DATAMARK

THE ONLY SOLUTION FOR A SEAMLESS TRANSITION TO NG9-1-1

DATAMARK® VEP is an end-to-end Next-Generation 9-1-1 (NG9-1-1) geographic information system (GIS) data aggregation, preparation and maintenance solution that is configurable to the needs of the end-user; it is not a one-size-fits-all application. It provides a user-friendly interface for both GIS and non-GIS trained personnel to conduct 9-1-1 location data validation and quality control beyond internal datasets. DATAMARK VEP also works collaboratively with datasets from regional 9-1-1 location data partners – from constituent GIS data providers and addressing authorities to neighboring 9-1-1 authorities.

WHO USES DATAMARK® VEP?
- GIS Data Providers
- Addressing Authorities
- 9-1-1 Authorities

The DATAMARK VEP Software-as-a-Service (SaaS) solution is a cutting-edge, secure, cloud-based system that speeds and eases the collection, preparation and maintenance of GIS data for all 9-1-1 systems. DATAMARK's technical experts located throughout the United States are well versed in NG9-1-1 requirements and public safety data workflows and stand ready to assist agencies with their NG9-1-1 GIS needs. The platform ensures:

- Easy and consistent access to mission-critical information for life-critical situations.
- A simplified transition point to NG9-1-1 for addressing authorities as well as GIS and public safety answering point (PSAP) stakeholders.
- Interoperability with existing public safety systems.
- No additional investment in hardware or software.
- Configurable design for supporting CAD, CAD Mapping, AVL, and other business systems within PSAPs and government enterprises.

DATAMARK VEP's holistic integration of data from multiple data sources, combined with its data-forward maintenance plan, ensures the updated information is consumable in the ESInet (NG9-1-1 Core Services) and across the entire organizational data enterprise. DATAMARK VEP and the corresponding data model use the NENA NG9-1-1 GIS Data Model as a template, but the application is flexible enough to incorporate custom fields and additional schema requirements.

KEY DIFFERENTIATORS:

- SaaS Solution - No need to purchase additional GIS software licenses or maintain hardware.
- Built on the robust Esri ArcGIS Enterprise platform.
- Integrated 1Spatial data validation engine for quick and easy data manipulation.
- DATAMARK's highly experienced team of data scientists actively work with and educate the public safety community and others integral to the implementation of NG9-1-1.
- Validates data using 38 unique validation checks, including the interrelationship between data layers.
- Includes MSAG and ALI comparisons.
- Includes address points, road centerlines, PSAP boundaries, provisioning boundaries and emergency service boundaries.
- Customizable user access (mark observations, editor of data, administrator).
- Comprehensive support and training.

MARKUP_TABLE				
CLASS	VIOLATION	DESC	FEATURE_ID	SESSION_ID
ALI	ALI record not found in Address Point layer	<Null>	23	<Null>
ALI	ALI record not found in Address Point layer	<Null>	60	<Null>
ALI	ALI record not found in Address Point layer	<Null>	78	<Null>
ALI	ALI record not found in Address Point layer	<Null>	124	<Null>
ALI	ALI record not found in Address Point layer	<Null>	144	<Null>
ALI	invalid ALI HouseNumber value	ALI.HOUSENUMBER cannot equal null, 0, or blank	166	<Null>
ALI	ALI record not found in Address Point layer	<Null>	206	<Null>
ALI	ALI address record not found within Centerline range	<Null>	206	<Null>
ALI	ALI record not found in Address Point layer	<Null>	211	<Null>
ALI	ALI address record not found within Centerline range	<Null>	211	<Null>
ALI	ALI address record not found within Centerline range	<Null>	232	<Null>
ALI	ALI record not found in Address Point layer	<Null>	249	<Null>
ALI	ALI record not found in Address Point layer	<Null>	320	<Null>
ALI	ALI record not found in Address Point layer	<Null>	484	<Null>
ALI	ALI record not found in Address Point layer	<Null>	519	<Null>
ALI	ALI address record not found within Centerline range	<Null>	519	<Null>
ALI	ALI record not found in Address Point layer	<Null>	546	<Null>
ALI	ALI address record not found within Centerline range	<Null>	546	<Null>

