PERSPECTIVE

Building a Citizen-centric Licensing and Registration System for Motor Vehicle Administrators

Infosys Public Services
Motor Vehicle Administrators (MVA) service millions of users, primarily through legacy IT systems and manual processes. To deliver a consistent and connected experience to constituents, they need to modernize their systems and processes. This can be achieved by building a citizen-centric system architected on the “one-client, one-record” (1C/1R) model which enables the MVAs to build a 360° view of a constituent and leverage analytics to:

- Improve service delivery and constituent experience
- Improve user and road safety
- Increase employee satisfaction
- Drive operational improvements

However, building such a system requires overarching modernization of technology systems and business processes, supported by a robust program management and execution model.

Challenges in delivering citizen-centric licensing and registration services

Today, Motor Vehicle Administrators (MVA) use multiple legacy systems coupled with manual processes to deliver licensing and registration services. This leads to the scattering of constituent information across various systems, and makes a single consolidated view of a constituent almost impossible. Integrated reporting is also not seamless due to silos of information. All this reduces efficiency, and impacts constituent-experience. For MVAs, these challenges translate into unacceptable risks in the transport of people and goods.

Modernization of systems can help, but only if done right

Modernization of the people and processes, along with the technology, can enable MVAs to develop an agile, scalable, and citizen-centric licensing and registration system. However, many such initiatives have failed to meet the defined objectives.

Three key factors for successful modernization include:

- Modernization of the organization and its business processes
- Modernization of technology
- Using the right execution models to achieve the above two

MVAs that do not focus on these elements experience issues in execution of their modernization program, thus failing to realize the desired benefits from their investments.

Three-pillar modernization approach to build a citizen-centric licensing and registration system

The three-pillar modernization approach – guided by effective program governance – can enable MVAs to build agile, scalable, sustainable, and citizen-centric licensing and registration systems.
The three pillars include – business performance, technology modernization, and organization modernization. The success of this modernization program can be measured through the alignment of the technology systems with business objectives, and the effective use of the new systems by the staff, constituents, and partners. Effective adoption of the new systems and processes can be achieved through organization change management (OCM) activities that equip staff with the necessary information and tools to use the system efficiently. Underpinning these three pillars is the concept of ‘usability,’ which refers to the consistency in:

- The look and feel of the application screen (User Interface)
- Language, terms, and the meaning of key words or phrases
- System behavior for similar activities

A provincial transportation agency in Canada partnered with us to use this three-pillar approach for the modernization of their legacy licensing and registration system. The successful transformation of their systems led to improved service delivery and constituent experience. The key factors that ensured the success of this initiative included:

- A pre-integrated technology platform to transform existing systems and processes
- Integration of user experience and organization change management (OCM) as a part of the application development lifecycle, to create a system that is stakeholder-friendly
- The use of best-in-class enterprise solutions to ensure interoperability, connectivity, scalability, and flexibility
- Adoption of an iterative methodology and phased implementation to ensure on-time execution with minimum risks and disruptions

**Business performance**

Business objectives need to be the starting point of a modernization initiative. To ensure the success of the program, it is necessary to align the modernization initiative with the core business and mission.

For the Canadian provincial transportation agency, we ensured this alignment through the use of our proven IMPACT and Value Realization Method (VRM) frameworks – which help organizations to find, design, and capture value, and successfully execute transformation programs.
The following key business objectives, in general, should guide the solution-design for MVAs:

- Safe transport of people and goods – Right solution to support core business and mission
- Business integrity and integration – Interconnected systems to build a 360° view of constituents
- Improved service delivery – A highly responsive service delivery for improved experience
- Citizen engagement and satisfaction – Empower and engage constituents in service delivery

**Technology modernization**

Legacy licensing and registration systems can either be re-engineered, or replaced with a pre-integrated or Commercial Off-The-Shelf (COTS) solution, to create a modern, scalable, and agile platform. MVAs should ensure that their system:

- Leverages a customer engagement model (CEM) to implement a “one-client, one-record” model, delivering a 360° view of the citizens, across different functions
- Has a service-oriented architecture (SOA) to ensure interoperability with other systems, and the scalability to adapt to changing requirements
- Automates key processes to improve efficiency and increase agility
- Minimizes efforts and investments in system maintenance and support

For an effective and efficient service delivery, the system should be able to integrate information about constituents across different systems and business functions, and generate relevant insights. This will allow the MVAs to deliver a connected and consistent service experience.

