Entrust Datacard offers the solutions government agencies need to control costs, drive efficiency and mitigate program risk. Our advanced printing and laser-engraving technologies allow issuers to add highly unique Security at Time of Personalization™ (S.T.O.P.) features and personalized data onto a credential — locking in security and transforming a document into a trusted identity. Solutions range from citizen enrollment and credential issuance to technologies for authentication, renewal and revocation of both physical and digital credentials.

Our commitment to understanding industry best practices and standards, along with an open, flexible architecture, helps ensure security and flexibility for governments and the citizens they serve.

Entrust Datacard provides solutions for:
• 65+ drivers license programs worldwide
• 40+ million licenses issued per year
• 15+ license programs in North America

Empower Security at Time of Personalization (S.T.O.P.) in your license program by visiting entrustdatacard.com/movemag or by scanning the QR code to download a FREE brochure.
Veridos Secures Identities

Identity Solutions. Governments are served with highly secure and innovative identity solutions, making Veridos their best choice for protecting and safeguarding their citizens.

Veridos provides the latest technologies for the enhancement of (electronic) driver’s licenses into more secure and trustworthy documents. Its solutions inherently include the choice between a wide range of materials, security features and operating systems. To prevent those choices from becoming overwhelming, the company supports its customers through the entire switchover process, from revised enrollment and issuance procedures to the development of mobile services that provide further convenience and better user experience on mobile devices. Find out more about how Veridos can help you make the most secure decision at www.veridos.com.
Securing digital driver licenses in four U.S. jurisdictions

Gemalto has been awarded a grant by NIST (National Institute of Standards and Technology) to run a DDL pilot in Colorado, Idaho, Maryland, and Washington DC. Digital driver licenses, accessible via a secure mobile application, create trusted identities and improve convenience and security for citizens, government and businesses.
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20 YEARS OF MOVE
A retrospective video showcasing AAMVA’s flagship publication

MOVE IS 20 YEARS OLD!
Our special commemorative section begins on PAGE 16:

THEN & NOW
A look at 20 years of NMVTIS, DMV information systems & online customer service

BY MEGAN KRAMER

IDENTITY RECORDS
Over the last 20 years, identity management has changed significantly, in large part due to AAMVA’s efforts

BY JAMIE FRIEDLANDER
Listen Develop Deliver

Understanding your needs
Tailoring solutions
Achieving exceptional results
Surpassing expectations

CANADIAN BANK NOTE COMPANY, LIMITED | CBN SECURE TECHNOLOGIES, INC.
As our members face the challenges of the 21st century, AAMVA is depending on the tried and true concept of teamwork as the Association’s key strategy to achieve long-term goals.

This opening sentence from the leadership letter in the Winter 1996 issue of MOVE, written by 1996–1997 AAMVA Chair of the Board Fred Porter and then-AAMVA President & CEO John Strandquist, still rings true today.

While many principles and ideas—such as partnerships and teamwork—have remained constant in the motor vehicle community, there has been much growth and change over these past 20 years, too. In this special anniversary issue of MOVE, you’ll have the opportunity to reflect on where things were then and where we are now with topics like online customer service, DMV information systems, the National Motor Vehicle Titling Information System (NMVTIS) and identity management. I have enjoyed witnessing these changes, and I look forward to what the next 20 years will bring!

Anne Ferro, AAMVA President and CEO
A new way to manage electronic vehicle transactions—across the nation.

Visit vitu.com to learn more.
AAMVA’s 83rd Annual International Conference (AIC) was an all-out success this past August 16–18. Held in Williamsburg, Virginia, and hosted by AAMVA’s immediate past Chair of the Board Rick Holcomb and the Virginia Department of Motor Vehicles, the conference provided attendees with a combination of informative sessions and fun events. From timely issues such as mobile driver’s licenses and regulating in the new economy, to other important topics like data sharing and security and drug-impaired driving, attendees took advantage of a wide variety of engaging sessions.

Left: Virginia Governor Terry McAuliffe speaks during the Opening General Session.

Upper left: Attendees mingle during the Chair’s Welcome Reception, where some wore colonial attire.

Upper right: AIC attendees are all smiles.

Middle right: Jean Shiomoto, 2016–2017 AAMVA Chair of the Board, and Rick Holcomb, 2015–2016 Chair of the Board.

Bottom Right: The Reception & Banquet was ‘revolutionary.’
Col. Tracy Trott of the Tennessee Highway Patrol (pic-
tured above) and Illinois Secretary of State Jesse White
were both honored with the Martha Irwin Award for
Lifetime Achievement in Highway Safety at the 2016
Annual International Conference (AIC) in Williams-
burg, Virginia. Col. Trott was the recipient of the award
in the law enforcement category, and White was the
winner in the non-law enforcement category.

The award recognizes their commitment to and
accomplishments in highway safety over the course
of their careers.

Col. Trott began his career with the Tennessee High-
way Patrol in 1978 as a road trooper before ascending
the ranks and ultimately becoming the commander.
In his five and a half years as colonel, he has increased
DUI enforcement 140 percent and has lowered the
impaired fatality rate in the state from 28 percent to
23 percent. Additionally, under Col. Trott’s guidance,
the Tennessee Highway Patrol has developed a cutting-
edge predictive analytics program to reduce and
prevent serious injury and fatality crashes.

