



SmarterRoads.org Transportation Cloud Data Portal

July 19, 2017

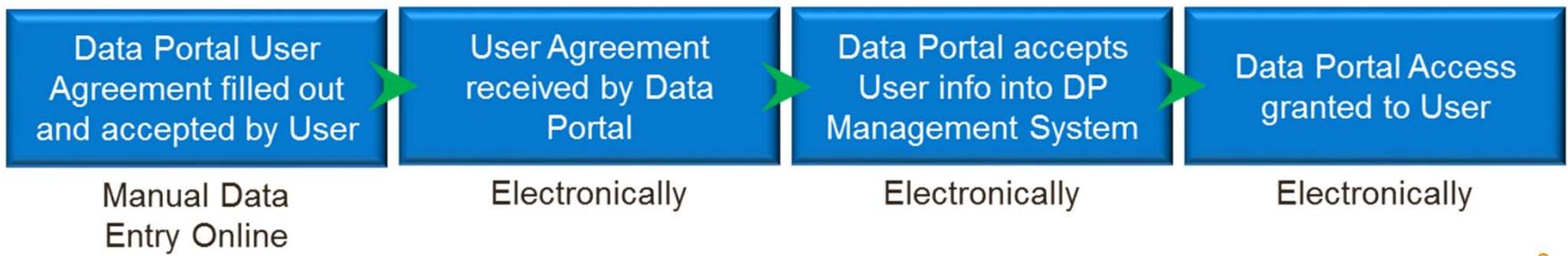
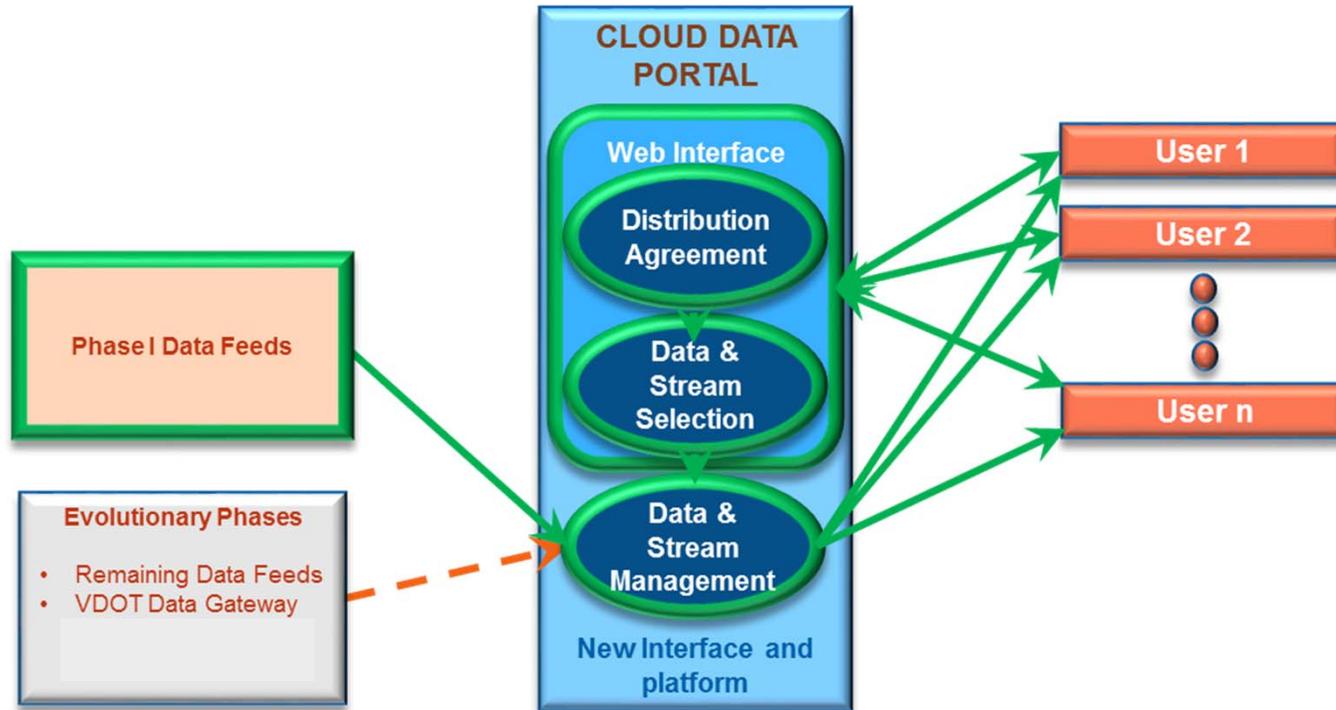
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Cloud Data Portal Objectives

