

Research Report

KTC-15-20/SPR15-509-1F

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## **Online Driver's License Renewal**

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KTC-15-20/SPR15-509-1F

## **Online Driver's License Renewal**

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<b>16. Abstract</b> The Kentucky Department of Vehicle Regulation is exploring the possibility of developing and implementing online driver's license renewal. The objective of this project was to: 1) evaluate online driver's license and REAL ID renewal programs in other states to identify best practices; 2) examine two options to institute online renewal; and 3) identify what legislative changes would be required in Kentucky to authorize an online renewal program. KTC surveyed 25 states with online license renewal programs in place, and received responses from 14 states. Survey respondents indicated that online renewal is more efficient, improves customer service, cuts down on foot traffic in branch offices, and promotes cost savings. Respondents reported that development, workflows, and organization structures associated with online renewal have not been particularly disruptive or expensive. KTC researchers examined two options for implementing online renewal: a print farm operated in Frankfort, Kentucky or centralized production and distribution by a third party vendor. Two vendors submitted cost estimates to KTC. Implementation of an online renewal option in the Commonwealth will take 6 to 12 months. To implement either solution, KYTC will require legislative approval from the Kentucky General Assembly to increase fees for each license class. It would have to amend state law as well to authorize the production and distribution of licenses by a third party.			
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## Executive Summary

The Kentucky Transportation Cabinet's (KYTC) Department of Vehicle Regulation (DVR) is exploring whether to develop and implement online driver's license renewal. Kentucky Transportation Center (KTC) researchers investigated how DVR could develop and implement an online driver license renewal option for the state's drivers. From 2008 to 2014, renewal fees for Class D (regular operator licenses), M (motorcycle licenses), and DM (operator licenses with a motorcycle endorsement) generated \$92,095,730 in revenue. Over half of that revenue was earmarked for the Kentucky Road Fund. The objective of this project was to: 1) evaluate online license renewal programs in other states to identify best practices; 2) identify what legislative changes would be required in Kentucky to authorize an online renewal program; and 3) examine two options for developing online renewal. Online renewal, if implemented, would only apply to Class D, M, and DM licenses, along with personal identification cards (ID).

KTC researchers distributed a survey to 25 states with online license renewal programs to identify best practices. They received responses from 14 states. Survey respondents indicated that online renewal is more efficient, improves customer service, cuts down on foot traffic in branch offices, and promotes cost savings. Respondents reported that development, workflows, and organizational structures associated with online renewal have not been particularly disruptive or expensive. Some of these respondents noted that their states use a centralized production and distribution model for their online renewal programs to improve workflow efficiency, decrease fraud, and increase security. The states defined criteria for who cannot renew online, for example: 1) those who need a photo update, 2) those under or over a certain age, and 3) anyone with a restriction on a driver's license.

KTC researchers also investigated existing statutes that govern driver's license production and distribution in Kentucky. Findings showed it necessary to seek an amendment to KRS 186.410, which mandates that all licenses must be obtained in the Circuit Court Clerk office of the driver's resident county. Introducing online license renewal would bring new costs, resulting in an increase in license fees. Currently, KRS 186.531 specifies fees for Class D, M, and DM. As such, making the necessary price increases would require the General Assembly's approval – and a change in law.

This report explores two options for implementing online renewal. The first would entail opening a print farm in Frankfort where all licenses renewed online as well as REAL ID licenses (if it is enacted) would be printed and mailed. If DVR decided to establish a print farm, there are two operational models it could use. The first option is to have all printing done in-house by Kentucky Transportation Cabinet (KYTC) employees. A second option is to have a third-party vendor manage the print farm. Under either scenario, DVR would be responsible for leasing a new office space. If DVR ran the operation, it would also need to interview job candidates, train employees, and perform background checks. Keeping license-printing operations in state would let DVR offer a convenient service for drivers without a major change in operations. The print farm option would ensure that KYTC remains in control of the licensing process and costs. Licenses would still be produced and distributed in Kentucky.

The second option would be to centralize the production and distribution of all Kentucky licenses using a facility operated by a third-party vendor. Centralization, under this model, would take production and distribution out of state. Two third-party vendors that KTC researchers spoke with suggested centralization. Centralized production and distribution offers several benefits. It would increase efficiency. Online renewal and REAL ID compliance would be included in the contract. There is less chance for fraud if credentials were created and distributed from one location. In the context of adopting REAL ID, fewer employees would have to undergo a background check. An offsite facility would also be operated by experts in license production and distribution as well as experts in the evolving demands of REAL ID and other federal requirements.

KTC researchers identified four options for implementing online renewal. Under Scenario 1, Circuit Court Clerks oversee the distribution of licenses renewed online. In Scenario 2, the Clerks assume this function *and* process REAL ID applications. Scenario 3 proposes establishing a print farm in Frankfort to distribute all licenses renewed online as well as REAL ID licenses. With Scenario 4, all Kentucky licenses would be produced and distributed by a third party vendor. In Scenarios 3 and 4, the Circuit Court Clerks will continue to process license applications.

Developing a print farm or outsourcing license production and distribution to a centralized processing facility overseen by a third-party vendor are the solutions that will best meet DVR's needs. To implement either of these solutions, KYTC will require legislative approval from the Kentucky General Assembly to increase fees for each license class. The General Assembly would have to amend state law as well to authorize the production and distribution of licenses by a third party. There are other important factors to consider. DVR must take into account the cost of the web application, the quality of technical support, and whether the website is easy to navigate. KYTC will have to set eligibility requirements for the types of licenses that can — and cannot — be renewed online. It is estimated that online renewal will take a maximum of 1 year to implement.

## Chapter 1 Introduction

The Kentucky Transportation Cabinet's (KYTC) Department of Vehicle Regulation (DVR) is exploring whether to develop and implement online driver's license renewal. Specifically, DVR has requested more information from the Kentucky Transportation Center (KTC) on the cost of developing a web application for driver's license renewal (and related web services); the impact on existing driver information databases; potential distribution models; equipment and maintenance costs; and the macro-level and per-unit costs currently associated with driver's license creation, distribution, and information technology requirements. DVR also asked KTC researchers to identify state laws that pertain to driver's license renewal and to identify changes that would be necessary to shift toward an online system. DVR officials petitioned for a cost assessment that encompassed the required personnel, implementation costs, equipment, postage, leasing costs, overhead, administrative costs, and other miscellaneous expenses that the state would incur by adopting an online driver license renewal system.

Today, Kentucky allows residents to conduct many transactions online, however, driver's licenses can only be obtained at Circuit Court Clerk's offices. There are 120 Circuit Court Clerks and 142 office locations. Kentucky Circuit Court Clerks provide a wide variety of services to Kentucky's drivers and they have numerous responsibilities. State law mandates that Kentucky drivers must obtain licenses and permits at the Circuit Court Clerk's office in their resident county [1, 2]. Clerks take digital pictures, input data into the required databases, and assemble the licenses while drivers wait. New drivers also take vision tests, written tests, and skills tests at the Circuit Court Clerk's office [1].

To obtain a license in Kentucky a driver must provide their legal name, date of birth, Social Security number, and proof of residency in their county [1]. Licenses must be renewed every four years. Drivers over 21 must renew their license 31 days after their birthday [1]. If a driver is over 21, they can renew six months before their license expires. If the driver is under 21, they must renew within 90 days after their 21<sup>st</sup> birthday [1]. New residents in Kentucky have 30 days to transfer their licenses. If a license has been expired for more than one year, the driver must retake a vision and written test. If a driver's license is expired or suspended for more than five years, the license holder must retake a written test, driver skills test, and vision test.

Table 1 displays the class code and class descriptions for licenses available in Kentucky [3]. The classes are: Commercial Driver's License (CDL), operators, moped, motorcycle, and non-resident. According to DVR officials drivers would be able to renew their Class D, Class M, Class DM, and Identification Cards (ID) online. Licenses that have been expired for less than one year can also renew their licenses online.

**Table 1. Licenses available in Kentucky and Eligibility for Online Renewal**

<b>Class Code</b>	<b>Class Description</b>	<b>Eligible for Online Renewal?</b>
<b>A</b>	<b>CDL, Class A</b>	<b>NO</b>
<b>B</b>	<b>CDL, Class B</b>	<b>NO</b>
<b>C</b>	<b>CDL, Class C</b>	<b>NO</b>
<b>D</b>	<b>Operator's</b>	<b>YES</b>
<b>DM</b>	<b>Operator and Motorcycle</b>	<b>YES</b>
<b>E</b>	<b>Moped</b>	<b>YES</b>
<b>M</b>	<b>Motorcycle</b>	<b>YES</b>
<b>N</b>	<b>Non-Resident</b>	<b>NO</b>

Kentucky places restrictions for operating on Class D licenses [1, 3]. Table 2 summarizes these restrictions. Although the DVR has not decided which restrictions would prevent drivers from using online renewal, most states do not allow drivers to renew their license online if they have these restrictions on their license.

**Table 2. Restrictions for Class D licenses**

<b>Class Code</b>	<b>Restriction</b>
<b>0</b>	<b>Valid Kentucky Only</b>
<b>1</b>	<b>Corrective Lenses</b>
<b>2</b>	<b>Power Brakes</b>
<b>3</b>	<b>Automatic Transmission</b>
<b>4</b>	<b>Daylight Only</b>
<b>5</b>	<b>Power Steering</b>
<b>6</b>	<b>Hand Accelerator</b>
<b>7</b>	<b>Hand Brake</b>
<b>8</b>	<b>Other</b>
<b>9</b>	<b>Ignition Interlock</b>

### [Renewal Fees and Disbursement](#)

Driver's license renewal fees provide a significant amount of revenue to the Kentucky Road Fund, Driver Education, County Fund, and the Administrative Office of the Courts (AOC). The Road Fund receives the largest portion of driver's license fees. From 2008 to 2014, renewal fees for Class D, M, and DM licenses generated \$92,095,730 in revenue. Over half of this revenue was earmarked for the Kentucky Road Fund. The AOC portion of the fee is used to assist the Circuit Court Clerks with hiring employees and to supplement salaries. Class M and Class DM license fees include \$4.00 that goes to the Motorcycle Fund, which is for the motorcycle safety education

program mandated by KRS 15A.358. Table 3 shows how renewal fees are apportioned for Class D, DM, and M licenses.

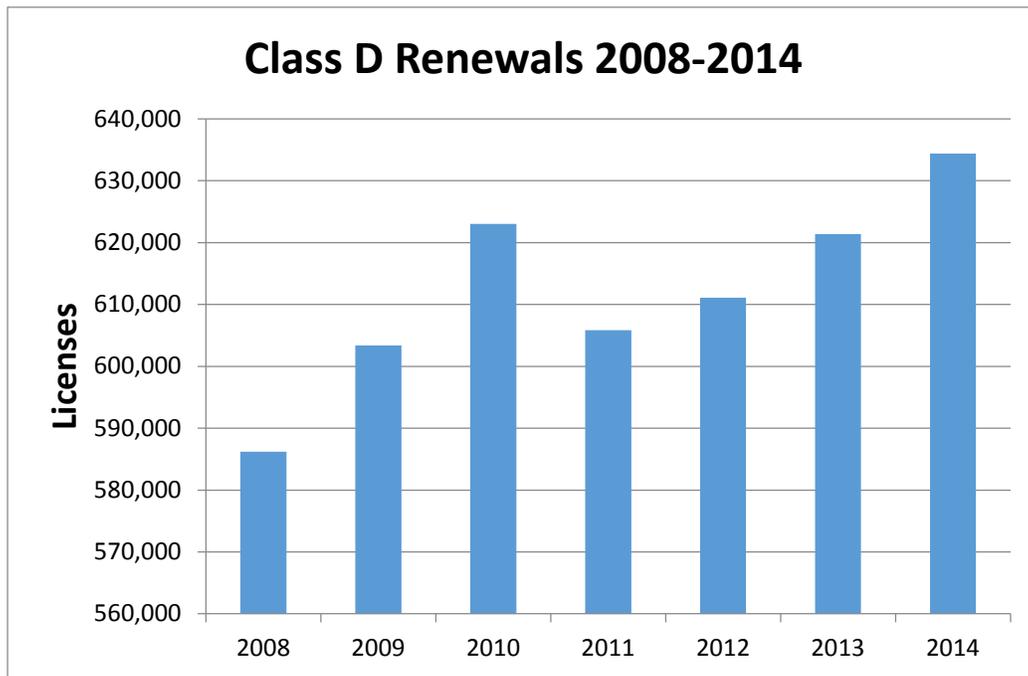
**Table 3. Renewal Fee Disbursement for Class D, DM, and M**

Description	Amount	General Fund	Road Fund	Photo License	Driver Education	County Fund	MCY Fund	CDLIS	AOC
<b>D Renewal</b>	<b>\$20.00</b>		<b>\$13.60</b>	<b>\$1.00</b>	<b>\$0.50</b>	<b>\$0.50</b>			<b>\$4.40</b>
<b>DM Renewal</b>	<b>\$30.00</b>	<b>\$3.00</b>	<b>\$17.04</b>	<b>\$1.00</b>	<b>\$0.50</b>	<b>\$0.50</b>	<b>\$4.00</b>		<b>\$3.96</b>
<b>M Renewal</b>	<b>\$24.00</b>		<b>\$13.60</b>	<b>\$1.00</b>	<b>\$0.50</b>	<b>\$0.50</b>	<b>\$4.00</b>		<b>\$4.40</b>

### Renewals and Revenue

From 2008 through 2014, 4,285,312 Class D licenses were renewed at \$24 per card. Figure 1 indicates that the two busiest years were 2014, with 634,390 licenses renewed, and 2010, which saw 623,020 licenses renewed. The slowest renewal year for Class D licenses was in 2008 – 586,193 licenses. In 2009 this number ticked up slightly, with a total of 603,368 licenses renewed.

**Figure 1. Class D Renewals 2008 Through 2014**



Class D license renewals from 2008 to 2014 produced \$85,706,240 in revenue. Figure 1 shows, the most revenue generated was \$12,687,800, in 2014, and \$12,460,400 in 2010. 2008 and 2009 saw the smallest revenues for Class D renewals – \$11,723,860 and \$12,067,360, respectively.

**Figure 2. Revenue from Class D Renewals 2008-2014**

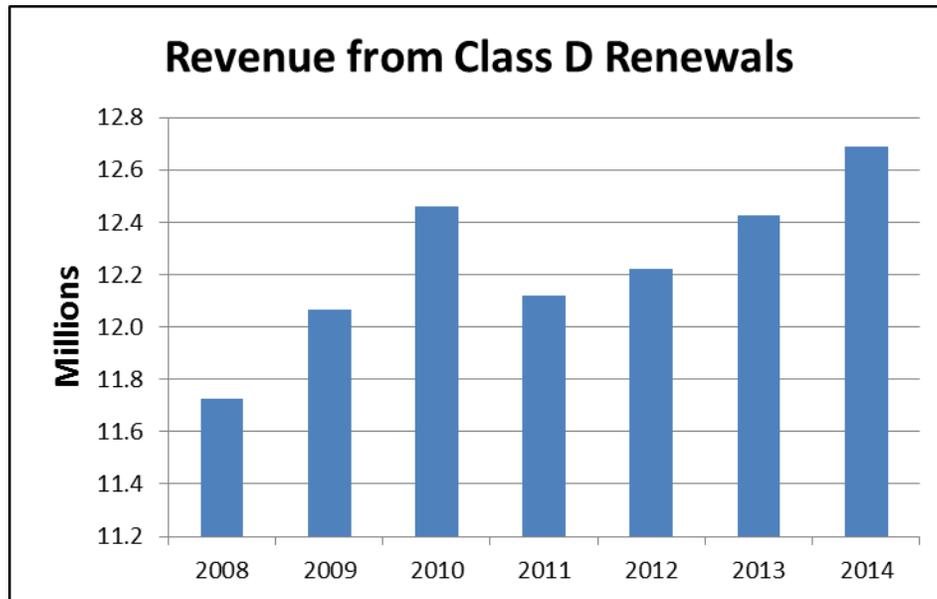


Figure 3 illustrates, Class M licenses had the fewest renewals of all three license classes. The vast majority of motorcycle operators clearly prefer the class DM licenses, which also permits the licensee to operate passenger cars and light trucks. The peak year for motorcycle license renewal was 2012, with 16. Renewals hit a low point in 2009, with 8.

