ROCK THE VOTE

CONNECTED VOTER REGISTRATION

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EXECUTIVE SUMMARY

In all states but one, voter registration is a prerequisite to participate in our country's democracy, making the administration of voter registration a critical government function that facilitates the first step to participating in the democratic process.[1] It is for this reason that states' voter registration systems should be optimized to promote civic participation. To do this, systems must be modernized and crafted in a way that works for voters and are adaptable to states' and voters' changing needs over time.

Rock the Vote started making the case for modernizing state voter registration systems with the publication of our first version of this **white paper** in 2013.[2]

At the time, only 15 states offered online voter registration (OVR), but none provided a way for third parties, such as civic organizations, campaigns, and government agencies, to directly submit digital voter registration applications despite the essential role third parties play in registration and turnout efforts. Even now, when 39 states and DC offer OVR, many third parties have opted to continue submitting paper registrations, oftentimes in the weeks leading up to elections, defeating many of the time- and cost-saving advantages of OVR — resulting in state and local governments, third-party organizations, and voters still not benefitting from OVR's full potential.

We promote Connected Voter Registration (Connected VR), which is a simple, secure, one-way transfer of voter registration applications from approved and authorized third-parties to the state election office for review and processing. Similar to the IRS' E-File system that allows American taxpayers using programs like TurboTax and H&R Block to electronically file their taxes without having to go to the IRS website or mail in their tax return, Connected VR enables authorized third-parties to submit high-quality voter registration data in a standardized format to states for review and processing. Connected VR also enhances the integrity of each step of the voter registration process, ultimately increasing oversight of third-party voter registration efforts — giving election officials greater confidence that those who are registering voters are doing so properly.

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1 North Dakota does not require voter registration to vote.

2 This report can also be found on our website, **rockthevote.org**.

Ultimately, Connected VR represents one of the many nonpartisan, common-sense election administration approaches that generate cost- and time-savings for election officials and keep the needs of both election officials and voters at the forefront of the voter registration process.

Since 2015, Rock the Vote has worked with Michigan, Pennsylvania, Virginia, and Washington, successfully encouraging them to become early adopters of Connected VR and establishing a new best standard for voter registration. The implementation in these four states has led to new insights and the development of a roadmap for successful adoption in future states.

This paper makes the case for Connected VR as the gold standard for state voter registration systems. We do so by:

- Identifying and discussing Connected VR's many benefits;
- Addressing common questions and providing best practices;
- Laying out recommendations for how states can adopt Connected VR; and
- Providing information on the implementation of Connected VR in the above-mentioned four states.

When implemented, Connected VR offers even more benefits than originally hypothesized in our 2013 white paper, reinforcing our enthusiasm and steadfast pursuit to educate, promote, and recruit more states to adopt Connected VR.

The 2020 election held amidst a global pandemic underscored the necessity of digital resources and solutions, as well as the important role third-party organizations play in registering voters and facilitating their participation in elections. Moreover, attempts to undermine our democracy — from attacks on operational and physical infrastructure, to the blocking of financial investments necessary for election administration — place an even greater premium on efficiency, efficacy, and security.

Connected VR represents one of the many nonpartisan, common-sense election administration approaches that generate cost- and time-savings for election officials and keep the needs of both election officials and voters at the forefront of the voter registration process.

We encourage interested voter registration stakeholders to **contact us directly** to learn more about Connected VR and partner with us to bring this solution to more states and more voters in the years ahead.

BACKGROUND

SETTING THE STAGE

VOTER REGISTRATION

Importance of voter registration

The United States is one of the few democracies in the world that puts the onus of voter registration on eligible voters, making voter registration one of the first barriers to participation in our elections. Only 66.7% of the 252 million citizens over 18 years of age were registered to vote in the 2020 Presidential Election.[3] To make progress toward full participation in our democracy, we must ensure that opportunities to register to vote are universally accessible, efficient, secure, and flexible.

Role of state and local governments

American democracy relies on a uniquely decentralized election administration system. Each state has its own unique set of qualifications, requirements, processes, database systems, websites, policies, budget, and deadlines. States even vary on what position(s) oversees elections, how that individual or board is chosen, and what authority they have over elections.

The result is a patchwork of states, counties, cities, parishes, and tribal nations overseeing voter registration efforts, reviewing and approving applications and maintaining voter rolls — all to ensure that eligible applicants make it on the rolls and are able to vote.

The United States is one of the few democracies in the world that puts the onus of voter registration on eligible voters, making voter registration one of the first barriers to participation in our elections.

3 "Voting and Registration in the Election of November 2020." United States Census Bureau, April 2021, https://www.census.gov/data/tables/time-series/demo/voting-and-registration/p20-585.html. Accessed 29 June, 2021.

Role of third-parties

With limited resources for outreach and marketing to reach a wide range of eligible voters, election officials rely heavily on third-party organizations, such as Rock the Vote, to help with voter registration efforts. Together, these civic organizations register and help turn out millions of voters each election cycle. They are largely responsible for engaging communities who might need more support registering to vote, such as young people or other underrepresented communities, particularly when those constituencies are not being reached by political parties or campaigns. The importance of third-party outreach was underscored in the weeks leading up to the 2016 election when 70% of youth, ages 18-29, reported not being directly contacted by a campaign or political party.[4]

OVR saves state and local governments millions of dollars each year in printing, distribution, administrative, and processing costs associated with paper registrations."

These civic organizations educate and remind eligible voters to register to vote, keep their registration status up to date, and turn them out to vote in elections. They often raise awareness, share registration resources, and register voters in the context of community activities — both online and offline. Many offer technical assistance to those who might have trouble completing the registration process on their own, due to a disability, a language barrier, or confusion about the registration process. They are trusted by their constituents and members.

BENEFITS OF ONLINE VOTER REGISTRATION

In 2002, Arizona became the first state in the nation to offer online voter registration (OVR).[5] In the nearly two decades since, 39 states plus the District of Columbia have implemented OVR, which offers major advantages for both governments and voters.[6]

By giving citizens the ability to register to vote online, OVR saves state and local governments millions of dollars each year in printing, distribution, administrative, and processing costs

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4 "With a Month to Go, Nearly Half of Voters Say They Have Been Contacted by 2016 Campaigns." Pew Research Center, 6 Oct. 2016, https://www.pewresearch.org/politics/2016/10/06/with-a-month-to-go-nearly-half-of-voters-say-they-have-been-contacted-by-2016-campaigns/. Accessed 29 Aug. 2021.

5 "Online Voter Registration." National Conference of State Legislatures, 6 April, 2021, https://www.ncsl.org/research/elections-and-campaigns/electronic-or-online-voter-registration.aspx. Accessed 29 June, 2021.

6 "Automatic Voter Registration and Modernization in the States." Brennan Center for Justice, 1 Feb. 2021, https://www.brennancenter.org/our-work/research-reports/automatic-voter-registration-and-modernization-states. Accessed 29 June, 2021.

associated with paper registrations.[7] OVR also improves the accuracy of voter applications and, by extension, the voter rolls by significantly reducing errors introduced by manual data entry of paper forms into databases. OVR systems can also allow for real-time, automatic detection of duplicate or invalid registrations.