Secretary White is the primary highway safety advo-
cate for the State of Illinois. He has used his influence
to get more than 30 highway safety initiatives passed in
the Illinois General Assembly over the years, including
a ban on texting and limitations on cell phone use. The
Illinois Secretary of State Office is one of the largest of
its kind in the United States, not only licensing drivers
and registering vehicles, but also overseeing all libraries,
incorporating all businesses, and registering every
lobbyist, notary and securities broker in the state.
Back in the earlier days of the internet, the Massachusetts Registry of Motor Vehicles became the first jurisdiction in the United States to offer online services through its website. Twenty years later, the Massachusetts RMV boasts one of the most comprehensive online services websites among jurisdictions in North America and has taken major steps to ensure its customers have a quick and easy digital experience.

MassRMV.com, the jurisdiction’s website, allows customers to perform a number of traditional services without leaving their homes. Massachusetts residents can renew their vehicle registration, ID card or driver’s license; schedule and pre-pay for their driving test; and perform a number of other functions that previously required a visit to a brick-and-mortar location. By offering these services online, Massachusetts has removed a significant amount of hassle from the process, allowing customers to skip the line. It also paved the way for other jurisdictions to follow suit.

“Administrators are aware there is a demand to move away from the traditional brick-and-mortar service model,” says Erin Deveney, registrar for the Massachusetts RMV. “First and foremost, it’s easier for us to bring our services to customers, as opposed to them coming to us.”

The Registry started offering online services back in 1996, a time when the jurisdiction was under intense scrutiny from the Massachusetts legislature. After complaints about poor branch service delivery, the jurisdiction began experimenting with alternative methods of service, including expanding its phone center and beginning a venture onto the internet. Although Deveney would admit that the first online services were “rudimentary,” the jurisdiction expanded services rapidly as internet use became more widespread.

When the economic recession struck in 2008, many jurisdictions were hit with massive budget cuts, and Massachusetts was no exception. “We were in a pattern of a lull, not changing or offering anything new,” Deveney says of the years following the recession. But when Gov. Charlie Baker was sworn into office in 2015, his leadership enabled the jurisdiction to refocus attention on online services and expand them.

By the end of 2016, the Massachusetts RMV will have two additional functions added to its new “myRMV” feature to give customers a more personalized online service experience. First, it will implement a user ID and password system for customers to use when they log on, saving them the hassle of entering their personal information every time they use the site. Second, the online account will include registration renewals and duplicate registrations and titles.

Within the next several years, the Massachusetts RMV hopes to replace its mainframe, which Deveney jokes is “30 years old.” But even in its current state, MassRMV.com provides a comprehensive list of online services and continues to set the standard for other jurisdictions nationwide. It hopes to spread the word about its online services and show all customers how easy it is to skip the line.

“Very frequently, we will get customers who don’t know the Registry has a website,” Deveney says. “But then, we will equally get those customers who say, ‘Wow, I just renewed my registration online, and got it in three days!’ I think, obviously, more of our counterparts are going to want to have that service option.”
As demand grows for more intelligent and secure mobile identification solutions, HID Global is driving innovation through best-in-class technology and convenience. Our HID goID™ platform for government-issued mobile IDs is the most advanced solution of its kind — allowing control over how much personal information is shared — so a citizen’s identity is always protected, whether online or off. And because it’s powered by secure Seos® technology, you can invest with confidence.

You’ll call it customizable convenience. We call it, “your security connected.”

YOUR SECURITY. CONNECTED | Visit us at hidglobal.com/solutions/government-mobile-id
Game On

LONGTIME INDUSTRY PARTNER QMATIC STAYS ON THE CUTTING EDGE OF QUEUE MANAGEMENT

Twenty years ago, Qmatic made headlines in MOVE with its queue management system, which eliminated lines at the DMV in favor of a ticket-based system that allowed customers to sit and wait until their ticket was called. Today, this industry partner is still focused on the customer experience; however, the tools and systems used have changed drastically.

“We’ve evolved from what some people would say is a hardware-focused company to a more software-driven—but hardware-enabled—company,” says Keith Blankenship, vice president of sales for Qmatic. “We went from that red LED board that displays ticket numbers to being able to schedule an appointment on your smartphone.”

Qmatic’s flagship product for motor vehicle departments is the Orchestra platform, which offers numerous ways for DMVs to manage what Qmatic calls the “customer journey.” The functions Orchestra covers range from the pre-arrival stage—customers going online to look at wait times or make an appointment—to the post-serving stage—capturing feedback from customers and analyzing that data—and everything in between.

One of Qmatic’s newest offerings is the ability to add gamification, or the application of game elements like point scoring, to products within the Orchestra platform.

The Norristown Pennsylvania Department of Transportation (PennDOT) Driver License Center in Norristown, Pennsylvania, is the first site in the United States to use this technology in a motor vehicle setting. Visitors to the Norristown branch can download an app and play Myfunwait, which asks users DMV-related trivia questions while also keeping track of their place in line.

“The reason we implemented Qmatic in our sites is we think it’s important to have open communication with our customers, and gamification Myfunwait offers gamification as part of waiting in line, reducing the perceived wait time at the DMV.