**Figure 3. Class M Renewals 2008 through 2014**

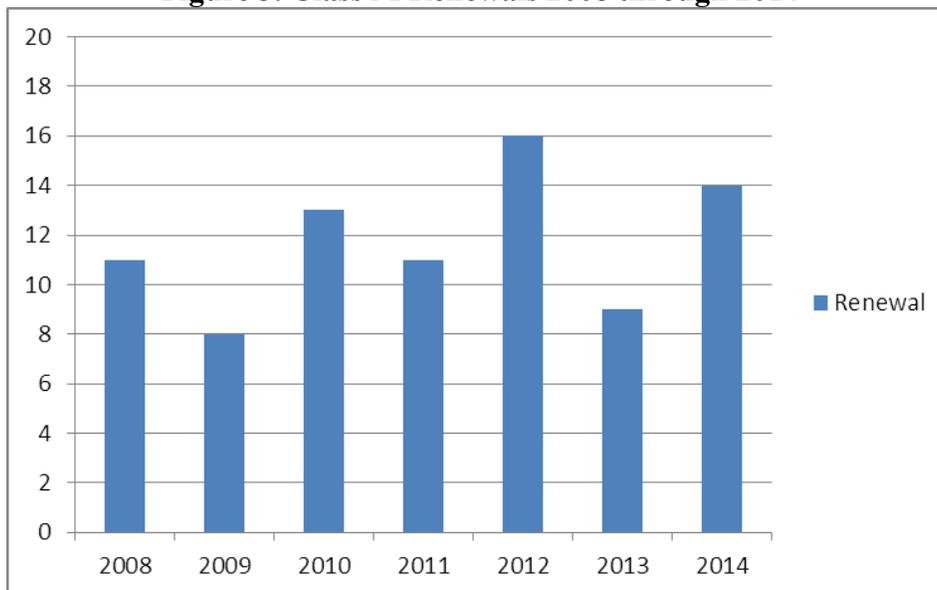


Figure 4 summarizes the amount of revenue collected on Class M renewals from 2008 to 2014. Renewal fees during this period amounted to \$2,460. Revenue peaked in 2012, with \$480. The second highest amount of Class M revenue was in 2014 with \$420 followed by 2010 with \$390. The lowest revenues came from 2009 (\$240) and 2013 (\$270).

**Figure 4. Revenue from Class M Renewals 2008 through 2014**

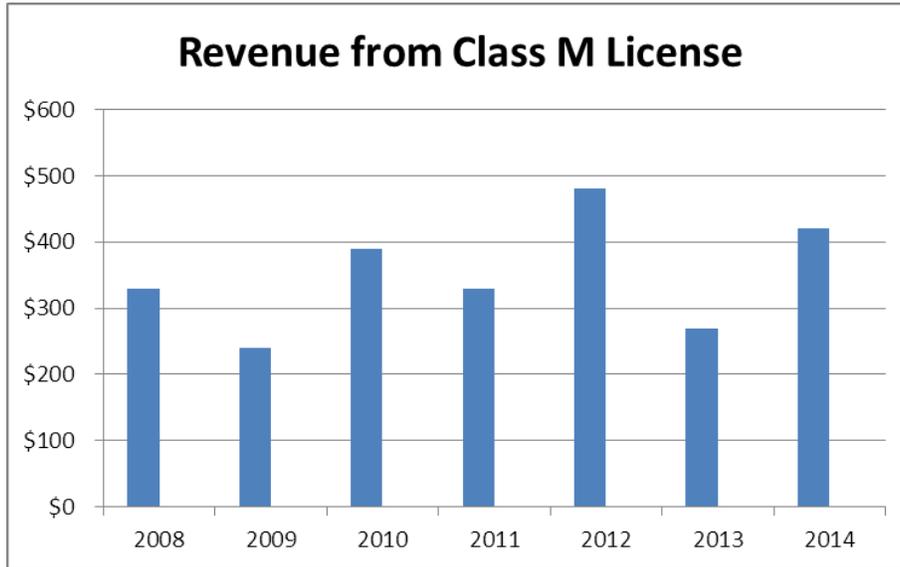
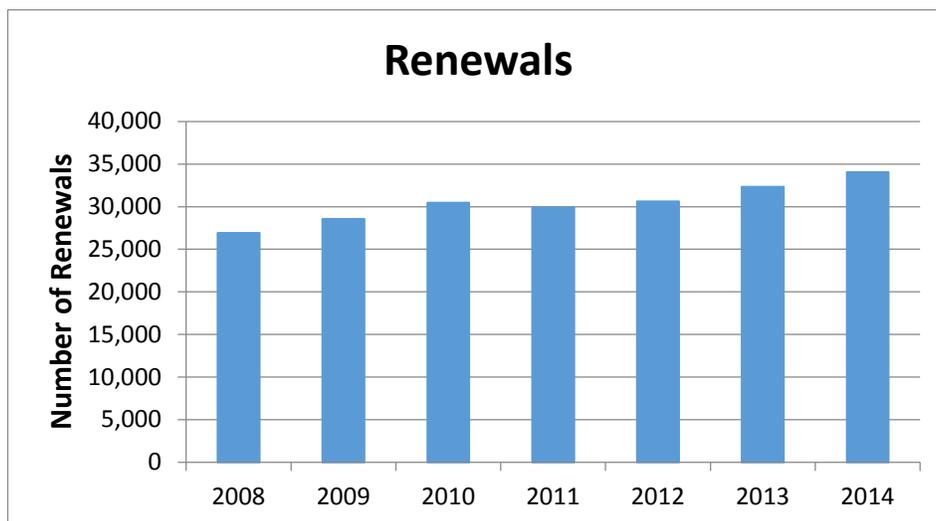


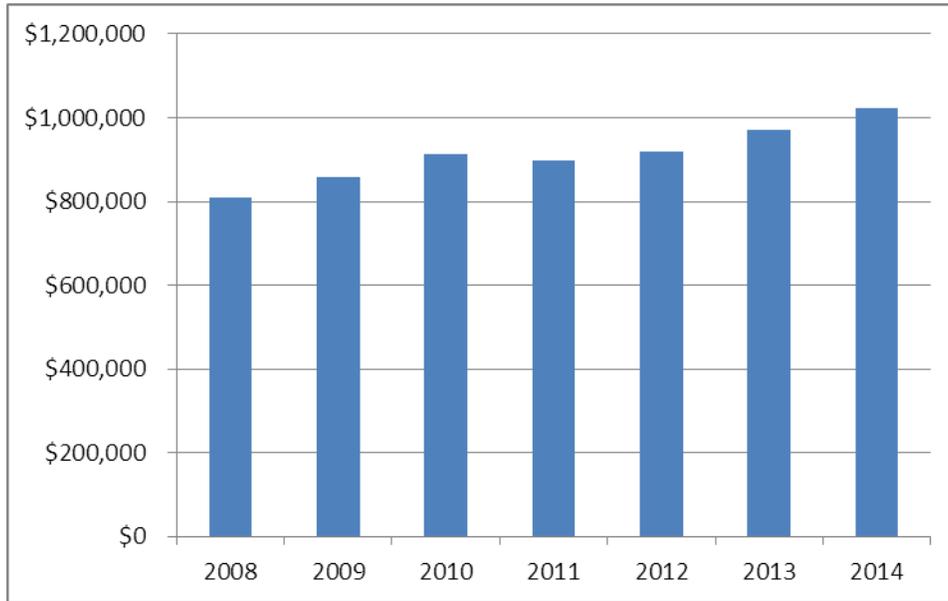
Figure 5 shows that DM renewals and revenue from grew steadily from 2008 to 2014. The largest number of Class DM renewals occurred in 2014, with 34,051 and was followed by 32,339 renewals in 2013. The lowest renewal numbers were in 2008 and 2009.

**Figure 5. Class DM Renewals 2008 through 2014**



The revenue collected from 2008 through 2014 on Class DM renewals totaled \$6,387,030. As depicted in Figure 6 the state collected its largest sum, \$1,021,530, in 2014 which was slightly more than the \$970,170 collected in 2013. The years with the lowest revenue were 2008 (\$807,900), 2009 (\$857,220), and 2011 (\$897,750).

**Figure 6. Revenue from Class DM Renewals 2008 through 2014**



## Outline of Report

The remainder of this study discusses KTC’s efforts to identify best practices for implementing online driver’s license renewal. This report compares two approaches for integrating online renewal into DVR’s current system, and estimates the cost of establishing an online license renewal system. Chapter 2 synthesizes survey data collected from states that currently offer online renewal. Chapter 3 describes the current production and distribution of licenses at the Circuit Court Clerk offices, possible future scenarios for the production and distribution of driver’s licenses and IDs that are renewed online, and the legal obstacles posed by Kentucky statutes that could hinder an online renewal system. Chapter 4 discusses the solutions recommended by third-party vendors. Finally, Chapter 5 provides cost estimates and timelines for implementing online driver license renewal.



## Timeline for Online Driver License Renewal

Based on survey responses,

Table 4 lists the years in which each state implemented online renewal service for their customers. Louisiana and Virginia were the first states to offer online driver's license renewal in the late 1990s. Most of the responding states introduced online renewal in 2000 or later. Indiana and Pennsylvania made online renewal available to drivers in 2001. The District of Columbia, Georgia, and Illinois established an online license renewal option in 2002. They were followed by California in 2004. Florida, Colorado, and Nebraska began online driver's license renewal in 2007, 2008, and 2010 respectively. Most recently, South Dakota and Iowa started online renewal in 2013.

**Table 4. Implementation of Online Driver License Renewal**

<b>State</b>	<b>Year Implemented</b>
<b>Louisiana</b>	1997
<b>Virginia</b>	1999
<b>Indiana</b>	2001
<b>Pennsylvania</b>	2001
<b>District of Columbia</b>	2002
<b>Georgia</b>	2002
<b>Illinois</b>	2002
<b>California</b>	2004
<b>Florida</b>	2007
<b>Colorado</b>	2008
<b>Nebraska</b>	2010
<b>South Dakota</b>	2013
<b>Iowa</b>	2013

## REAL ID

The REAL ID Act of 2005 was enacted on May 11, 2005, after being signed into law by President Bush. It established new requirements for state driver's licenses and ID cards in order for them to be accepted by the federal government for official purposes, such as boarding commercial flights and entering federal buildings. According to the Department of Homeland Security, REAL ID is a coordinated effort by the states and the federal government to improve the reliability and accuracy of state-issued identification documents. The REAL ID Act requires compliance from all 50 states, Washington, D.C., and the U.S. territories by 2020. However, many states are not compliant with REAL ID [4]. Some states, like Kentucky, have extensions, while other state legislatures have attempted to nullify federal law by statutorily banning REAL ID. This report describes options for producing and distributing REAL IDs when Kentucky officially adopts REAL ID. Table 5 lists the status for REAL ID compliance among the states that replied to KTC's survey.

**Table 5. Survey States and REAL ID Compliance**

<b>REAL ID</b>	<b>Compliance Status</b>
California	Extension
Colorado	Compliant
District of Columbia	Compliant
Florida	Compliant
Georgia	Compliant
Iowa	Compliant
Illinois	Extension
Indiana	Compliant
Louisiana	Non-Compliant
Nebraska	Non-Compliant
Pennsylvania	Extension
South Dakota	Compliant
Virginia	Extension

### Renewal Cycle and Photo Update Cycle

A license renewal cycle is the period of time that elapses before a driver must renew their driver license. In many states, drivers undergo vision checks or provide evidence of a vision exam before they are granted renewals. States with an online renewal option limit the number of times that a person can renew their license online. All but two of the states that responded to KTC’s survey only let drivers renew online every other renewal period. California and Colorado are the exceptions; a driver can renew their license online two consecutive times. A photo update cycle is the amount of time that elapses before a driver must retake their driver’s license picture. REAL ID mandates that states must acquire an updated photo every other license renewal cycle.

The duration of license renewal cycles varies from state to state. The second column in Table 6 contains the renewal cycle period for each of the states that responded to the survey. Three states surveyed have four-year renewal cycles. This includes Illinois, Louisiana, and Pennsylvania. Four states, California, Colorado, Nebraska, and South Dakota, have five-year intervals between license renewals. In addition, Washington, D.C., Florida, and Virginia have eight-year renewal cycles while Georgia, Iowa, and Indiana have multi-year renewal cycles.

Like the intervals between driver’s license renewals, the photo-update cycle varies among the states. The third column in Table 6 indicates the number of years before a driver license photo has to be updated with a new picture. Illinois and Pennsylvania have the shortest photo update cycles, requiring a new photo every four years. Louisiana drivers must update their photo every eight years. South Dakota and Nebraska drivers must update their license photo every 10 years. The remaining states require driver license photo updates every 15 or 16 years. California and Colorado

have a 15-year photo update cycle. Washington, D.C., Florida, Georgia, Iowa, and Virginia mandate license photo updates every 16 years.

**Table 6. State Driver License Renewal Cycle and Photo Update Cycle**

<b>State</b>	<b>License Renewal Cycle</b>	<b>Photo Update Cycle</b>
California	5 years	15 years
Colorado	5 years	15 years
District of Columbia	8 years	16 years
Florida	8 years	16 years
Georgia	5 to 8 years	16 years
Illinois	4 years	4 years
Indiana	4 to 6 years	12 years
Iowa	5 to 8 years	16 years
Louisiana	4 years	8 years
Nebraska	5 years	10 years
Pennsylvania	4 years	4 years
South Dakota	5 years	10 Years
Virginia	8 years	16 Years

### Renewal and Replacement Fees for Survey Respondents

Like license renewal cycles and photo update cycles, there is significant diversity among surveyed states in the amount they charge to renew or duplicate licenses.

Table 7 summarizes the costs of renewing or duplicating operator licenses and motorcycle licenses/endorsements. In many cases, in-person renewals and online renewals cost the same, but this is not the case everywhere. Illinois charges higher fees to renew online. Louisiana allows its parishes to mandate additional fees.

**Table 7. Cost of Licenses Renewed Online**

<b>State</b>	<b>Operators Renewal</b>	<b>Operators Duplicate</b>	<b>Motorcycle Renewal</b>	<b>Motorcycle Duplicate</b>
<b>California</b>	\$33	\$27	\$33	\$27
<b>Colorado</b>	\$21	\$21	\$23	\$23
<b>District of Columbia</b>	\$44	\$20	\$44	\$20
<b>Florida</b>	\$48	\$25	\$48	\$25

<b>Georgia**</b>	\$15- 5 years \$27- 8 years			
<b>Iowa</b>	\$4	\$10	\$6	\$10
<b>Illinois*</b>	\$31.75	\$6.75	\$6.75	\$6.75
<b>Indiana</b>	\$17.50	\$10.50	\$12	\$10.50
<b>Louisiana***</b>	\$21.50	\$13	\$29.50	\$13
<b>Nebraska</b>	\$26.50	\$13.50	\$26.50	13.50
<b>Pennsylvania</b>	\$29.50	\$27.50	\$30.50	\$32.50
<b>South Dakota</b>	\$20	\$10	\$20	\$10
<b>Virginia</b>	\$32	\$20	\$32	\$20

\*Includes processing fee for online renewal.

\*\*Includes discount for online renewal.

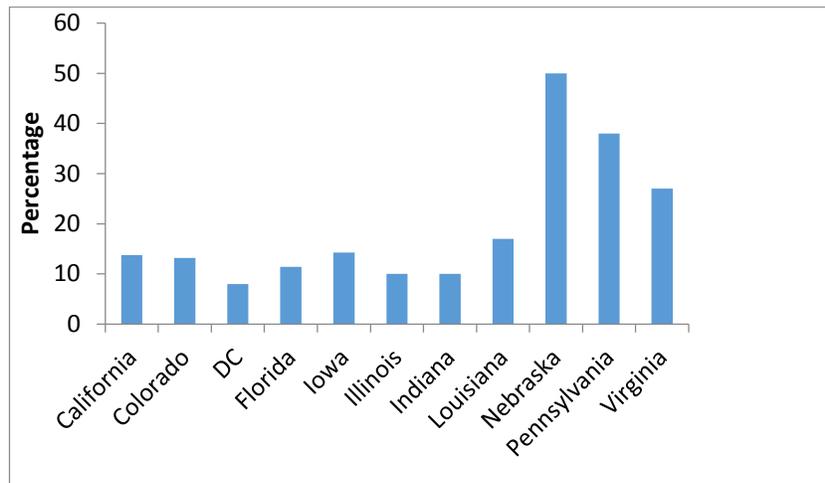
\*\*\*Does not include possible parish charge. Driver absorbs service fees for using credit cards.

### Percentage of Online Renewals

States usually cite several advantages for giving drivers the option to renew their driver's licenses online. It decreases customer lines in their branch offices, it is cheaper than in-person renewals, and it is more convenient for customers. Despite these benefits, the surveyed states found that most drivers continued to renew their licenses in person.

**Figure 8** shows the percentages of online renewals for the surveyed states. The average online renewal rate is 20 percent. The District of Columbia has the lowest percentage of online renewals (8 percent), and Nebraska has the highest online renewal rate (50 percent). Nebraska is followed by Pennsylvania with 38 percent and Virginia with 27 percent. California and Colorado each have just over 13 percent of their eligible drivers renewing their license online. The remaining states' online renewal rates are between 10 and 17 percent.

**Figure 8. Annual Percentages of Online Renewals**



Several factors explain why drivers have been slow to take advantage of online renewal. In some states motor vehicle agencies have introduced the option quite recently. Iowa, Nebraska, and South Dakota indicated that the low percentage of users was linked to the fact that online renewal was only recently implemented in their states. Long renewal cycles can also influence the number of users. The District of Columbia experienced a lull in online renewals after transitioning to an 8-year license renewal cycle. In a 2011 presentation to the AAMVA Region 1 Conference, The District of Columbia provided other reasons for the low numbers for online renewal. Drivers may lack credit cards, bank accounts, or access to the internet. Also, drivers still have the option to visit a DMV branch and obtain a license on the same day [5].