OVR benefits eligible voters, too, providing all-hours registration access from the convenience of an Internet-connected device if they meet state requirements to register online. OVR systems may also provide voters the opportunity to verify their registration status on their time, which helps them detect and resolve issues ahead of an upcoming election and corresponding registration deadline. From a security standpoint, OVR systems also provide enhanced security for registrants' personal information given the protocols in place throughout the application and submission process.

Overall, OVR systems receive high marks. After almost 20 years, a comprehensive review of OVR by the Brennan Center found that the results to date are "uniformly positive in a wide range of different states—large and small, red and blue—with different infrastructures."[8]

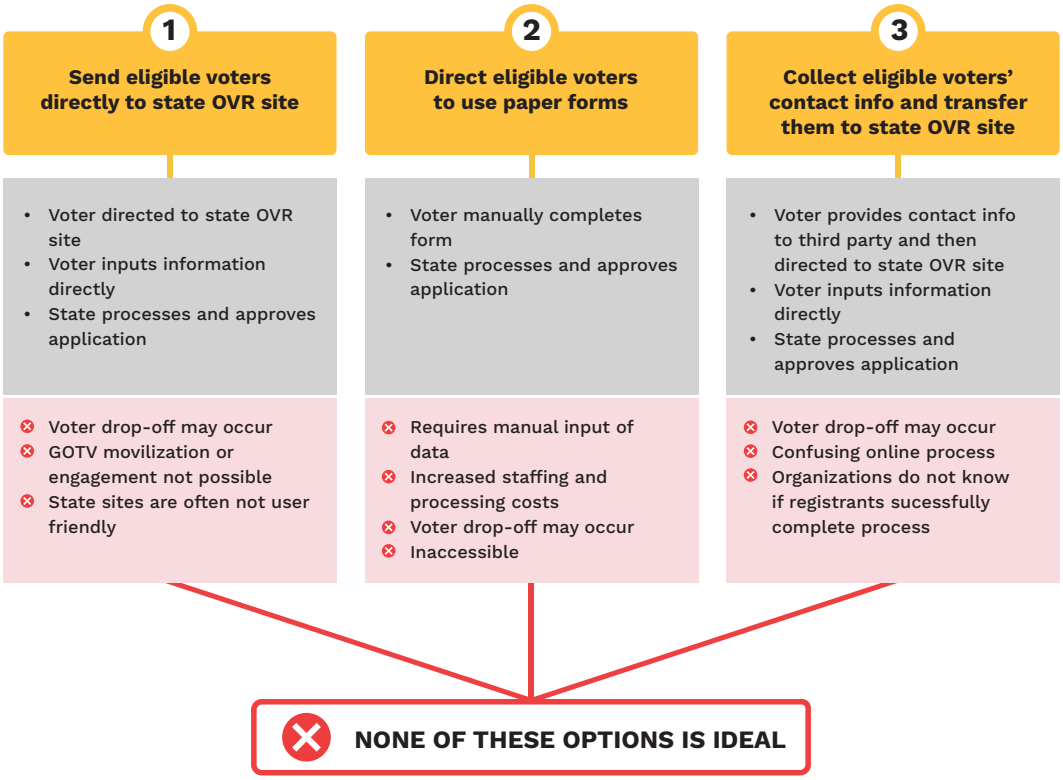
7 Barreto, Matt. et al. "Online Voter Registration (OLVR) Systems in Arizona and Washington: Evaluating Usage, Public Confidence and Implementation Processes, A Joint Research Project of the Washington Institute of the Study of Ethnicity and Race (WISER) University of Washington, Seattle and the Election Administration Research Center (EARC) University of California, Berkeley." Make Voting Work, 10 April, 2010, **https://www.pewtrusts.org/-/media/legacy/uploadedfiles/pcs_assets/2010/onlinevoterregpdf.pdf**. Accessed 29 June, 2021.

8 Ponoroff, Christopher. "Voter Registration in a Digital Age." Brennan Center for Justice, September 2010, **https://www.brennancenter.org/sites/default/files/2019-08/Report_Voter-Registration-Digital-Age.pdf**. Accessed 29 June, 2021.

LIMITS OF ONLINE VOTER REGISTRATION

That said, many OVR systems still have limits. Most state OVR systems lack a seamless way for third parties to digitally submit voter registration applications, which decreases the cost savings and efficiencies of OVR because many civic groups — for a variety of reasons detailed below — are not inclined to use OVR for their voter registration efforts. For states that have OVR systems and where the voter is eligible to register online, these organizations have one of three choices. **None of these options is ideal.**

Eligible Voters have three options to register



In the first scenario, organizations are not able to collect the voter's contact information, which organizations need 1) to later confirm that the application was submitted, accepted, and that the voter was ultimately added to the voter rolls and 2) to follow up and mobilize that voter to participate in elections.

In the second scenario, voters, organizations, and the state are not well served by the continued use of paper forms.

And in the third scenario, if the registrant uses a tool that collects their contact information up-front, they may mistakenly think they have completed the registration process and drop-off before completing the necessary steps on the state's OVR website.

Most state agencies are also not able to take advantage of states' OVR systems. Under National Voter Registration Act (NVRA) and Automatic Voter Registration (AVR) regulations, many government agencies that administer public assistance programs — such as the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants and Children (WIC), the Temporary Assistance for Needy Families (TANF) program (formerly the Aid to Families with Dependent Children or AFDC program), the Medicaid program, and the State Children's Health Insurance Program (SCHIP) — are designated voter registration agencies.[9] However, these agencies often do not share backend technology or a direct connection with the state's voter registration database. As a result, they are not able to digitally transfer applications to the state or local election official for processing. Often, they, too, rely on paper applications. In states with AVR, secure backend transfers may exist, but where they do, they are primarily limited to a connection between the state's Department of Motor Vehicles (DMV) and the state's voter registration database. This means that eligible voters who primarily interact with government agencies other than the DMV are left out.

A seamless, NVRA-compliant electronic method to capture and securely transfer applications between agencies — which Connected VR does — would allow states to bring their in-person voter registration work fully online.

Registering voters in the field and its limitations

Third-party organizations — including civic organizations, political campaigns, state and local government agencies — engage in activities in the "field" with direct engagement with potential voters — either at the door when canvassing or at community-based events.

The limitations of OVR systems are especially acute for these types of registrations. Online registration in these instances is very difficult. Canvassers rarely have the internet access required to go through the burdensome process of collecting voters' contact information and then directing them to the state OVR website to complete the registration process.

