



## 2011 Innovations Awards Application

**DEADLINE: MARCH 28, 2011**

ID # (assigned by CSG): 2011- \_\_\_\_\_

**Please provide the following information, adding space as necessary:**

**State:** Washington

**Assign Program Category:** Public Safety/Corrections – Criminal Justice

1. **Program Name:** Statewide Electronic Collision and Ticket Online Records (SECTOR)
2. **Administering Agency:** Washington State Patrol
3. **Contact Person (Name and Title):** Tom Wallace, Chief Technology Officer

**4. Address:**

403 Cleveland Ave SE  
Suite C  
Tumwater WA 98501-3311

5. **Telephone Number:** (360) 705-5192
6. **FAX Number:** (360) 705-5784
7. **E-mail Address:** [Tom.Wallace@WSP.WA.GOV](mailto:Tom.Wallace@WSP.WA.GOV)

**8. Web site Address:**

SECTOR is a client-server application. The SECTOR users have access to a back office process for reporting purposes, data extracts, manual publications, and client installs.

The private citizen has access to the Washington Traffic Safety Commission SECTOR web site for information on the application.

**9. Please provide a two-sentence description of the program.**

The SECTOR application uses state-of-the-art technology to replace the current paper-based processes for creating citations and collision reports, while still enabling participating agencies to meet existing business needs and legal requirements.

The simplified electronic method of data entry reduces errors, the time to complete a contact, and the risk a law enforcement officer is exposed to when completing a contact, while the rapid transmission of the data reduces the amount of time required by multiple agencies to process and share the information.

**10. How long has this program been operational (month and year)? Note: the program must be between 9 months and 5 years old on March 28, 2011 to be considered.**

The SECTOR application has been in production for four years, since April 2007.

**11. Why was the program created? What problem[s] or issue[s] was it designed to address?**

Each year the state of Washington processes between 130,000 and 150,000 collision reports and more than one million citations. Numerous state and local agencies share the responsibility to create, collect, and store collision and citation information. Washington State's government structure requires that many different agencies process and use this information as a key function of their daily business.

Collaborating agencies desired an electronic data-sharing and messaging infrastructure able to move information where and when it is needed. Such an application would facilitate prompt processing of interdependent data by the responsible agencies, while generating efficiencies in information delivery and data sharing. Successful deployment of this infrastructure would reduce redundancy, and improve the timeliness, accuracy, and availability of critical public safety information by eliminating error-prone manual data entry tasks.

**12. Describe the specific activities and operations of the program in chronological order.**

SECTOR is a client-server system where the client is the stand-alone, self-updating software on a law enforcement officers' in-vehicle computer, allowing the creation of electronic citations and collision reports, and supervisory review of submitted collision reports.

Created to provide a seamless, electronic document flow across multiple state agencies for traffic citations and collision reports, the SECTOR application uses the bar codes on the Washington State driver's license and vehicle registration information to speed data entry. State and local law enforcement officers are able to generate electronic citations and collision reports in their patrol cars using a scanner and laptop computer. Citation and collision information then routes electronically to the appropriate agencies.

Following the upload of the electronic documents to the central Washington State Patrol (WSP) SECTOR server, they are sent to the Justice Information Network Data Exchange (JINDEX) server. The JINDEX serves as the central messaging distribution platform, and is housed, operated, and maintained at the Washington State Department of Information Services (DIS). Once received, JINDEX distributes these records to the Washington State Department of Transportation (WSDOT), the Department of Licensing (DOL), and the Administrative Office of the Courts (AOC) for further processing.

The JINDEX eliminates the need for agencies to develop expensive, proprietary interagency data exchanges. The SECTOR application and the JINDEX use industry standard principles [e.g. Service Oriented Architecture (SOA), the Global Justice XML Data Model (GJXDM), and the National Information Exchange Model (NIEM)] in standardized processes that eliminate the requirement for users to modify existing business requirements or processes.

Recently, a modification that allows prosecutors the ability to utilize SECTOR was implemented. This new functionality allows the prosecutors the ability to create and review citations and make charging decisions.

**13. Why is the program a new and creative approach or method?**

Prior to the deployment of the SECTOR application, the statutorily mandated creation, distribution and entry of citation, collision and disposition records was done manually. This manual process was slow, and introduced a high level of human error.