REAL ID might play a role in the low percentage of online renewals. In the case of the District of Columbia and Georgia, most drivers are ineligible for online renewal since the adoption of REAL ID. The application must be done in person, with necessary documentation of identity and residence provided. Prior to REAL ID, 34 percent of eligible District of Columbia residents renewed their license online but that percentage decreased sharply to 8 percent after REAL ID implementation. Before Georgia adopted REAL ID in 2012, online renewals in Georgia accounted for 22 to 25 percent of all renewals; since then, this number has declined steeply. There are not enough data to assess whether or not there is a connection between low percentages of online renewal and the adoption of REAL ID licenses. However, the District of Columbia and Georgia provided some evidence of a link.

Motor vehicle agencies have found ways to encourage drivers to renew online. Virginia instructed customer service employees to use the online renewal option because it would let them better explain the process and benefits to customers [6]. The Colorado Division of Motor Vehicles created the award-winning Guy Vroom campaign to encourage online renewal [7]. The character, depicted in Figure 9 [8], was created and marketed by Colorado Interactive, which also maintains the online renewal system for Colorado. Guy Vroom colorfully informs Colorado's drivers of the availability and benefits of online renewal. He also promotes applications for iOS and Android operating systems and maintains an active presence on social media forums like Twitter, Facebook, and Foursquare. Figure 9 shows an example of a Guy Vroom public service announcement.

**Figure 9. Guy Vroom**



## Cost and Savings of Implementing Online Renewal Option

The survey asked respondents to discuss the benefits and costs of online renewal. Florida reported the cost of implementing online renewal was \$425,900. A government report estimated that the cost to set up an online renewal system in North Carolina will be \$475,000 [9]. Unfortunately, no other survey respondents provided data because many states implemented online renewal more than a decade ago.

The survey also requested that respondents quantify savings that states have accrued due to online renewal. Iowa, Indiana, and Virginia all reported savings. Iowa estimated total annual state savings for the Department of Transportation to be \$1.45 million. In 2012, Indiana estimated savings of \$6.50 per transaction and claimed that a branch visit costs three to four times more than online transactions. Virginia's savings were considerably higher than other states. Online renewal created a savings of \$3.1 million annually. The remaining states reported no savings or said that data were not available.

## Development, Organization, Workflow

In the majority of the states, in-house IT departments designed and implemented online renewal modules. Florida developed and deployed their system by using state IT employees with funds that were already allotted for those departments. New Mexico had the Taxation and Revenue Department's IT team design its online renewal system [10]. It took three months to complete and it was much less expensive than hiring an outside firm to develop the system. Only the District of Columbia and Pennsylvania used outside contractors to create their online renewal applications.

Most of the states that responded to the survey reported little or no change in organization or workflows after implementing online renewal. The District of Columbia reported a minor reorganization to handle the additional workload associated with online renewal. In Pennsylvania, no reorganization was necessary at the time of implementation. However, as online renewal grew in popularity, a shift in resources was required. Pennsylvania reduced manual processing staff and increased technical support staff. In South Dakota, one employee was assigned to the online renewal service.

## Distribution Model Process for Online Renewal

The survey asked respondents to briefly describe their state's process of notifying drivers that they are eligible for online renewal. Drivers in California receive a letter 60 days before their license expires and the letter indicates whether they are eligible for the online renewal option. Indiana took a unique approach by sending birthday cards that reminded drivers their license was slated to expire and provided information about online renewal [11].

Virginia informs drivers of their upcoming renewal period through email, texts, and the mail. The email and text option reduces costs associated with mailing renewal notices, while increasing contact with drivers. Virginia uses a PIN system to improve security and to provide customers with updates on the production and delivery of their new license. The Virginia DMV also uses address verification software to reduce the number of renewal notices that are returned as undeliverable [6].

Washington, D.C. and Illinois use an outside vendor for various aspects of their license distribution operations. In the District of Columbia, as soon as a driver finishes renewing their license, the vendor is alerted that the transaction is complete. The customer's picture, signature, and the license data are sent to the vendor. The vendor prints all licenses in a centralized facility. The vendor keeps the agency apprised of when the card is printed, the processing time, and estimated time of delivery. Illinois validates their files electronically and passes them on to the third-party vendor, which produces the cards, validates their quality, and confirms information. The vendor then mails the card to the applicant. However, not all of the surveyed states changed their distribution practices or outsourced to third-party vendors. Florida, Iowa, Indiana, Nebraska, and South Dakota have incorporated the online renewal service into their regular license renewal programs.

A recent glitch in the Washington State Department of Licensing's computer system provided a cautionary tale about renewal notices. This glitch resulted in an estimated 18,000 drivers using an expired license. In 2014, the Department of Licensing realized that a glitch, discovered in 2009, had not been fixed [12]. As a result, the state sent letters to drivers that informed them they may have been driving with an expired license and included an offer to waive the renewal fee. The drivers would still be fined if they are pulled over by law enforcement while driving with an expired license.

## Types of Payment Accepted

All surveyed states accept Visa and MasterCard credit cards and debit cards. Florida, Louisiana, Georgia, and Illinois also let drivers to pay for their renewal with American Express and Discover, while the District of Columbia accepts Visa, MasterCard, and Discover. California, Virginia, and Indiana offer payment via e-checking.

## Eligibility Requirements

### License Status

Most of the respondents said only licenses for drivers of non-commercial passenger cars and/or small trucks and drivers of motorcycles are eligible for online renewal. In Kentucky, this would include Class D, Class M, and Class DM licenses and identification cards. Several respondents indicated their states allow drivers to use online renewal if their license has expired but has not

exceeded a specified time threshold. For example, Indiana and Iowa allow renewal up to 180 days after the expiration date, and Pennsylvania sanctions online renewal if it has been fewer than six months since the license’s expiration. Drivers in Colorado, Illinois, and the District of Columbia can renew their licenses online up to a year after expiration. Florida drivers must renew their license within 18 months of the expiration date. California requires a driver to renew their license within 60 days of expiration. Among the survey respondents, Virginia is the only state that does not permit expired licenses to be renewed online. None of the surveyed states allow online renewal of suspended, revoked, or cancelled licenses. None of these states permit the online renewal of CDLs.

**Identification Data**

Surveyed states indicated that drivers could only renew their license online if their current identification data matches data on file at the state’s DMV. California, Colorado, Indiana, Virginia, Louisiana, and Illinois require that a current name and address be on file, and drivers must renew in person if that data has changed. Iowa is more specific and requires in-person renewal if a driver has changed their name, address, date of birth, or sex. South Dakota requires drivers to validate their address by uploading two forms of proof of residency.

Several states require Social Security numbers and proof of citizenship. In California, Colorado, and Virginia the driver must have their correct Social Security number on file. Colorado, Florida, Georgia, Iowa, Indiana, Pennsylvania, Nebraska, Illinois, and Virginia require proof of U.S. citizenship to renew online.

**Age Limits**

Some states have age restrictions that limit eligibility for online renewal. Most states allow drivers ages 18–22 to renew their license online. Colorado, Nebraska, Virginia, South Dakota, and Indiana drivers can renew their license online if they are over 21. Illinois and Pennsylvania let drivers renew beginning at 22. Iowa allows online renewal for drivers over 18. The oldest age at which senior citizens can renew their licenses online varies among the states KTC surveyed. Table 8 summarizes this information. The first column identifies the state and the second column lists the age limit for online driver’s license renewal. Georgia has the youngest age at which ineligibility kicks in: drivers over 64 cannot renew their license online. Colorado lets drivers 65 or younger renew online, but drivers in California and Iowa are eligible until they are 69.

The District of Columbia and Louisiana limit online renewal to drivers 70 or younger. In Nebraska, drivers can renew their license online until they are 72. Drivers in Illinois, who are 73 or younger, have the online option for renewal. Virginia and Indiana only allow citizens under 75 to renew their driver license online. In Florida, drivers 80 and older cannot renew their license online. However, there is no specified age limit for online renewal in Pennsylvania. South Dakota drivers who are age 65 or older can renew online as long as they undergo a vision exam.

**Table 8. Seniors and Online Renewal Eligibility**

State	Age Limit
Georgia	64

<b>Colorado</b>	65
<b>California</b>	69
<b>Iowa</b>	69
<b>District of Columbia</b>	70
<b>Louisiana</b>	70
<b>Nebraska</b>	71
<b>Illinois</b>	73
<b>Indiana</b>	74
<b>Virginia</b>	75
<b>Florida</b>	80
<b>Pennsylvania</b>	None
<b>South Dakota</b>	None*

\*65 and older must have a vision check but can renew online.

## Restrictions

Many of the states provided details on the types of restrictions that would disqualify a driver from renewing their license online. These included medical limitations and violations involving their driving record.

On the medical restriction side, the most common reason that a person is not allowed to renew their license online is if they are required to present updated medical and vision records. This is the case in the District of Columbia, Illinois, Indiana, Iowa, Nebraska, and Pennsylvania. California and Louisiana are more specific about the kinds of medical conditions that require in-person renewal. People with conditions such as Alzheimer’s disease and epilepsy, which could lead to sudden bouts of unconsciousness or confusion, must renew in person. The District of Columbia includes insulin-dependent diabetes as a disqualifying condition for online driver’s license renewal. California and the District of Columbia also specify that people with eye conditions, like glaucoma, cataracts, and macular degeneration, have to renew their license in person. Some states limit the online renewal option to drivers with restrictions such as daytime driving only, which is true of Nebraska and Virginia. Nebraska also does not allow drivers to renew their license online if the driver is handicapped and uses hand controls for adaptive driving purposes.

Some of the states also disqualify drivers for online license renewal if they have traffic violations. In California, individuals who have a DUI on record that cited them with a blood alcohol level .08 and above cannot renew their license online. California disqualifies drivers who have refused drug and alcohol screening within the last two years. California drivers are also prohibited if they have an excessive number of accidents. If a driver in Indiana has received a license restriction because they habitually violate traffic laws, they are ineligible for online renewal. Furthermore, Indiana drivers with six or more points on their driving record cannot use online renewal.

## Benefits and Obstacles of Offering Online Renewal

### **Benefits**

Survey responses indicated that the most beneficial aspect of online driver license renewal is reducing traffic in their service centers. Respondents from Virginia, Georgia, and Illinois stated this decrease in traffic saves time and overhead costs at their service centers. In Iowa, branch workers are now able to concentrate on other pressing agency matters. Indiana's Bureau of Motor Vehicles provided several examples of how online renewal services enhance agency operations. Online renewal has shortened lines at its branches, improved customer service, increased efficiency, and forced them to invest in better technologies.

Another benefit of online license renewal is its convenience – people no longer have to appear at motor vehicle agencies on a regular basis. Some states have explicitly set the goal of increasing customer convenience. For example, online renewal helps California meet the goals of the DMV's Strategic Plan and Strategic Information Technology Plan.

There are accounting benefits also. In California, the online renewal option has decreased the number of cold checks since the fee can only be paid via credit card, debit card, or electronic check. In Pennsylvania, online renewal has let motor vehicle agencies streamline revenue collection. As reported earlier, states with online renewal can increase their revenues while enjoying savings from reducing the burdens placed on service centers.

### **Obstacles to Online Renewal**

Online renewal has some drawbacks, however. Respondents mentioned the technical and system limitations are the main problem with the online renewal. In Colorado, the website can go offline occasionally and Florida's online system can be overwhelmed during peak times of license renewal.

A key obstacle in California and South Dakota is that photos cannot be updated during online renewal. Drivers cannot pay in cash, and there are a limited number of license types that are eligible for online renewal. Also, as mentioned earlier, there are limited services available for online renewal. Iowa's system will not allow drivers to change information like addresses, for example.

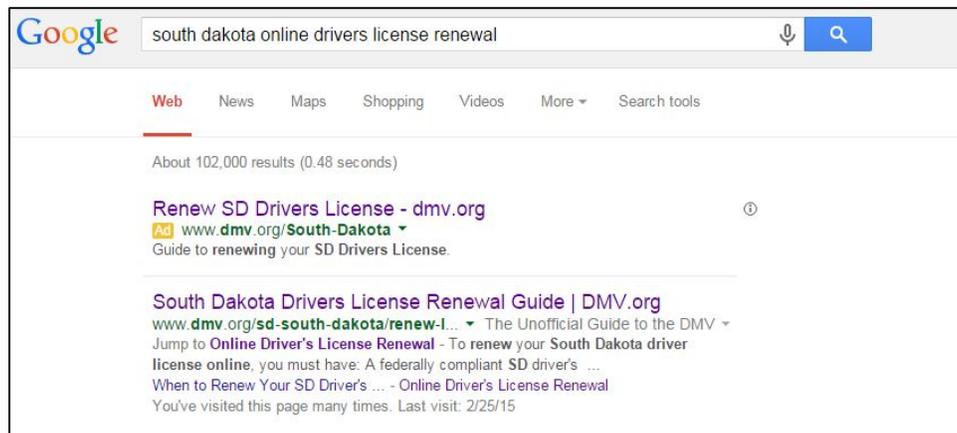
The survey included questions dealing with statutory prohibitions or budgetary constraints that had to be overcome before introducing online renewal. No respondents reported budgetary obstacles. However, some states removed some of the requirements for license renewals in order to implement online renewal. Most of these requirements pertained to vision and road tests. North Carolina had to gain approval from the state legislators to remove requirements for road tests, sign tests, and vision tests [9]. As a result, some states now only require vision tests during in-person renewal. Other states require that a vision test be on file or that drivers provide electronic proof of a vision test.

Indiana is currently on its second iteration of its online renewal system. In 2001, Indiana's Bureau of Motor Vehicles began offering the online option to eligible drivers. In 2005, the Indiana General Assembly voted to end the online renewal option because members voted to extend the renewal cycle to six years. This decision, along with a new photo identification requirement for voting [13],

raised legislative concern that IDs with outdated photos would make identifying an eligible voter challenging.

Finally, most states found no evidence of license fraud or potential scenarios conducive to fraud. Respondents from Florida, Iowa, and Colorado mentioned they were vigilant about fraud, and that it was not a problem. The respondent from Illinois noted the presence of websites such as [www.dmv.org](http://www.dmv.org) and [www.dmv.com](http://www.dmv.com) that appear to be a legitimate state motor vehicle site, but which are in fact a scam to charge the customer a fee (usually around \$15) to direct them to the official site. Some Texas drivers have fallen prey to these websites, which look like the Texas online renewal system [14]. Texas drivers are encouraged to only use the website URLs provided on their renewal notices. Figure 10 and 11 demonstrate that a Google search for South Dakota's online renewal program turned up these types of websites – at the top of the results.

**Figure 10. Google Results for South Dakota Online Renewal**



**Figure 11. DMV.org Website for South Dakota**



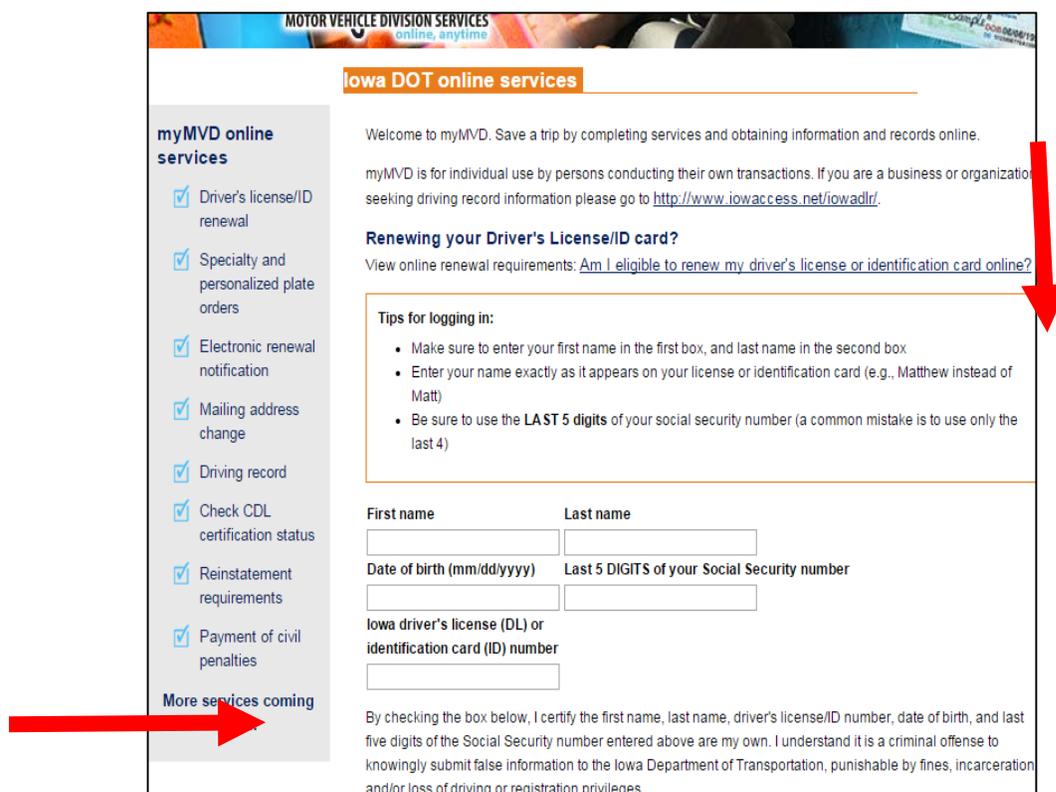
## Website Analysis

After summarizing the survey responses, KTC researchers evaluated the ease of navigating state websites to determine if a user can find information to help them successfully renew their license

online. Each website was examined to assess the difficulty of finding these pieces of information: eligibility, fees, license typology, renewal cycle, and acceptable forms of payment. Because survey respondents indicated that drivers frequently use search engines to locate the online renewal portal, KTC researchers used Google’s search engine to navigate to each website. The search term used was “online drivers license renewal [state].” Three state websites were very user-friendly, meaning that drivers can easily find renewal information and complete the process. Iowa, Indiana, and South Dakota have the most user-friendly websites, although each one has strengths and deficiencies.

