

# The Police Chief

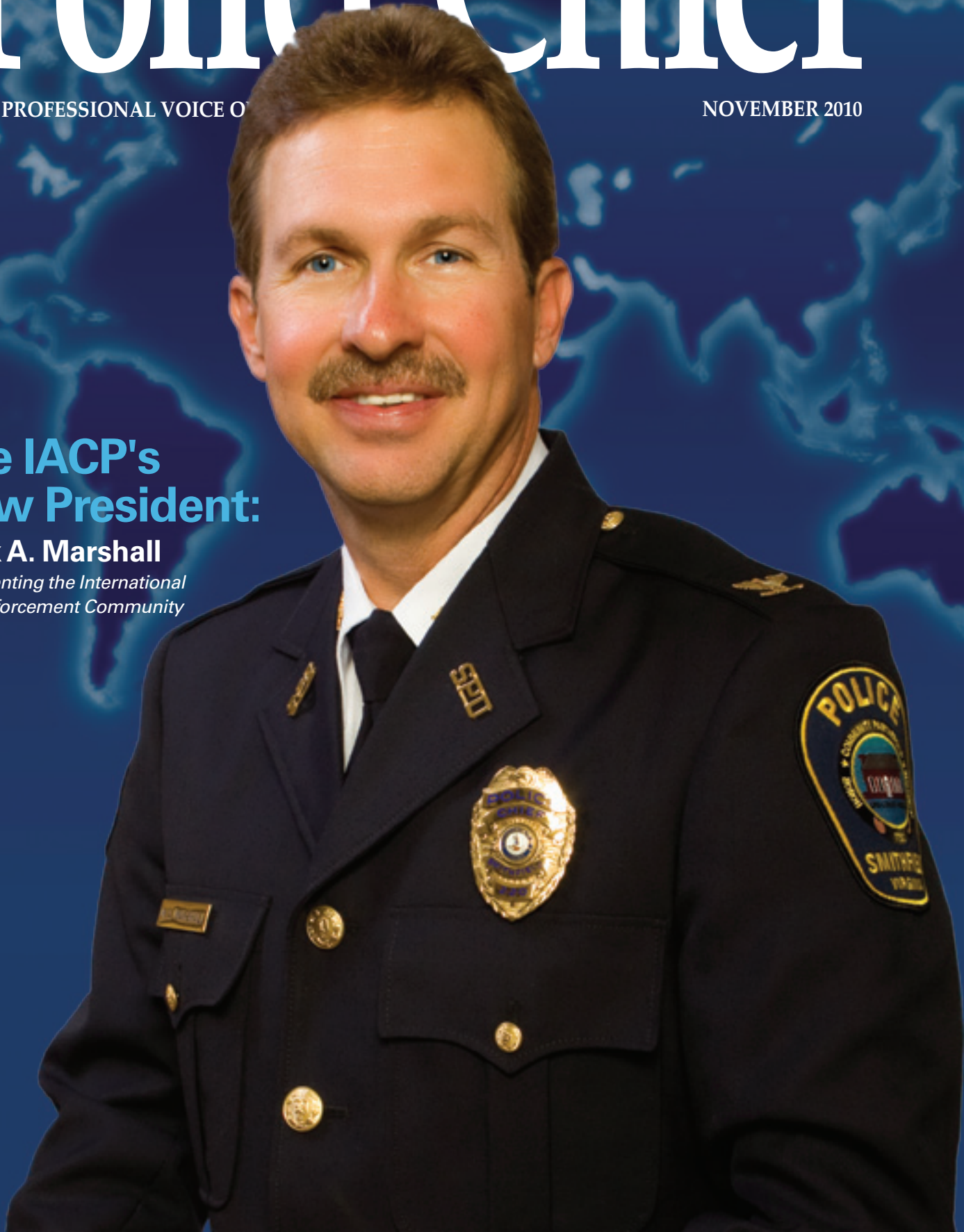
THE PROFESSIONAL VOICE OF

NOVEMBER 2010

## The IACP's New President:

**Mark A. Marshall**

*Representing the International  
Law Enforcement Community*



# Intelligent Policing: How the Colorado State Patrol Fights Crime and Boosts Public Safety

By Lieutenant Colonel M. Anthony Padilla, Commander, Regional One, Colorado State Patrol; and Chair, IACP Law Enforcement Stops and Safety Subcommittee

This column outlines a blueprint from the Colorado State Patrol (CSP) that led to the successful implementation of an impactful intelligence-led policing effort at a manageable cost. The CSP enjoyed substantial improvements to key traffic-safety and crime metrics with innovative integration of people, best practices in data management, and creative use of widely available software. The approach can be emulated by other agencies.