As a result, field-based efforts largely continue to rely on paper applications, even in states that offer OVR. The resulting process is time and labor intensive for both third-party organizations

9 The National Voter Registration Act Of 1993 (NVRA).

and election officials. Organizations often make copies of the registration applications before submitting them so they have the necessary information later to confirm the registrations and follow up with registrants. The voter data is then manually entered from the copied registration applications into the organization's database for future outreach. Field operations often intensify leading up to registration deadlines, resulting in election offices being inundated with paper registration forms that must be manually entered and processed within a specific timeframe or risk litigation. On both ends, this process is costly, laborious, inefficient, and prone to errors.

Paper applications pose the additional challenge of being prone to rejection: they are often illegible, incomplete, or contain incorrect data in specific fields (e.g. today's date in the birthdate field). This results in incomplete applications not being processed by the voter registration deadline. Additionally, field efforts may lead to the submission and processing of duplicate paper applications because voters may be contacted by multiple organizations that have no way to verify a voter's registration status while in the field, resulting in multiple submissions.

Additionally, field-based organizations' continued reliance on paper applications makes auditing voter registration activity more difficult. Because the applications are not linked to a specific organization, election officials cannot spot widespread errors or identify potential bad actors.

With regard to government agencies, they may not even offer registration in the field if it's not their primary service given this burdensome process, resulting in missed opportunities to register eligible voters.

WHY CONNECTED VR IS NEEDED

WHY CONNECTED VR IS NEEDED

There is a better way. Connected VR benefits all parties: voters, state and local election officials, and third-party voter registration organizations.

Below, we explain in detail what Connected VR is, how it works, why states should adopt it, and how four states already successfully implemented it.

Third parties have a big role to play

Third-party organizations already play an outsized role in voter registration efforts, helping to register millions of voters each year — and their importance will only grow in the years to come as the estimated 67 million Generation Zers reach the voting age of 18 and need help navigating the voter registration process.

With state and local election officials being asked to do more with fewer resources, the burden of reaching out and registering new voters will only increase for third-party organizations. This reality highlights the importance of creating a system that encourages accountability and coordination between third-party organizations and election officials while also improving the voting process for all.

WHAT CONNECTED VR IS AND HOW IT WORKS

WHAT CONNECTED VR IS AND HOW IT WORKS

What it is: simple and secure

Connected VR is a simple, secure, one-way transfer of voter registration applications from approved and authorized third-parties to state election offices for review and processing. Such a secure transfer is possible through an Application Programming Interface (API) that connects the interface a user sees with the internal systems that states use to process registration data.

Importantly, states do not grant open access to their systems when establishing Connected VR. Rather, Connected VR allows for data to be submitted to the state's system, letting trusted third-party organizations deliver completed registration applications — submitted in the desired format — to the state for reviewing and processing.

> **"Connected VR is a simple, secure, one-way transfer of voter registration applications from approved and authorized third-parties to state election offices for review and processing."**

Extending a state's reach via an API

A Connected VR system can dramatically increase a state's ability to reach eligible voters while still maintaining current registration procedures and safeguards. For many states, Connected VR would be a simple and incremental addition to the existing registration infrastructure, enabling new and complementary channels through which the state can receive registration applications. Incoming registrations are processed in the same way as any other application—using existing state procedures—regardless of their origin.

APIs are a best practice in private industry

Such a system is possible through the use of an API, which private businesses and some government agencies have already adopted to great success. In fact, there are many thousands of APIs on the internet today, and their use is ubiquitous.[10]

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10 MacManus, R., **"2021 State of APIs: Ubiquitous, Diverse, Occasionally Open."**. The New Stack. Accessed 8 March, 2023.

Apps like Google Calendar and Google Maps make information widely available through an API, allowing users to see directions on a local restaurant's website, or view an embedded YouTube video on a blog post. Facebook's API enables sites to display "Like" buttons directly from their page. Other social media sites, like Twitter and Instagram, offer the ability to embed their feeds on other sites or allow users to geotag their posts on Apple Maps. Ridesharing applications, like Uber and Lyft, benefit from using APIs for navigation and bikesharing in select cities, providing additional transportation options. Food delivery apps like UberEats and DoorDash use APIs that allow users to view thousands of restaurant menus and place orders with them directly. Similarly, travel websites such as Expedia and TripAdvisor use APIs to display search results from multiple companies and allow users to book their selection.

Adopting APIs for use in voter registration systems would allow states to safely create flexibility and increase their online reach in the same way that private companies have been benefiting from for years.

APIs in use across government

APIs are not just used by big technology companies or the private sector. Local government's public transportation systems offer APIs that can be embedded in other sites and applications to inform customers of the next available ride. For example, major metropolitan transit systems use APIs to show when a specific bus or train is arriving.

The U.S. General Services Administration (GSA) has promoted the use of APIs across federal agencies, explaining to agencies that APIs help their "audience(s) get what they need from many places, not just your .gov website."[11] Today, at least 18 federal agencies provide APIs.[12]

In 2020, over 90% of tax returns were filed through the E-File system.[13] This system allows Americans to more easily and accurately file their taxes while still conforming to IRS laws and regulations.

APIs are such an established solution for improving third party submissions that even the IRS trusts it for the sensitive information it receives and processes. Their API, which powers the E-File system, enables American taxpayers to use programs like TurboTax and H&R Block to electronically file their taxes without having to go to the IRS website or mail in their return.

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11 "Digital Government: Building a 21st Century Platform to Better Serve the American People." Obama White House Archives, https://obamawhitehouse.archives.gov/sites/default/files/omb/egov/digital-government/digital-government.html. Accessed 29 June, 2021.

12 Data.gov, https://api.data.gov. Accessed 29 June, 2021.

13 Income Tax Return, efile Statistics. eFile, 2020, https://www.efile.com/efile-tax-return-direct-deposit-statistics. Accessed 29 June, 2021.

A variety of government agencies continue to adopt APIs to better serve the public even when the information transmitted is particularly sensitive, as in tax filings. States should leverage technology and adopt industry best standards that not only substantially benefit civic participation but also reduce costs and increase efficiency and security.

APIs allow further leveraging of third parties' expertise

The promise of OVR will only be realized if voters actually use the online systems. For this reason, states must provide registrants with a seamless user experience that is akin to what they experience on other apps, websites, and platforms. In other words, the state OVR process must be intuitive, efficient, and convenient.

Unfortunately, many OVR systems are merely a state OVR webpage on the state election official's website that is built to mimic a paper form designed to be accessed using a desktop computer; and not always responsive to smaller screens — which presents significant User Interface and User Experience (UI/UX) challenges.[14] Also, not building sites to be mobile friendly has the potential to disproportionately impact young and low-income Americans, 30% of whom exclusively rely on mobile devices to access the internet.[15]

States do not have to tackle these challenges on their own, however. Instead, they can benefit from the technical expertise of third-parties at little ongoing cost. Many third parties continually optimize their tools, understanding that small changes can influence everything from how quickly users might leave the site after arriving (known as bounce rate) to what specific parts of the user interface lead users to drop off and what aspects encourage users to complete and submit their application.

