

# SIMPLY VOTING PROPOSAL Services for Online Voting

## Canadian Merchant Service Guild

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#### **EXECUTIVE SUMMARY**

Simply Voting is a 100% Canadian Company operating from Kelowna BC and Montreal QC. McGill University was our first customer back in 2003, and they are still our customer along with over 1000 additional organizations. We manage voting events for associations, universities, political parties, unions, cooperatives, corporations, and federal, provincial and municipal governments. In fact, anywhere that a secure online voting system and service is needed.

Online voting is our only business. At any given moment, Simply Voting is managing 80 to 120 online elections in over 40 countries around the world. At any given moment 100,000 to 200,000 voters are active in the system with no system failures ever, year to year.

Our carefully selected team of dedicated IT staff and Project Managers is focused on only one goal: Successful Online Voting Events!

**Simply Voting** will provide the Guild with a solution that is secure, cost effective, and meets your association's requirements. By running elections on our platform, your members will feel confident that their votes are processed by a neutral third party and in a transparent manner thanks to our unique voterverified audit trail.

The CMSG can also count on our support team to ensure things are always running smoothly. Our headquarters is in Montreal, and our servers are located in Kelowna, BC. **Your data will never leave Canada** 

**Simply Voting is Secure**. Web application security is Simply Voting's area of expertise and multiple layers of security protect your vote against hackers. For protection against Denial of Service (DoS) attacks, we leverage CloudFlare's advanced technology.

**Simply Voting is Reliable**. Redundancy is provided at all levels to ensure uninterrupted voting. Simply Voting guarantees both our system and our personnel before, during and after your election.

**Simply Voting is Easy to Use**. Simple and straight forward voter interface.

## **HOW IT WORKS**

## **Election Set-Up**

Simply Voting will set up the election according to the specifications provided by the customer. This includes branding the voting website, preparation and uploading of the list of eligible voters and setting the opening and closing dates. We will send out an individual email to each eligible voter once the ballots open, containing the voter's password code (PIN) and the direct voting link.

## **Online Voting**

Voters will arrive at the voting website and will be required to enter their PIN and their membership rotation number. If the voter hasn't yet voted, a tamper-proof electronic ballot will appear. When the voter makes their choice and submits their ballot, the results are encrypted and kept anonymous. The voter is able to view a receipt # and is now blocked from voting for this election again. Simply Voting will send out 2 reminder emails to eligible members who have not yet voted, at pre-determined intervals while voting is underway.

## **Top-Notch Security**

- Simply Voting was designed from the ground-up to eliminate the risk of electoral fraud or breach of secrecy:
- Voters who bypass authentication or have already voted are denied access to the ballot.
- One-vote-per-voter is guaranteed by marking electors as voted and storing the vote in a single transaction. Even if a voter submits the ballot simultaneously on several devices, this technology guarantees that only one vote is accepted.
- Communication between the Member's computer and our website is encrypted with TLS 1.2 and strong cipher suites to protect against current and future encryption attacks.
- Our servers are "hardened" and are subjected to daily Trust Guard PCI Compliance security scans.
- Our voting system has been subjected to live vulnerability scans by WhiteHat Security and source code security audits by HP Fortify.
- Simply Voting adheres to guidelines established by the *Open Web Application Security Project*.

- We use *DomainKeys Identified Mail* and the *Sender Policy Framework* to protect voters from phishing attacks.
- Our servers are protected by a very powerful firewall, FortiGate Unified Threat Management, which includes an Intrusion Detection System and a redundant firewall on hot standby.
- Simply Voting uses CloudFlare to protect against Denial of Service (DoS) attacks. CloudFlare has the most sophisticated mitigation technology on the market and has successfully blocked the largest DoS attacks seen on the internet.
- We use redundant Anycast DNS deployments which protects against DNS-based DoS attacks.

## Fully Hosted & Reliable

Simply Voting gives you instant access to the latest technology and is ready to process millions of votes around the clock.