The electronic creation and exchange of records enables agencies to reduce data entry, data entry-related errors, and the time it takes to process citations and collision records. This saves time for law enforcement, court clerks, and other state agency personnel while improving the timeliness and completeness of records to ensure the most accurate information is available for decision making.

Because partnering state agencies own the SECTOR source code, the software can be provided to all law enforcement agencies and prosecutors, within the state, without a licensing cost.

The state has adopted a unique governance structure to manage and direct the future of SECTOR. The governance of the application is managed by representatives from the following agencies:

- AOC
- DIS
- DOL
- Washington Association of Sheriffs and Police Chiefs
- Washington Traffic Safety Commission
- WSDOT
- WSP

This cohesive team reviews requests for modifications from the SECTOR user community and regulators such as, legislative mandates or new federal regulations to determine priorities and the feasibility of change requests.

**14. What were the program’s start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)**

The software application was purchased from a vendor, ownership was transferred to the state partner agencies and an application support structure was implemented within the WSP. The required third party software licenses were also purchased. The total expense for implementation was \$777,000.

| Item                      | Description  | Costs     |
|---------------------------|--|-----------|
| Vendor Costs              | Software application initially purchased from the vendor               | \$400,000 |
| Hardware                  | Servers, Software licenses, 3 bar code scanners, 3 printers, 3 laptops | \$202,000 |
| Full Time Employees (FTE) | Staffing costs for 2006-2007   | \$175,000 |

**15. What are the program’s annual operational costs?**

The program’s annual operation costs are approximately \$400,000.

| <b>Item</b>               | <b>Description</b>  | <b>Costs</b> |
|---------------------------|---|--------------|
| Contractor Costs          | WTSC provides funding for additional programming support of the application | \$150,000    |
| Software Licenses         | Server SQL, Development software, third party software licenses             | \$63,000     |
| Full Time Employees (FTE) | Staffing costs for 2010 for 3 FTEs  | \$198,000    |

**16. How is the program funded?**

The WSP funds all operating costs with the exception of a contractor position that is funded by the Washington Traffic Safety Commission.

**17. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.**

Yes. Modifications to several state laws and court rules were required to accommodate electronic signatures on citations, auditing and issuance of electronic citations, and courts acceptance and processing.

**18. What equipment, technology and software are used to operate and administer this program?**

The application uses the .NET development platform with several third party software products. The application runs on a workstation or a laptop. SECTOR users' equipment must meet the following minimum hardware and software requirements:

- Hardware (Laptop / Desktop)
  - Minimum 512 MB
  - Minimum 1-gigahertz (GHz) processor
  - Minimum 5 gigabytes (GB) available hard-disk space
  - Network Connectivity (Ethernet (LAN), encrypted wireless, or cellular air card)
- Software
  - Operating System
    - Microsoft Windows XP or greater
- Recommended Hardware Peripherals
  - In-car mounted printer, with either standard letter 8.5"x11" or 4" formats (to print citations and exchange of information).
  - 2-D barcode scanner/imager (must be USB-HID configurable, and PDF417 symbology compliant).

**19. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator’s name, present address, telephone number and e-mail address.**

Washington State was not the first state to implement electronic citations.

**20. Are you aware of similar programs in other states? If YES, which ones and how does this program differ?**

There are other states performing varying levels of data collection for ticket and collision information, but we cannot account for the type messaging system or the wide-spread use of the applications.

A major differentiation for the state of Washington is we chose to integrate the systems and useable processes for both tickets and collision reporting. This is significantly different than other states that opted to implement only one or the other.

Stakeholder collaboration for managing the different systems and useable processes is what makes the SECTOR project outstanding within Washington State.

**21. Has the program been fully implemented? If NO, what actions remain to be taken?**

While SECTOR has been fully implemented in numerous individual law enforcement organizations, on a state-wide basis, as of December 2010, 62 percent of local law enforcement agencies were using the SECTOR application. Within the WSP, 67 percent of the deployed field force were SECTOR users. These numbers continue to grow each month with the addition of new agencies and prosecutors. The use of the application is solely on a volunteer basis and is not mandated within the state.

The SECTOR governing body has identified additional functionality for future implementation. Through strategic planning, SECTOR continues to provide valuable service to law enforcement with the identification of future functionality.