(THE MONTH’S QUESTION)

HOW DID AAMVA JURISDICTIONS CELEBRATE DMV APPRECIATION WEEK WITH DONATE LIFE?

@DonateLifeNC on Sept. 19, 2016
This week is DMV Appreciation Week and we want to thank the @NCDOT for their support of organ donation! #NCDMV

@GiftOfLifeMich on Sept. 20, 2016
This is DMV Appreciation Week (@MichSoS), and we are VERY appreciative for the help in saving lives! #Thx4Saving
When MOVE magazine was first published in 1996, the whole internet thing was new to everyone, including motor vehicle administrations. Here’s a look at how the World Wide Web and online services have revolutionized the way AAMVA members conduct business and interact with customers. The full details of these surveys can be viewed in the AAMVA online survey tool at AAMVA.ORG/SURVEY/USER/SEARCH.ASPX.

**WEB SITE HISTORY [24 RESPONDENTS]**

**WHAT ONLINE SERVICES DO YOU CURRENTLY PROVIDE?**

- Driver's license renewal
- Practice knowledge test
- Vehicle registration renewal
- Register to vote
- ID card renewal
- Driver's license reinstatement
- Duplicate registration or title
- Dealer licensing
- Driver's license replacement
- Change of address
- Order special interest or personalized license plates
- Organ donor registry
- ID card replacement
- Appointments for road tests
- Sign up to receive renewal reminders
- Vehicle record
- Vehicle registration renewal
- Register to vote
- Driver record
- Vehicle record
- Register to vote

**WHAT YEAR DID YOUR AGENCY CREATE YOUR VERY FIRST WEBSITE?**

- 1994–1999
- 2000–2003
- Unknown

**WHAT YEAR DID YOU START PROVIDING ONLINE SERVICES?**

- 1995–1999
- 2000–2006
- 2007–2013

For more information about Qmatic’s gamification app MyFunwait, check out LP.QMATIC.COM/MYFUNWAIT.
Are you ready for the Digital Transformation?

Let MorphoTrust be your trusted partner through the Digital Transformation. Whether it’s implementing an Electronic ID (eID) to help secure state tax refunds or a Mobile Driver License (mDL) program, MorphoTrust is transforming the way we secure and prove our identity, both online and in-person.

Contact your MorphoTrust Client Executive today to set up a meeting to discuss the future of your technology.

YOUR WORLD:  Simplified • Protected • Secured • Modernized
Let MorphoTrust be your trusted partner through the Digital Transformation. Whether it’s implementing an Electronic ID (eID) to help secure state tax refunds or a Mobile Driver License (mDL) program, MorphoTrust is transforming the way we secure and prove our identity, both online and in-person.

Contact your MorphoTrust Client Executive today to set up a meeting to discuss the future of your technology.

2015
Launched the nation’s first mobile driver license (mDL)

1988
Developed the nation’s first complete digital ID system

1958
Implemented the first state-issued photo driver license

Are you ready for the Digital Transformation?

YOUR WORLD:
Simplified • Protected • Secured • Modernized

MorphoTrust - Your Trusted Partner: Past • Present • Future
HINDSIGHT IS 2020
LOOKING BACK AT TWO DECADES OF MOVE MAGAZINE
The fall 2016 issue of MOVE celebrates the magazine's 20th anniversary! Feeling nostalgic, we went back and looked at some of the old issues of MOVE to see what's changed in the industry over these past 20 years—and what hasn’t. We also dared to look ahead and predict what's down the road in the next 20 years of motor vehicle administration and law enforcement.

In the following pages, you'll find an excerpt from a MOVE article published in 1996, plus insights from people who were featured in the magazine 20 years ago. Enjoy!

MOVING THROUGH THE YEARS
Just as the motor vehicle and law enforcement community has gone through significant changes in the last 20 years, so has MOVE! Follow the timeline of industry milestones and MOVE covers on the following pages to see the evolution.
A LOOK AT 20 YEARS OF NMVTIS, DMV INFORMATION SYSTEMS & ONLINE CUSTOMER SERVICE  
BY MEGAN KRAMER

Twenty years ago, when MOVE was just coming into existence, a number of AAMVA programs and services were just starting to take off as well. The National Motor Vehicle Title Information System (NMVTIS) was in planning stages after the introduction of the Anti Car Theft Act in 1992; DMV information systems managers were diligently coming up with new software to stay abreast of ever-changing technologies; and although customer services were largely done at branch offices, administrators were looking optimistically into the future of the internet and “virtual offices.”

For MOVE’s 20th anniversary, we want to take this opportunity to see how far we’ve come in each of these programs and services, as well as what’s important today.
In 1992, the Anti Car Theft Act was established to prevent the introduction or reintroduction of stolen motor vehicles into interstate commerce; protect states, consumers and other entities from vehicle fraud; reduce the use of stolen vehicles for illicit purposes; and provide consumer protection from unsafe vehicles.

To meet this tall order, AAMVA began planning the National Motor Vehicle Title Information System (NMVTIS), which would provide motor vehicle titling agencies, law enforcement, prospective and current purchasers, insurance carriers, and junk and salvage yard operators access to vehicle titling information. Roughly 20 years since its inception, NMVTIS is alive and well—and on its way to nationwide compliance and full financial sustainability.