- **Accelerate the CAV technology development** by exchanging transportation data and video with private sector CAV business, application developers, and university partners.
- Provide all relevant VDOT data beyond current traffic operations data in one portal site.
- **Encourage auto manufacturer device, application, and business development** to increase the frequency, quality, and accuracy of data shared with private sector in Virginia.
- Improve 2-way data exchange for VDOT to publish and obtain data for internal use.
- **Simplify the process** to add new users and manage existing users.
- Serve as a national model for other state DOT's.

Cloud Data Portal Concept





Website is operational

SmarterRoads

← → ↻ Not secure | www.smarterroads.org/login

Virginia.gov Agencies | Governor

VDOT | SMARTERROADS

Welcome to SmarterRoads, VDOT's new data portal.

SmarterRoads makes VDOT's transportation data available to approved users online. This cloud-based portal will provide raw data pertaining to road conditions, incidents, work zones, multi-modal transportation and road signs to the connected and automated vehicle industry, third-party enterprise and the public. Data sets range from real-time sensor streams updated every minute, to road statistic shape files updated annually. Browse available data sets, then [create a free account](#) to get started.

Email

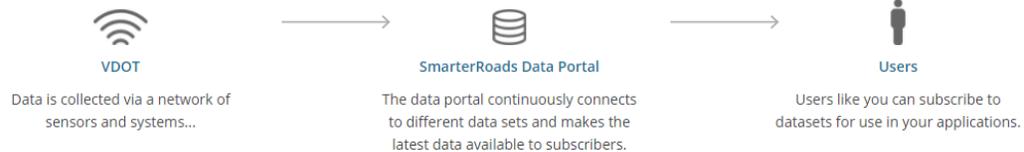
Password

Login

Create account Forgot password?

About SmarterRoads

The data sets on this portal are all available to approved users. [Create a free account](#) to sign the required data sharing use agreement. Once approved, will receive an email with login instructions. When you are logged into the SmarterRoads data portal, you can customize your settings to subscribe to specific data sets. Additional logins may be required for some data sets.





Website is operational



Available Datasets

UPDATE RATE

DATA FORMAT

All

All

<p>Average Daily Traffic</p> <p>Listing of each interstate and primary highway that estimates the average traffic on any given week day.</p> <p>UPDATE RATE: Yearly</p>	<p>Crashes</p> <p>Motor vehicle crash data that compiles all reportable accidents (crashes that involve a fatality, injury or property damage of at least \$1,500).</p> <p>UPDATE RATE: Yearly</p>	<p>Districts</p> <p>Boundaries of the nine VDOT districts.</p> <p>UPDATE RATE: Yearly</p>	<p>Dynamic Message Signs (Active)</p> <p>Information on the location and the current (active) messages of all active Dynamic Message Signs (DMS) signs across the state.</p> <p>UPDATE RATE: 1 Minute</p>
<p>Dynamic Message Signs (All)</p> <p>Locations and current messages of all Dynamic Message Signs (DMS) signs across the state, regardless of being active or not.</p> <p>UPDATE RATE: 1 Minute</p>	<p>Paving Schedules</p> <p>Status of all pavement projects across the state. Pavement status is tracked by projects and are color coded to show status.</p> <p>UPDATE RATE: Yearly</p>	<p>Quarterly Crash Data</p> <p>Quarterly data on crashes</p> <p>UPDATE RATE: Quarterly</p>	<p>Road Construction</p> <p>Road construction projects included in the annual Six-Year Improvement Program that outlines the planned spending for proposed transportation projects for construction development or study for the next six years.</p> <p>UPDATE RATE: Yearly</p>
<p>Signal Data: Controller Configuration</p> <p>Site/intersection configuration file, including information on location, detectors, and phases</p>	<p>Signal Data: Controller Inventory</p> <p>Information on all existing signal controllers and initial status, including description, model, site, and controller mode</p>	<p>Signal Data: Controller Status</p> <p>Real-time status data of signal control devices, including operational status, controller mode, and coordinated state.</p>	<p>Signal Data: Detector Data</p> <p>Real-time detector measures for all local and system detectors</p>

