

Solutions for Customer Intelligence, Communications, and Care.

Public Sector

DMV Capabilities

Every connection is a new opportunity™





Pitney Bowes Business Insight provides State Governments with a combination of software, data, and service solutions.

Pitney Bowes Business Insight has core capabilities in:

Data Management

- Data Integration
- Data Quality
- Data Enrichment
- Data Profiling and Monitoring
- Business Intelligence

Location Intelligence

- Mapping and Analytics
- Geocoding
- Enterprise Tax Management
- Geographic/Risk Data
- Asset Management

Analytics

- Site Selection
- Customer Demographics
- Customer Segmentation & Modeling
- Custom Services

Customer Communications Management

- Document Management
- Web Self Service
- E-Billing
- Transpromo
- Customer Service and Support

Mailing Efficiency

- Mail and Postal Compliance (US, Canada, Australia)
- Move Verification (US, Canada)
- Address Quality (Global)

Pitney Bowes Business Insight—making a positive impact with Motor Vehicle Administrations



In the United States, Motor Vehicle Administrations serve one of the largest constituencies in the country: the vast majority of US Adults. All 50 states and territories register and issue drivers licenses in various forms, identification cards, voting cards, and other transportation related certificates.

The control of this important information makes Department of Motor Vehicles, or DMVs as they are sometimes known, vitally important to other state and federal agencies who want to understand and administer citizen identity information. This is a historic new role for DMVs, who traditionally served local and regional areas under state government guidelines.

At the same time, funding constraints make the renovation of legacy information management systems difficult. This Pitney Bowes Business Insight capabilities brief describes how DMVs can use data quality management tools to serve important information requests without having to modernize its entire information infrastructure.

Pitney Bowes Business Insight Motor Vehicle Administration Solutions Include:

Communications Management

- e2 Online Account Management
- EngageOne
- Universal Addressing Module
- MailStream Plus
- VeriMove
- Intelligent Mail (Mail360) Integration

Data Quality

- Spectrum Enterprise Data Quality Solution
- Universal Addressing Module
- Advanced Matching Module
- Enterprise Geocoding Module of the Spectrum Enterprise Data Quality Solution

Pitney Bowes Business Insight provides State Governments with the solutions to modernize and enhance government services while reducing overall cost to taxpayers.

Pitney Bowes Business Insight simplifies and improves DMV processes.

Pitney Bowes Business Insight has been helping State Governments with efforts such as these for over 20 years. Pitney Bowes Business Insight provides State Governments with a combination of software, data, and service solutions to modernize and enhance government services while reducing overall cost to taxpayers. Specifically for DMVs, Pitney Bowes Business Insight offers solutions to:

- Aggregate and cleanse data in compliance with emerging national efforts
- Provide high quality location information for compliance with federal reporting requirements
- Create, distribute, and store personalized multi-channel communications
- Reduce postal costs

Driving to Success: Business Process Challenges in IT Modernization

DMVs offer important traffic safety certifications such as commercial and private drivers licenses, vehicle registrations, voter registrations, and accident analysis support. As of today, most DMVs still operate on legacy information technology, and modernization of some of these systems may be necessary. Recessionary budget pressures have edged DMV renewal projects, particularly those related to Real ID, away from the higher priority lists for State decision makers. Given this reality, recent mandates from Congress and the Department of Homeland Security (DoHS) for additional information processing may be very difficult to implement.

Another area of change is citizen demand for convenience. It has become common to conduct information transactions via Internet, and citizens have demanded the DMVs follow suit. Furthermore, DMVs can be asked to produce a wide variety of other documents—revenue and audits, internal reports, motor carriers, insurance, training, etc.—as state legislators require.

In short, DMVs are being asked to simplify customer communications management, and improve data quality through access, registration, and data synthesis. Pitney Bowes Business Insight illustrates, in Figure 1, how technology can be used to meet these challenges under constraints that DMVs are experiencing today.

Solution Offerings

Spectrum Technology Platform

Pitney Bowes Business Insight meets the challenge of centralized management of data quality definitions. The Spectrum Technology Platform gives DMV Data Administrators the tools they need to meet current and future demands for data quality and integrity.

The system integrates readily with legacy databases and systems. For example, information on address updates for existing license holders or suspended drivers can be extracted from a variety of sources, each with their own cycle, content, and purpose. Spectrum provides the facile creation and modification of complex data quality flows that ensure address updates can be applied with the necessary frequency.

Managing Identities

Another example of an appropriate Spectrum deployment is in the use of validating identities. Spectrum's powerful matching features allow the matching of individuals with name variations, variant address histories, or other ambiguous information that conventional search and matching systems cannot. Spectrum is capable enough to be used in Master Data Management systems, OFAC, and other regulatory compliance systems that require a first and second level identity check based on multiple, potentially fuzzy, data inputs.