**22. Briefly evaluate (pro and con) the program's effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.**

SECTOR replaces the need for paper based (non-eco friendly) issuance of citations and collision reports. It provides an automated electronic service for completing the same task and is preserving community resources. SECTOR helped to streamline data entry issues caused by the state's paper process it replaces, further eliminating the re-entrance of data repeatedly in different databases.

WSDOT estimates that approximately 10 percent of all paper collisions submitted by officers contain errors. Because SECTOR was specifically designed to decrease data errors caused by the submitting officer, it has reduced the time it takes to disseminate and share information across multiple agencies and has provided an outlet for better use of resources.

Implementation and deployment of SECTOR resulted in tangible benefits to state agencies and the public, including:

- Improved officer safety and efficiency through faster event processing
  - Ability to share data among multiple forms.
  - Differing citation types may be issued simultaneously rather than separately (as with paper).
- Reduced processing and data entry costs for agencies throughout the state
  - Eliminates data entry redundancies of the past.
  - Time studies have shown that the processing time of an electronic citation is about half that of a paper citation.

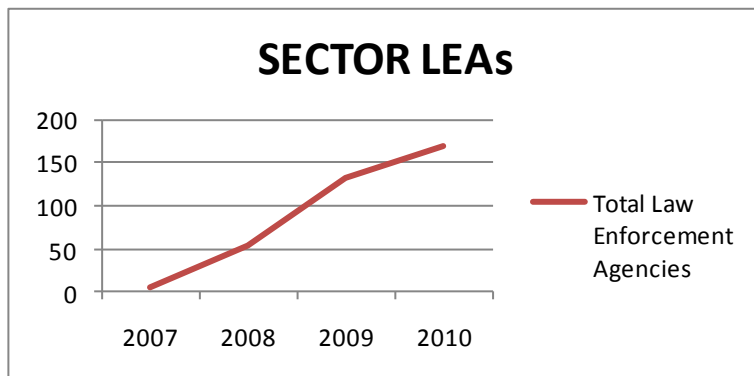
- WSDOT estimates their analyst can process SECTOR reports twice as fast as paper reports.
- Enhanced timeliness and accessibility for analysis and decision making such as;
  - Determining enforcement levels.
  - Guiding road maintenance and construction projects.
- More accurate data
  - Error rates for both citations and collision reports have been dramatically reduced.

Another measure of system effectiveness is the level of adoption within the user community. In 2007 there were four law enforcement agencies using the application. By December 2010, 168 law enforcement agencies were participating in the program. During the same period, the number of officers using SECTOR rose from 120 to over 2,000.

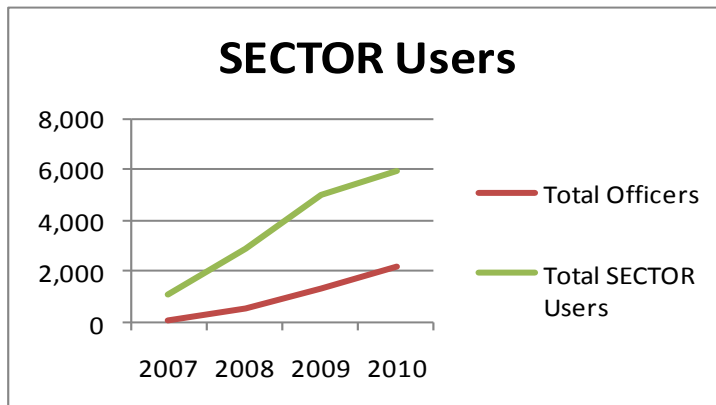
Since use of the system is purely voluntary, the rapid growth in the percentage of collisions and tickets processed through SECTOR indicates the benefits are being realized by the participating agencies.

The charts and graphs below depict the steady adoption of the application within the user community.