Website is operational

VDOT Incidents

UNSUBSCRIBE

- > OBTAINING DATA
- > DESCRIPTION
- > SOURCE
- > DATA FORMAT

OBTAINING DATA

Data Set Directory: <http://vdothub.iteris-pems.com/dataset/feed/VDOTIncidents?token=WnhlaLDClvOjJ0CWUgfZ5HESvkHQARWYrik4J7Lx9hFMS37A8CWSjkjvfkZotzHY>

Most Recent Data: http://vdothub.iteris-pems.com/dataset/download/3?file=VDOTIncidents/VDOTIncidents_current.xml&token=WnhlaLDClvOjJ0CWUgfZ5HESvkHQARWYrik4J7Lx9hFMS37A8CWSjkjvfkZotzHY

DESCRIPTION

VDOT Incidents

SOURCE

VDOT 511

DATA FORMAT

```
<EDXLDistribution
  xmlns:ns2="urn:oasis:names:tc:emergency:cap:1.1"
  xmlns="urn:oasis:names:tc:emergency:EDXL:DE:1.0"
  xmlns:ntcip="http://www.dummy-ntcip-address"
  xmlns:atis="http://www.dummy-atis-address"
```

Users can integrate into websites

Average Daily Traffic

<https://vdot.maps.arcgis.com/home/webmap/viewer.html?webmap=bff29e1bc0fd4908b2c035fe67695088>

Districts

<https://services.arcgis.com/p5v98VHDX9Atv3I7/ArcGIS/rest/services/VDOTAdministrativeBoundaries/FeatureServer>

Paving Schedules

<https://vdot.maps.arcgis.com/home/webmap/viewer.html?webmap=b7453f1f371f441bbb70ce4bfa371763>

Road Construction

<https://vdot.maps.arcgis.com/home/webmap/viewer.html?webmap=6f3e6b1e9b0b4ed689794482f8854ab8>

Speed Limits

<https://vdot.maps.arcgis.com/home/webmap/viewer.html?layers=100852a0d612419b8dd40aab7dbe9335>