NMVTIS began its pilot program development in 1996, with four states participating (Florida, Indiana, Massachusetts and Virginia), and officially conducted the pilot program in 1999. Ten years later, NMVTIS data became available to consumers, and all states were required to start using the system to report information and perform title verifications in 2010. Along the way, several regulations and features were added to NMVTIS to ease implementation.

“Best practices documentation was developed for the states to aid in standardizing processes, as well as tools to improve data integrity and the ability for states to make title and brand corrections on their records in NMVTIS,” says Vivienne Cameron, AAMVA senior director. “There is also a State Web Interface (SWI) feature, which includes current title and title history, branding information, odometer and theft information, state titling anomalies, and state title information from some states.”

Currently, 96 percent of U.S. DMV data is represented in the system, with all 51 jurisdictions either maintaining participation or continuing to move toward full compliance.

Among the 44 states currently providing data in NMVTIS, there are approximately 494 million current title records and 522 million title history records in the system.

“There has been an overall expansion in number of records, with 1.2 billion records held within NMVTIS,” says Cameron. “The State Program contributes the largest number of records.”

With only 4 percent of state data not yet represented, one of AAMVA’s main goals today is to support these states with development and implementation of NMVTIS, as well as help participating states optimize their systems.

“We are currently discussing a State Program Performance Management Concept, which would be a development of tools and reports to assist states in fully maximizing their benefits from NMVTIS by enabling greater information sharing, monitoring and evaluation,” says Cameron. “The result would be a more efficient and effective overall system.”

Another current goal for NMVTIS is to become financially sustainable by 2019. From 1996 to 2011, the Bureau of Justice Assistance awarded AAMVA federal grants to help create, operate and implement the system. The last expenditure of federal grant funds occurred in 2013. Since then, program revenues and contributions from AAMVA member funds have supported NMVTIS.
Back in 1996, Boyd Dickerson-Walden was working with four other team members on the Florida Department of Highway Safety and Motor Vehicles’ (DHSMV) new Vehicle Information System Overall Redesign (VISOR) project, which was a modernization of vehicle title, registration and parking permits processing. At the time, Dickerson-Walden was less than 10 years into his career with the Florida DHSMV—now, he is chief information officer and director of the Division of Information Systems Administration (ISA), and has witnessed the evolution of technology and information systems firsthand at the DHSMV.

“Nowadays, we have a lot of tools available to us that we didn’t have back in 1996,” he says. “A lot of things need to be done before we can issue a driver’s license, and there are all of these business rules that are built into that now. There are tools to capture those business rules in a way that you can manage them and know when they change and how that impacts your system.”

Instead of trying to rebuild the code every time a business rule is changed or added, Dickerson-Walden, who is on the AAMVA Board, explains that information systems now have the rules at their core. “Instead of going out and gathering all of that [information] every time you want to modernize your system, you just change the technology around the business rules,” he says. “The business rule repositories are the biggest thing to assist IT in moving into the future.”

Another big change in information systems development since the 1990s doesn’t have to do with technology, but rather how these projects are managed. “The processes that help us go about modernization are just completely different,” Dickerson-Walden says. “There are all of these project management life cycles now. Back then, we knew how to run a project, but there was a lot less structure to it. There are so many best practices now, and to me that’s a good thing. It may cost you more money and it may take you more time, but you have a better chance of success.”

As CIO, Dickerson-Walden is currently in the midst of another major modernization project, along with Carl Ford and Terrence Samuel, who worked with him on the VISOR project in 1996. Although some of the players are the same, roles have changed. This time, Samuel is leading the charge as the director of the Office of Motorist Modernization, while Dickerson-Walden is coordinating the balance of ISA resources maintaining legacy systems and working on modernization efforts.

This project, however, is focusing its efforts on creating a 360-degree view of each customer in the driver and vehicle world—rather than just a view of how a driver relates to his or her own motor vehicle—as well as how the DHSMV can help customers take advantage of online services.
Valid USA Happy 20th Anniversary MOVE! As a proud member & sponsor of AAMVA, Valid USA looks forward to another great 20+ years of our partnership.

MorphoTrust Thank you #AAMVAMOVE for promoting MVA innovation for 20 yrs — looking forward to the next 20!

HID Global Congratulations on 20 years, MOVE! HID Global is looking forward to partnering with you in 2017!

Entrust Datacard @EntrustDatacard Congrats MOVE Magazine on your 20th anniversary! Thank you for two decades of valuable industry contributions!

HOW #TWEET IT IS! Congratulations, MOVE! Industry partners tweet to celebrate MOVE’s 20th anniversary.

Gemalto Congratulations to AAMVA on the 20th anniversary of MOVE Magazine! @Gemalto_NA

3M Congratulations on your 20 year anniversary we have been honored to be a partner in serving the motor vehicle industry with you.

Veridos Congratulations MOVE on 20 years! Here’s to many, many more. #Veridos

CA Technologies We’re proud to fast track #DMV modernization & innovation like MOVE magazine & @AAMVAConnection — congrats on 20 years!
In 1997, a MOVE article tried to predict the future of customer service in the year 2020, which sounded like quite a long way into the future—everyone had dreams for what kind of advancements would be the new normal.