Simply Voting is built on an enterprise-class cloud computing service powered by high performance hardware systems, with full redundancy across the entire infrastructure (no single points of failure). Our data centre is in a stable area, away from earthquake, hurricane, tornado, and severe weather zones. The data centre contains advanced power, cooling and security infrastructure, and Cisco Data Center 3.0 network architecture. It is staffed 24x7, backed-up by an offsite network operations centre. We also use several Anycast DNS clusters to ensure fault tolerance at the DNS level.

Simply Voting maintains a Disaster Recovery Plan as well as a Hot Site at a backup data center in a different geographical area. The Hot Site is synchronized with the primary data center using remote database replication. Should the primary data center experience an outage, we have the capability of quickly redirecting traffic of the entire voting system to the Hot Site, preventing disruption to ongoing elections and avoiding any loss of data. You can rest assured that your election is always protected and available in case of a disaster.

## Capacity of the Voting System

Simply Voting is designed to handle multi-million-voter elections and is built on an extremely scalable enterprise cloud infrastructure. We have already conducted

elections with over 100,000 simultaneous voters and over 1,000,000 total votes cast. Simply Voting always maintains enough capacity to handle all eligible voters voting at once. This over-allocation of resources ensures our voting system is always running at peak performance, even if there is an unexpected spike in voter activity.

#### **Certified Results**

An important advantage of having experts power your election is trust. With the security of an independently managed server and service, your members can rest assured that all votes are counted properly. We display a *certified by Simply Voting* seal on your voting results. On request, we also provide a Letter of Certification attesting to the validity of the results.

## Confidentiality and Privacy

Simply Voting takes secrecy of the vote very seriously.



It is impossible for anyone to ever determine how a particular member has voted. That means nobody at the CMSG or anybody at Simply Voting or anywhere else. Our voting system ensures that the individual voting choice made by a member will always remain truly anonymous.

We never make use of voter information for anything other than voting and never share such information with third parties. Our privacy policy (available on the Simply Voting website) has been independently certified by TRUSTe for compliance with Privacy Certification Requirements.

#### Voter Verified Audit Trail

Once the electronic ballot has been cast, the voter will be able to view an immediate confirmation receipt to assure the voter that their vote has been recorded as intended. This Voter Verified Audit Trail (VVAT) is an independent verification system designed to allow voters to verify that their vote was cast correctly, and to provide a means to audit the stored electronic results.

#### Mobile Optimized Voting

Our responsive web design adjusts according to the type of device being used. The voting website delivers an optimal viewing and interaction experience on a desktop computer, tablet and smartphone. Voters using a mobile device will not have to zoom, pan, or scroll sideways because all the elements on the voting website are properly sized and placed.

#### Cross-Browser Compatible

Thanks to Simply Voting's minimalist design and compliance with W3C web standards, our system is compatible with all modern browsers (going back to Internet Explorer 6) and webenabled cellphones so that voters can vote on the go. We test across various browser/OS/device combinations using *BrowserStack*.

#### Simply Voting is Insured

Simply Voting maintains a \$2,000,000 Business insurance policy as well as a \$2,000,000 Cyber Liability insurance policy.

#### Simply Voting is "Green"

Simply Voting is the most eco-friendly online voting system in the world.

We've lowered our carbon footprint to a small fraction of a typical website by hosting virtualized servers in an efficient data center powered by Hydroelectricity. Furthermore, we choose clean, pollution-free energy with Bullfrog Power. Bullfrog's generators put green electricity onto the grid to match the amount of electricity we use in our offices.

#### **Tech Support**

All our customers are backed up by a team of experts committed to helping you run successful elections! We want our customers to be more than satisfied with their investment, so care is always taken to ensure that you are never left stranded.

#### Segmented Voting

We provide a system to restrict any question on the ballot to a segment of your eligible voters. For example, your association can have a branch president position elected by all members and different regional directors elected only by the eligible electors from those regions.

#### Multilingual Experience

The Simply Voting interface is available, by default, in English and French. If required, unique ballot content in any other language can be provided.

#### Accessibility



Simply Voting websites are audited against Section 508 and WCAG-2 accessibility requirements, and are assigned an "A" grade by the Bureau of Internet Accessibility.