For example, third parties might make changes to their voter registration interfaces to encourage higher

14 As mobile internet usage continues to outpace desktop usage, especially among eligible voters from under-invested, marginalized groups, this means that some voters may struggle to access and make use of the OVR state website. "Mobile VS Desktop Internet Usage." Broadband Search, 2021, **https://www.broadbandsearch.net/blog/mobile-desktop-internet-usage-statistics#post-navigation-0**. Accessed 29 June, 2021.

15 Pew Research Center. "Demographics of Mobile Device Ownership and Adoption in the United States." **https://www.pewresearch.org/internet/fact-sheet/mobile/**. Accessed August 8, 2022.

completion rates. When they do, the third-party submits its changes to the state for a formal review. Once approved by the state, the upgrades are in effect on the third party's side while the overall API functionality and flow remains the same on the state side. That is, the state would automatically receive registration information from the third-party's upgraded interface without needing to change any of its own systems. In other words, state and local election officials can benefit from third-party upgrades with very little action required on their part.

Spotlight: Benefits of Connected VR For Third Party Groups, Governments, and Voters

1 Third Party Groups

How third-party groups, such as civic and social service nonprofit organizations, advocacy groups, campaigns, political parties and organizations, community-based designated agencies, schools and more benefit from Connected VR

Current Voter Registration Issues

- Organizations conducting voter registration online must use a two-step process before transferring registrants to the state OVR website, creating opportunities for dropoff and losing the ability to track registrants to ensure they successfully submit their applications.
- Organizations conducting voter registration in the field lack strong, consistent internet access needed to navigate the clunky process of collecting needed information and then passing voters to the official state website and continue to use paper forms.
- With both state OVR websites and paper forms, third parties do not know whether the application was accepted and that the voter was successfully added to the voter rolls until they can acquire an updated voter registration list from the state.
- Labor intensive processing of paper applications that requires making copies and manually inputting data.

Benefits of Connected VR

- Organizations registering voters online can do so seamlessly, providing a better user experience that results in higher completion rates.
- Field-based organizations can register voters using tablets or mobile devices, significantly reducing the use of paper forms.
- Third-party organizations can receive timely information on an application's collection, submission, and acceptance status, and can follow up with registrants to cure deficient applications in a timely manner.

Spotlight: Benefits of Connected VR For Third Party Groups, Governments, and Voters (cont.)

2 Government

How Election Officials and Government Agencies benefit from Connected VR

Current Voter Registration Issues

- State and local governments incur unnecessary costs with continued reliance on paper applications.
- Auditing applications of third-party groups that conduct voter registration in the field is difficult, if not impossible.
- NVRA-designated agencies are responsible for registering voters but are not always connected to the state OVR system.

Benefits of Connected VR

- Processing electronic applications versus paper saved states by as much as $0.50 to $2.34 less per application[16].
- All registrations processed online are auditable and traceable, giving election officials more transparency and the ability to hold third parties accountable.
- Connected VR helps with NVRA compliance as government agencies are able to communicate directly with the state OVR system as they register voters, providing cost savings, freeing up resources, and reducing the risk of litigation.
- Receiving applications electronically reduces the number and helps officials quickly identify duplicative applications.
- Connected VR results in better data quality in digital applications. This makes them easier to process and review than paper applications, saving states labor and time.

3 Eligible Voters

How eligible voters benefit from Connected VR

Current Voter Registration Issues

- Eligible voters may encounter a confusing online registration process, resulting in possible drop-off or confusion.
- Eligible voters registering via paper don't have assurances their application was submitted successfully and have limited recourse to fix any errors given the short window of time before many voter registration deadlines.

Benefits of Connected VR

- Eligible voters enjoy a seamless, straightforward registration process.
- Eligible voters enjoy more confidence knowing their application was submitted for processing and that they receive a status update upon its review.

KEEPING CONNECTED VR SECURE

When implemented, Connected VR has simple and powerful safeguards to ensure that the state remains in control of its technology and the voter registration process. As stated above, states do not grant open access to their systems when establishing Connected VR; rather, Connected VR allows third parties to submit data to a state's system.

Connected VR also enhances transparency, eliminating concerns around the chain of custody — which starts with the voter and includes third-party organizations and ends with the local election office — and offers the ability to audit where applications come from — all while including safeguards that effectively protect voters' private information.[16] Additional practices and controls can be adopted to ensure even greater safety and security.

Designated Partners only

One essential aspect of a secure Connected VR system is only allowing data from state-approved third parties, known as Designated Partners that are authorized and trusted third parties with pre-approved IP addresses. States are able to establish a Designated Partner program that outlines security standards that all partners must follow throughout their registration efforts. Each state can establish its own public, objective, and uniformly applied eligibility requirements for its Designated Partner Program. Failure to comply gives states the ability to suspend or expel a Designated Partner from the program. (More information on how to best set up a Designated Partners program can be found in the below "Establish a strong Designated Partners program" section.)

Once approved, each Designated Partner is assigned a unique platform key, which acts as a password, allowing that Partner's system to authenticate itself with the state's system. The unique platform key tracks all registrations submitted by that Partner, enabling states to monitor all Designated Partners' registrations and registration patterns easily, audit their use of the system, and revoke access if any violations occur. States can also log each transaction with a unique identifier in order to provide officials with an audit trail in case any problems are detected or reported.

As an extra measure of caution, states can publish the directory of Designated Partners, as well as the expected locations and types of interfaces each partner provides. This allows potential users to check the authenticity and validity of any registration interface they encounter.

16 "Online Voter Registration: Trends in Development and Implementation." The Pew Charitable Trusts, May 2015, **https://www.pewtrusts.org/-/media/assets/2015/05/ovr_2015_brief.pdf**. Accessed 29 June, 2021.

In general, each state will decide who can use its Connected VR system, and will set both the technological and contractual rules for how that use occurs. In all cases, state elections officials remain in full control of the registration process.

Flow of data

As stated above, states do not grant open access to their systems when establishing Connected VR; rather, Connected VR allows for data to be submitted to a state's system. Designated Partners deliver completed registration applications — submitted in the desired format — to the state for reviewing and processing. Any data accepted into the system is determined by the state as well as any data relayed back from the system (and could include reply messages about success or failure of the submitted voter registration).