Iowa’s website for online renewal is a well-organized homepage that includes the payment module and a link that takes visitors to a page that will let them determine their eligibility. This link contains the criteria for online renewal as well as a link to the license fees. Visitors only have to click two to three hyperlinks to initiate online renewal. Figure 12 shows an image of Iowa’s online renewal portal. The arrows point to the hyperlink for the eligibility requirements and the tips for accessing the renewal portal. In addition, all of the online services available are located on the left of the page.

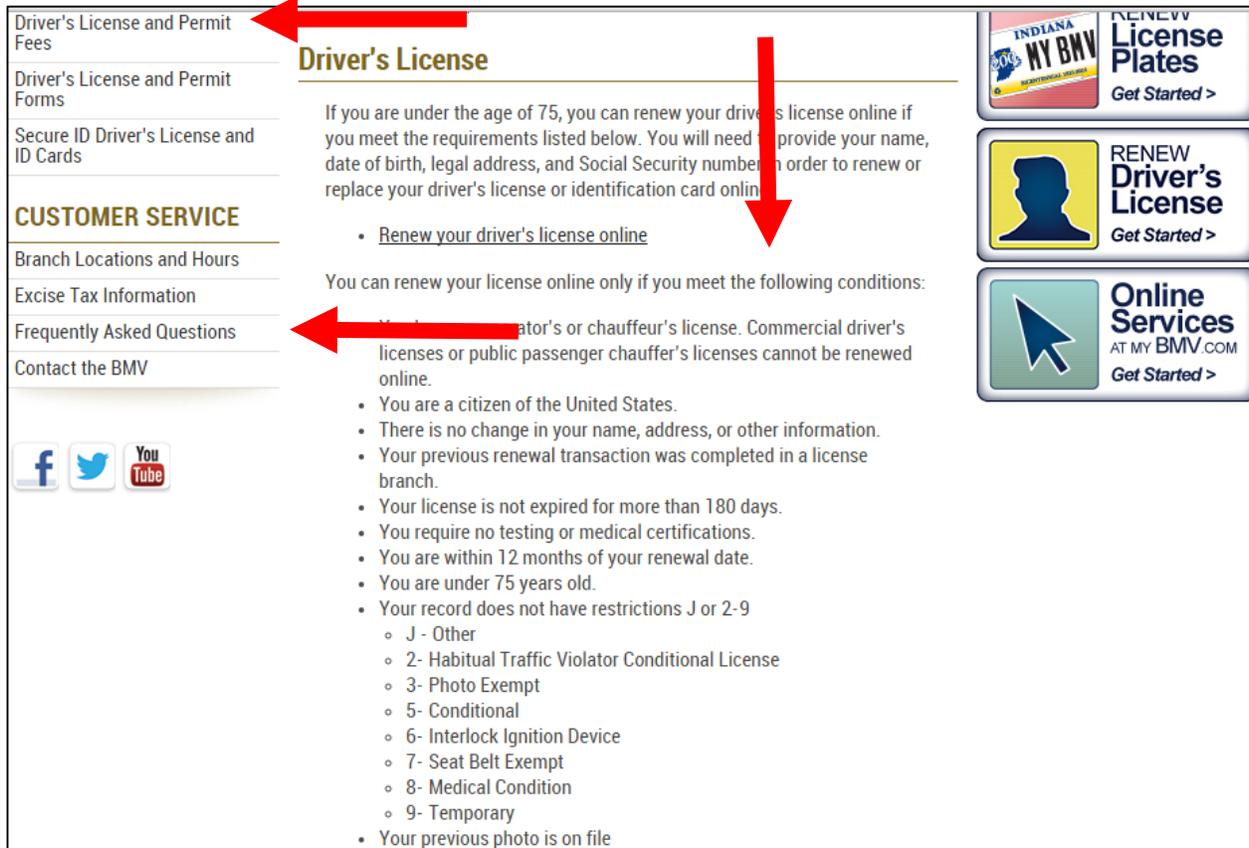
**Figure 12. Website for Online Renewal in Iowa**



Indiana’s online renewal portal is also well-organized and easy to navigate. A large button signals the place where visitors can begin the renewal process. The eligibility criteria are clearly visible, and there is a link to the renewal costs and duplicate fees. Indiana also maintains a Frequently Asked Questions (FAQ) section that provides further details about online renewal. The FAQ answers questions about obtaining duplicate or replacement licenses. Figure 13 shows the Indiana

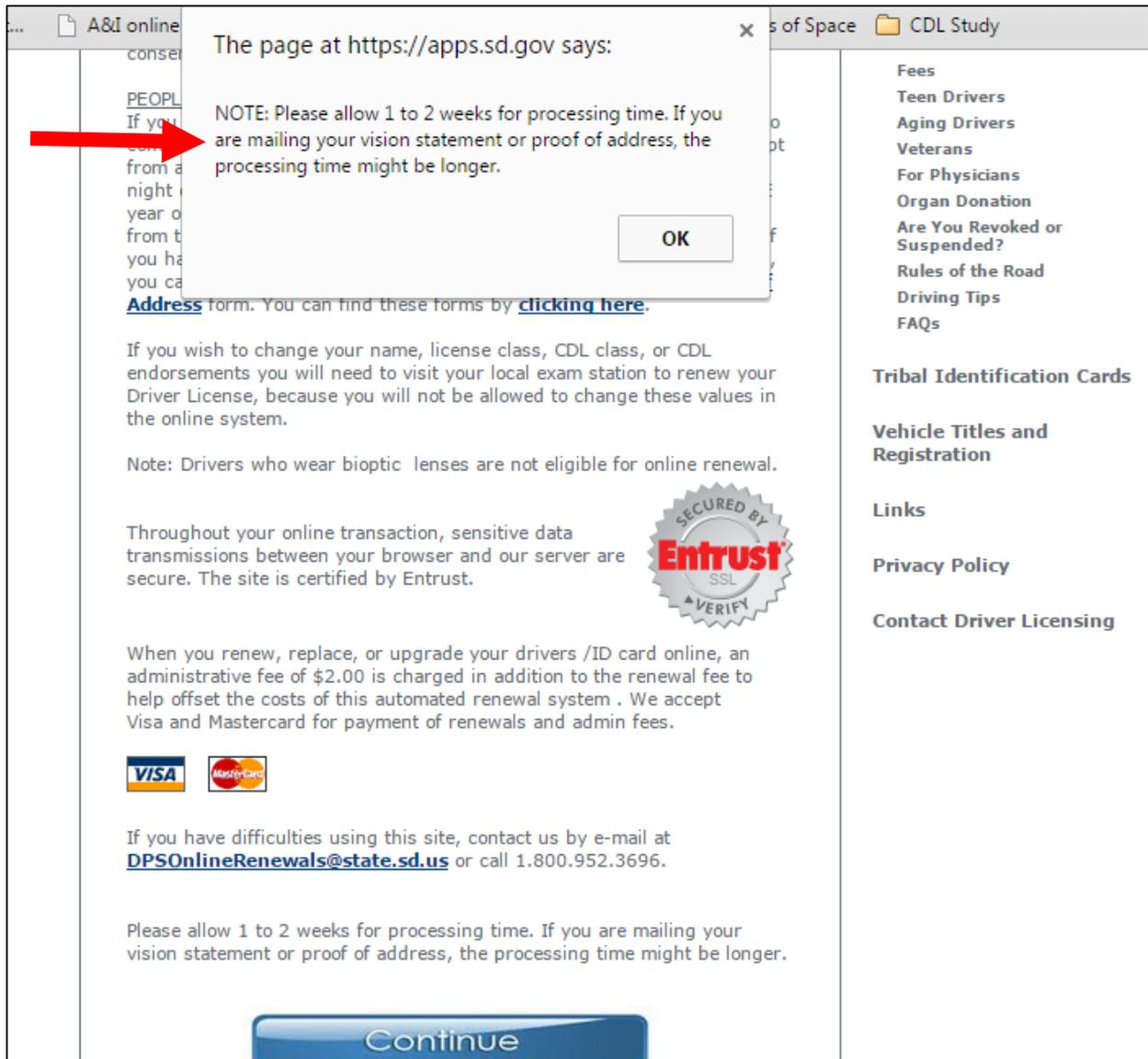
online renewal page. The red arrows point to the easy-to-locate license and permit fees link, eligibility requirements, and the FAQs link.

**Figure 13. Website for Indiana Online Driver License Renewal**



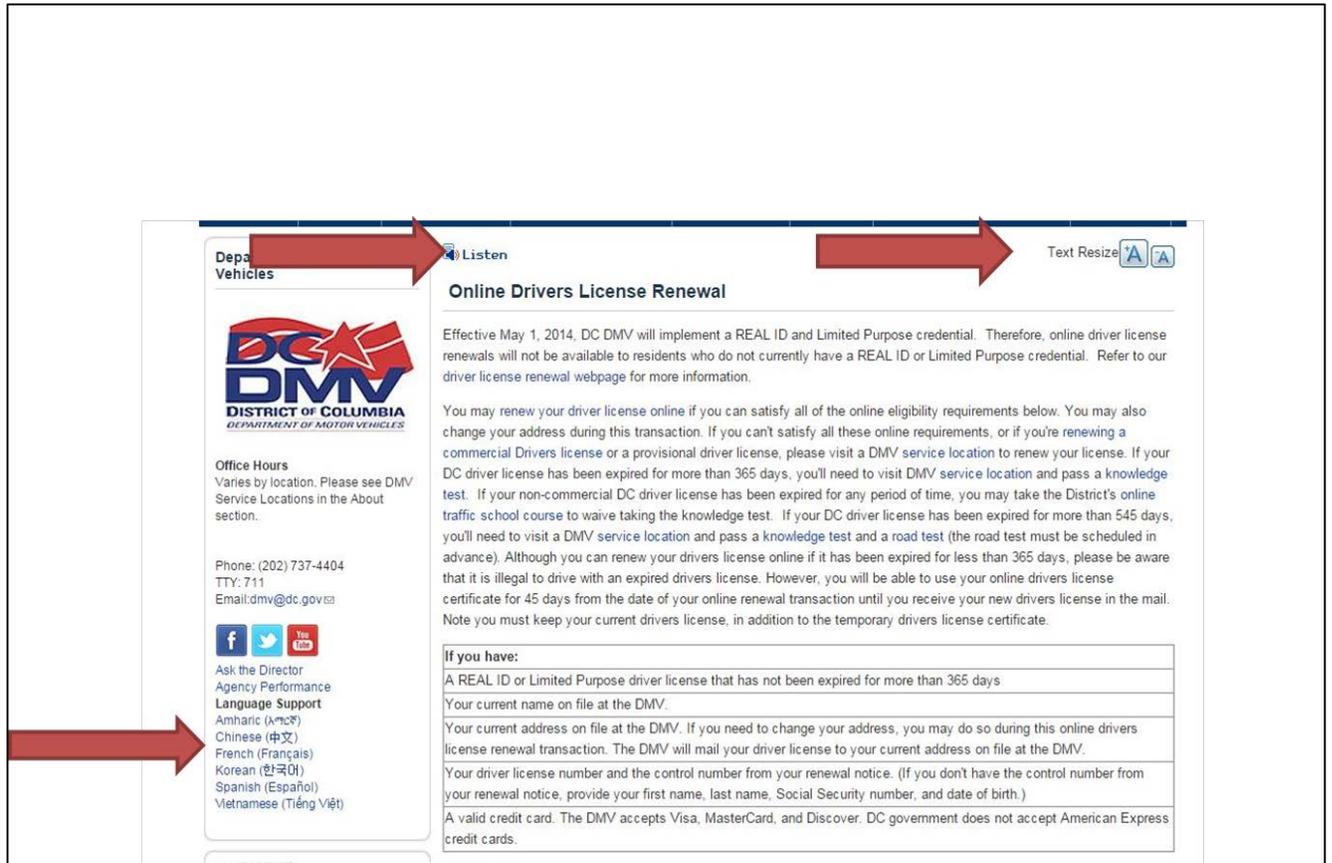
South Dakota's renewal webpage clearly points visitors toward the online renewal module; it contains all of the pertinent information for renewing driver's licenses. South Dakota has a lengthy FAQ available for drivers who have questions that are not answered on the homepage. The login page gives details about payment and online security and directs to a login page that describes how long it will take to process a renewal. The red arrows Figure 14 point to the message that pops up once the driver presses the continue button for the online renewal portal.

**Figure 14. Website for South Dakota Online Renewal**



The other states also have merits to their online renewal portal. Washington D.C.'s is an interesting example because its online renewal website includes features not available on the other sites. The arrows in Figure 15 point to audio clips that allow people listen to the renewal requirements instead of reading text. Another arrow points to a feature that allows vision-impaired customers to adjust the text size. The third arrow highlights a translation feature for seven different languages. Like Indiana, the eligibility requirements are visible and detailed. However, researchers found it difficult to find information on fees for renewals and duplicates.

**Figure 15. Website for District of Columbia’s Online Renewal**



Some states’ websites lack functionality or do not clearly link to critical information. California and Georgia use FAQs to explain renewal eligibility, fees, and types of licenses. FAQs are valuable because they provide a wide range of information in one location. The FAQs can be quite lengthy and use small text that makes it difficult to locate pertinent information. Also, some states do not provide enough information before users have to log into the renewal module. Louisiana has very little information on their renewal homepage. It includes the login and payment modules, and has information about eligibility and the forms of payment accepted. But the remainder of the information, like fees and distribution method, appears to only be available once a visitor begins the process of renewing a license.

Based on KTC’s observations, the following suggestions should be kept in mind when an online renewal portal is created for the State of Kentucky.

- Develop a system that is efficient and does not require extensive searching;
- If possible, provide all documentation and criteria for online renewal on one page;
- Improve accessibility by producing translations of key pages into other languages; make text size adjustable and provide voice recordings of key information;
- Create FAQ sections that are easy to read and well organized; and

- Provide eligibility, fees, payment, and license typology before the login.

## Conclusion

By 2015, the majority of U.S. states will offer online driver's license renewal services. States can realize many benefits by providing online renewal. It is more efficient, more convenient, improves customer service, cuts down on queues in branch offices, and reduces the overhead costs that motor vehicle agencies incur. Survey results indicated that developing online renewal options have not disrupted workflows at motor vehicle agencies, nor has online renewal been expensive to implement. This is particularly true of agencies that developed their system in-house.

However, there are some negatives associated with online renewal. Some drivers may not use the online renewal service if they do not have access to the internet, a credit card, or a bank account – all of which are required to complete the online renewal process. Some drivers go to the branch because they prefer to receive their license the same day they renew. In some states a relatively small number of people are eligible for online renewal. The complexities associated with REAL ID have also inhibited the use of online renewal. There are potential technological problems with the online systems. It is also possible that eliminating vision and road tests for the online service may decrease safety on the highway.

The survey revealed many factors that KYTC must consider before introducing online driver license renewal. Officials need to decide whether this system would be developed in-house or in consultation with a private vendor; identify potential effects on DVR workflows; determine best processes for license distribution; and evaluate strategies for incentivizing online renewal. KYTC also needs to specify the length of renewal cycles (e.g., how many consecutive cycles would drivers be able to renew online), photo update cycles, and renewal fees. Eligibility requirements would need to be set as well should online renewal be implemented. Potential factors to examine include: age limits, health issues that might disqualify a driver for online renewal, and what identification must be presented.

A potential website should be well organized, concise, and easily accessed by customers of all backgrounds and abilities. Visitors should be able to readily locate the information that will guide them as they complete the transaction. The information highlighted in this chapter establishes a basic framework for creating an adequate website that facilitates online driver's license renewal.

## Chapter 3 Assessment of Current and Future Distribution of Driver Licenses

This chapter explains four scenarios for establishing online renewal in Kentucky. Under the current system, driver's licenses are produced and distributed at 142 locations on a first-come, first-served basis. Circuit Court Clerks process applications, authenticate and validate documents, input data into Kentucky Drivers' Licensing Information System (KDLIS), print biographical data, assemble the card, and then present the card to the driver. All of this occurs during a single transaction. Moving to online renewal would require changes to this process. As such, this chapter addresses how workflows would be altered under each of the implementation scenarios; it also considers how REAL ID might be integrated into each option. In deciding whether to implement online license renewal, the most critical question to answer is who would administer the driver's license and REAL ID system. Would this fall to the Circuit Court Clerks or would some form of centralization need to be added into existing workflows?

This chapter also examines legal obstacles that could stymie online renewal. The Kentucky statutes regarding license distribution present a challenge for adopting online driver license renewal. This chapter discusses relevant statutes and also proposes ways to amend existing laws to allow for the centralized production and distribution of licenses renewed online.