## A Blueprint: CSP's Approach to Crime and Traffic Safety

For the last 10 years, the CSP has been working hard to emphasize the integration of people, strategic planning methods, data collection, and analysis with the right technology platform to boost public safety results. The CSP strategic planning model requires that district, branch, and troop commanders report activity on a quarterly basis. It also identifies targeted roads (safety zones) where enforcement and visibility efforts are given special emphasis. Each business unit at the CSP prepares a strategic action plan to achieve a "6-4-2" strategy, explained as follows:

- Reduce the number of fatal and injury crashes on targeted roadways investigated by the CSP by at least **6 percent**.
- Reduce the number of driving under the influence-related fatal and injury crashes on targeted roadways investigated by the CSP by at least **4 percent**.
- Reduce the number of fatal and injury crashes investigated by the CSP by at least **2 percent**.

A strategic planning process where information sharing, accountability, and focus are made possible drives the level of success and results that the CSP has experienced over the past 10 years.

## The Data Management Side of the Story

The CSP information technology (IT) unit, regularly tasked with providing data reports for business units of the patrol, recognized the

challenges most acutely. The IT unit conducted an inventory of databases that were in use and identified numerous uncoordinated silos (that is, teams, databases, and various legacy systems) that had developed over many years. Beginning with an enterprise architecture approach and methodology, the IT unit began searching for a solution that would fit the needs of the patrol.

The requirements for a technology solution included the following:

- 24/7 connectivity to meet the geographic challenges of the state of Colorado;
- a solution that would integrate multiple technology silos into a single system;
- ideally, a solution that would use existing software licenses;
- support for existing business processes versus retrofitting processes to meet the new technology platform requirements;
- a system with ease of learning for training a large workforce;
- integration with computer-aided dispatch (CAD);
- conformance with National Information Exchange Model and other standards; and
- ability to operate the same in the car (mobile) and at the workstation (in the office).

Seamless transition to the new system was expected, and all of this is dependent on real-time data.

## The Alternatives Considered, and the Clear Winner

Alternatives considered included building a custom solution from the ground up; upgrading the existing records management system; and buying a few select point solutions for specific areas, such as crash reporting. The alternatives were deemed too complex, too costly, or too inadequate for the long term.

The CSP IT unit recommended Microsoft SharePoint, a collaboration, file-sharing, and web-publishing platform, to best meet the various data and business challenges of the patrol over the long term. The software product was known to be a powerful and ever-present solution, and the patrol already had experience and licenses with the manufacturer.

The product has uniquely attractive functionality, such as

- collaboration capabilities for internal and external stakeholders;

- portal capabilities, enabling the patrol to communicate among regions, districts, and troops, and to share information with external business partners;
- enterprise search capabilities to locate data across multiple systems (even old databases);

## Managing by the Numbers

The CSP created a business intelligence unit to work side by side with the IT staff on the software product. The business intelligence unit received training from Adventus as "super users" of the system, where they learned to build electronic forms, create and customize reports, extend portals, and manage the security rights of users, thus allowing IT staff to focus on IT projects and priorities. The software product SharePoint made it possible to create dynamic management dashboards, which provide members with real-time activity as data are entered into the program by end users. The process eliminated duplication of effort because local staff no longer needed to enter the data into a records management system.

## Challenges on the Horizon

As CSP users become more familiar with the software product's capabilities, the potential for greater gains comes into view more vividly. CSP leadership learned that there must be an emphasis on governance as the wish list from patrol members grows as the program's development evolves. The business intelligence unit, with strong commitment from the chief of police and CSP leadership, is available to ensure proper governance. The IT unit, with an enterprise-wide view of the technology, provides change management control and enterprise architecture guidance.

## Colorado State Police Crash Report

		9/11/09-10/11/09			1/1/10-1/31/10			Net Change			Percent Change		
Show/Hide # Persons		Crashes	Killed	Injured	Crashes	Killed	Injured	Crashes	Killed	Injured	Crashes	Killed	Injured
Show/Hide DUI/DUID Details													
<b>State: Colorado</b>	<b>Grand Total</b>	2459	41	550	2200	16	319	-259	-25	-231	-10.53%	-60.98%	-42.00%
<b>Total</b>	<b>Total</b>	41	41	27	14	16	13	-27	-25	-14	-65.85%	-60.98%	-51.85%
	<b>DUI/DUID</b>	11	11	8	2	2	0	-9	-9	-8	-81.82%	-81.82	-100.00%
	<b>Non DUI/DUID</b>	30	30	19	12	14	13	-18	-16	-6	-60.00%	-53.33%	-31.58%
<b>Injury</b>	<b>Total</b>	373	0	523	235	0	306	-138	0	-217	-37.00%	0.00%	-41.49%
	<b>DUI/DUID</b>	49	0	62	41	0	59	-8	0	-3	-16.33%	0.00%	-4.84%
	<b>Non DUI/DUID</b>	324	0	461	194	0	247	-130	0	-214	-40.12%	0.00%	-46.42%
<b>Property</b>	<b>Total</b>	2045	0	0	1951	0	0	-94	0	0	-4.60%	0.00%	0.00%
	<b>DUI/DUID</b>	107	0	0	101	0	0	-6	0	0	-5.61%	0.00%	0.00%
	<b>Non DUI/DUID</b>	1938	0	0	1850	0	0	-88	0	0	-4.54%	0.00%	0.00%