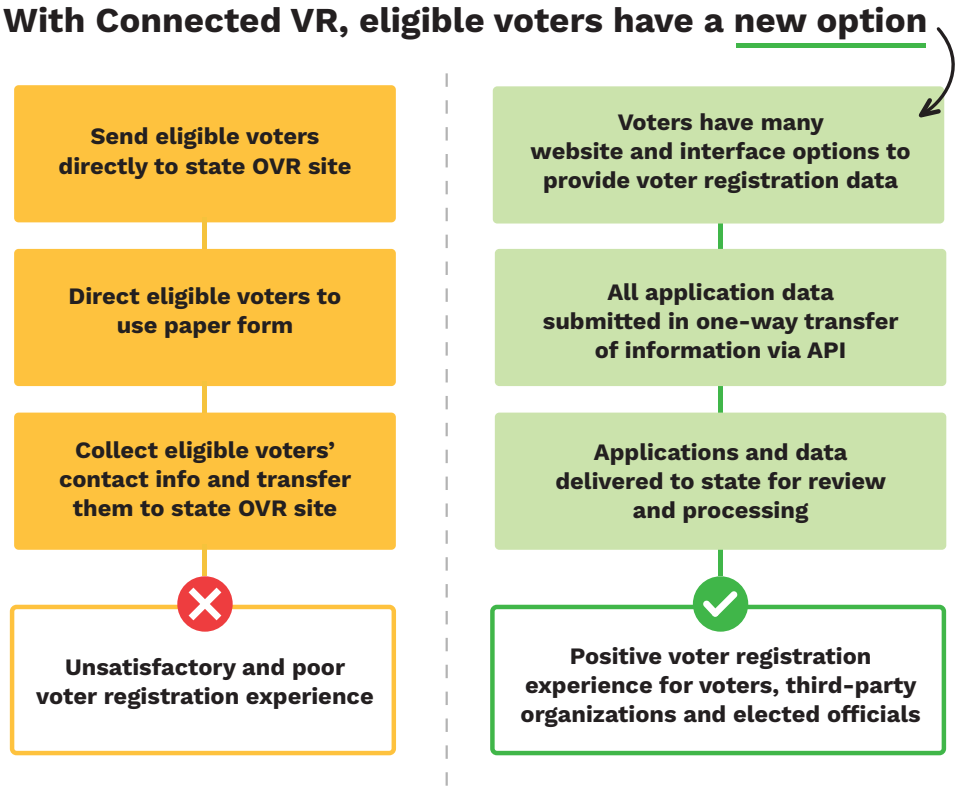
The process is seamless for users, who can visit any number of approved mobile apps, websites, portals, and more to complete the registration process.

Once received, applications submitted through an API are treated exactly the same as those submitted through states' own OVR websites. The state system first checks that the submission is complete and meets all requirements. In many cases, the backend system will need to communicate with legacy systems, like a DMV or Social Security database, to match incoming registrations with known voter profiles or pull the voter's signature on file. The system may also check for duplicate registrations, which typically requires coordination with numerous county-level systems and processes.

If there is a problem with the application, the platform immediately returns an error message describing why the submission failed. The Designated Partner interface instantly shares this information with the registrant to give them the opportunity to correct their mistake in real time and resubmit their application.

Successfully submitted data is placed into a queue for review and processing by the state or local election official. In states that cannot process and verify registrations in real-time, the Designated Partner and the registrant receive a message indicating that the application has been received. For states that can process and verify registrations in real-time, the platform conveys the application status to the Designated Partner and the registrant, rather than simply indicating that the form has been received.

After the API submits the registration application to the state's verification system and responds to the Designated Partner, the process is complete.



The diagram above illustrates how Connected VR fits alongside existing registration mechanisms. When an eligible voter submits a paper form, as shown at the top of the diagram, the information on the application must be entered into the state's system (often manually) after which various backend procedures are run (for example, checks against DMV records). A form submitted through a basic state OVR website follows a similar route, except there is no need to manually transcribe the information; it is delivered directly to the state's backend system. As stated above, applications received through a Connected VR system are processed in the same way.

Creating an audit trail

One additional benefit that Connected VR offers: unlike paper forms, digital applications can be easily tracked, including the organization and potential canvasser associated with each registration. This provides an audit trail for organizations, election officials, and even voters. Creating a culture of accountability empowers organizations and election officials with concrete insights and the ability to take any needed corrective action. Voters also benefit from confirmation that their application was submitted by the third-party organization to the election official for processing.

IN SUMMARY

Voter registration is essential to the integrity of democracy. States should do everything in their power to provide accessible, user-friendly, and secure means of registration. OVR websites are a sensible start; they have increased registration rates, "lowered review and processing costs per electronic application compared with paper by anywhere from $0.50 to as much as $2.34,"[17] and improved accuracy. However, the relentless pace of technological change demands more as the rise of mobile devices, social networks, and other online contexts are already changing the habits and expectations of voters.

Fortunately, states can stay on top of these changes by adopting Connected VR, which is a simple, secure, one-way transfer of voter registration applications from approved and authorized third-parties to the state election office for review and processing.

This seamless process benefits all parties:

- Registrations are auditable, giving voters, third-parties, and election officials more transparency and accountability.
- Eligible voters enjoy more confidence knowing their application was submitted for processing and/or accepted.
- Third-party organizations benefit from timely information on which of their applications have been successfully submitted, reviewed, and/or accepted. Prompt status reports enable third-party organizations and voters to resolve any application issues before voter registration deadlines.
- And, finally, election officials receive less paper forms that are laborious and costly to process and gain more insight into organizations' voter registration efforts, allowing them to easily identify high-quality, trusted partners and take corrective action against potential bad actors.

17 "Online Voter Registration: Trends in Development and Implementation." The Pew Charitable Trusts, May 2015, **https://www.pewtrusts.org/-/media/assets/2015/05/ovr_2015_brief.pdf**. Accessed 29 June, 2021.

Working together

Rock the Vote is eager to provide support to any election officials interested in pursuing Connected VR. We can connect them with other state election officials who have undertaken this process, help them develop a Connected VR system and the related documentation, and promote it widely to third-party organizations in the state and encourage its widespread use.

Please reach out to us for more information (**civictech@rockthevote.org**) or visit **rockthevote.org/ovr** for additional resources.

APPENDICES

APPENDIX A: RECOMMENDED FRAMEWORK

A Connected VR system consists of both the technology — the Connected VR API — and the key documents that govern its use. A Connected VR API can be tailored, through software and policy, to meet a state's needs. Accordingly, states must carefully consider how the Connected VR system will be used and the criteria that third parties must meet to submit applications for processing third parties must meet to use it.

Establish a strong Designated Partners program

One essential aspect of a secure Connected VR system is defining those who are able to submit data to only Designated Partners: authorized and trusted third parties with pre-approved IP addresses. We recommend states establish a Designated Partners program that outlines the security standards that all Designated Partners must follow throughout their registration efforts; failure to do so can result in suspension or expulsion from the program.

Each organization, company, or agency participating as a Designated Partner should agree to a set of legally binding terms and security protocols defined by the state, which could include:

- Application procedures, such as demonstrating thorough knowledge of the platform's technical documentation;
- Review and approval processes allowing state officials to test, validate, and monitor new registration sites and apps;
- A list of specific form fields that constitute the state's voter registration form that partners are required to gather from registrants;
- Rules governing the user experience of registration via the state's platform;
- Security and privacy obligations, such as requiring the use of encryption, or specifying which pieces of data the Designated Partner may be able to retain or use;
- A requirement to comply with the technical documentation; and
- Standard contract terms such as criteria for termination, limits on liability, jurisdiction, and the state's right to modify the terms at any time.