### Possible Future Production and Distribution Workflows

After speaking with DVR representatives, KTC researchers identified four scenarios for implementing online renewal. Each scenario described below includes production and distribution models for online driver's license renewal. Two of the four scenarios accord a central position to Circuit Court Clerks. Under Scenario 1, Circuit Court Clerks oversee the distribution of licenses renewed online. Scenario 2 proposes that the Clerks assume this function *and* process REAL ID applications. Under the other scenarios, Clerks would not shoulder either responsibility. Scenario 3 proposes establishing a print farm in Frankfort to distribute all licenses renewed online as well as REAL ID licenses. Or, with Scenario 4, all Kentucky licenses would be produced and distributed by a third party vendor.

While this study is focused on online driver license renewal, it is possible that programs to establish online renewal and REAL ID compliance could be adopted simultaneously. Cost estimates presented in this chapter were provided by third party vendors and include costs for implementing REAL ID. However, if DVR left production and distribution with the Circuit Court Clerk offices, 142 locations would have to meet REAL ID security standards, which would be numerous and expensive to implement.

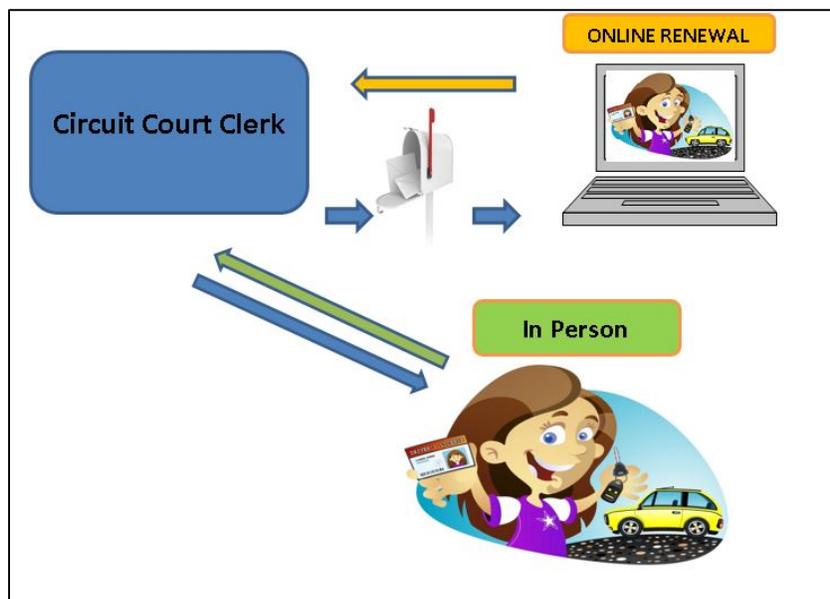
### Models for Production and Distribution

#### **Scenario 1: Circuit Court Clerk Distribution Model and Online Renewal**

Under this plan, the Circuit Court Clerk's office would continue to produce and distribute driver's licenses and permits. However, they would also print and distribute online renewals. Online renewals for their county would be processed through KDLIS. Each clerk's computer system would queue online renewals, and they would fill online orders upon receipt. Figure 16 shows a model of how this workflow might proceed.

This may not add significant labor costs for the DVR. Assuming that data processing could be automated and that data could be cross referenced with the application and KDLIS data, all online renewals could be processed without adding staff to the Circuit Court Clerk’s office. Immediately after the implementation of online renewals, personnel would likely cope with an increase in customer service calls as drivers attempted to navigate the new system. Although this spike would be short-lived, these offices would need a plan to handle callers in an effective and quick manner. The Commonwealth Office of Technology (COT) would keep development, troubleshooting, maintenance, and technical support responsibilities. According to the third-party vendors, the production and distribution system under Scenario 1 would be easily implemented because existing structure would remain in place. Circuit Court Clerk offices would need to add printers and computers to process online renewals.

**Figure 16. Circuit Court Clerk Distribution Model and Online Renewal**



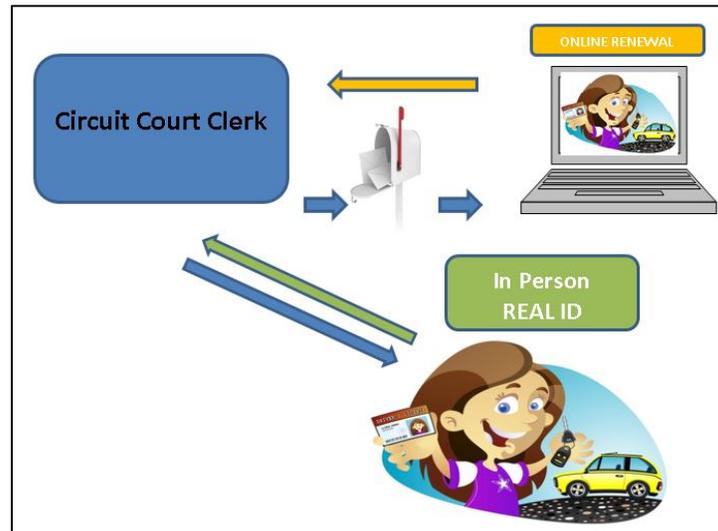
**Scenario 2: Circuit Court Clerk Distribution Model for Online Driver License Renewal and REAL ID**

Under this scenario, Circuit Court Clerk offices would continue to produce and distribute driver’s licenses and permits. However, offices would take on the added responsibility of processing REAL ID applications in addition to distributing licenses that were renewed online. Figure 17 illustrates this process.

DVR would have to ensure REAL ID compliance in each clerk’s office by meeting requirements for protecting personal information by guaranteeing building security standards, and by performing employee background checks (as described in the Department of Homeland Security’s REAL ID Security Plan Guidance Handbook). Additional expenses would depend on quality control standards, phone support for online renewal and REAL ID, and the extent that personnel

would have other job functions interrupted by dealing with new demands. COT would retain development, troubleshooting, maintenance and technical support responsibilities; plus they would assist with technical compliance requirements associated with REAL ID.

**Figure 17. Circuit Court Clerk Distribution Model for Online Driver License Renewal and REAL ID**

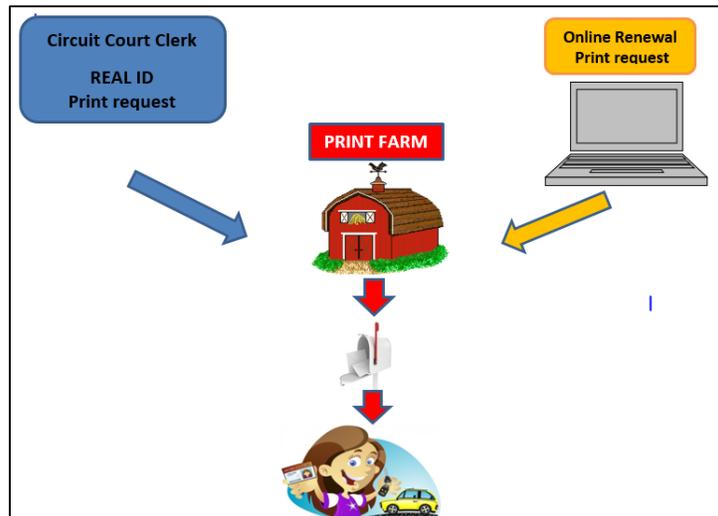


### **Scenario 3: Print Farm Model for Online Renewals and REAL ID Licenses**

Under this scenario, the Circuit Court Clerks would continue to handle applications for standard licenses (i.e., those which do not comply with REAL ID and are not renewed online). Circuit Court clerks would continue to print and distribute standard licenses renewed by walk-ins. A centralized print farm run by either KYTC staff or a third-party vendor would produce and distribute REAL IDs and licenses renewed online. Drivers would receive their REAL ID and online renewal licenses by mail. After they submitted a renewal application, they would receive a temporary license from the State of Kentucky that would be valid for 30 days.

Figure 18 represents how production and distribution would look in this scenario. A print farm operated by KYTC would require hiring additional employees. Conversely, if KYTC outsourced print farm operations to a third-party vendor, the state's costs would be contingent upon the vendor's contract terms. The cost of quality control, phone support, REAL ID compliance, printer maintenance, and management of this process would vary depending on whether KYTC opted to perform these functions in-house or contract them out to a vendor.

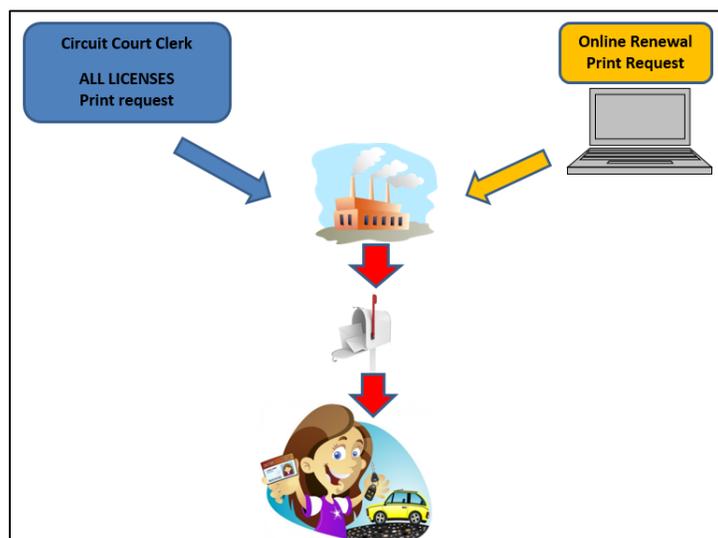
**Figure 18. Print Farm Model for Online Renewals and REAL ID Licenses**



**Scenario 4: Centralized Distribution for All Licenses**

With Scenario 4, all licenses would be produced and distributed by a third-party vendor in an offsite print factory. As shown in Figure 19, this facility would process standard licenses, permits, CDLs, REAL ID licenses, and licenses renewed online. Circuit Court Clerk offices would still handle license applications and the initial process for REAL ID applications. After receiving the appropriate information from customers, personnel at the Clerk’s office would submit a print request to the print facility. Print requests from online renewals would be sent to the vendor through a KYTC web portal. A vendor would then print the licenses and send them to drivers.

**Figure 19. Centralized Distribution for All Licenses**



## Centralization and Third-Party Vendors

After presenting these options to the Study Advisory Committee (SAC) members, the SAC members indicated that either a print farm in Frankfort (Scenario 3) or a fully centralized distribution and production of all licenses by a third-party vendor (Scenario 4) would best meet the needs of DVR. However, there are issues to consider. Customers might dislike the delays involved in receiving a license by mail, and they may feel uncomfortable receiving a temporary document while waiting for the renewal to be processed and shipped. Kentucky drivers might object to licenses being produced and distributed from a facility outside of Kentucky. In addition, if DVR establishes a print farm in Frankfort, it will have to find new office space and hire new employees. Hiring new employees by interviewing, running background checks, and training will be a time-intensive endeavor for DVR. Regardless of whether DVR chooses Scenario 3 or Scenario 4, software developers from Commonwealth Office of Technology (COT) in cooperation with Kentucky Interactive (KI) will have to develop a payment module, integrate the payment module with KYTC's mainframe, maintain the system, and provide troubleshooting services.

## Statutory Regulations and Legal Obstacles

Implementing online renewal for Kentucky would require changing state law. Other states that have adopted online renewal have had to change their laws to sanction the practice. Before adopting an online renewal option, drivers in North Carolina and Virginia were required by law to undergo vision testing before renewing their license. Both states repealed this requirement so that people could renew online without having to visit a DMV branch in person. Those tests are conducted during in-person visits every other renewal cycle. To implement online renewal, Kentucky would have to amend KRS 186.410 and KRS 186.531.

KRS 186.410 states:

“Except as provided in KRS 186.412, all original, renewal, and duplicate licenses for the operation of motor vehicles, motorcycles, or mopeds shall be issued by the Circuit Clerk in the county of the applicant's residence.” [2]

KRS 186.410 would need to be amended to authorize distribution of Class D, Class M, Class DM, and identification (ID) cards from a print farm in Frankfort or from a factory run by a third-party vendor. Military personnel have set a precedent for remotely renewing licenses. According to KRS 186.412 (10), (11), (12) military personnel that are citizens of the Commonwealth and stationed outside of Kentucky can renew their license by mail. A new law authorizing the use of online renewal could be modeled on this statute.

Finally, fees for licenses, permits, and identification cards were codified in KRS 186.531 in 2011 [15]. This statute specifies the fees for original, renewed, and duplicate licenses for Class D, Class M, Class D-M, learner's permits, and identification cards. Table 9 lists the current fee schedule in Kentucky. Original and renewed licenses have the same cost. Class D licenses are \$20, Class M licenses are \$24, and Class DM licenses are \$30. Duplicates and ID cards are \$12 [16].

**Table 9. Fees for Class D, Class M, Class DM, and Identification Cards in KRS 186.531**

<b>Class License</b>	<b>Fees From KRS 186.531</b>
<b>Original Class D</b>	\$20
<b>Renewal Class D</b>	\$20
<b>Duplicate Class D</b>	\$12
<b>Original Class M</b>	\$24
<b>Renewal Class M</b>	\$24
<b>Duplicate Class M</b>	\$12
<b>Original Class D-M</b>	\$30
<b>Renewal Class D-M</b>	\$30
<b>Identification Card</b>	\$12
<b>ID Duplicate</b>	\$12

Based on the estimates (see next chapter) provided by COT, KI, and a third-party vendor, it is clear that license fees would have to be increased to cover vendor contract fees and the cost of building a new payment module. Any fee changes would obviously require legislative approval.

### Conclusions

This chapter presented four scenarios DVR could follow to integrate online renewal into its current license distribution system. Developing a print farm, as described in Scenario 3, or outsourcing license production and distribution to a centralized processing facility overseen by a third-party vendor (Scenario 4), are the solutions that will best meet DVR's needs. To implement either of these solutions, KYTC will require legislative approval from the Kentucky General Assembly to increase fees for each license class. The Kentucky General Assembly would have to amend state law as well as authorize the production and distribution of licenses by a third party. Chapter 4 profiles third-party vendors and their recommended solutions as they would be applied to Scenario 3 and Scenario 4.

## Chapter 4 Recommendations from Third-Party Vendors

KTC researchers contacted two third-party vendors to obtain estimates on adding an online license renewal option for Kentucky's drivers. The vendors will be referred to as Vendor A and Vendor B.

### Background Information on Third-Party Vendors

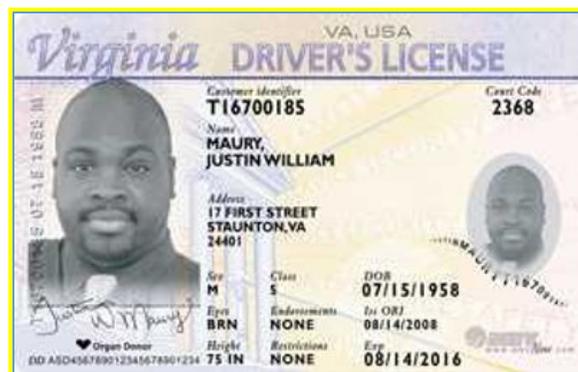
Vendor A and Vendor B are competitor companies that provide secure identification documents for clients in North America and abroad. Both companies specialize in producing highly secure identification documents with multiple security features using the latest technology. This includes helping state licensing agencies to comply with requirements such as REAL ID in a cost effective manner. Numerous states have contracted with Vendor A or Vendor B to produce and distribute driver licenses.

### Physical Features of Teslin and Polycarbonate Licenses

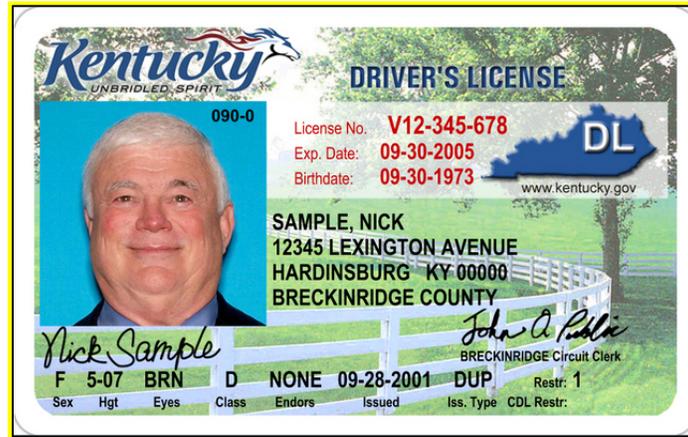
Most driver licenses in the US are Teslin-based or engraved, polycarbonate cards. Teslin is a synthetic paper-like material that inkjet or laser printers can print on. After the printing has been completed, a Teslin insert is sealed in a butterfly laminate pouch and sent through a laminating machine. Licenses made from Teslin have color photos and clients may choose to add on more security features. Typically, Teslin cards cost less than alternatives, but cost can vary according to the security features included in the card [20]. The other material used in licenses is laser-engraved polycarbonate. The layers of the license are fused together rather than laminated. The polycarbonate cards have four laser engraved security features and are non-delaminable, which means the layers of the card are fused together and cannot be peeled apart [21]. Polycarbonate driver's licenses have full color backgrounds but the printed photos are greyscale.