ALI Result Table

DATAMARK VEP is the only online application built specifically with public safety and GIS data maintenance for NG9-1-1 in mind. The platform maintains data quality control metrics to support NG9-1-1 ESInet services and quality control requirements for PSAP systems (CAD, CAD Mapping, AVL, and other business systems), which is critical now that there is only one source of location data used in call routing and dispatch workflows. The application integrates location data validation functionality and advanced editing capabilities into a platform that is accessed anywhere with an internet connection.

Michael Baker
INTERNATIONAL

DATAMARK

Data stewardship for ensuring data accuracy and currency is critical!

Who is responsible for maintaining the data. Is it in the PSAP? With GIS? With the Addressing Authority? HOW DO WE ALL WORK TOGETHER?

DATAMARK® VEP is the one platform enabling collaborative data maintenance.

USER CONFIGURABILITY

- User roles configured around editing capability.
- Administrator can add and remove capabilities to user roles.
- Basic editing tools for GIS and non-GIS users alike, with easy-to-use advanced editing capabilities built in.
- Ability to snap points, lines and polygons to existing features (including neighboring jurisdictions' data).
- Traditional line creation tool features (trim, extend and split).
- Ability to draw, move, snap and edit polygon vertices.
- Capacity to configure and enforce topology rules during edit sessions before being pushed to production.
- New address points that pull common attributes from the centerline they are associated with, ensuring standardization between location datasets.
- Line-splitting tool that guides users to update the To/From Left/Right ranges on the newly created segments, reducing duplicate road features (see figure 1 above).

Mapping interface with fishbone analysis.

- Critical topology errors (gaps or overlaps in polygons or points/lines drawn outside PSAP boundary) are not allowed and result in an error message for the editor.
- Multiple address point creation and editing tool to automate addressing of subdivisions and multi-unit structures.

DATA QC AND VALIDATION CHECKS

- Several levels of data QC and validation to perform a gap analysis that visualizes and understands inconsistencies.
- On-demand, iterative processing for all validation checks. No need to wait to have a third-party-run analysis.
- Identifies discrepancies among all GIS data layers (address points, road centerlines, PSAP and Emergency Service Boundaries) and analysis of the inter-relationship of these layers.
- Flags anomalies for easy editing and issue resolution.
- Provides fishbone analysis to visualize address point to centerline geocoding.

OBSERVATION TRACKING

- Beyond edit-in-place source GIS data layers, users can collect observations about anomalies or issues in the location data.

CUSTOM UPLOAD AND DOWNLOAD CONFIGURATION

- Option to save custom schema mapping for data uploads in addition to using the download wizard for custom settings.
- Schedule single or recurring downloads based on a saved download request.
- Configure system to act as the Spatial Interface (SI) within the NG9-1-1 Core Services.

DATAMARK® VEP

EDITOR

The DATAMARK Editor features a cloud-hosted Software-as-a-Service (SaaS) web editing application engineered specifically to support those responsible for maintaining the source location data required for NG9-1-1 systems.

VALIDATION

The DATAMARK validation features a geospatial, cloud-hosted Software-as-a-Service (SaaS) application that acts as a robust QA/QC toolset.

	INTERACTIVE QC DATA	MARK EXCEPTIONS WHERE NECESSARY	SECURE WEB-BASED INTERFACE FOR GIS AND NON-GIS USERS	CREATE NEW ADDRESS DATA ONLINE	ENABLE SIMULTANEOUS DATA UPDATES	ABILITY TO MARK OBSERVATIONS	PROVISIONING (OPTIONAL)
EDITOR	✓	✓	✓	✓	✓	✓	✓
VALIDATION	✓	✓	✓	✗	✗	✗	✓