Better still, these complex identity validation sequences are graphically programmed, stored, and connected into a process stream. Changes in legislation do not require extensive system programming—they merely require a modification of flows. Since flows are hierarchical, DMV Data Administrators can define them in such a way that a change in rules does not imply a change in interface—rules are connection independent. Changes in source and target data structure formats will not necessitate changes in rule processing, and conversely, a change in a DMVs data quality processing rules does not require an impact on its data connection definition. This is a serious improvement in quality, flexibility, and productivity.

Pitney Bowes Business Insight meets the challenge of centralized management of data quality definitions.

Pitney Bowes Business Insight offers unprecedented document and reporting capabilities.

Transactional Integration

It is clear that the lowest cost data quality improvement occurs during the counter transaction. Data quality rules, such as address completion or validation, Social Security Number (SSN) match, or any other identity subset validation, can be readily built into an existing transactional stream. Spectrum provides rich support for integration using C, C++, COM, .NET, Java, Web Services, and XML. A supplied SDK gives legacy system programmers the ability to define a single, parameterized entry point for all data quality validation rules.

Once the universe of rules predicates has been defined, the actual nature of the data quality rule becomes independent of its context. This feature allows DMV Data Administrators to change or enhance data quality processing without impacting the code of the transactional system.

Location Intelligence

Accident and incident locations are very important. Spectrum offers a very rich set of built-in geographical analysis functions as part of its data quality functions.

DMV Data Administrators can use Spectrum to, for example, easily implement 'nearby' functions in legacy systems where no such function was previously conceivable—or priced out of sight. Atomic functions such as distance, proximity, and other spatial relationships offer analysts the ability to interactively or periodically populate. A single pass editor to determine missing geographical information—or require its input—can be developed in minutes.

Consider this example: a DMV Data Administrator develops a flow that transmits an alert if accident reports at a certain set of intersections are closer together than 48 hours. If so, the incidence reports are matched to determine if any of the participants match, are the same, or related via any other case. The flow then triggers an e-mail alert.

No other data quality environment available today can offer this kind of power, interactivity with legacy systems, and facility of use.

MODERNIZATION AREA	BUSINESS PROBLEM	PROCESS SOLUTION	PITNEY BOWES BUSINESS INSIGHT SOLUTION
Communication Management	Customers are demanding documents via Web presentation	Use existing production methods to post electronically using OAM control methods	e2 Online Account Management and EngageOne
Communication Management	Continued changes in postal regulation	CASS and Intelligent Mail certified tools to mitigate per piece increases by maximizing postal discounts, and create mail management transparency	Universal Addressing Module, MailStream Plus, VeriMove, and Intelligent Mail (Mail360) integration
Data Quality	Multiple records for the same person	Real-time identity check, duplicate identification, and address match	Spectrum Enterprise Data Quality Solution
Data Quality	Drivers use multiple addresses to avoid regulatory penalties	NCOA and commercial address update connection	Universal Addressing Module, Advanced Matching Module, and Enterprise Geocoding Module of the Spectrum Enterprise Data Quality Solution
Data Quality	Ensuring the validity of a motor vehicle title	Connect to NVMIS and/or other titling or insurance registration systems	Spectrum Enterprise Data Quality Solution
Data Quality	Ineffective location analysis for accident causal analysis	Store, process, and correlate accident location intelligence information	Location Intelligence Modules of the Spectrum Enterprise Data Quality Solution
Data Quality	RealID and similar other initiatives require real-time, common protocol access to customer information	Connect protocol server that connects legacy systems with RealID hub	Spectrum Enterprise Data Quality Solution

Figure 1—Core Components of Pitney Bowes Business Insight's DMV Modernization Offering

Spectrum provides rich support for integration using C, C++, COM, .NET, Java, Web Services, and XML. This rich set of Client SDKs allows companies to integrate and provide the very best in data quality processes within their existing investments of ETL, EAI, and Enterprise applications.

Customer Communication Management

Pitney Bowes Business Insight's Customer Communication Management (CCM) suite offers unprecedented document and report production capability to DMV Administrators.

Many legacy systems produce fixed reports that are difficult to modify. With CCM, a DMV can create transactional reporting and mail for either interactive posting on Web sites or mail.

Integrated with Pitney Bowes Business Insight's data quality, address cleansing, and mailing efficiency solutions, DMVs can further reduce postage and printing costs.

Pitney Bowes Business Insight's extensive experience and wide range of software tools help to implement a successful solution that meets the needs of both today and tomorrow.

Pitney Bowes Business Insight leverages the combined power of multiple solutions into a single, automated workflow.

