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Oregon State Police Mobility + E-Ticketing (Cradle to Grave Electronic Citations and Crash Reports)

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Project Initiation and completion date

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Organization and primary point of contact

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Business problem Description

Oregon State Police (OSP) writes approximately 150,000 to 200,000 citations annually. Prior to the Mobile + E-Ticketing program, OSP wrote 100% of these citations by hand providing a copy to the offender, another to the local court, and one to their respective field office. Transcription of a single citation (ticket) occurred at both the OSP field office, by entering it into the agency Records Management System (RMS), and at the Court (circuit or justice). This amounted to about 300,000 – 400,000 citation transcriptions per year. When all agencies writing citations in the state were factored in, estimates put the number of manually transcribed citations at almost 750,000/year.

At approximately 1.5 FTE/15,000 citations/year captured, a considerable number of state and agency resources were dedicated to capturing citations in the respective systems. With shrinking budgets and increased pressure on existing resources, this process was an ideal candidate for automation.

OSP sought to deliver a fully integrated solution that would remove manual error prone work from all agencies involved in the creation, submission, and adjudication of citations across all circuit and judicial courts, and any interested law enforcement agency.

Business solution description

The Oregon State Police (OSP) Mobility + E-Ticketing Program was designed to improve efficiencies, collaboration, and reduce costs. Initially, the act of writing citations, mailing court copies, capturing citations in the OSP system and the Oregon Judicial Department (OJD) court Records Management System (OJIN), adjudicating, and updating driving records (DMV), was exclusively a manual and error-prone process from start to finish. This program is one of the first of its kind in the country to achieve circuit court submissions of electronic citations at a rate of 100%, through complete automation of the citation process from the OSP through the OJD court system.

The purpose of this program was to automate the act of ticketing by developing an electronic citation process with the intention of allowing all Law Enforcement agencies to use the system. Database hosting of the citations and their transformation to partner or customer agencies would permit advanced statistical analysis, and improve the application of Law Enforcement resources.

Transformation of data through the OSP service oriented architecture (ESB) and automated submission of data to respective consumers (i.e. DMV), completes the intended flow of the program.

As with most IT programs, managing change is a tough sell if it will require new process activities or additional responsibility. Trial court administrators and judges in each court all have unique needs, which can make standardizing any solution difficult. State law enforcement agencies may also require unique components to citations that are not consistent with the OSP. In addition, agencies were not willing to expend any financial resources on unproven technology or initiatives from a new and unproven team.

The OSP E-Ticketing program was delivered in the context of the OSP Mobile Data Program, including Dispatch, Field Reporting and Ticketing. Additional development included E-Crash and E-Inspection applications to support Crash Reports and enable large vehicle Truck Inspections by OSP personnel.

In comparison, the OJD E-Court program was designed to automate administrative activities, and facilitate the electronic exchange of data between central administration and individual court administration. Although the OJD E-Court program did not initially consider E-Ticketing, OSP paid for integration of the program into E-Court.

The numbers of options available to support Mobility + E-Ticketing were limited. In its choice for ticketing, OSP selected the solution that was in broadest deployment in Oregon and Washington.

The solution included the following elements:

- Project definition
  - The definition included providing an end-to-end solution from initially capturing the citation, to finally exporting specific data to the respective courts.
- Major solution – vendor requirements
  - The creation of a citation that could be used by any Oregon agency.
  - The solution must be based on widest deployment and ease of integration.

  - The solution must work with E-Crash program and provide GPS coordinates of patrol vehicles, statistical analysis of data, and programmable workflows.
  - Project management must include the creation of Project Teams assigned to major components of the program.
- Cost, including dollars, people, and time
  - Total Program Cost to OSP approx. = 250,000 (Licensing & Development)
  - Total OJD Cost to OSP approx. = 20,000 (Export to OJD)
  - Total soft cost (time & travel) to OSP approx. = 25,000
  - Total soft cost (time & travel) to OJD approx. = 25,000
- Solution architecture
  - The solution architecture included moving E-Ticket/E-Crash/E-Inspection software developed by OSP onto agency mobile data terminals, active ORS table updates, synchronization with courts for court scheduling, officer authentication, and the creation of new business processes and workflows.

Benefit to government

OSP increased E-Ticketing from 100 tickets in August to over 9000 citations in February 2012. The entire flow of the citation submission process from OSP to the OJD OJIN System is now electronically automated. The flow from OJIN to DMV is also being automated, and will relieve the DMV of the burden of capturing hundreds of thousands of annual driving record updates.

- OSP field operations staff and court staff around the state, who previously entered manually tedious citation data, are now available for higher-value added activities. This program is one of the first of its kind in the country to achieve circuit court submissions of electronic citations at a rate of 100%, through complete automation of the citation process flow, from the OSP through the OJD court system.
- Comparing the before and after views of this project by the OJD Trial Court Administrators (TCA's), is a true reflection of a successful collaboration and project partnership. Initially, TCA's were extremely skeptical of the ability of OSP to deliver and import citation data efficiently and effectively. Today, they are extremely pleased with the results and continue working together with OSP on small integration issues to help achieve 100% penetration.
- Historically, citation data was difficult to track and accountability metrics were not captured. Today, specific OSP trooper activity can be characterized and analyzed with very detailed accuracy.