By specifying Designated Partner terms, states maintain the legal right to control how third-party organizations interact with its Connected VR platform and can immediately revoke authorization if violations occur.

Clear rules of the road

Each state can set its own eligibility requirements for Designated Partners. For instance, a state might require Designated Partners to complete certain OVR training activities or meet specific security standards. Whatever the criteria, it should be public, objective, and uniformly applied.

Once an organization or individual is deemed eligible, the state should require the partner to expressly agree to its Designated Partner Terms.

Provide technical documentation

Another key document is the Technical Documentation, which will guide software developers of third-parties as they build registration interfaces. The state should think of its technical document as a teaching tool: its purpose is to teach Designated Partner developers how the platform works, and how the partner's interface software needs to be programmed to interact with the state's system. The best examples of technical platform documentation are highly readable, and they contain easy-to-follow examples to get developers up to speed on the ins-and-outs of various aspects of the platform's functionality[18].

The Technical Documentation should describe all of the requirements necessary to display a valid registration form. The documentation should include the name of each input field (e.g., "First name," "Last name," "Date of Birth," etc.), the input type of each field (e.g., characters, numbers, a choice of gender, etc.), any corresponding explanatory or disclaimer text, and so on. It should also describe the order in which the fields should appear, whether any fields are optional for the voter, and any other implementation logic or visual elements that the developer will need to know about.

It is also important for the documentation to include all possible responses to a submission. For example, acknowledging receipt of an application, potential errors in a submission, unique application IDs, and indication of success or failure of the registration attempt.

Designated Partners will use this documentation to design usable voter registration forms and incorporate them directly into their own interfaces. Aside from any limitations set out in the

18 "Tweet button." Twitter, **https://developer.twitter.com/en/docs/twitter-for-websites/tweet-button/overview**. Accessed 29 June, 2021.

Designated Partner Terms, which each partner will have agreed to, they will have the leeway to decide what technologies to use and how best to design their interfaces.

Documentation of this kind is a long-established software best practice that ensures consistent and correct use of a vendor's platform.[19] The documentation for OVR platforms should be relatively concise, since the functionality that it needs to provide is relatively stable and simple.

Determine standard data format

The documentation should specify the format in which a Designated Partner interface will need to submit completed form data — which should be in accordance with federally-recommended Voter Records Interchange Common Data Format Specifications issued by the National Institute of Standards and Technology, or in the same format as the rest of the state's system.

19 Gruenbaum, Peter. ""Hello World!" — A Coder's Guide to Writing API Documentation." Microsoft, Nov. 2010, **http://msdn.microsoft.com/en-us/magazine/gg309172.aspx**. Accessed 29, June 2021.

APPENDIX B: KEY PRINCIPLES FOR ENACTING CONNECTED VR

We encourage all states to adopt Connected VR, though the path to doing so may depend on states' existing legislative statutes or policies — roughly broken down into the following three categories:

Most states' voter registration agencies already have the authority to implement Connected VR. For example, existing statutes that delegate the manner in which a state agency may receive voter registrations likely allow for the state agency to create or permit a Connected VR system with no additional legislative, executive or administration action required.

A few states may require simple executive or administrative action and, once secured, voter registration agencies are able to move forward with Connected VR implementation with the approval of the Secretary of State or Board of Elections.

A select few states may require legal authorization to set up a Connected VR system. In these rare cases, the necessary legal authorization is often due to existing legislative language being too narrow and outdated. In these instances and for states that have not yet passed OVR legislation, we offer some general guidance on crafting language that is simple and robust in the face of ongoing technological changes below.

Key principles

Overall, our experience points us to a few key principles that can help states succeed: using clear language and technologically neutral terms; providing flexibility for presentation and design; and allowing for a range of methods to verify eligibility.

When authorizing OVR and/or Connected VR, state legislators should use simple and clear language that establishes minimum requirements that both empowers state officials to control and safeguard the process, while also allowing flexibility for future technological changes.

Use technologically neutral terms

States considering writing legislation — to bring OVR to their states or to update statutes to allow for Connected VR — should strive to use neutral, flexible language. Narrow language that does not take into account technology's rapidly changing landscape can quickly become outdated.

Examples of inflexible and outdated legislative language include Minnesota's OVR statute, which refers to completing forms "electronically through a secure website."[20] Indiana's language is similar, referring to a "secure Internet web site."[21] Connected VR provides functionality beyond what many would consider standard for a "website." Language authorizing specifically a "website" without more, might not clearly authorize a broader Connected VR system.

In contrast, Oregon's statute provides a better, more flexible model by simply mandating adoption of an "electronic voter registration system."[22] Statutes should be written or updated with flexibility in mind. Rather than referring to "websites," for example, states should use technologically neutral terminology, such as "digital voter registration system" or "online voter registration system."

Provide flexibility for presentation and design

State officials should avoid using paper forms as models as those full-page layouts do not make for effective user interfaces, especially on mobile devices.

Statutes should also avoid prescriptive design requirements, such as warnings and other presentation- related specifics. Design and wording requirements can and should reflect state officials' policies, but rather than cement these requirements in the statute itself, they should be established in the Designated Partner Terms maintained by elections officials where they can be more easily updated as needed.

Allow for a range of methods to verify eligibility

There is no substantive reason for Connected VR systems to require demonstrations of voter eligibility that exceed those of a state's paper registration process. Voter eligibility verification strategies are independent of Connected VR systems. A Connected VR system can function alongside a wide array of voter verification mechanisms.

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20 "2020 Minnesota Statutes, 201.061 Registration on or Before Election Day." Minnesota Legislature, **https://www.revisor.mn.gov/statutes/cite/201.061**. Accessed 29 June, 2021.

21 Indiana Code § 3-7-26.7-5. **http://iga.in.gov/legislative/laws/2020/ic/titles/003#3-7-26.728**. Accessed 29 June, 2021.

22 Oregon Statute § 247.019. **https://oregon.public.law/statutes/ors_247.019**. Accessed 29 June, 2021.

Most state OVR websites unnecessarily have more stringent eligibility verification requirements than their paper registration processes. With paper forms, applicants must merely sign the registration form, while many states require an OVR registrant to have a valid state driver's license or identification card on file in the absence of an option to provide an electronic signature. This needlessly prevents eligible voters from utilizing OVR who lack the required documentation.

Some states offer more flexible methods to verify eligibility. Vermont, for example, accepts a current utility bill, current bank statement, or another government-issued document that contains a residential address as alternative forms of identification[23]. Alternatively, Minnesota allows a registrant to provide a Minnesota driver's license or state identification number, or the last four digits of the registrant's Social Security number.[24]

States can, and should, leverage their DMV database to verify eligibility in real-time, but states should not preclude those who lack such state-issued IDs from using OVR. Other methods of eligibility verification are possible: Registrants could use the last four digits of their Social Security number (as Minnesota does in the example above), or provide evidence of interactions with other state government entities.[25]

If the registrant does not have a signature on file, states can collect a digital signature from the registrant and verify eligibility prior to voting. States like Pennsylvania allow for the submission of e-signatures when the registrant doesn't have a state driver's license or identification card number, thus allowing all eligible registrants in the state to use OVR, and not just those with a state ID. This is a key step to meaningfully reducing the influx of paper forms, which are more likely to result in omissions and errors and are more expensive to process.