Signal, Phase and Timing Data

Official Government Source



Private Sector Redistributors



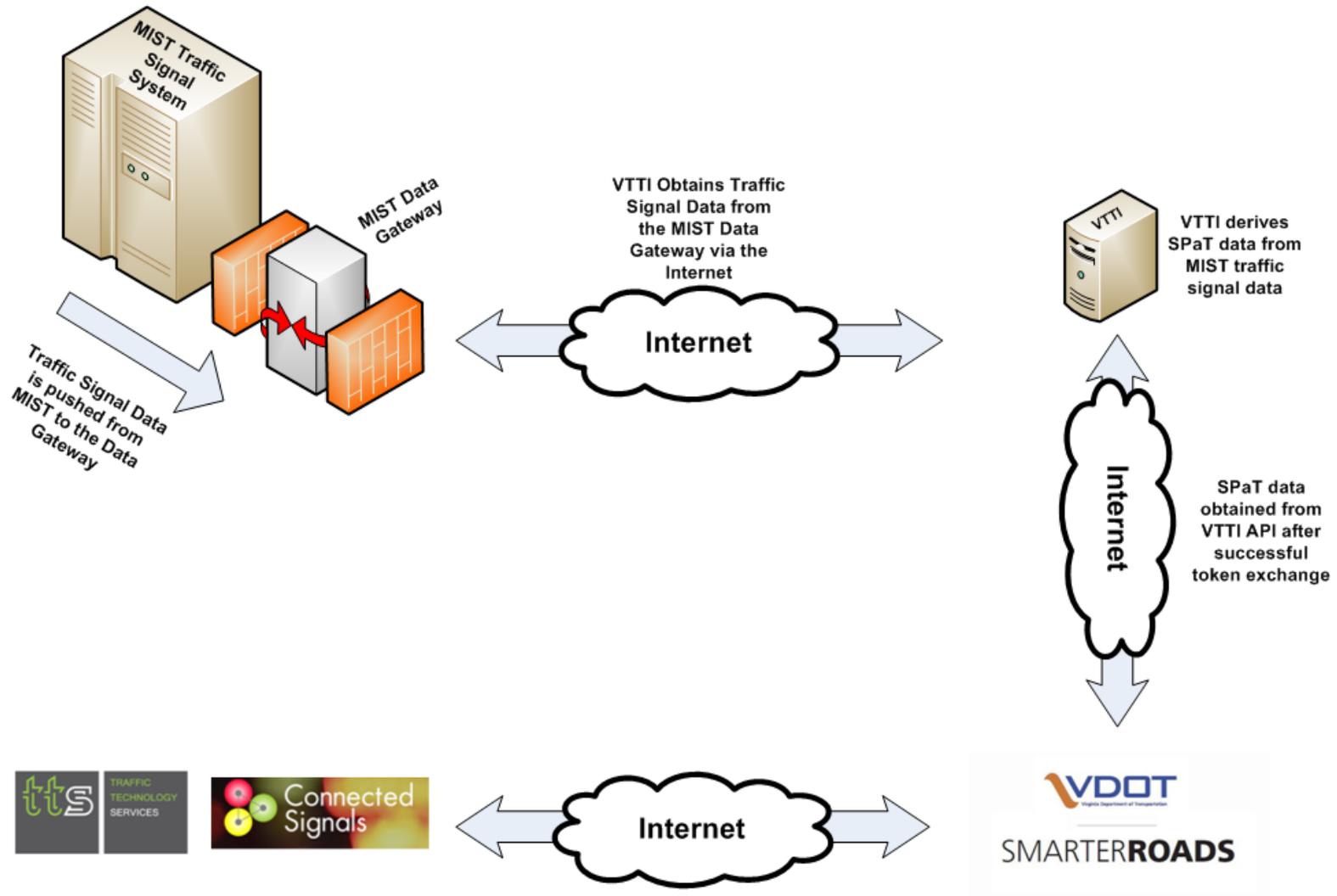
End Users



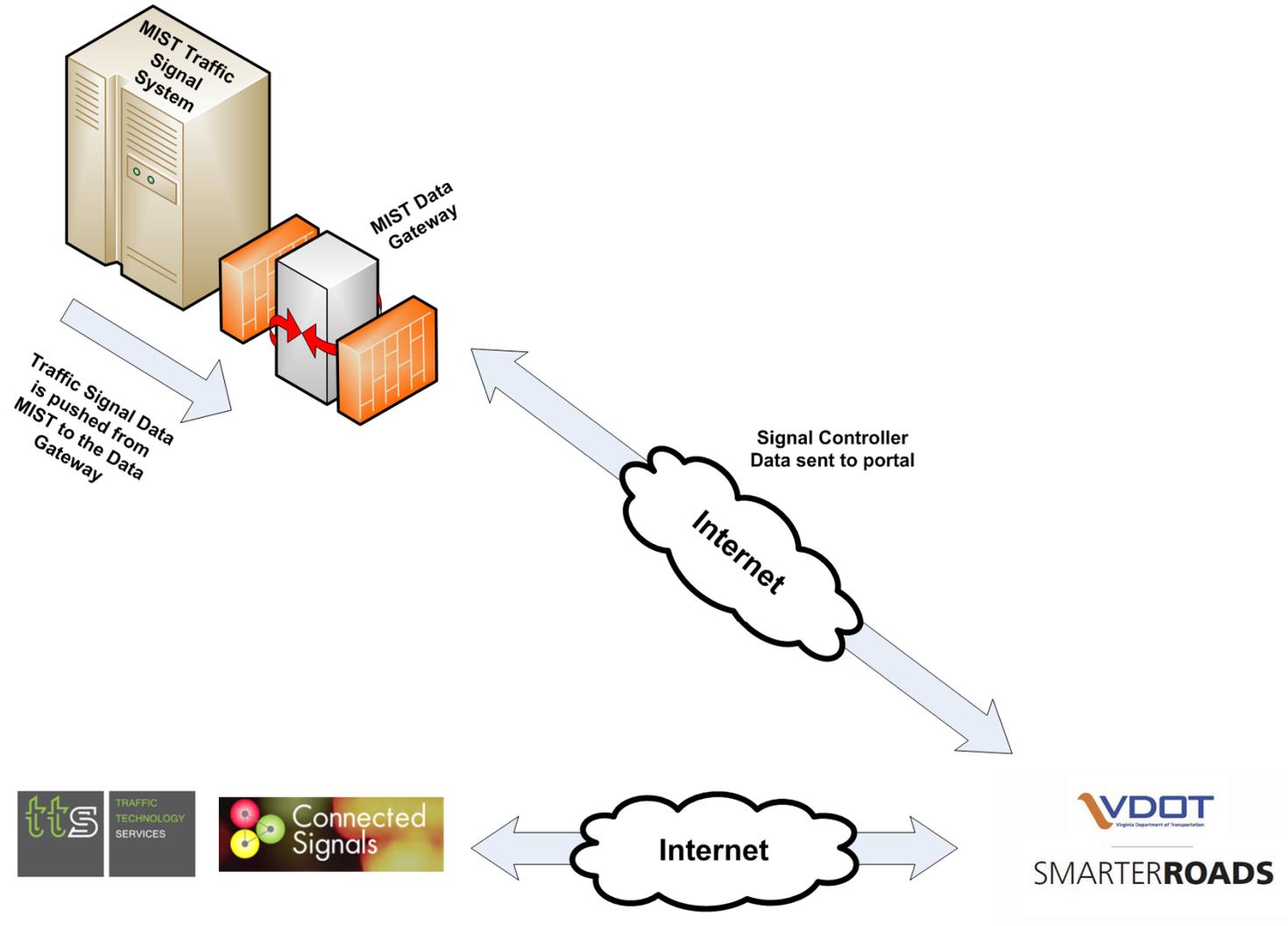
Audi



Signal, Phase and Timing Data Architecture



Signal Controller Data Architecture



Signal, Phase and Timing Data Update

- **VDOT will have 1,400 signals available through SmarterRoads.com that have signal data (NTCIP 1201 compliant) for consumption by private sector companies for application development.**
- **VDOT has 6 signals available that are part of the Virginia Connected Corridor (VCC) on Route 7 conforming to SAE J2735 format SPaT data for consumption by an automated test vehicle, if equipped by a DSRC receiver.**
- **VDOT will add 24 signals on various corridors by September 2017.**
- **50 vehicles are equipped with DSRC radios by VTTI.**

Outreach Plan

- **VDOT will issue a Press Release to announce SmarterRoads.org Launch with website and social media outreach.**
- **VDOT announced at Automated Vehicle Symposium availability of SmarterRoads.org**
- **VDOT plans to hold an industry day in July or August with auto manufacturers and third party application developers.**
- **VDOT will highlight SmarterRoads.org at SASHTO 2017 Annual Meeting and Governor's Transportation Conference.**
- **VDOT will develop an inspirational marketing and how-to video targeted to auto manufacturers and app developers.**