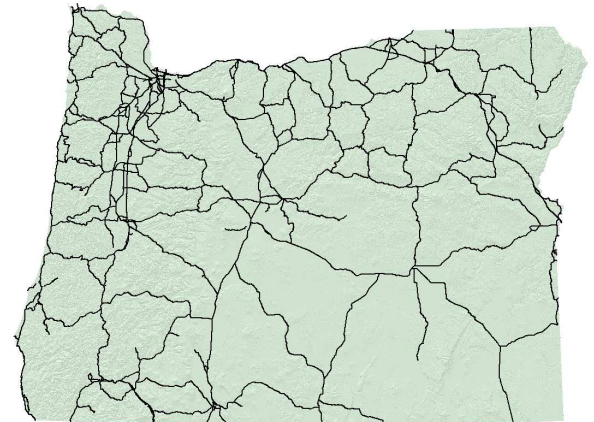
For information or questions on the OTN project,  
please contact:

Chad Brady  
OTN Project Manager  
555 13<sup>th</sup> St. NE, Suite 2  
Salem, OR 97301-4178  
Phone: (503) 986-3164  
Fax: (503) 986-4249  
E-mail: [chad.w.brady@odot.state.or.us](mailto:chad.w.brady@odot.state.or.us)

For online project status reports and maps  
please visit:

<http://egov.oregon.gov/ODOT/TD/TDATA/gis/TransFIT.shtml>

# Oregon Transportation Network for GIS



Building Road Authority  
Partnerships across the State