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23 "Online Voter Registration System." Vermont Secretary of State, **https://olvr.vermont.gov/**. Accessed 7 July, 2021.

24 2021 Minnesota Election Law 201.022. **https://www.revisor.mn.gov/statutes/cite/201.022**. Accessed 29 June, 2021

25 ACLU Illinois, **"Chicago Tribune: For voters, a registration renaissance is within reach."** Accessed 8 March, 2023.

APPENDIX C: STATES USING CONNECTED VR

The benefits of Connected VR have been demonstrated in four states to date: Pennsylvania, Michigan, Virginia, and Washington. Recognizing the value of a more robust and integrated approach, these states built Connected VR systems that have proven to maximize efficiency, reduce cost, increase the acceptance rate of voter registration applications, and enhance security and transparency throughout the voter registration process, all while saving significant time and resources for election officials.

Connected VR implementation will look different in each state as some technical aspects — such as how the API is configured — must fold into each state's existing infrastructure and reflect its voters' and election officials' unique needs. Given the considerations that states must navigate — and the myriad security, design, and implementation features available — this paper intentionally lifts up the novel features of each system (at the time of writing) that we believe are worth replicating elsewhere as more states consider adopting Connected VR.

Pennsylvania

Pennsylvania first implemented an OVR system in 2015. Through a collaboration with Rock the Vote and Pennsylvania Voice, the Department of State enhanced its OVR system to provide Connected VR in 2016, allowing third-party organizations to submit digital voter registration applications directly and securely to the state.

Before being allowed access to the Connected VR system, each organization must first be approved by the Department of State and sign a Memorandum of Understanding (MOU) to become a Designated Partner. As an additional layer of security and tracking, each application is also assigned a unique ID number that can be used to track each voter's data throughout the process.

Because digital applications save the state significant processing time and money, Designated Partners receive a report within 72 hours after an application is submitted that includes whether

an application was accepted or rejected, and if rejected, the specific reason(s). To protect voter privacy, this report only includes the unique ID and status of each registration application, allowing the state to share application status updates with Designated Partners without needing to include registrants' personally identifiable information. Designated Partners can then match these unique IDs to their registrant records, giving them the ability to follow up with eligible voters whose applications were rejected, improving voter confidence and participation.

Whereas many states require registrants to have a valid, state-issued driver's license or identification card on file with the state's Department of Motor Vehicles in order to append a signature to their voter registration application, eligible voters in Pennsylvania can register without a DMV-issued ID by providing an e-signature at the time of registration. Allowing individuals to provide e-signatures enables the full potential of OVR and allows all eligible voters to register online.

Any data issues with registration applications submitted using Pennsylvania's Connected VR are flagged in real-time so errors can be immediately corrected, resulting in higher registration success rates. In fact, 98% of applications submitted through Pennsylvania's Connected VR System are accepted compared to 60-80% from traditional third-party voter registration methods.

Pennsylvania has expanded its reach through Connected VR at additional state agencies, including the Department of Human Services, Department of Community & Economic Development, and Department of Transportation. This integration allows government agencies to improve NVRA compliance and facilitate AVR implementation in relevant states.

Takeaways

- E-signatures enable users without a DMV record to use OVR
- Connected VR results in high success rates (98%) by eliminating paper forms (60-80%) and adding feedback loops that notify third-party organizations of any issues with submissions
- APIs can streamline voter registration efforts across multiple state agencies

Michigan

Michigan first implemented an OVR system in 2019 and enhanced its existing system to launch Connected VR in 2020. Based on recommendations from Rock the Vote, Michigan became the first state to build its Connected VR solution utilizing the **National Institute of Standards and Technology (NIST) common data format** for voter registration requests, ensuring that data is received securely and includes all state-specific data fields in a standardized format.[26] Utilizing the NIST common data format—which provides states a clear, federally recommended structure for the transfer of voter registration applications—helped lower the staff time and resources needed to build the API. In fact, Michigan's use of the NIST common data format can be easily applied to other states, making adoption and implementation elsewhere more streamlined.

Michigan requires registrants to have a valid state-issued driver's license or state ID to use its OVR system. These forms of identification are verified by the state's system in real-time, ensuring 100% of eligible online registration applications from Designated Partners in Michigan make it onto the state's voter rolls. In addition, because no further action is required of the local election office, successful applicants are immediately registered. As a result of this fully automated process, the state saves significant processing time and money, and election officials have greater oversight over third-party registration activity.

Takeaways

- NIST common data format has been identified as a best practice that is easy to replicate and implement in other states
- High success rates (100%) for those able to register online, helping to eliminate paper forms and create feedback loops where Designated Partners are notified of null submissions

26 "Voter Records Interchange Common Data Format Specification." National Institute of Standards and Technology, Nov. 2019, **https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.1500-102.pdf**. Accessed 29 Aug. 2021.

Virginia

Virginia first implemented an OVR system in 2013 and launched Connected VR in 2018. To use Connected VR in Virginia, Designated Partners must comply with the minimum security practices set by the Virginia Board of Elections in their voter registration efforts. Such practices include an annual security audit, penetration testing, and quarterly vulnerability assessments. This precedent established by Virginia demonstrates how Connected VR can serve as a tool to significantly enhance the security of third-party voter registration efforts. Requiring security compliance ensures the integrity of the registration process in the steps leading up to application submission to the state.

Virginia's security and privacy controls are based on the federally recommended NIST 800-53 standard, which is recommended to state election officials to secure their voting and elections systems. NIST 800-53 standards provide a replicable framework for the minimum third-party security practices states can require for third parties to use Connected VR.[27]

Takeaways

- States can set minimum security standards for Designated Partners, which can meaningfully enhance security and confidence
- States can require Designated Partners specifically comply with the federally recommended NIST 800-53 security framework

27 "Security and Privacy Controls for Information Systems and Organizations." National Institute of Standards and Technology, last updated 10 Dec. 2020, https://csrc.nist.gov/publications/detail/sp/800-53/rev-5/final. Accessed 29 Aug. 2021.

Washington

Washington first implemented an OVR system in 2007. In 2020, when upgrading the state's OVR system, VoteWA, Washington utilized an API that they had already built to enable Connected VR in the state's voter registration process. By making simple modifications to the pre-built API, such as adding driver's license validation, Washington created a system that meets their needs — and the needs of their Designated Partners — and improves the voter registration experience for voters.

Washington's adoption of Connected VR represents one of the state's many nonpartisan, common-sense election administration policies that generate cost- and time-savings, and that keep the needs of both election officials and voters at the forefront when modernizing the voter registration process.