Figure 20 and 21 illustrate the differences between polycarbonate and Teslin solutions [22] [23]. The second figure is Kentucky's current Teslin-based license produced and distributed at the Circuit Court Clerk office.

**Figure 20. Polycarbonate, Laser Engraved**



**Figure 21 Teslin-Based License**



### Security Features of Teslin and Polycarbonate Cards

Although both materials are generally considered secure, some security experts contend that polycarbonate cards offer better security features [20]. These experts say Teslin is easy to counterfeit because the material is bendable and delaminable, meaning the layers can be peeled apart [19]. Other industry experts say Teslin licenses are just as secure and that it is evident when they have been tampered with [24, 25]. Adding features such as ghost windows, hidden security features, and laser printing options make Teslin as secure as polycarbonate cards [24, 25].

New York, Virginia, and Maryland evaluated and compared the security of Teslin and polycarbonate cards [19, 20]. The state of New York tested the Teslin cards during an RFP evaluation process and found them vulnerable to tampering, which led them to choose the polycarbonate cards. Virginia DMV also switched to a polycarbonate card and reported no apparent forgeries since polycarbonate cards were adopted [20]. However, Maryland's tests on Teslin cards showed it was obvious when a Teslin card had been tampered with, making concerns about delamination irrelevant [24].

Clearly, opinion is divided as to whether Teslin or polycarbonate cards are more secure. In terms of Kentucky's licensing needs it is important to note that Vendor A and B offer licenses that meet REAL ID requirements, AAMVA standards, and offer multiple security features.

### Recommended Solutions from Third-Party Vendors

Vendor A and Vendor B offer different solutions for Kentucky. Vendor A will set up a print facility in Frankfort that can be operated either as a Vendor A facility or by DVR employees. Vendor A also offers full centralization where all Kentucky licenses would be produced and distributed in one of their print facilities. The only option Vendor B offers is the production and distribution of all Kentucky licenses from one of their centralized facilities. Both companies emphasize that their

main concern lies in identifying secure and cost-effective solutions that will meet Kentucky's needs.

## Vendor A Recommended Solutions

Kentucky already has a contract with a third-party vendor for the production of licenses at the Circuit Court Clerk offices. The contract covers printers, software, printing supplies, and maintenance for the systems. Currently, Kentucky pays \$2.95 per card distributed by DVR. The addition of online renewal or centralization will increase the cost per card. The following describes the structure and organization of the arrangement that Vendor A recommended for Kentucky.

Vendor A representatives offered these two solutions:

1. DVR establishes a print farm in Frankfort. This facility could be operated by KYTC employees or by a third-party vendor. This facility would consist of six to ten printers that would handle licenses renewed online and REAL ID licenses (when Kentucky becomes REAL ID compliant). Under normal operating conditions, six printers would be in use, with the remaining printers reserved as backups in case problems arose with the others. Personnel in branch offices would send the print requests for REAL ID to the print farm in Frankfort. Staff would then print the licenses and mail them to drivers. A similar process would be used for licenses renewed online. The only change is that print requests would come from KYTC's website directly. Photo capture software would require upgrades to support online renewal. There are advantages to having a third-party vendor operate the print farm as their own facility. If problems were to arise during printing, experts would be on hand to diagnose and resolve the issue, rather than only having an administrative worker on site who may lack familiarity with advanced printing systems.
2. Kentucky has a low card volume compared to other states. Vendor A recommends central issuance for all of Kentucky licenses from a print factory. Initial license applications, REAL ID applications, and CDL applications would be processed by the Circuit Court Clerk offices. From there, requests for licenses would be sent to the print factory. When the document is mailed, it would be mixed into a much larger batch of parcels, significantly increasing the difficulty of identifying driver's licenses within the envelopes. Vendor A believes this type of system is more secure than leaving production up to 142 Circuit Court Clerk offices. Another advantage of the print factory option is that the burden of printing and maintenance is on the vendor. This option includes online renewal and REAL ID.

## Vendor B Recommended Solutions

KTC researchers interviewed a representative from Vendor B to get an estimate of how much a contract with them would cost. Vendor B does not recommend setting up a print farm in Frankfort. The primary service option is the centralized issuance of licenses from one of their print facilities in the US. Vendor B's contract would run five, eight, or 10 years, depending on Kentucky's needs. Before the print requests are routed to the print factory, the Circuit Court Clerk offices or the person reviewing online renewal documentation would input the biographical data. Then, KYTC's

mainframe software would authenticate and validate that information, and the data would be routed to the print factory. Licenses would be mailed to the driver's home.

## Conclusions

DVR must examine several options as it decides how to implement online renewal, which makes advancing recommendations about third-party vendors more challenging. This chapter provides the recommendations of two third-party vendors for an online driver's license service for Kentucky. The next chapter discusses how much it will cost to implement the solutions advanced by Vendor A and Vendor B.

## Chapter 5 Implementation Cost and Timeline

Implementing changes to license production and distribution could create expenses once new hardware, updating software, designing licenses, mailing solutions, and purchasing supplies are bought. This chapter provides details on the cost and process of implementing online renewal and full centralization for Kentucky licenses. Provided are the estimated costs of establishing a print farm in Frankfort, Kentucky or outsourcing production and distribution of all Kentucky licenses to an offsite facility operated by a third-party vendor. This chapter explains the technological aspects of online renewal and estimated costs associated with labor, office space, a payment module, and vendor contracts. The information gathered and presented in this chapter is based on interviews with DVR officials, information technology (IT) experts, and third-party vendors.

This implementation plan is predicated on KYTC receiving the support of the Secretary of Transportation and obtaining amendments to KRS 186.410 and KRS 186.531 through the General Assembly. Once these changes are approved, establishing a print farm or issuing all licenses through a vendor could take up to a year to fully implement. Timeframe estimates run from KYTC signing a contract with the vendor and end with final implementation.

### Payment Module Development and Cost

The Cabinet must develop a payment module for any strategy that DVR pursues to establish online renewal, REAL ID, or a centralized system for production and distribution of all driver licenses. KTC researchers investigated the development and cost of a payment module for an online renewal service. A payment module would be developed by COT in collaboration with KI. COT provides a large number of IT services for the Commonwealth, including desktop support, storage and backup of electronic data, server hosting, and security. KI is a subsidiary of NIC. KI has a public/private partnership with the Commonwealth of Kentucky that enhances the Commonwealth's online service offerings. NIC specializes in web design, hosting, and payment processing. It has designed payment modules for online driver licensing in other states, including Utah, Texas, Rhode Island, Colorado, Nebraska, Alabama, and Mississippi.

To develop this system, KI would produce a public-facing portal that interacted with KDLIS and they would create the engine to process payments. The engine would use smart codes/accounting codes to deposit the money in the correct accounts. Because of its standing agreement with the Cabinet, KI would not charge additional money to provide basic services. KI uses a "self-funded" development model under which states do not offer up any tax payer funds to pay for the development of the payment module. Instead the system is paid for by service fees charged to the customer on each transaction. KI charges a 2.75% transaction fee, which covers the building and maintenance of the payment module. KI estimates their portion of the project would take approximately 3 months.

KI says the development costs would be minimal, as the portal will be easy to build and the payment engine would be the same one KYTC uses to process Kentucky Usage Tax (KYU) tax payments, temporary permits in the Division of Motor Carriers (DMC), and online renewal for car registrations for the Division of Motor Vehicle Licensing. KI estimates that this step would take three months to complete.

KI offers Visa, MasterCard, Discover and American Express for payment options. While some survey respondents, like California, offer e-check as a payment form, KI recommends that DVR avoid the use of electronic checks because Kentucky has a high return rate due to insufficient funds. KI supports PayPal for other state partners but neither KYTC nor other state constituents have requested this payment option. If the Finance Cabinet or Office of the Controller requests a PayPal option, KI can implement PayPal as an authorized payment method.

DVR’s mainframe computer system, KDLIS, would have to be integrated with the KI system to verify and update records. COT would handle this task. The complexity of the task hinges on the technical requirements. Initially, KTC researchers were concerned about possible limitations for the number of computers that can access the mainframe simultaneously. COT is confident that bottlenecks and network limitations are not a cause for concern. The only network issue that might occur would be a network outage. If the mainframe has to be interfaced with a third-party vendor’s system, there would be a cost for COT and programmers who develop those systems.

At a minimum, COT would have to provide:

- COT Web Service for portal
- Mainframe programming costs
- Information management system (IMS) for transaction processing
- Interface with the printing technology
- Maintenance
- Technical Support
- REAL ID Compliance (if needed)
- System Upgrades

COT estimates that the development process would take approximately six to nine months. This is in addition to the estimated three months of work by KI. Unlike KI, COT would charge KYTC directly for their work.

As discussed previously, COT would play a crucial role in developing the online renewal system’s payment module. COT representatives estimate that labor costs would be based on the labor time necessary to complete their tasks. Table 10 provides labor cost estimates for six and nine months, respectively. The hourly cost for two programmers is \$85 per hour. These estimates assume that development would require two programmers working 40 hours per week.

**Table 10. Labor Cost for COT**

<b>Labor Timeframe</b>	<b>Cost Per Hour</b>	<b>Total Labor Hours</b>	<b>Total Labor Cost</b>
<b>26 Weeks (6 months)</b>	\$85	2,080	\$176,800
<b>39 Weeks (9 months)</b>	\$85	3,120	\$265,200

## Labor Requirements for KYTC Operated Print Farm

Vendor A recommended that a print farm, with six to ten printers and a relatively low print volume, be staffed by four full-time employees during each shift. The vendor recommended one shift, given the low card volume for the print farm. The print farm staff would print licenses after processing requests they receive from the online renewal portal and the REAL ID print requests from the Circuit Court Clerk offices. The staff would verify demographic information, place the cards in mailers, and post them. KYTC staff members would keep track of paperwork, supplies, and communicate with the printer vendors if maintenance or technological support were needed. The Circuit Court Clerks would continue to produce and distribute all other licenses.

Table 11 provides cost estimates for a print farm operated by KYTC. The labor costs are based on salary information provided by KYTC [26]. These costs include the annual salary along with benefits. The labor costs assume that the print farm staff would consist of one Section Supervisor and three Administrative Specialists. It would be staffed by two Administrative Specialists III and one Administrative Specialist I [26]. Table 11 provides the costs, based on the mid-point pay grade for these job categories. A Section Supervisor would cost \$85,243 per year and an Administrative Specialist I would cost \$51,899. Two Administrative Specialist III would cost \$66,202 each. The total cost for labor is \$269,545.

**Table 11. Cost for Staffing Print Farm in Frankfort**

<b>Title</b>	<b>Grade</b>	<b>Annual Salary</b>	<b>FICA</b>	<b>Retire</b>	<b>Health</b>	<b>Total</b>
<b>Section Supervisor</b>	15	\$52,413	\$3,809	\$20,321	\$8,700	\$85,243
<b>Administrative Specialist III</b>	12	\$39,375	\$2,862	\$15,266	\$8,700	\$66,202
<b>Administrative Specialist III</b>	12	\$39,375	\$2,862	\$15,266	\$8,700	\$66,202
<b>Administrative Specialist I</b>	9	\$29,581	\$2,150	\$11,468	\$8,700	\$51,899
<b>All Labor</b>	N/A	\$160,743	\$11,682	\$62,320	\$34,800	\$269,545

## Real Estate Cost for Print Farm Office in Frankfort, KY

To open a print farm in Frankfort, DVR would require suitable real estate for an office. This is true whether the print farm is operated by KYTC employees or Vendor A's employees. While DVR has not identified an exact location for a print farm, it is possible to estimate how much office space would cost. A DVR official and Vendor A estimated that approximately 1,500 square feet would be needed to set up a print farm with 10 printers. Each printer takes up about 100 square feet. As such, the purchased printers would take up about 1,000 square feet. The remaining 500 square feet would be used for office space.

The Division of Real Properties manages the acquisition and maintenance of property that belongs to the Commonwealth. KTC researchers obtained information about private lease office space from the Division of Real Properties, which is in the Kentucky Finance & Administration Cabinet. KTC also obtained information about state-owned properties. The cost per square foot varies based upon the location, utilities, and maintenance. The process for obtaining space begins with a request that specifies the square footage and amenities needed. That request is sent to a Property Management Analyst.

There are three avenues for finding office space for state use. The first option is identifying space already available in state owned properties. The average annual cost for space in state-owned properties in Frankfort is \$8.24 per square foot. If utilities are established in the building it adds an additional \$3.86 per square foot annually. Thus, it costs \$12.10 per square foot for an office in a state-owned property in Frankfort.

A second option would be leasing space in a private building, although this involves a lengthy process. The first step is to search for property owned by the city or county. If it is determined that a space is adequate in terms of total square feet and the owner approves the plans for the space, a price per square foot is negotiated. The second step would be to approach a private lessor that owns spaces in facilities that already house state agencies. If property is available with an adequate amount of square footage and amenities, then a price per square foot is negotiated.

The third possibility is advertising in a local newspaper for space and taking bids. If the space is adequate and the owner agrees to the terms, that lessor wins the bid. Typically, the lowest bid is chosen unless a higher-priced property is more suitable. On average, a privately leased property in Franklin County costs \$8.02 per square foot. Some properties' rent do not cover utilities, whereas others do.

Table 12 lists the average cost of utilities and janitorial services for state buildings and privately leased buildings in Franklin County. Utilities include electric, gas, water, and janitorial services. This data was obtained from the Division of Real Properties in the Kentucky Finance and Administration Cabinet. The average cost of utilities, which includes electric, water, gas and janitorial services, is \$2.22 per square foot.

**Table 12. Average Cost of Utilities for Business Offices in Frankfort**

<b>Service</b>	<b>Cost per Square Foot (Yearly)</b>
<b>Electric</b>	\$1.09
<b>Gas</b>	\$.22
<b>Water</b>	\$.18
<b>Janitorial</b>	\$.73
<b>Total</b>	\$2.22

As Table 13 indicates, the estimated rent on a private lease in Franklin County excluding utilities is \$12,030 per year (\$1,002.50 per month). A privately leased property including utilities is \$15,360 per year (\$1,280.00 per month). State-owned properties with utilities cost \$18,150 per year (\$1,512.50 per month). State-owned facilities without utilities would cost \$12,360 per year (\$1,030.00 per month).

**Table 13. Cost of State Owned and Privately Leased Office Space in Frankfort, KY (1,500 Square Feet)**

<b>Public/Private</b>	<b>Paid Utilities?</b>	<b>Cost Per Square Foot (Yearly)</b>	<b>Cost Per Month</b>	<b>Cost Per Year</b>
<b>Public</b>	No	\$8.24	\$1,030.00	\$12,360
<b>Public</b>	Yes	\$12.10	\$1,512.50	\$18,150
<b>Private</b>	No	\$8.02	\$1,002.50	\$12,030
<b>Private</b>	Yes	\$10.24	\$1,280.00	\$15,360

The cost per square foot is based on an average of properties in Frankfort. During a follow-up conversation, Wayne Williams from the Division of Real Properties provided insight on why state facilities are more expensive than private facilities. Some state buildings are older and are probably not energy efficient, so the utility prices fluctuate based on the age and condition of the building. Also, the average price per square inch for leases in privately owned buildings includes leases with owners who have not increased rent for several years. If KYTC sought a lease in one of these older, privately owned buildings, where the age of the buildings was taken into account, the Division of Real Properties could negotiate a price based on a same-terms lease. If a same-terms lease was not available, the Division of Real Properties would seek bids. It is very possible that bids from private owners would exceed the cost of a state-owned property under this scenario.

### Cost for Third-Party Vendors

KTC researchers requested a rough order of magnitude (ROM) from Vendor A and Vendor B representatives. When they presented their estimates, the companies stressed that they could not take all of DVR’s specific needs into consideration because that information is currently unavailable. They also emphasized that they are committed to providing DVR a personalized product that would meet Kentucky’s specific requirements and industry standards. Both of the vendors’ estimates were presented in cost-per-card units. It should be noted that the cost per card stated in the contract would remain the same regardless of the actual number of cards distributed by KYTC.

Typically, vendors do not charge licensing agencies a lump-sum fee upfront to implement a new printing and distribution operation. Instead, the vendor determines the total cost of the program and calculates a price per card. The cost per card is calculated by dividing the vendor cost by the estimated volume of licenses. The cost per card will be spread out over the total print volume specified in the contract with the vendor. For example, KYTC currently pays a vendor \$2.95 per license for all licenses produced and distributed at Circuit Court Clerk offices. If a print farm is added to the contract, the additional cost would be added to the current cost per card and that price per card would apply to the entire annual volume of 1.4 million cards not just the cards from the

print farm. In addition, vendors do not impose charges based on license class. Instead, the licensing agency reports the number of cards that are distributed each month. Based on these data the vendor bills the agency using the cost-per-card amount specified in their contract.

### Implementation Costs for a Print Farm in Frankfort, KY

If a print farm were established in Frankfort, it could be operated in-house by KYTC employees or contracted out to a third-party vendor (and staffed by their personnel). Implementation costs for a print farm operated by KYTC would include: 1) labor expenses 2) the cost of leasing 1,500 square feet of office space; 3) COT and KI programming costs; and 4) vendor expenses. The vendor would set up the printing equipment, replenish printing and card supplies, and provide troubleshooting software. If the vendor operated the print farm in Frankfort, all production and distribution would be handled by the employees of the vendor. The Circuit Court Clerks would still produce and distribute all other licenses over the counter. The print farm would use the same Digital Identification Systems (DIS) P360 printers that are used at the Circuit Court Clerk offices.