For example, DMVs can make use of the features of intelligent mail to determine delivery, location, and timing of acceptance of official documents. This information can be integrated into DMV and national records automatically.

With a turnkey e-Messaging solution, DMV Customer Service workers can access centralized storage and retrieval, and manage two-way (in-bound and out-bound) email and SMS communications and response handling. In addition, e-Messaging satisfies DMV constituents' increasing preference of communicating via email and SMS.

CCM's e2 Vault and e2 Web View provide high performance, real-time indexing, compression, storage, and retrieval of documents and data from their native formats. Billions of documents and data elements can be stored for years and rendered online, with no performance degradation. Customers and DMV Administrators can instantly retrieve documents and data—regardless of age or size. This capability enables a DMV to meet all legal and regulatory compliance requirements without having to re-tool existing document production systems.

CCM provides the convenience of Web self-service and e-billing for customers who prefer to manage their accounts online. With e2 Account Management, customers and businesses can view, print and pay bills, reconcile disputes, and manage accounts online—24/7. Bills can be securely emailed to customers to view and pay online. These e-bills can include target messaging, which can be another valuable tool to DMVs. In addition, electronic delivery drives down printing and postage costs across the enterprise, while being environmentally friendly, enabling DMVs to operate more efficiently.

Functional Summary

The Pitney Bowes Spectrum Enterprise Data Quality Solution workbench is an integrated tool that allows organizations to leverage the combined power of the Pitney Bowes Business Insight Communication Intelligence, Data Quality, and Location Intelligence tools in a single automated workflow. These flows can be created as either batch or real-time on-demand services. A closer look at the modules shown in Figure 2 illustrates how these tools can be deployed in the DMV processing context.

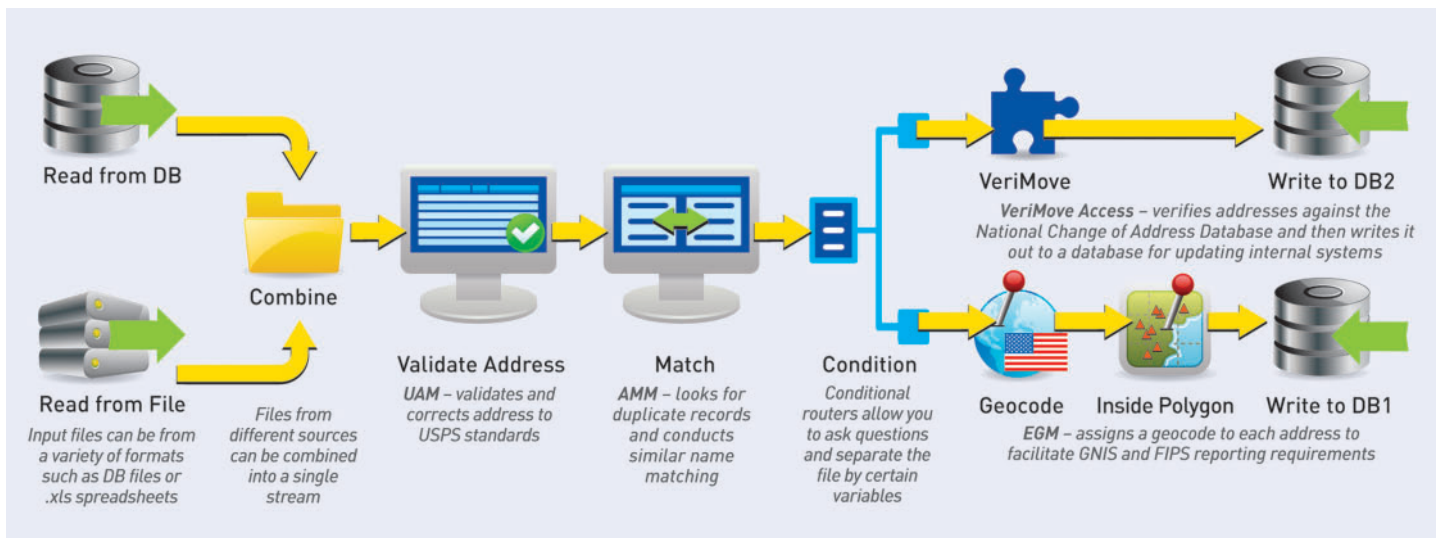


Figure 2—Dataflow Example



Universal Addressing Module

The Universal Addressing Module (UAM) is a powerful address standardization and validation application that improves data accuracy. DMVs can quickly and easily deploy consistent address validation in various subsystems with a standard set of business rules. The UAM is flexible enough to provide standardized control even if DMV legacy systems have different address intake screens for individuals or employers.

The UAM is Coding Accuracy Support System (CASS) certified software that conforms to the United States Postal Service (USPS) standards to enable critical postal discounts.