Takeaways

- States can add Connected VR when upgrading existing OVR systems
- Existing APIs can be modified to meet the state's Connected VR needs

APPENDIX D: SUGGESTED OVR FEATURES FOR ALL STATES

We recommend all states ensure the following features of their OVR system, regardless if the state has Connected VR. These features will not only improve the voter registration process, particularly among marginalized and underrepresented voters, but many of these features are also steps toward modernizing systems and eventual adoption of Connected VR.

Create an accessible OVR website

States should strive to provide OVR websites and related forms that are accessible to voters with disabilities and non-native English speakers.

States should ensure that their OVR websites are easily accessible to those with disabilities, such as voters with blindness and visual impairments who use screen readers that dictate the content of websites. The industry standard at the time of publishing is Web Content Accessibility Guidelines (WCAG) 2.1.[28]

OVR forms should be provided in a variety of languages, to lower registration barriers for non-native English speakers and comply with relevant language minority provisions of the Voting Rights Act.[29]

Create a responsive OVR website

A state OVR website and related forms should be responsive, in both an everyday and a technical sense of the word.

28 "WCAG 2 Overview." W3C Web Accessibility Initiative: Strategies, standards, resources to make the Web accessible to people with disabilities. **https://www.w3.org/WAI/standards-guidelines/wcag/**. Accessed August 8, 2022.

29 "About Language Minority Voting Rights." U.S. Department of Justice. Amended 11 Mar. 2020, **https://www.justice.gov/crt/about-language-minority-voting-rights**. Accessed 15 Dec, 2021.

The online form should be "responsive" in the everyday sense in that it should provide timely, informative messages that respond to the user. For example, if a user neglects to complete a field, or enters an invalid character, the site should immediately notify the user exactly what is wrong. If a real-time verification process fails (e.g., a user's state ID number could not be found), the user should be provided with a detailed error message and the opportunity to re-submit the registration.

The online form should also be "responsive" in the technical sense in that it should follow best practice web design and allow users to access the website from any operating system or device. The website, including the form, should smoothly adapt its format to match a wide range of end-user screen sizes and computing devices, such as laptops, tablets, and smartphones. Responsive websites automatically adjust to these differences, providing optimal interfaces to many users. For example, the state's online voter registration form might have two columns when displayed on a large monitor, but only one column when displayed on the smaller screen of a user's smartphone. It is widely recognized that responsive websites have significantly more usability and effectiveness, including increased traffic and greater conversion rates. In fact, responsiveness is so important that Google updated its search engine algorithm in 2015 to factor a website's responsiveness when considering its rank.[30] Today, 83% of mobile phone users access the internet through their mobile devices, and it is projected that over 87% of users will access the internet via their mobile devices in the next five years.[31] With a growing number of users accessing the internet using their smartphone, responsiveness is even more critical.

Implement real-time verification of registrations

Wherever possible, a state's back-end system should check application information against records (e.g., DMV records and voter registration records) in real-time. In turn, an OVR system can provide an immediate response to the registrant as to the success or failure of an application. If these back-end verification mechanisms can be automated, OVR services will become more convenient and powerful.

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30 Reinhart, Patrick. "Mobilegeddon: A Complete Guide to Google's Mobile-Friendly Update." Search Engine Journal, Dec. 2017. **https://www.searchenginejournal.com/google-algorithm-history/mobile-friendly-update/#close**. Accessed 28 Nov, 2021.

31 Ceci, L. "Mobile internet user penetration in the United States from 2016 to 2026." Statista, Aug. 2021. **https://www.statista.com/statistics/275587/mobile-phone-internet-user-penetration-us/**. Accessed 28 Nov, 2021.

Allow users to check the status of their registration

Regardless of whether real-time verification is feasible, states should provide registrants with the ability to check the status of their registration application. Specifically, the state should provide a tracking number after a registrant submits an OVR application. This tracking number can be used by the registrant to easily check on the status of their registration, or, if the state offers Connected VR, by a Designated Partner to follow up with the registrant in case of an issue with the registration application.

The user should also be offered the option to subscribe to updates by email or SMS. These notifications should be provided in tandem with any paper-based notifications that the state already sends out.

Provide options for users who lack state IDs

The convenience of OVR technologies should not be limited to those with a particular credential when there are several reliable alternate options. Today, most states require voters to possess a state-issued identification card to use their OVR systems, but "as many as 11 percent of eligible voters do not have government-issued photo ID."[32]

A few states provide helpful options for these voters. In Minnesota, voters without state-issued identification can provide the last four digits of their social security number to satisfy verification requirements.[33] Alternatively, California's OVR statute provides that "(i)f an applicant cannot electronically submit the information required (. . .), he or she shall nevertheless be able to complete the affidavit of voter registration electronically on the Secretary of State's Internet Web site...[34] OVR systems can use state ID numbers to fetch the voter's electronic signature from the state's motor vehicle database. For voters without a state ID, the state could provide provisional registrations through the OVR system, subject to finalizing the registration with a signature when they vote.[35]

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32 "Voter ID." Brennan Center for Justice, 15 Oct. 2012, **https://www.brennancenter.org/our-work/research-reports/voter-id**. Accessed 29 June, 2021.

33 "Your City, Your Vote." Minneapolis, Minneapolis Elections and Voter Services, **https://vote.minneapolismn.gov/voters/register/**. Accessed 29 June, 2021.

34 "Elections Code — Elec: Cal. Elec. Code § 2196(d)." California Legislative Information, Amended 1 Jan. 2017, **https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?sectionNum=2196.&lawCode=ELEC**. Accessed 29 June, 2021.

35 "Testimony of Lee Rowland in Support of Senate Bill 375 before the Senate Legislative Operations and Elections Committee." Brennan Center for Justice at NYU School of Law, 2 April, 2013, **https://www.brennancenter.org/sites/default/files/analysis/Nevada_SB375_Testimony_040213.pdf**. Accessed 29 June, 2021.

Pre-populate information or provide custom URLs

While Connected VR is the ultimate goal, creating a process for third parties to get access to the contact information they need and to digitally send information to a state's OVR website can still improve registration efforts.

Civic engagement organizations can gather the information they need from voters using their own digital tools and website. Once the registrant is transferred to the state website, some of the voter's information could pre-populate on the state's OVR form eliminating or minimizing the need for double data entry. The registrant finishes their registration on the official OVR site. At the time of writing this white paper, California offers data pre-population.

Another potential solution is providing custom URLs or source codes. By providing unique identifiers to Designated Partners, states can track which third parties are submitting which registrations and provide them with their registrants' contact information at agreed upon intervals — possibly once a month throughout the year and more frequently ahead of any voter registration deadlines. At the time of this paper's publication, Arizona, Colorado, and Maryland offer this service to third-party organizations.

These solutions are stopgap measures that will still result in some drop-off; however, they have the added benefit of laying the groundwork toward Connected VR.

ROCK THE VOTE

THANK YOU