As shown in Table 14, the Vendor A contract is based on four full years of card production with an average production volume of 1.4 million cards. The price per card estimate is added onto the current program price per card, which means the annual production volume and costs include licenses produced and distributed in the print farm, with all other licenses produced and distributed over-the-counter by the Circuit Court Clerks. The total card volume is 5,600,000. The estimates for a print farm are based on an estimated card capacity of 950,000 cards: 600,000 is the estimated online renewal capacity and 350,000 cards is the expected capacity for REAL ID.

**Table 14. Contract Specifications**

	<b>Print Farm with KYTC</b>	<b>Print Farm with Vendor</b>
	<b>Labor</b>	<b>A Labor</b>
<b>Annual Production</b>	1.4 million cards	1.4 million cards
<b>Capital Expense</b>	\$900,000	\$900,000
<b>Estimated Print Farm Card Capacity</b>	950,000	950,000
<b>Vendor Cost per Card</b>	\$3.57	\$4.03
<b>Length of Contract</b>	4 years	4 years
<b>Total Contract Card Volume</b>	5,600,000	5,600,000
<b>Includes REAL ID Option</b>	Yes	Yes
<b>Online Renewal Option</b>	Yes	Yes
<b>Mailing Included</b>	No	No
<b>Cash payment option</b>	Yes	Yes

The first option is a print farm operated by KYTC employees. KYTC will incur expenses for the print farm including labor, COT and KI programming, 1,500 square feet of office space, and the cost for mailing the licenses. KYTC would also be responsible for mailing the licenses. The estimated mailing cost is \$465,500. The estimated vendor cost for the print farm is \$3.57 per card. The total vendor cost is \$4,998,000.

Table 15 indicates, the total cost per card would be \$4.30; this factors in Vendor A's estimate and KYTC's expenses. The costs are estimated based on 950,000 cards and includes online renewal and REAL ID. The total start-up costs are \$6,016,395.

**Table 15. Start-up Costs for Print Farm Operated by KYTC**

<b>Print Farm — KYTC</b>	
<b>KYTC Labor</b>	\$269,545
<b>COT and KI</b>	\$265,200
<b>Office Property Estimated</b>	\$18,150
<b>Vendor Cost - Online/Real ID</b>	\$3,391,500
<b>Vendor Cost – OTC</b>	\$1,606,500
<b>Mailing</b>	\$465,500
<b>TOTAL Start Up Costs</b>	\$6,016,395
<b>Vendor Cost Per Card</b>	\$3.57
<b>Total Cost Per Card</b>	<b>\$4.30</b>

Conversely, if the print farm were operated by Vendor A in Frankfort the cost per card would be higher due to Vendor A's labor expenses. The estimated vendor cost per card is \$4.30. The contractual services from the vendor include the print farm and the over-the-counter system currently operated at the Circuit Court Clerks. The total vendor cost is \$5,642,000. The pricing excludes cost to upgrade servers and workstations, and this would require support beyond current contract years. This price does not include the cost to make a KYTC facility REAL ID compliant.

KYTC will still be responsible for the cost of COT and KI programming, 1,500 square feet of office space, and the cost of mailing the licenses. The cost of mailing the licenses is \$465,500.

Table 16 provides a total cost per card of \$4.56 that factors in Vendor A's estimate and KYTC's expenses. The costs are based on a 950,000 card capacity and includes online renewal and REAL ID. The total start-up costs are \$6,390,850.

**Table 16. Start-Up Costs for Online Renewal in Print Farm Operated by Vendor A**

<b>Print Farm — Vendor A</b>	
<b>KYTC Labor</b>	N/A
<b>COT and KI</b>	\$265,200
<b>Office Property Estimated</b>	\$18,150
<b>Vendor Cost- Online Renewal and REAL ID</b>	\$3,828,500
<b>Vendor Cost OTC</b>	\$1,813,500
<b>Mailing</b>	\$465,500
<b>Total Start Up Costs</b>	\$6,390,850
<b>Vendor Cost Per Card</b>	\$4.03
<b>Total Cost Per Card</b>	<b>\$4.56</b>

## Timeline for Implementing a Print Farm in Frankfort, KY

Table 17 displays a proposed timeline to establish a print farm in Frankfort. COT would be able to finish their work in six to nine months; KI estimated it would take three months to develop their payment module. The property search can take up to three months, depending on the availability and cost of space. According to Vendor A, it would take approximately 8 to 12 months to implement a print farm in Frankfort. The estimated timeline is the same, no matter which entity runs the print farm.

**Table 17 Timeline for Print Farm in Frankfort**

		FY 2016											
#	Task	S	O	N	D	J	F	M	A	M	J	J	A
1	Development of Payment Model by COT	■	■	■	■	■	■	■	■	■			
2	Development of Payment Module by KI	■	■	■									
3	Property Search	■	■	■									
4	Print Farm Set Up	■	■	■	■	■	■	■	■	■	■	■	■

## Implementation of Centralization Option through Vendor A and Vendor B

Vendor A and Vendor B suggested centralization could be a better option for DVR than establishing a print farm in Frankfort. Under this scenario, all of Kentucky's licenses would be produced and distributed by a third-party vendor from a centralized location. Circuit Court Clerk offices would upload the driver headshots and demographic information from KYTC's system and a print request would be sent to the print facility to produce and then distribute the license. Drivers would receive a temporary document until they received their license in the mail.

Centralization has many benefits. First, Kentucky produces a relatively low card volume compared to other states. Centralization increases security and reduces fraud. It is also more efficient than over-the-counter issuance. In addition, REAL ID compliance would be much simpler to implement since fewer employees would need background checks to meet compliance standards. In addition, Vendor A and Vendor B operate facilities that already meet the security standards of REAL ID.

Vendor A's contract would include workflow changes, software programming, facial recognition software, maintenance, REAL ID compliance, labor, production, and distribution at a secure facility. Vendor B's contract would include labor, maintenance, REAL ID compliance, facial recognition software, a new card design, and a secure facility. Licenses may or may not have to undergo a redesign depending upon the material KYTC chose to use.

Table 18 provides the potential contract terms with Vendor A and Vendor B. Both estimates are based on a card volume of 1.4 million per year. A Vendor A contract is based on four years and

5,600,000 cards. A contract with Vendor B is for five years and 7,000,000 cards. Both of the contracts include REAL ID compliance and online renewal.

**Table 18. Terms for Contracts**

	<b>Vendor A</b>	<b>Vendor B</b>
<b>Annual Card Volume</b>	1.4 million	1.4 million
<b>Vendor Price Per Card</b>	\$3.68	\$4.00
<b>Length of Contract</b>	4 years	5 years
<b>Contract Card Volume</b>	5,600,000	7,000,000
<b>Includes REAL ID Option</b>	Yes	Yes
<b>Online Renewal Option</b>	Yes	Yes
<b>Mailing Costs Included</b>	No	No
<b>Cash payment option</b>	Yes	Yes

Table 19 shows the estimated costs for contracts with Vendor A and Vendor B, respectively. Vendor A’s estimated cost per card is \$3.68. Vendor A’s estimate does not include mailing costs, which would run KYTC an additional \$686,000. As seen in Table 20, the total cost per card is \$4.36 and factors in Vendor A’s estimate and KYTC’s expenses. The total cost for centralized production and distribution with Vendor A is \$6,103,200. Online renewal and REAL ID are included in this estimate.

Vendor B estimates that a contract for production and distribution would cost Kentucky \$4.00 per card. Table 19 shows a total cost per card as \$4.68 which includes the vendor cost for centralization as well as KYTC’s costs. This cost per card factors in \$686,000 for mailing. The total cost for a contract through Vendor B is \$6,551,200. This estimate includes online renewal and REAL ID.

**Table 19. Costs for Vendors A and B**

	<b>Vendor A</b>	<b>Vendor B</b>
<b>KYTC Labor</b>	N/A	N/A
<b>COT and KI</b>	\$265,200	\$265,200
<b>Office Property Estimated</b>	N/A	N/A
<b>Vendor Cost- Online Renewal and REAL ID</b>	\$5,152,000	\$5,600,000
<b>Vendor Cost OTC</b>	N/A	N/A
<b>Mailing</b>	\$686,000	\$686,000
<b>Total Start Up Costs</b>	\$6,103,200	\$6,551,200
<b>Vendor Cost Per Card</b>	\$3.68	\$4.00
<b>Total Cost Per Card</b>	<b>\$4.36</b>	<b>\$4.68</b>

Following contract negotiation and approval, the transition from the current over-the-counter process at the Circuit Court Clerk offices to centralized production with either Vendor A or Vendor B would take approximately 9 to 12 months.

Table 20 displays a project schedule. As with the previous scenario, COT and KI would need six to nine months to develop a payment module, make programming changes, and add the module to the KYTC web portal. Implementation includes workflow changes, programming changes, and design changes to licenses. Both Vendor A and Vendor B estimate that shifting to a fully centralized distribution model would take 12 months at most.

**Table 20 Timeline for Centralization**

#	Task	FY 2016											
		S	O	N	D	J	F	M	A	M	J	J	A
1	Development of Payment Model by COT												
2	Development of Payment Module by KI												
3	Transition to Third-Party Vendor												

### Cost Comparisons for Print Farm and Centralization

Cost estimates were obtained for a print farm dedicated to online renewal and REAL ID production and distribution that would be operated by KYTC or a third-party vendor. Cost estimates were also obtained for centralization through Vendor A or Vendor B. All four scenarios will take a year to implement. The vendors provided a price per card for their services but KTC researchers also provided a cost per card that includes KYTC’s expenses. Neither Vendor A or Vendor B included mailing costs in their estimates. KTC researchers calculated that cost for the print farm (\$465,500) and the centralized model (\$686,000) based on the current first class rate of \$0.49.

Table 21 provides a cost comparison for all four options. The first-year costs for a print farm operated by KYTC employees will cost approximately \$6,016,395. If the print farm is operated by a third-party vendor it would cost approximately \$6,390,850. The print farm capacity is 950,000 cards with an overall capacity of 1.4 million cards annually. A centralized distribution model with Vendor A would cost \$6,103,200. A centralized distribution model with Vendor B would cost \$6,551,200. These estimates are based on an annual card volume of 1.4 million.

**Table 21 Estimated Costs for Implementing Print Farm and Centralization**

	Print Farm KYTC	Print Farm Vendor A	Centralization Vendor A	Centralization Vendor B
<b>KYTC Labor</b>	\$269,545	N/A	N/A	N/A
<b>COT and KI</b>	\$265,200	\$265,200	\$265,200	\$265,200
<b>Office Property Estimated</b>	\$18,150	\$18,150	N/A	N/A

<b>Vendor Cost - Online/Real ID</b>	\$3,391,500	\$3,828,500	\$5,152,000	\$5,600,000
<b>Vendor Cost - OTC</b>	\$1,606,500	\$1,813,500	N/A	N/A
<b>Mailing</b>	\$465,500	\$465,500	\$686,000	\$686,000
<b>TOTAL Start Up Costs</b>	\$6,016,395	\$6,390,850	\$6,103,200	\$6,551,200
<b>Vendor Cost Per Card</b>	\$3.57	\$4.03	\$3.68	\$4.00
<b>Total Cost Per Card</b>	<b>\$4.30</b>	<b>\$4.56</b>	<b>\$4.36</b>	<b>\$4.68</b>

## Implementation and License Fees

The cost of transitioning to a print farm or centralized production and distribution could be added into the license fee driver's pay when they renew their license online. To cover all expenses, an increase of \$5 per license would be appropriate. One way to accomplish this would be to increase the fee for Photo ID and KI's percentage for programming the payment module. Changing license fees would require an amendment to KRS 186.531. Table 22 shows the increased fee schedule for licenses renewed online. These distributions would cover the vendor amount per card, the fee that goes to Kentucky interactive, as well as the startup costs paid by KYTC for application development and (potentially) labor and office space if the in-state print farm option is selected. It also anticipates future cost increases to Kentucky for printing driver licenses.

**Table 22. Cost to Drivers**

<b>License Class</b>	<b>Current Fee</b>	<b>Future</b>	<b>Photo ID Current</b>	<b>Photo ID Future</b>	<b>KI</b>
<b>D</b>	\$20	\$25	\$1	\$5.31	.69
<b>M</b>	\$24	\$29	\$1	\$5.20	.80
<b>DM</b>	\$30	\$35	\$1	\$5.04	.96
<b>ID</b>	\$30	\$17	\$1	\$5.53	.47
<b>Duplicate</b>	\$12	\$17	\$1	\$5.53	.47

## Conclusions on Implementation

This report has identified two options to establish online driver's license renewal: 1) Establish a print farm in Frankfort operated by KYTC or a third-party vendor 2) Establish a contract with a third-party vendor to centrally issue all of Kentucky's licenses. If KYTC pursued centralized issuance with Vendor A or Vendor B licenses would be printed off-site in one of their secure facilities in the U.S.

There are positive and negative aspects to both options. A print farm in Frankfort would ensure that KYTC remains in control of the licensing process. A print farm would also help KYTC control costs in the future and ensure that licenses are being produced and distributed by Kentuckians. However, establishing a print farm would be labor-intensive. If the print farm were operated by third-party vendor, there would be less DVR labor for setup and it would guarantee that the office is operated by experts in printing and license security. Drivers might not like having to wait for their licenses.

Both vendors will include online renewal service and meet the security standards for REAL ID at no extra cost. Central issuance could increase efficiency and potentially save on costs. An offsite facility would also be operated by people with printing expertise and knowledge of the evolving demands of REAL ID and other federal requirements. However, drivers might object to licenses being printed and distributed outside of Kentucky. Drivers might also prefer to receive their licenses in person at the Circuit Court Clerk office rather than getting them in the mail.

Since Kentucky state law only authorizes Circuit Court Clerks to distribute licenses, KYTC would need to request approval from the Transportation Cabinet Secretary and request legislative changes to KRS 186. These would authorize the Circuit Court Clerks, as well as staff housed in a centralized facility, to produce and distribute Class D, Class M, and Class DM licenses renewed online.

It will take a maximum of one year to implement an online renewal option in a print farm or full centralization with Vendor A or Vendor B. DVR would be responsible for seeking bids and negotiating contracts with third-party vendors. DVR would also coordinate the transition to a centralized production and distribution system for online renewals.

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## **Appendix A — Renewal Practices for Selected States**

State	Year Implemented	How often updated photo is required	Renewal Period	Eligible Licenses	Age limit for On-line renewal
California	2004	15 years	5 years	Drivers	Age 69 or younger
Colorado	2008	15 years	5 years	Drivers	21 to 65 years old
Washington DC	2002	16 years	8 years	Drivers	70
Florida	2007	16 years	8 years	Drivers	80
Georgia	2002	16 years	5-8 years	Drivers	Age 64 and younger
Iowa	2013	16 years	5-8 years	Drivers / Motorcyclist	70
Illinois	2002	4 years	4 years	Drivers	74
Indiana	2001	12 years	4-6 years	Drivers/ Chauffeurs (non-public)	75 years and younger
Louisiana	1997	8 years	4 years	Drivers	70
Nebraska	2010	10 years	5 years	Drivers	Age 71 and younger
Pennsylvania	2001	4 years	4 years	Drivers/ Motorcyclist	None
South Dakota	2005	10 years	5 years	Drivers/ Motorcyclist	Sixty-five and over needs to have a vision check in order to renew online
Virginia	1999	16 years	8 years	Drivers/ Motorcyclist	Age 79 or younger

State	Requirements
California	<b>1.</b> Access to Internet <b>2.</b> Registered as certified user on the California Department of Motor Vehicles (DMV) website <b>3.</b> Must have a verified Social Security Number on CA DMV record history <b>4.</b> Must have a valid credit card or a checking account.
Colorado	<b>1.</b> US Citizen <b>2.</b> Valid regular adult license or expired less than 1 year <b>3.</b> Last license issued in Driver License Office <b>4.</b> Social Security Number is on file <b>5.</b> Name has not changed <b>6.</b> Eye exam in the last 3 years <b>7.</b> Valid email address <b>8.</b> Valid credit card
Washington DC	<b>1.</b> Current name and address on file <b>2.</b> Must have the Driver's License Number and control number from the renewal notice <b>3.</b> Valid credit card <b>4.</b> REAL ID or Limited purpose driver license that is not expired for more than 365 days.
Florida	<b>1.</b> US Citizen or Immigrant <b>2.</b> Last renewal completed in office <b>3.</b> License is within 18 months of the expiration date"
Georgia	<b>1.</b> Must have Real ID compliant document <b>2.</b> Has had photograph updated within past 16 years of driver license expiration date
Iowa	<b>1.</b> Iowa resident <b>2.</b> US citizen <b>3.</b> Have renewed your current DL at office <b>4.</b> No changes to name, address, date of birth, sex, class type, endorsements, or restrictions
Illinois	<b>1.</b> No CDL renewals. <b>2.</b> Clean license for 4 years <b>3.</b> No suspended, revoked, cancelled licenses. <b>4.</b> Age 22-74 <b>5.</b> License expired less than 1 year. <b>6.</b> Cannot need a vision or medical report. <b>7.</b> Cannot have a school bus permit. <b>8.</b> Cannot change restrictions or classifications. <b>9.</b> No out-of-state licenses. <b>10.</b> No name or gender changes.
Indiana	<b>1.</b> US Citizen <b>2.</b> No change in name, address, or other information <b>3.</b> Must be within 12 months of renewal date <b>4.</b> Previous photo must be on file
Louisiana	Most recent renewal occurred in the office
Nebraska	Most recent renewal occurred in the office
Pennsylvania	<b>1.</b> US citizen. <b>2.</b> License expired less than 6 months <b>3.</b> Information on file is current <b>4.</b> Last renewal was in-person.
South Dakota	<b>1.</b> Must upload two documents verifying address. <b>2.</b> If the person is over 65, they need to have a vision test in order to use online renewal. <b>3.</b> Proof of identity and social security number.
Virginia	<b>1.</b> Most recent renewal occurred in the office <b>2.</b> Must be within 6 months of driver's license expiring. <b>3.</b> Your name has not changed <b>4.</b> You have a Virginia address <b>5.</b> Social Security Number must match your SSN on file with the Social Security Administration"