#### Skyhigh Enterprise-Ready Rating and SSAE 16 Certification



Skyhigh Networks performs objective and thorough evaluations of the enterprise-readiness of cloud service based on a detailed set of criteria developed in conjunction with the Cloud Security Alliance (CSA). Services designated as Skyhigh Enterprise-Ready are the services receiving the highest CloudTrust™ Ratings, which fully satisfy the most stringent requirements for data protection, identity verification and privacy protection.



Simply Voting is SSAE 16 SOC 1 Type I certified. The SSAE 16 (formerly known as SAS 70) is a widely recognized auditing standard issued by the American Institute of Certified Public Accountants (AICPA). An auditor's report details a service provider's ability to offer controls and safeguards when they host or process data belonging to their customers. The audit focuses heavily in the areas of compliance, security and access. It addresses important topics such as backup and recovery, computer operations, and human resources. Our data center, RackForce, is similarly SSAE 16 SOC 1 Type II certified. Both Simply Voting and RackForce are also CSAE 3416 and ISAE 3402 certified; these are the Canadian and international equivalents to the SSAE 16. These certifications are an independent validation of the quality, integrity and reliability of Simply Voting's infrastructure and services.

## **Current Clients of Simply Voting:**

**UNIFOR** - August 2014 to present

#### **Client Overview:**

UNIFOR was formed in 2013 through the merger of two of Canada's largest labour unions. UNIFOR Local 2002, one of UNIFOR's larger locals, represents an average of 10,000 members in various jobs throughout the aviation industry, including sales and customer service agents, ground, terminal and in-flight agents across Canada.

## **Requirements and Challenges:**

UNIFOR Local 2002 required an election provider that could provide expertise in managing the union's new internet voting initiative for various positions across their constituent districts. UNIFOR Local 2002 wanted to streamline the voting process as much as possible.

Moreover, UNIFOR Local 2002's election process was a complex scheme and schedule that involved 5 major regions, approximately 60 districts, and a myriad more sub-bases inside of those of districts.

## Simply Voting's Solution:

Since streamlining and making things easy for the voter was a key design of Simply Voting's solution, Simply Voting worked with UNIFOR to prepare ballots in both English and French. Additionally, to ensure voter ease-of-use, Simply Voting employed a single ballot scheme for each voter. Thus, for the majority of voters, if their voter group was voting on multiple positions, those multiple positions would be listed on the same scrollable ballot, and the voter need only login once and complete one ballot.

At the close of the designated voting period, Simply Voting provided results and turnout information to eligible voters.

UNIFOR Local 2002 continues to use Simply Voting for all bargaining ratification votes and elections.

#### National Associations

- American Massage Therapy Association (AMTA)
- Association of American Geographers (AAG)
- National Court Reporters Association (NCRA)
- National Contract Management Association (NCMA)
- National Cutting Horse Association (NCHA)
- Registry of Interpreters for the Deaf (RIDALOA)
- Security Professionals Association, Inc. (ALOA-SPAI)
- National Organization of Social Security Claimants Representatives (NOSSCR)
- National Environmental Health Association (NEHA))
- Association of Inspectors General (AIG)
- Association of Fraternity/Sorority Advisors (AFA)
- American Sexually Transmitted Diseases Association (ASTDA)
- American School Counselor Association (ASCA)
- American Dental Assistants Association (ADAA)
- American Society of Trace Evidence Examiners (ASTEE)
- National MPS Society
- National Society of Accountants
- Mortgage Bankers Association (MBA)
- National Association of Minority Contractors (NAMC)

#### International Associations

- Doctors Without Borders
- European Society for Cognitive and Affective Neuroscience (ESCAN)
- European Network for Women in Leadership
- European Society of Cardiology (ESC)
- Australasian Evaluation Society

#### Canadian Associations

- Canadian Wind Energy Association (CanWEA)
- Canada's Accredited Zoos and Aquariums (CAZA)
- Canadian Association of Fire Chiefs (CAFC)
- Canadian Kendo Federation (CKF)
- Canadian Dam Association (CDA)
- Canadian Football League Players Association
- Halifax Regional Police Association
- · Green Party of Canada

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#### **Educational Associations and Institutions**