Advanced Matching Module

The Advanced Matching Module (AMM) matches captured records against any internal or external database, such as needs to be spelled out National Motor Vehicle Title Information System (NMVTIS) or other shared data, to ensure data integrity, avoid duplicate records, and identify similarities. Among many applications, the AMM can be instrumental in identifying multiple address/identity matches, accurate commercial registrations, or supporting insurance fraud detection.

Universal Name Module

DMVs can have problems identifying individuals because of variations in name. The Universal Name Module (UNM) is designed specifically to obviate these issues. UNM recognizes

typographical errors, letter substitutions, alternate spellings, abbreviations, and spellings based on country of origin such as Michael, Mikhail, and Mykolas. When combined with the AMM, claimants with spelling variations and multiple addresses will no longer confuse driver or vehicle owner identity processing.

VeriMove Access OnDemand

VeriMove is Pitney Bowes Business Insight's connection to the latest National Change of Address (NCOA) database. The NCOA database can provide DMVs with move information on both individual drivers and businesses—preventing costly returned mail or delays in postal delivery.

Enterprise Geocoding Module

The Enterprise Geocoding Module (EGM) assigns a latitude and longitude to a postal address. The EGM supports locations to the census block group level for DMV state administration reporting analysis.

Mailstream Plus

Mailstream Plus organizes CASS certified mail files to earn maximum postal discounts, from basic to enhanced carrier route levels. It supports all USPS mail classes and every mail type including letters, postcards, flats, parcels, and bound printed matter. As DMVs operate in only one state, they are more likely to qualify for increased discounts using Mailstream Plus.



PITNEY BOWES BUSINESS INSIGHT SIMPLIFIES CUSTOMER COMMUNICATION MANAGEMENT, IMPROVES DATA QUALITY THROUGH ACCESS, REGISTRATION, AND DATA SYNTHESIS, AND UTILIZES TECHNOLOGY TO SOLVE THE CHALLENGES DMVS ARE EXPERIENCING TODAY.

Pitney Bowes Business Insight drives success through integrated solutions.



Pitney Bowes Business Insight eliminates inaccurate and wasted mass produced constituent communications.

Customer Communications Management

The correspondence software suite known as CCM helps DMVs produce mass-customized physical and electronic documents with reduced effort. Pitney Bowes Business Insight's CCM solution connects to current and future DMV databases, in both transactional and batch mode. Gone are the days of inaccurate or wasted mass communications—or expensive single letter transactions. DMV can now set up libraries of context-sensitive templates for the entire universe of DMV-Company/Citizen-State communications transactions—via web portals, electronic mail, or physical mail.



DOC1

The DOC1 document design platform is used for enterprise-scale correspondence design and development. DOC1 provides centralized and controlled DMV document design from a single application, a shared content repository, and a collaborative environment for multiple authors. DOC1 and EngageOne share the same DMV template database.

EngageOne

The EngageOne interactive communications system is a web application that allows DMV workers to create letters and other documents on-the-fly. EngageOne auto-populates fields in a template with data from available citizen or employer databases. DMV employees can reduce the call wrap-up and after call effort needed to create the proper communication with a state agency, company, or individual citizen.

e2 Vault

The e2 Vault lets DMV workers archive, search, and retrieve documents in seconds. When combined with Pitney Bowes Business Insight's Online Access Module (OAM), e2 Vault affords citizens, transport companies, or insurance companies online access to registrations, findings, records, and any transaction-specific information. e2 Vault's real-time indexing, compression, storage, and direct data retrieval enable integration into a DMV web portal in just weeks.

Conclusion

Emerging security, transportation, and public safety needs have put unprecedented attention on DMVs as collectors and processors of information about the driving and non-driving public, vehicle movements, and even driver behavior. Whether these demands are not matched with the resources to modernize the current IT infrastructure, or the current capabilities require an extension to supply these new requests, Pitney Bowes Business Insight stands ready to help. We have extensive experience and a wide range of software tools to help not only meet and understand these challenges, but implement a successful solution that will meet these needs today, and well into the future.

Pitney Bowes Business Insight gives you a competitive advantage

With Pitney Bowes Business Insight, you are able to analyze and understand your customers more accurately and completely. Beyond what and how, we help you know why. Our DMV capabilities live within a set of *Customer Intelligence*, *Customer Communications* and *Customer Care* solutions that work together to enable better analysis and decision-making and to enhance operational systems and workflows.

With Pitney Bowes Business Insight, you can:

- Improve data quality through access, registration and data synthesis
- Manage and exceed citizen expectations
- Improve services while reducing operational and mailing costs

In short, with Pitney Bowes Business Insight, you will be better able to acquire, serve and grow your customer and constituent relationships.

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