State	Exclusions
California	<p><b>1.</b> Driving Probations or failure to appear (FTA) in the last 2 years. <b>2.</b> Suspension <b>3.</b> Violation point count &gt; 1 within last 2 years <b>4.</b> Suspended for driving with Blood Alcohol Content (BAC) of 0.08 <b>5.</b> Refusing or failing to complete alcohol screening test within last 2 years <b>6.</b> Already have 2 consecutive 5-year renewals done on-line <b>7.</b> More than 2 collisions in 2 years or 3 collisions in 3 years prior to license expiration. <b>8.</b> Admin Per Se suspension in effect during the 2 year period prior to license expiration. <b>9.</b> Physical or mental codes <b>10.</b> Commercial Drivers License (CDL) pending an out-of-state clearance <b>11.</b> Change of address or personal description</p>
Colorado	<p><b>1.</b> Renewed online the last two times <b>2.</b> Either written or road test is required <b>3.</b> Pending or final department actions on your record <b>4.</b> Outstanding tickets <b>5.</b> Bad checks on file with DMV."</p>
Washington DC	<p><b>1.</b> Real ID or Limited Purpose License has been expired for more than 365 days <b>2.</b> Haven't recently changed name and not updated the information with DMV <b>3.</b> Haven't experienced any change in medical condition such as vision, seizures, or insulin dependent diabetes <b>2.</b> Cannot have revoked or suspended status on driver license</p>
Florida	<p><b>1.</b> CDL holders <b>2.</b> License expired 18 months or more <b>3.</b> Last renewal was online.</p>
Georgia	<p><b>1.</b> Non US citizens <b>2.</b> CDL holders"</p>
Iowa	<p><b>1.</b> CDL holders <b>2.</b> instructional permit holder <b>3.</b> work permit holder <b>4.</b> License expired for 1 year and 60 days <b>5.</b> Medical or vision test required <b>6.</b> Pending request for re-examination <b>7.</b> Current driver license marked Valid Without Photo</p>
Illinois	<p><b>1.</b> Your license has been expired more than one (1) year. <b>2.</b> You participated in the Safe Driver Renewal program at your last renewal. <b>3.</b> You are required to submit an updated medical and/or vision report. <b>4.</b> School Bus Permit holder <b>5.</b> Driving record reflects any conviction, supervision, accident and/or withdrawal. <b>6.</b> Prescribed corrective lenses since last renewal <b>7.</b> Want to change the classification or restrictions on your driver's license <b>8.</b> Have a license in another state.</p>
Indiana	<p><b>1.</b> License expired more than 180 days <b>2.</b> Testing or medical certifications are required <b>3.</b> CDL or public passenger chauffer license holders <b>4.</b> Restrictions <b>5.</b> Suspended or invalidated license <b>6.</b> Six or more active points on driver record <b>7.</b> Points on driver record if under 21</p>
Louisiana	<p><b>1.</b> CDL holder <b>2.</b> License has suspensions or revocations</p>
Nebraska	<p><b>1.</b> Restrictions on DL</p>
Pennsylvania	<p><b>1.</b> Any Commercial Driver's License <b>2.</b> Any license that is not currently valid (expired 6 months or more) <b>3.</b> Any license where the information on file is not current <b>4.</b> Any Valid license without Photo Driver's License"</p>
South Dakota	<p>Bioptic lenses</p>
Virginia	<p><b>1.</b> Knowledge exam required <b>2.</b> One or more traffic convictions if under the age of 21 <b>3.</b> Driver license has expired <b>4.</b> Driver license is suspended or revoked <b>5.</b> Driver failed the vision screening <b>6.</b> Driver restricted to daylight driving <b>7.</b> Driver seeking to have vision restriction moved <b>8.</b> CDL holders <b>9.</b> Permit holder or Virginia Identification card (ID) holder <b>10.</b> Money owed to Virginia Division of Motor Vehicles <b>11.</b> Profile picture on driver license. <b>12.</b> New photo required <b>13.</b> Customer number on file needs verification <b>14.</b> Moved out-of-state and received new driver license in that state <b>15.</b> School Bus endorsement <b>16.</b> Proof of legal presence is needed <b>17.</b> Under medical review"</p>

State	% of Renewals Done On-line	Cost of the License	Cost of Implementation	Who Developed the web application?
California	13.75%	\$33.00	\$425,900	In house programmers
Colorado	13.20%	\$21.00	Unknown	Colorado Interactive
Washington DC	~ 8%	\$44.00	Unknown	Deloitte Consulting
Florida	11.40%	\$48.00	Unknown	Internal Information Systems Administration (ISA) members
Georgia	22% to 25%*	\$27	Unknown	Development was performed in-house.
Iowa	14.30%	\$4.00	Unknown	Internal staff
Illinois	Slightly over 10%	\$31.75	Unknown	Internal IT Department
Indiana	10%	\$17.50	Unknown	Indiana BMV IT developers
Louisiana	17%	\$21.50	Unknown	Internally
Nebraska	50%	\$26.50	Unknown	Partnership with Nebraska.gov
Pennsylvania	38%	\$29.50	Unknown	AMS (American Management Systems) and Pennsylvania Department of Transportation's internal IT resources
South Dakota	We've only been renewing online for one year and the process is slow to catch on.	\$20.00	Unknown	State IT agency
Virginia	27%	\$32.00	Unknown	In-house

State	Reorganization Needed?	Organizational Structure for Issuance of License
California	No	The DMV is a stand-alone state department with four driver license processing centers.
Colorado	No	Colorado Department of Motor Vehicles is a part of the Department of Revenue and has 14 branch locations.
Washington DC	Yes. Our processing center (back office) and support services (for mailing) had to be re-organized to handle the additional load that came with online renewals.	Washington DC Division of Motor Vehicles is a standalone agency.
Florida	No	Driver License falls under the Division of Motorist Services.
Georgia	Unknown	<b>1.</b> Field Operations is responsible for the operations of 65 service center locations where customers can visit in-person. <b>2.</b> Field Support and Records Management provides oversight of the Central Issuance functions and oversees the updating of driver records that originate for outside the agency (e.g. courts, out-of state activity, etc)
Iowa	No	<b>1.</b> We have 82 county sites, which renew driver licenses. <b>2.</b> We also have 19 State operated facilities that renew driver license, and process sanctions and lifts.
Illinois	No, but additional staff was required for the mail-in portion of the program.	Vehicle Services Department (vehicle registration and title) and Driver Services Department (driver licensing) are under the Departments of the Illinois Secretary of State.
Indiana	No	All process steps are internally managed by the Bureau of Motor Vehicles.
Louisiana	No	The Department of Public Safety, Office of Motor Vehicles controls the drivers license, reinstatement and vehicle title/registration programs.
Nebraska	No	<b>1.</b> State driver license examiners authorize issuance of licenses and administer all tests. <b>2.</b> County treasurers collect fees and issue temporary licenses. <b>3.</b> For the online driver license renewal, everything is automated with no interaction by county treasurers unless applicant wants to visit a county treasurer office to have a temporary license issued.
Pennsylvania	As popularity of the online service has grown through the years, we have seen a reduction in manual processing staff and an increase in technical support staff.	Initial issuance is completed in person at any of our 71 Driver License Centers, sent a renewal notice approximately three months in advance of expiration. Customers may renew by mail, through the website, or at an authorized business partner.
South Dakota	Reorganized the state IT agency and added a staff person in the central office to administer the online renewals.	The Driver Licensing Program is under the Department of Public Safety.
Virginia	The biggest impact at the time was actually issuing the licenses since we had a print farm in the work area. Now they are all centrally issued by a third party vendor.	Licenses can be issued in a customer service center, or renewed through the mail or Internet. The licenses renewed via the mail/ Internet are processed by a headquarters unit within Driver Services. Licenses issued by the customer service centers fall within Customer Service Management, which is not associated with Driver Services.

State	Real ID Compliant?	Legal Obstacles	Financial Obstacles	Estimated Savings	Fraud Issues
California	Extension	13.75%	\$33.00	Unknown	No
Colorado	Compliant	13.20%	\$21.00	Unknown	Potentially, but not on driver license side.
Washington DC	Compliant	~ 8%	\$44.00	Unknown	None
Florida	Compliant	11.40%	\$48.00	Unknown	Fraud is always a concern, but we have not experienced a higher level of fraud as a result of the online application.
Georgia	Compliant	22% to 25%*	\$27	<p><b>1.</b> Customers who renew online do not receive an interim credential which saves \$0.64 per transaction. <b>2.</b> The labor costs for servicing a customer in person are estimated to be \$2.83. This figure does not include costs for building and utilities. So online renewal results in an indirect savings of \$2.83.</p>	No widespread fraud problems unique to online transactions have been reported.
Iowa	Compliant	14.30%	\$4.00	\$1,450,803.55 (Annual state savings for DOT & counties)	We included our investigative staff; we have not had any problems brought to our attention at this time.
Illinois	Extension	Slightly over 10%	\$31.75	Unknown	Fraud has never been a problem as far as our licensing program.
Indiana	Compliant	10%	\$17.50	\$6.50 per transaction	No
Louisiana	Non-Compliant	17%	\$21.50	Unavailable	No
Nebraska	Non-Compliant	50%	\$26.50	Unknown	No
Pennsylvania	Extension	38%	\$29.50	None	No
South Dakota	Compliant	We've only been renewing online for one year and the process is slow to catch on.	\$20.00	Unknown	No
Virginia	Extension	27%	\$32.00	\$3.1 million	No

State	How is license distributed?
California	<b>1.</b> Applicants are sent a renewal notice 60 days before their expiration date. <b>2.</b> A letter is sent to the applicants indicating they are eligible for both renewal by mail or online. If an applicant qualifies for renewal-by-mail, then the applicant also qualifies for online renewal. <b>3.</b> The CA DMV uses a centralized issuance process for the driver licenses.
Colorado	All licenses are issued and mailed from a central location.
Washington DC	<b>1.</b> The customer gets a temporary document while they wait for their credential. <b>2.</b> At the end of the transaction, we inform the vendor that we have completed the transaction. <b>3.</b> The data (pictures, signature and the DL/ID data) is then sent to the vendor to be printed in their centralized facility. <b>4.</b> The vendor mails out the card to the customer. <b>5.</b> We get an update at each step of the process (when the card is sent to printing facility, when it is being prepped, and when it is mailed).
Florida	<b>1.</b> Renewal data is sent to central issuance vendor usually around 2 days after driver renews their license. <b>2.</b> Vendor prints and mails licenses around three to four days after vendor receives the data.
Georgia	The permanent credential is produced from a central issuance facility that is owned and operated by our driver license and Identification card vendor.
Iowa	<b>1.</b> This system is incorporated into our current issuance system. <b>2.</b> We have 82 county sites, which renew driver licenses. <b>3.</b> We also have 19 State operated facilities that renew driver licenses, and process sanctions and lifts.
Illinois	Files are validated electronically and picked up by a third party vendor who produces the cards, validates quality and demographics, and mails card to the applicant
Indiana	All cards are printed on site at the central office of the Bureau of Motor Vehicles. Then the cards are passed on to a mail consolidator where they are co-mingled with other mail thus reducing mail costs.
Louisiana	<b>1.</b> At a predetermined time every night a batch file is compiled of all drivers that renewed online. <b>2.</b> This file is written to a database and processed in batch. Processing in batch consists of updating the driver's master record and sending a file to our vendor to be created. <b>3.</b> The vendor is responsible for mailing the credentials to the applicant.
Nebraska	<b>1.</b> Once the applicant has renewed online, their record goes through a process to ensure that the record has no holds for revocation or suspension. <b>2.</b> Then the record goes through the facial recognition gate to compare the digital image against all other images in the DMV database. <b>3.</b> The record is ultimately sent to the factory in Georgia to be produced. <b>4.</b> Once produced, the factory sends it to the individual via regular U.S. mail and sends a message to our mainframe system that it has been sent.
Pennsylvania	<b>1.</b> Customers are sent a renewal notice approximately three months in advance of expiration. <b>2.</b> Customers may renew by mail, through the website, or at an authorized business partner. <b>3.</b> The licenses are distributed through a centralized process.
South Dakota	A staff person in our central office processes and mails the licenses/ID's renewed online
Virginia	<b>1.</b> All driver licenses are distributed by U.S. mail through a centralized production facility. <b>2.</b> Renewal notices are sent to customers by either electronic means (e-mail and/or text notification) or by U.S. mail.

State	Pros of Implementation	Cons of Implementation
California	<ol style="list-style-type: none"> <li>1. Easy access with 24/7 availability.</li> <li>2. Convenient payment plans</li> <li>3. Reduced number of bad checks</li> <li>4. Reduced workload in Headquarters for processing</li> </ol>	<ol style="list-style-type: none"> <li>1. There is no face-to-face contact to help verify information.</li> <li>2. Some customers prefer personal contact.</li> <li>3. There is no ability to take a new photo.</li> <li>4. Customers cannot use cash to pay for the license.</li> <li>5. Renewal system is only available in English and Spanish.</li> <li>6. A temporary license is not provided.</li> <li>7. Not all customers have internet access.</li> <li>8. Online renewal is more expensive than renewal-by-mail.</li> </ol>
Colorado	<ol style="list-style-type: none"> <li>1. Less wait time at offices</li> <li>2. It is more convenient for customers.</li> </ol>	<ol style="list-style-type: none"> <li>1. Occasionally the system is offline.</li> <li>2. Not everyone can renew online.</li> <li>3. Online renewal is slightly more expensive than in-person renewal.</li> </ol>
Washington DC	<ol style="list-style-type: none"> <li>1. Less traffic in our service centers</li> <li>2. Customers love the fact that they do not have to visit the DMV to receive their products.</li> </ol>	<ol style="list-style-type: none"> <li>1. Not everybody can access the system because they do not have internet, credit cards, or bank accounts.</li> <li>2. Some citizens prefer getting a license immediately by renewing in-person.</li> <li>3. REAL ID and longer renewal cycles can decrease the number of people who are eligible to renew their license online.</li> </ol>
Florida	<ol style="list-style-type: none"> <li>1. Reduced lines in field offices</li> <li>2. Provides customers a convenient method to renew or replace their driver license.</li> </ol>	The state has experienced periods when hits to the online site were above system compatibility. Typically this happens around periods when fees are due to change.
Georgia	<ol style="list-style-type: none"> <li>1. Cost savings</li> <li>2. Reduced in person demand</li> </ol>	<ol style="list-style-type: none"> <li>1. Customer adoption has not been as high as desired because many customers want immediate possession of a valid drivers license.</li> <li>2. REAL ID adoption is linked to a decrease in the number of people taking advantage of online renewals.</li> </ol>
Iowa	There are fewer customers in line, which allows clerks to spend more time with other work within the agency.	Customers are not able to change their addresses, but we are currently working on an update to allow this transaction
Illinois	<ol style="list-style-type: none"> <li>1. The program is convenient for customers.</li> <li>2. Reduces traffic in our branch facilities.</li> <li>3. It is cost effective.</li> </ol>	Since we moved away from renewal "stickers" and began issuing hard cards in August 2011, we have no major cons to the program.
Indiana	More convenient for the customer	No answer.
Louisiana	Reduces customer traffic in Motor Vehicle field offices	No answer.
Nebraska	Less people in driver licensing offices	The most common problem is fake driver licensing sites that scam members of the public when they are trying to renew online.
Pennsylvania	<ol style="list-style-type: none"> <li>1. Convenient for customers</li> <li>2. Stream-lined collection of revenue</li> </ol>	No answer.
South Dakota	Easier for some members of the public than coming into an exam station	<ol style="list-style-type: none"> <li>1. The license does not have a current photo.</li> <li>2. Additional staff was required to process the licenses.</li> </ol>
Virginia	<ol style="list-style-type: none"> <li>1. The customer can renew at their own convenience without coming to a DMV office.</li> <li>2. The agency benefits by reducing traffic in the offices and reducing the overhead cost to issue a license.</li> </ol>	Renewal via the Internet is impersonal.