- Colorado State University-Pueblo
- University of Richmond
- McMaster Students Union (McMaster University)
- Mount Royal Faculty Association (Mount Royal University)
- Mount Allison Students' Administrative Council (Mount Allison University)
- Wilfrid Laurier University Graduate Student Association
- University of Hawaii College of Languages, Linguistics and Literature
- Scripps Associated Students (Scripps College)
- Anderson University
- University of British Columbia Alma Mater Society
- California Teachers Associations

SIMPLY VOTING DATA CENTER SECURITY ADVANTAGES

#### **Physical Security**

The RackForce Kelowna 'GigaCenter' data center employs multiple physical security measures – including mantraps, proximity pass and biometric. There are seven layers of security between the front door and an individual computer rack. Physical security measures include:

- Single story concrete building
- Security Cameras strategically located throughout the facility
- Multiple pan-tilt-zoom cameras outside the facility
- Camera images are recorded, searchable and archived for a minimum of 90 days
- Proximity pass and biometric scanners, supporting multiple security zones
- Motion sensors and intrusion detection sensors
- Intrusion sensors with audible alarm
- Steel doors and two-stage man traps
- Computer racks are individually locked
- Access control system is secured in a room accessible by authorized personnel only
- Manned and monitored security desk
- Security systems are monitored 7x24 by both the on-site NOC and an off-site third-party

#### **Security Processes**

RackForce employs extensive security processes that support our clients' needs. Our processes have been audited by a third party by evidence of our SAS70 certification.

Existing, audited processes include:

- All entrances are locked at all times; Two factor authentication (badge and biometric) is required for access to the facility and to the data halls
- Background and criminal record checks for all employees and authorized (badged) contractors
- All employees must wear a photo-ID badge at all times while in the facility
- Each employee and authorized contractor must badge in when arriving, and badge out when leaving the facility (no tailgating); a perpetual log is maintained of what personnel are onsite
- Badge and biometric access is controlled in zones, ensuring personnel have access to authorized areas only
- Changes to access are documented and approved by management
- The ability to create, modify or delete access authorization is restricted by management
- Processes are in place to remove access when an employee or contractor is terminated or a badge is lost
- The access control system is logged, searchable and archived; logs are retained for at least 90 days
- Visitors are required to sign a visitor log, provide a government issued photo ID, and wear a visitor badge while in the facility
- Visitors are escorted at all times
- RackForce personnel are on-site 7x24x365
- The RackForce Chief Security Officer is responsible for the ongoing review, management, optimizing and documenting the Security Plan.

#### Systems & Data Security

All RackForce staff have RCMP criminal records checks before attaining facility access accreditation and access to RackForce systems. Systems and Data security processes are confidential and proprietary. These processes have been reviewed by an independent third party auditor, as evidenced by RackForce's SAS70 certification.

#### **Network Resiliency & Security**

The GigaCenter is carrier-neutral and is served by numerous major Canadian telcos, including Shaw, Bell, Rogers, Allstream and Telus. RackForce also manages a private 10Gbps network into major Canadian cities, including Vancouver, Calgary and Toronto, and Seattle Washington. This provides access to high capacity, low cost bandwidth from major North American and International communications providers. Data on the RackForce private network is transported at layer 2.

Fiber feeds into the GigaCenter are delivered through diverse underground conduits into the facility. The data center LAN is fully redundant with 10Gbps capability to every cabinet and device within the facility. Built on the Cisco Nexus Data Center 3.0 platform, it has no single points of failure and supports concurrent maintenance. All customer data traffic is isolated on private VLANs within our GigaCenter switching with separate layer 3 routing interfaces created per VLAN at the core routing layer. No layer 2 traffic is carried between VLANs, and logical layer 2 VLAN segments are never shared between clients.



This proposal includes fully managed elections. Simply Voting will manage election set ups, sending email blasts, and reporting on post-election results. Simply Voting will actively monitor the election and ensure that everything is working as intended. Members can be confident that your voting event is being completely managed by a neutral party that specializes only in online voting and has no vested interest in any election outcome.

All communication with voters is by email. If a member does not have an email address they will not be able to vote.