Let’s take a walk through the Department of Motor Vehicles. The many pieces of an agency’s virtual office operate seamlessly. The customer interface is a World Wide Web site (accessed from home or office) or a kiosk (found in a mall or grocery store). Through either of these friendly, interactive systems, customers may pay fees and fines, renew their registrations or file new ones, apply for special plates, change their addresses and apply for duplicate identification cards or driver licenses. Many jurisdictions use Smart Card technology in their licenses; kiosks have been designed to optimize their use. Magnetic stripe readers (also available now for home computers) allow payment via credit or debit cards; kiosks will accept checks, as well. “Electronic signatures” are recognized by federal legislation; fraud does not pose a significant problem.

Because these remote locations are linked directly to the agency’s secure network, confirmation of all information, including credit card verification, is nearly instantaneous. Kiosk customers can receive certain products immediately. License plates and new registration cards are mailed, usually within two days.

Because liens and titles are processed entirely through streamlined electronic data interchange, material and personnel costs for these tasks have decreased. In most cases, those funds are reinvested in the agency (this is the future, remember?), allowing for research and development of new technology. We are doing more with less!

As you can see from this excerpt from the 1997 article, “Service with a Smile,” expanding technology allowed for peak customer service efficiency. The World Wide Web and special kiosks around the community made it possible for customers to complete certain transactions without setting foot in a branch office. Most branches changed from queuing systems to appointments, specifically for testing services, and walk-in clients completed their transactions in minutes.

But how accurate was the prediction? As it turns out, very accurate. “We offer our customers quite the laundry list of convenient online services today,” says Christine Nizer, administrator at the Maryland Department of Transportation’s Motor Vehicle Administration (MVA).

The list includes both vehicle and driver services, including registration, titles, new and personalized license plates, emissions extensions, driving records, driver’s license and ID card renewal, as well as change of both physical and email address so the MVA can reach out to customers electronically.

“Gov. Larry Hogan has challenged us to make our services more convenient for our customers, and we’re delivering with more online options,” says Nizer. Today, more than 50 percent of transactions are now done online, which is a significant shift from where we were many years ago. “By allowing customers to complete their transactions online and at self-service kiosks, it reduces the wait time for people who do need to come to a branch office.”

Other convenient factors today include branch location and features; some branches are located in shopping centers, and several standalone branches have self-service kiosks where customers can perform any service that they could online.

Today, most jurisdictions offer these types of advancements. From mobile agencies and apps, to virtual queuing systems, to self-service kiosks, live web chat and customer outreach programs, motor vehicle departments have taken customer service to the next level.

“The reality is that our customers are savvy and are used to completing transactions online,” says Nizer. “Their expectation is that, when they’re interacting with a motor vehicle administration, they have that same ability and convenience. We strive to exceed their expectations.”

2004 Driver’s License/ID Security Framework is published.

2006 The Motorcycle Operator Licensing System (MOLS) is created.

2008 AAMVA establishes a dedicated Board of Directors position for a law enforcement representative.
SMARTER CARS.
SAFER DRIVERS.

Find out about today’s car safety features

MyCarDoesWhat.org
Know More. Drive Safer.
When MOVE magazine launched in 1996, a driver’s license had a person’s photo, jurisdiction of residence, street address, height, weight, date of birth and a few other minor elements.

Saying a lot has changed over the last 20 years would be an understatement. In 2016, driver’s licenses now have 2D barcodes, significant physical security features like optical variable devices, radio frequency tags, cryptographic protection and even biometric technology.

TWO DECADES OF PROGRESS
Over the last two decades, AAMVA has worked closely with both industry and jurisdictions to help improve the driver’s license on all fronts, whether that meant improving security measures, figuring out the most effective technology or working to streamline standards across North America.

One of most significant improvements in identity management over the past 20 years has been communication among jurisdictions. There wasn’t interoperability back in 1996—most jurisdictions were doing their own thing with their own licenses. Now, we have reached a point where jurisdictions are working toward a standardized license that is uniform in appearance, has a minimum level of security and has common machine-readable technology on it.

Stephen Leak, executive director of credential programs at the Indiana Bureau of Motor Vehicles and a member of
AAMVA’s Card Design Standards Committee, says he thinks some of the biggest improvements since he’s been in the industry have been the credential issuance process and document verification, as well as better card materials and security features that are “far more resistant to tampering and alteration than in the past.”

In addition, a good relationship with federal agencies has led to numerous important standards being put into place and legislation being passed over the last 20 years, including the first official standard for the driver’s license/ID card, which was published in 2000 and has had eight significant revisions since, and AAMVA’s DL/ID Security Framework, which was published in 2005.

**FAILURE TO LAUNCH**

A feature article in one of the first issues of MOVE magazine in 1996 predicted Smart Card technology would be the future of the driver’s license. In another 1996 column for MOVE magazine, Bart Blackstock, who at the time was the driver control bureau chief for the Utah Department of Public Safety’s Driver’s License Division, wrote that chip technology was not widely accepted in the United States at the time even though it had numerous benefits over magnetic strip and barcode technology.

In 1999, Blackstock tried to get Smart Card technology legally required for the Utah driver’s license with the help of a state representative. “We would have been the first in the nation to get there,” he says. He got the bill through the House, but it failed once it reached the Senate. He believes it failed because people were afraid that their personal information would get stolen.