Prior to OSP electronic ticketing, both OSP and OJD would manually capture citations into their respective RMS systems. The 9000 citations (tickets) written by OSP would require approximately 1 FTE for OSP and 1 FTE for OJD full-time to capture citation data. The accuracy of manual data capture was approximately 80% with a 20% error or dismissal rate due to data inaccuracies. The Mobility + E-Ticketing Program has reduced the workload of 2 FTE across 2 agencies, allowing these resources to be redeployed for other work, and resulting in a tremendous increase in efficiency.

Additional benefits achieved through this project include the following:

- Faster access to timely data from anywhere with internet access,
- Extensible functionality for ODOT and other agencies,
- On-Line visibility to troopers, written citations, areas of interest, etc., and
- Elimination of redundant, wasteful, low-value activities from the business process.

OSP and its partner agencies have developed an innovative, proven, and repeatable process for the development of technology programs. The OSP Mobility + E-Ticketing and electronic court submissions program developed by OSP and OJD has proven to be an overwhelming and unsurpassed success. The tangible efficiencies created through this program are significant and demonstrate the wide range of innovative improvement possibilities that can be achieved through strong collaboration.

Benefits to customers

- The general public is better served through the OSP Mobility + E-Ticketing Program by its reduction of waste and inefficiency in State and Local Government.
- Agency leadership benefits from the E-Ticketing and E-Crash solutions by receiving summary and detailed data previously unavailable.
- Effective resource planning and strategy is enhanced by the analysis of citation, crash, GPS, and violation data. OSP troopers are no longer deployed to segments of the highway where violations are infrequent.
- The minimal cost of the program is outweighed by the current and ongoing benefits.
- The Governor's desire for cost efficiencies was met. The OSP Mobility + E-Ticketing Program achieved this goal without mandate or over-sight, through collaboration, and with minimum expense. The program was managed and deployed effectively across several agencies using efficient project management methods, and meets the goals of the Governor and Taxpayers by reducing costs and increasing efficiencies.

This program has proactively provided enabling technology for other OSP programs and continues to enable other cost savings and efficiency programs:

- E-Ticketing permitted OJD (Judicial Department) to begin development of a PCI (Payment Card Industry) interface which allows offenders to pay citations on-line. Once submitted from OSP (or other E-Ticketing agencies) the citation can be paid and adjudicated within 24 hours, a process which currently can take more than 3 weeks. This allows the offender to quickly deal with the ticket and also generates revenue for OJD by the addition of a citation convenience charge.
- Post adjudication, driving records can be updated to reflect outcome. ODOT (DMV) currently accepts ONLY paper versions of this adjudication and manually transcribes the data into the DMV system. Electronic data provided by OSP and OJD enables DMV to consume this data at any point in the future, saving DMV from the need to capture more than 750,000 driving record changes.

Best practices employed (e.g., governance, relationship management, communication and marketing, etc.). That is, what business practices contributed to the success of this project, helped maintain commitment, funding and adoption.

The unique attributes of the OSP Mobility + E-Ticketing program are derived from the approach taken towards collaboration, project management and business integration. OSP and its partners used the Project Management Body of Knowledge (PMBOK) principals while developing unique business and success based integration strategies, and dynamic feedback mechanisms.

Mobility programs such as OSP's E-Ticketing program are usually prone to failure due to poor business integration planning and implementation. However, our innovative approach involved formalizing the deployment strategy by characterizing the areas of risk and addressing each individually. Rollout was based on success not time, and consequently we identified phased metrics to direct the rollout. The use of OSP infrastructure in which business logic and rules were used to capture, analyze, and direct data for use in making effective business decisions, was proactive.

The OSP Mobility + E-Ticketing Program is one of the most successful programs of its kind for many reasons. This program was not mandated by a legislative or executive order, and was developed at a minimum cost through tenaciously collaborating and remaining focused on the program goals. Similar programs typically have a high degree of risk and failure. However, OSP through proactive collaboration was able to identify, plan for, address issues, and deliver a successful program.

Describe why and how this collaborative effort is transferrable to other jurisdictions.

From the beginning, it was OSP's intention to develop this program with other agencies in mind. Examples include:

- Contracting vehicles were written to allow others to purchase from the contract.
- OSP and ODOT developed the "Uniform Oregon Citation" after lobbying the Chief Justice of the State of Oregon to accept the citation legally in court. The purpose being ANY law enforcement agency in the state has the ability to use the citation without costly development expenses.
- OSP service oriented architecture (ESB) interfaces were developed to support other agencies transcribing/transforming their citation data through the system.
- OSP trooper GPS coordinates from Mobility + E-Ticketing software were made available to the Virtual Oregon GIS program.

Formal communications strategies were developed through the OSP Public Information Officer (PIO). Communication plans and feedback processes were also created to determine if information was being received and issues were being addressed. Through formal publications, web forums, surveys, and field command staff, strategies were in place to provide information and education on the project activities.