		9/11/09-10/11/09			1/1/10-1/31/10			Net Change			Percent Change		
Show/Hide # Persons		Crashes	Killed	Injured	Crashes	Killed	Injured	Crashes	Killed	Injured	Crashes	Killed	Injured
Show/Hide DUI/DUID Details													
<b>State: Colorado</b>	<b>Grand Total</b>	2459	41	550	2200	16	319	-259	-25	-231	-10.53%	-60.98%	-42.00%
<b>Fatal</b>	<b>Total</b>	41	41	27	14	16	13	-27	-25	-14	-65.85%	-60.98%	-51.85%
	<b>No Seatbelt</b>	4	0	7	4	0	4	0	0	-3	0.00%	0.00%	-42.86%
<b>Injury</b>	<b>Total</b>	373	0	523	235	0	306	-138	0	-217	-37.00%	0.00%	-41.49%
	<b>No Seatbelt</b>	89	0	119	61	0	78	-28	0	-41	-31.46%	0.00%	-34.45%
<b>Property</b>	<b>Total</b>	2045	0	0	1951	0	0	-94	0	0	-4.60%	0.00%	0.00%
	<b>No Seatbelt</b>	35	0	0	23	0	0	-12	0	0	-34.29%	0.00%	0.00%

- content management, providing robust document and records management capabilities;
- business processes automation with strong workflow capabilities and controlled secure access for electronic forms; and
- business intelligence, enabling real-time access to dashboards that provide trend analysis and other statistical analysis methodologies.

The software product is complementary to the existing CSP mobile computer infrastructure, where laptops equipped with wireless capabilities and a robust virtual private network (VPN) allow for secure communication. Troopers are able to complete automated forms, including traffic stops and pursuits, to help improve trooper safety and the efficiency and productivity of all personnel. Moreover, CSP already owned the software product, and users were familiar with related Microsoft products and interfaces, thereby lessening the learning curve. The solution would replace the CSP legacy records management system and a number of other technology silos. Adventos LLC, a technical consulting firm with a dual focus on technology and people enablement and a robust track record with helping law enforcement, was chosen to assist with implementing, training, and mentoring the CSP IT staff and the business intelligence unit.

### Seamless Transition

Many of the CSP forms were paper and manually completed by troopers across the state every day. New, automated forms were designed to maximize the functional benefits of automation yet still look like

the old paper forms with which users were familiar and comfortable. The CSP executive command staff carefully designed the rollout plan, sequencing new form releases according to operational priorities to maximize end user uptake. Most of the paper forms were previously entered into a cum-

bersome decision support system, where reports were generic and analysis required substantial manipulation. The new software product allows real-time data collection, sharing, and review and the potential to share data across the state with other partner agencies. ♦

## Compelling Results

Colorado has had a great track record in reducing injury and fatal crash rates. This success equates to lives being saved. The members of the CSP and its leadership understand the core mission of the organization and are dedicated to making Colorado safer every day. Officers are driving down fatalities and crime through these efforts. Over the past 10 years, the CSP has reduced fatal crashes by 22.4 percent while the population of the state and the number of registered vehicles has increased.

A successful implementation of a data-driven approach to crime and traffic safety, fortified by the new software product, has been transformative for the CSP. At the most critical level, real-time data analysis is now possible. This is done on demand and without IT involvement. The software platform is extensible and flexible and continues to yield benefits and opportunities for the CSP.

Also, aside from metrics, agencies implementing a similar approach are likely to see softer benefits such as the following:

**One-stop shopping.** The software solution has allowed the CSP to mine data from CAD and other CSP databases utilizing a single platform.

**Morale and retention benefits.** Technology plays an increasing role in attracting and retaining personnel—especially generation Y, whose members have grown accustomed to technology in their daily lives and who expect a similar technological experience in the law enforcement profession.

**A direct impact to IT budgets.** The absence of annual maintenance contracts for software silos results in direct savings.

The CSP expects to continue to have success in driving down the injury and fatal crash rates within the state. The CSP is also committed to share this information with other law enforcement stakeholders and the community. The agency now has a flexible platform to better use data, technology, and resources in intelligence-led policing efforts. The CSP commitment, dedication, and passion toward traffic safety will make possible its long-term strategic goal of eliminating most fatal crashes by the year 2025.