**NEW STANDARDS**

In September 2016, AAMVA’s Card Design Standard Committee—which is made up of both jurisdictional and federal members—published the latest update to the North American Standard for driver’s licenses and ID cards in hopes of improving security measures, increasing standardization and reducing instances of counterfeiting.

The 100-page document covers everything jurisdictions need to ensure they fit within the national guidelines for driver’s licenses and ID cards, including:

- Mandatory data
- Optional data
- Human-readable data elements
- Card design (background color, portrait position, layout, etc.)
- Physical security
- Main threats to the security of the ID/DL
- Optional card test methods, magnetic strip, optical memory, compact encoding and integrated circuit for standard encoding

**ROOM FOR IMPROVEMENT**

Despite the exceptional technological and material advances in driver’s licenses and ID cards over the last 20 years, there is still room for improvement, mainly in stopping criminals from making fraudulent IDs.

While the technologies being used to create and issue a better driver’s license have all advanced, the access to them is still problematic when it comes to the bad guys. Because criminals have access to these technologies, they can create counterfeit documents that are far more sophisticated than something produced 10, 15 or 20 years ago.

Another major problem facing identity management at AAMVA, says he believes Smart Card technology never took off because it was expensive and because there was a lack of infrastructure and reading equipment for it.

Ironically (considering how widely chip technology is used in credit cards today), Smart Card technology never took off for driver’s licenses.

“Many people did not understand that any and all information contained in a chip could be fully encrypted,” says Blackstock, who is now the executive vice president of Insure-Rite. “Smart Cards are as easily secured as any technology: your phone, your laptop, your tablet. The benefits [of Smart Cards] are just extraordinary. It baffles me why people are so afraid of the technology, and yet they have no problem putting personal information in barcodes on identification cards or driver’s licenses.”

Geoff Slagle, director of identity management at AAMVA, says he believes Smart Card technology never took off because it was expensive and because there was a lack of infrastructure and reading equipment for it.
However, according to Leak, improvements to card materials, as well as more robust security features, allow jurisdictions to offer a credential that is far more resistant to tampering and alteration than in the past. “Improvements in technology and materials certainly will continue and will result in improvements to credential security. And of course you have to add the mobile identity efforts—mobile driver’s licenses as a current topic of a combined AAMVA Working Group—to the list of potential improvements. Given thoughtful implementation, this product has the potential to enhance identity security as well as have an impact on highway safety,” he says.

**THE IMPORTANCE OF STANDARDIZATION**

While interoperability among jurisdictions has improved greatly over the last 20 years, a possible solution to some of the security problems facing identity management is even more standardization, especially when it comes to issuing IDs. By using the same screening process and standards, jurisdictions can work together to fight fraud.

“It’s true that we’ve gotten better as a community in how we go about making our secured documents,” Slagle says. “Yet there’s still the opportunity for more consistency and uniformity in how we prove people.”

There is room for improvement in most if not all jurisdictions. For example, a jurisdiction that has an excellent document that is resistant to any kind of counterfeiting might not have a rigorous-enough process for screening people when they are obtaining the document. On the other hand, another jurisdiction might have an optimal screening process for obtaining the document, but the document itself may be susceptible to counterfeiting.

Blackstock believes there is and will continue to be an ongoing struggle in creating high-quality IDs that are also immune to fraud. “The challenge I see with all of the new security features you can build into documents these days is that if nobody knows what the security feature is, it doesn’t really mean much. And if you tell everybody what the security features are, then you just give the forgers all the information they need to create quality counterfeit documents. It’s a Catch 22.”

**THE WAVE OF THE FUTURE**

The final and most important piece of the identity management puzzle is fighting imposter fraud by ensuring the person who makes a claim about his or her identity is telling the truth. Binding the person to his or her ID can be done through biometrics on mobile driver’s licenses (mDLs), which is the next step in identity management.

An mDL will be on a person’s phone, tablet or laptop. It won’t be a replacement for a driver’s license, but rather it will be supplemental—a way for a person to not only carry one less thing in his or her pocket, but also use to biometrics to further prove one’s identity. Slagle says this will be done either through facial recognition or finger imaging, and he anticipates some states will have mDLs as early as 2017. He predicts that in the next three years, a significant number of jurisdictions will have them, and in five years, more than half of states will issue mDLs.

**ALWAYS IMPROVING**

The article “When it Comes to Licenses, AAMVA Seen as Expert,” from a 1996 issue of MOVE, covered Congress’ request that a federal agency work specifically with AAMVA to develop driver’s license regulations. Ian Grossman, vice president of member services and public affairs at AAMVA, says the association’s relationship with the federal government has grown since then and continues to improve, especially with transportation agencies.

“In general, we have continued to develop and maintain very solid working relationships—particularly with those federal agencies that play a role in data verification services,” Grossman says. This includes the U.S. Department of State, the Social Security Administration, the Federal Bureau of Investigation, the Transportation Security Administration, the Government Printing Office and numerous other agencies.
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Q & A WITH

Betty Serian

MOVE MAGAZINE CATCHES UP WITH THE WINNER OF THE 2016 CHAIR’S AWARD OF EXCELLENCE.