Given the complexity of licensing and registration systems, a pre-integrated, commercial off-the-shelf solution (COTS) – built on a proven platform like Oracle® Siebel – is most effective in setting-up a modern licensing and registration system. Such a pre-integrated solution offers proven components to support key licensing, registration, auditing, knowledge management, and reporting activities; and offers the flexibility to quickly adapt key features and functionalities based on MVAs’ unique requirements. An example of an integrated and citizen-centric licensing and registration system which we developed using the aforementioned principles, for the Canadian provincial transportation agency, is shown below –

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**Business Channels**

- Over the Counter
- Mobile
- Mail / Fax
- Kiosks
- Desktop / Laptop

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**Oracle® Siebel CRM**

- Driver Licensing
- Vehicle Registration
- Performance Monitoring
- Carrier Registration
- Vehicle Inspection
- Order Management
- Product Management
- Facility Audit

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**External Agencies / Partners**

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**Policy Management** (Oracle® Policy Automation)

**Business Intelligence / Analytics** (Oracle® Business Intelligence Enterprise Edition)

**Document Management**

**Data Quality** (Oracle® Enterprise Data Quality)

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**Payment Management** (Oracle® Point of Sale)

**Inventory and Stock Management**

**Financial Management**

**Master Data Management** (Oracle® Universal Content Management, Oracle® Customer Hub)

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Real-time Batch Integration
The transformation of age-old systems and processes into a modern, citizen-centric system should be executed carefully, and in phases. Before execution, an agency should address the following key points:

- Develop and approve business requirements. Make them thorough, to avoid scope-creep.
- Define, prioritize, and plan the 'business process (re)engineering activities'.
- Determine the breadth of the client records.
- Embrace knowledge-transfer and early feedback mechanisms that support consensus building, and minimize adoption challenges.
- Establish and execute on program governance mechanisms.

An iterative methodology (like the one shown below) is best suited to execute such complex initiatives as it incorporates the best of Agile and Software Development Lifecycle (SDLC) methodologies.
Organization modernization

People will experience change; and so, their engagement, satisfaction, and openness to consider a new way of working, is essential to the success of a modernization initiative. As MVAs execute their modernization program, they should also judiciously review the practicality, efficiency, and effectiveness of their current processes, and the people executing those processes. MVAs should consider re-engineering the existing processes to complement the new technology system, and enable people to effectively use these new processes and systems to service constituents. A proven organization change management framework can help MVAs navigate through the change effectively, and adopt the new systems and processes quickly.

Measuring the success of a modernization initiative

A modernized licensing and registration system allows MVAs to become more efficient, deliver citizen-centric services, and comply with different regulatory requirements. In addition, the key performance indicators (KPIs) that are of interest to MVAs relate to:

- Road and user safety
- Data integrity and access
- Strong and collaborative stakeholder engagement
- Available service channels

Agencies can track and measure a number of sub-parameters in these KPIs, to determine if their program has been successful.
**Horizontal Integration**

- Increase in number of internal partnerships that serve external customer needs
- Increase in number of new services being offered to partners to serve external customers
- Number of integrated customer services using one source of data

**Road Safety**
- Decrease in number of failed facility audits
- Decrease in % of carriers below acceptable performance levels
- Decrease in carrier incident reports

**Business Integrity & Transformation**
- Access to single source of customer data
- Alignment of organization to customer engagement model

**Service Delivery Partnerships**
- Access of customer data across agencies
- Improvement in engagement / relationship with bargaining units

**Enhanced Public Services & Customer Satisfaction**
- Increase in customer service channels (one-stop shopping for customers)
- Decrease in customer complaints

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Conclusion

Motor Vehicle Administrators need to modernize their licensing and registration systems in order to improve service delivery for their constituents. Building a citizen-centric system requires enabling a smart information delivery mechanism, using a proven project management approach that looks at business performance, organization modernization, and technology modernization. It also needs to be supported by a proven execution model, and guided by key business and technology principles – including those of scalability, efficiency, insights-driven, and agile.