**Figure 1**

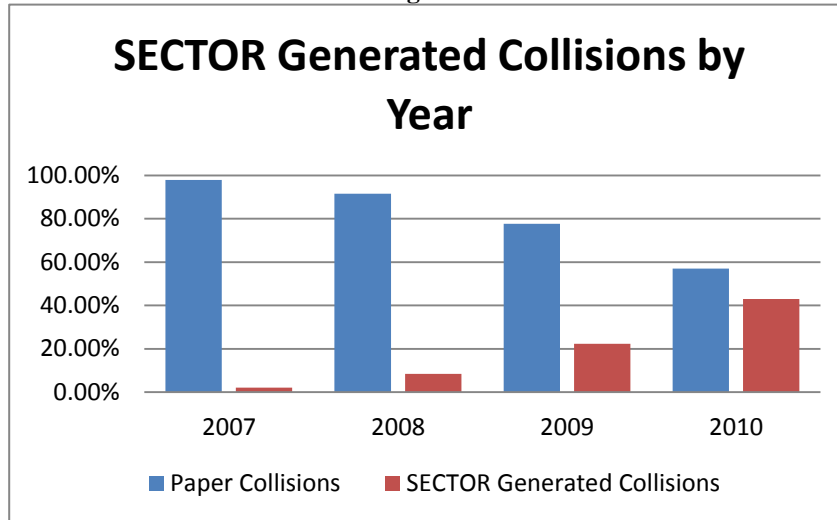


**Figure 2**

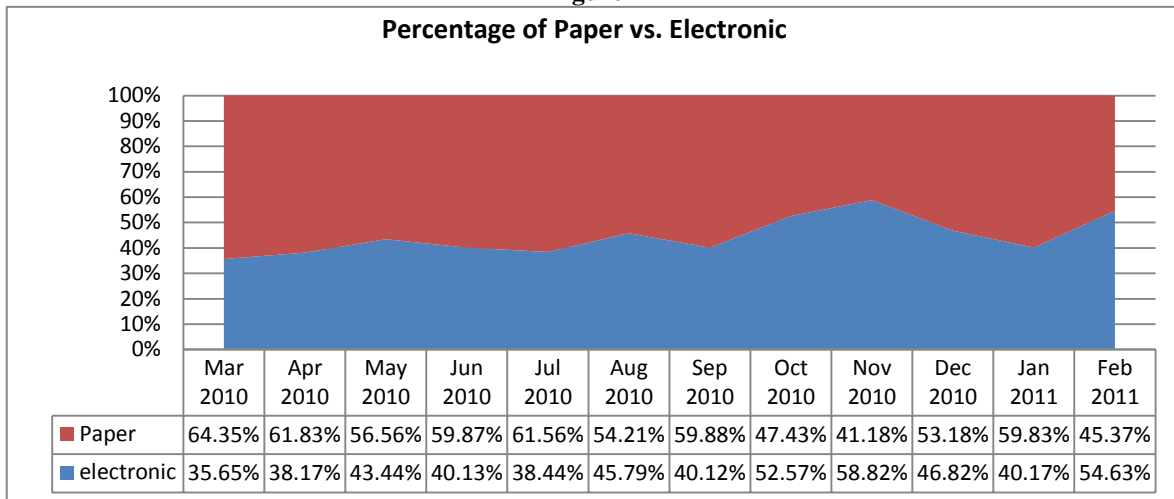


Figures 1 & 2 represent the increase in numbers of law enforcement agencies who have implemented SECTOR, the number of officers who are creating citations and collisions with the application, and the total number of active users of the system. The totals reflect data as of December of each year.

**Figure 3**



**Figure 4**



Figures 3 & 4 depict the steady increase of electronic collisions, first with yearly percentages and then the monthly growth for 2010.

**Figure 5**

| Year | JIS Cases | Electronic | Percent |
|------|-----------|------------|---------|
| 2007 | 1203412   | 29587      | 2.46%   |
| 2008 | 1197679   | 118454     | 9.89%   |
| 2009 | 1234932   | 305036     | 24.70%  |
| 2010 | 1214589   | 474830     | 39.09%  |

Note- Courts started receiving electronic tickets April 2007

Figure 5 depicts the steady increase of electronic citations, by yearly percentages through year 2010.