INTERVIEW BY BRITTANY MAGEE

Q HOW DID YOUR CAREER IN TRANSPORTATION BEGIN?

I began my PennDOT career as an intern and temporary employee in public information/community relations. I was blessed with great mentors along the way and the freedom to change locations, which eventually led to a 26-year career in varying positions in the agency.

Q COULD YOU TELL ME ABOUT YOUR WORK AS DEPUTY SECRETARY FOR SAFETY ADMINISTRATION AT PENNDOT?

The team of talented folks I worked with transformed the way motor vehicle and driver license services were delivered and, in turn, the customer opinion of the PA DMV. While challenging, the best part of the work was being able to get up every morning and know that we could impact the lives of the people of Pennsylvania. Being a public servant was very fulfilling. In my new role consulting with the private sector, I still have the ability to work with clients who are innovative and committed to positive change. They want to do great work.

Q CAN YOU TELL ME ABOUT YOUR AAMVA CAREER?

My familiarity with AAMVA began when I was director of customer relations for PennDOT and was asked to speak at a Region I meeting. When I became the DMV administrator in 1995, I knew the value of association involvement and could not wait to jump in and be involved with AAMVA. I knew the impact it could have on helping my team and me to implement change. I have worked with AAMVA for nearly 25 years and have had the opportunity to be involved in many areas, working with competent and caring AAMVA staff and jurisdictional colleagues. I served as a board member and president of Region I, and as an international board member for many years. In addition, I served on the executive committee and had the incredible honor of being Chair of the Board in 2002–2003. I also had the opportunity to serve as Chair of AAMVA’s Special Task Force on Identification Security in 2001 following 9/11.

Q WHAT IS THE BEST PART ABOUT BEING INVOLVED IN THE AAMVA COMMUNITY?

Getting to work with the talented people who volunteered to help AAMVA and its members in addition to their “regular” jobs. Also, the staff understood that serving members was the No. 1 job. Being a part of a community of people who pursue goals larger than themselves for the benefit of citizens—security, safety and service—was and continues to be a great experience.
Having worn many hats over my 30-year transportation career, it’s important to recognize that DMVs, AAMVA and industry can and should collaborate to meet common goals and prepare for the future. The power of strong partnerships, mutual trust, and listening and learning can result in services that will exceed today’s customer expectations and help DMVs be even better in the future.

**Q** YOU RECENTLY WERE HONORED WITH THE 2016 CHAIR’S AWARD OF EXCELLENCE—WHAT DOES THAT MEAN TO YOU?

I was so honored, humbled and surprised. It’s actually an award that I created in 2002, and all these years later Rick Holcomb decided to give it to me. It’s kind of funny that it came full circle. It’s a moment I’ll never forget.

**Q** WHAT WERE KEY ISSUES AAMVA WAS WORKING ON IN 1996, WHEN MOVE MAGAZINE WAS JUST BEGINNING?

It was a pivotal time in making DMVs more customer focused—customer expectations for convenience and access were key drivers. The internet was beginning to bud and electronic initiatives were just starting. More secure driver’s licenses began to replace outdated credentials. Overall, it was a very different time, with technology just starting to take off.

**Q** WHAT ARE SOME KEY ISSUES IN THE TRANSPORTATION INDUSTRY TODAY?

The autonomous vehicle arena is exploding, and how transportation is funded with mileage-based user fees (MBUFs) opens up new roles and responsibilities for DMVs and their industry partners. Mobile and digital solutions that rely on DMV information for verification are proving to be critical. Issues of fraud also present new challenges in the digital and mobile environment. DMVs have recognized the need to be multi-service centers, and they are even rethinking how they’re communicating services to customers. It’s an exciting and challenging time, and it’s great that the DMVs recognize the value industry partners can bring in meeting these challenges.
Securing Identities

REFLECTIONS AND LOOKING AHEAD TO THE NEXT 20 YEARS OF IDENTITY MANAGEMENT

ADVANCES IN ID TECHNOLOGY
MARY OLSON, SENIOR MARKETING MANAGER, GOVERNMENT SOLUTIONS, ENTRUST DATACARD

Over the past 20 years, we’ve experienced exponential change and advances in technologies and policy for driver’s licenses in North America. These advances have occurred not only in regards to the physical changes of the document, but also in the ways in which the services surrounding the issuance of a driver’s license are delivered—from where the license is printed to how a citizen renews or requests associated services.

On the physical side, we’ve seen licenses move from a “cut and paste” Polaroid-type photo in a laminate pouch to a digital print-on-demand model, which allows many citizens to receive their license almost instantly using PVC and composite cards. In terms of card personalization, we have seen an increase in the use of pigment inks to provide a more durable color solution for resistance to sunlight and fading. That said, the biggest trend has been the transition to polycarbonate card substrates and laser engraving due to the extreme durability and unique security features that incorporate variable data during the personalization process.

The need for better validation promoted new machine-readable technologies, including standards for magnetic stripes and 2D barcodes. Additionally, enhanced driver’s licenses (EDLs) have enabled citizens to more easily cross borders by adopting the standards seen in the passport card using the UHF chip between the United States, Canada and Mexico.