Figure 6

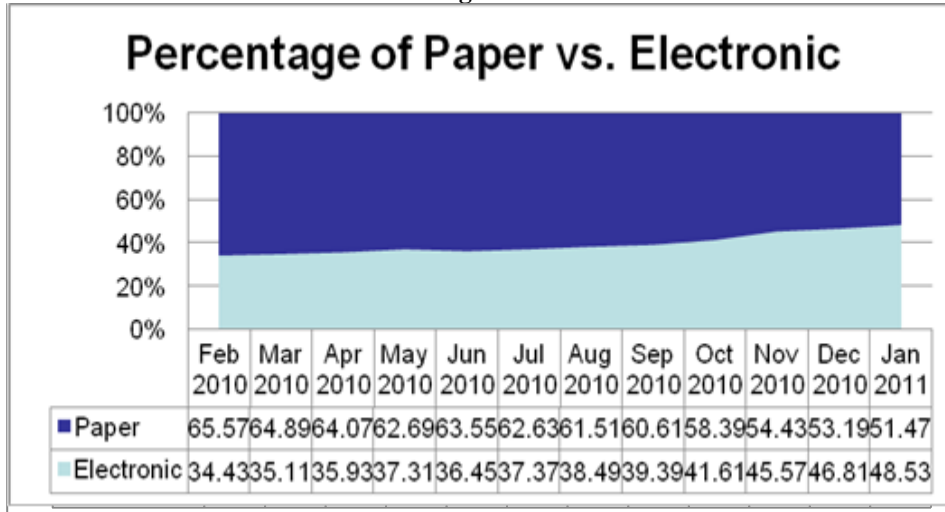


Figure 6 Comparison of paper and electronic submission for citations monthly growth, 2010.

Currently, 133 of the 169 courts of limited jurisdiction (District and Municipal Courts) in Washington State accept electronic tickets.

**23. How has the program grown and/or changed since its inception?**

The original scope for the application did not include the ability for prosecutors to create, review, and file citations with the courts. This functionality has been added to meet their business needs. Prosecutor training for accessing and using the application began in July 2010 and continues today.

In January 2010, work began to enhance the JINDEX message exchange to support new message types and additional functionality. This work, which is scheduled to be completed in late spring 2011, will allow additional law enforcement agencies and court systems to participate in the exchange of records, and allow records to be electronically distributed to, and consumed by, local law enforcement agency records management systems.

**24. What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?**

The implementation of SECTOR has been a highly collaborative multi-agency effort. Projects of this magnitude require strong executive sponsorship and leadership, cooperative interagency governance, and stakeholder commitment from all engaging entities after the initial implementation. It is also very important to solicit ongoing input and feedback from the user community to ensure that key business requirements are met with the product. This, in turn, will instill confidence in the application and increase acceptance among the user community.

All partner agencies need highly skilled application developers, server and architecture support staff, as well as project managers.

It is also important to establish statewide uniformity of collision and citation reporting formats. This standardization will help maintain continuous growth in a coordinated manner across the user community.

Washington State also benefited from having a statewide court case management system which allowed one interface to be created and used by all courts. Without that individual courts would have needed to build separate interfaces to receive the tickets electronically.

CSG reserves the right to use or publish in other CSG products the information provided in this application. If your agency objects to this policy, please advise us in a separate attachment.



The Council of State Governments  
Sharing capitol ideas.

## 2011 Innovations Awards Application Program Categories and Subcategories

Use these as guidelines to determine the appropriate Program Category for your state's submission and list that program category on page one of this application. Choose only one.

### *Infrastructure and Economic Development*

- Business/Commerce
- Economic Development
- Transportation

### *Government Operations and Technology*

- Administration
- Elections
- Information Systems
- Public Information
- Revenue
- Telecommunications

### *Health & Human Services*

- Aging
- Children & Families
- Health Services
- Housing
- Human Services

### *Human Resources/Education*

- Education
- Labor
- Management
- Personnel
- Training and Development
- Workforce Development

### *Natural Resources*

- Agriculture
- Energy
- Environment
- Environmental Protection
- Natural Resources
- Parks & Recreation
- Water Resources

### *Public Safety/Corrections*

- Corrections
- Courts
- Criminal Justice
- Drugs
- Emergency Management
- Public Safety

**Save in .doc or rtf. Return completed application electronically to [innovations@csg.org](mailto:innovations@csg.org) or mail to:**

CSG Innovations Awards 2011  
The Council of State Governments  
2760 Research Park Drive, P.O. Box 11910  
Lexington, KY 40578-1910

### **Contact:**

Nancy J. Vickers, National Program Administrator  
Phone: 859.244.8105  
Fax: 859.244.8001 – Attn: Innovations Awards Program  
The Council of State Governments  
E-mail: [nvickers@csg.org](mailto:nvickers@csg.org)

**This application is also available at [www.csg.org](http://www.csg.org).**