Furthermore, the REAL ID Act of 2005 brought forth new mandates surrounding the management of driver’s license data and how states share data across borders. This has had a big impact on reducing the number of duplicate driver’s licenses issued in the United States. Biometrics, of course, have also become a standard to help secure the identity of citizens and prevent duplicates in DMV databases.

Today we see states and provinces integrating a variety of Security at the Time of Personalization (STOP) features into their license programs. These features use variable biographical data and produce unique physical security aspects that make the documents more difficult to falsify.

So where do we go from here—what will the next 20 years hold? Security will continue to be top of mind. DMVs will continue to establish a trusted infrastructure that can validate the authenticity of the driver’s license or ID card. This will provide document integrity and validate where the document specifically came from.

THE NEXT 20 YEARS OF IDENTITY MANAGEMENT
PAUL STEIER, DIRECTOR, BUREAU OF INVESTIGATION & IDENTITY PROTECTION, IOWA DEPARTMENT OF TRANSPORTATION

I like to use the banking industry as an example for how I see the future of identity management evolving. Personal banking has gone from cash, to checks, to debit and credit cards, to internet banking, and now, mobile pay. I view identity management in a similar way in that it’s going to evolve into a variety of things as technology advances.

When you look at airlines, they went from requiring a paper boarding pass to allowing the use of a mobile boarding pass. At
first, I was leery about connectivity issues with the mobile boarding pass, but once I realized I could save the boarding pass to my smartphone’s “wallet,” I didn’t need to worry about connectivity.

When it comes to the adoption of the mobile driver’s license (mDL), if we can’t authenticate it, then we can’t trust it. I need to be able to rely upon it 100 percent, whether I’m getting IDed at the grocery store or boarding a plane. The big linchpin with the mDL is the authentication piece. In order to authenticate a person’s identity, I need a way to verify with the source. Being able to verify the information with the source in real time allows us to have more confidence in the information that’s presented and makes it more difficult to commit fraud. For example, AAMVA’s DLDV program is one way we could connect the mDL to the source for real-time verification.

We tested a digital watermark reader with the mDL pilot in Iowa, which required another smartphone to read the device. In the future, I envision something similar to a barcode reader that doesn’t need connectivity to work in order to verify the app is legitimate and to extract the information from it.

In order for the mDL to be successful and adopted in the future, it needs to be better than what the plastic license is today. We’re still in the infancy phase. People need to get used to the concept that the plastic license may not be the best mechanism to use to solely identify someone; being able to verify information with the source adds value and is better than the stagnant piece of plastic, which is only updated every five to eight years and has security features that are not universal across jurisdictions.

Will we still have cash and paper checks in 20 years? We will. Will we have plastic licenses? We will. There will still be a demand for the plastic license until technology and connectivity can be relied upon 100 percent for mobile identification. Retailers also need to have the technology to read mDLs. In the meantime, I see mobile identification as a tool to supplement the plastic license and an opportunity to become more consistent across North American jurisdictions and around the world.

All in all, we’ve been doing a better job of managing identities and securing identities. In the last 20 years, our ID fraud cases have dropped 70 percent in Iowa. We’ve made significant improvements in managing and securing identities, and with the mobile technology it will only get better in the next 20 years.
Reality Tech

KEEPING UP WITH ADVANCEMENTS

As motor vehicle directors, administrators and commissioners, we are seeing the changing landscape of transportation with emerging technology from autonomous vehicles, apps you can use to request a ride from a transportation network company, a road user charge program and a pilot to address the decline in the gas tax, and the development of mobile driver’s licenses. We also face many challenges in keeping up with the technological advancements and significant shifts in business models. As both regulators and stakeholders, we have a vested interest in all of these areas.

Many times as a regulator we are asked not just to “level the playing field” among the traditional industry members and the newcomers to the industry, but also to remove unnecessary barriers or regulations. We are being asked to look at new business models for licensure and enforcement to level that playing field, too.

AAMVA continues to lead in these areas with the Autonomous Vehicle Working Group and the Motor Carrier Working Group, as both of these groups are exploring emerging transportation issues to provide guidance for the jurisdictions. Their work in the coming year will provide the jurisdictions with information on a model state policy as manufacturers introduce autonomous vehicle technology across the states, and they will help jurisdictions navigate the impact of transportation network companies.

I’m looking forward to seeing the results of their work, and we will provide updates at regional meetings.

Many directors, administrators and commissioners are heads of motor vehicle agencies—some are within a transportation department, some are within a revenue department and some are within a Secretary of State office—but we all face the same challenges and emerging issues. What will the transportation landscape look like, and how prepared are we? We know how people get to work and from place to place today, but have we given thought to what it will look like in the next five to 10 years? The expectation is that the transportation technological advancements will reduce traffic congestion, prevent crashes, prevent distracted driving and prevent pedestrian injuries. As leaders and representatives of our respective agencies, we need to prepare for what the future holds, as there has never been a time before when transportation is changing so rapidly. Just recently, at the 2016 AAMVA Annual International Conference in Williamsburg, Virginia, a representative from General Motors who was a panelist in the Autonomous Vehicles breakout session said, “The auto industry will change more in the next 10–15 years than it has in the last 50 years.” What is your jurisdiction’s strategic plan for the future of transportation? Let’s start thinking about this together!

Jean Shiomoto, 2016–2017 AAMVA Chair of the Board
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