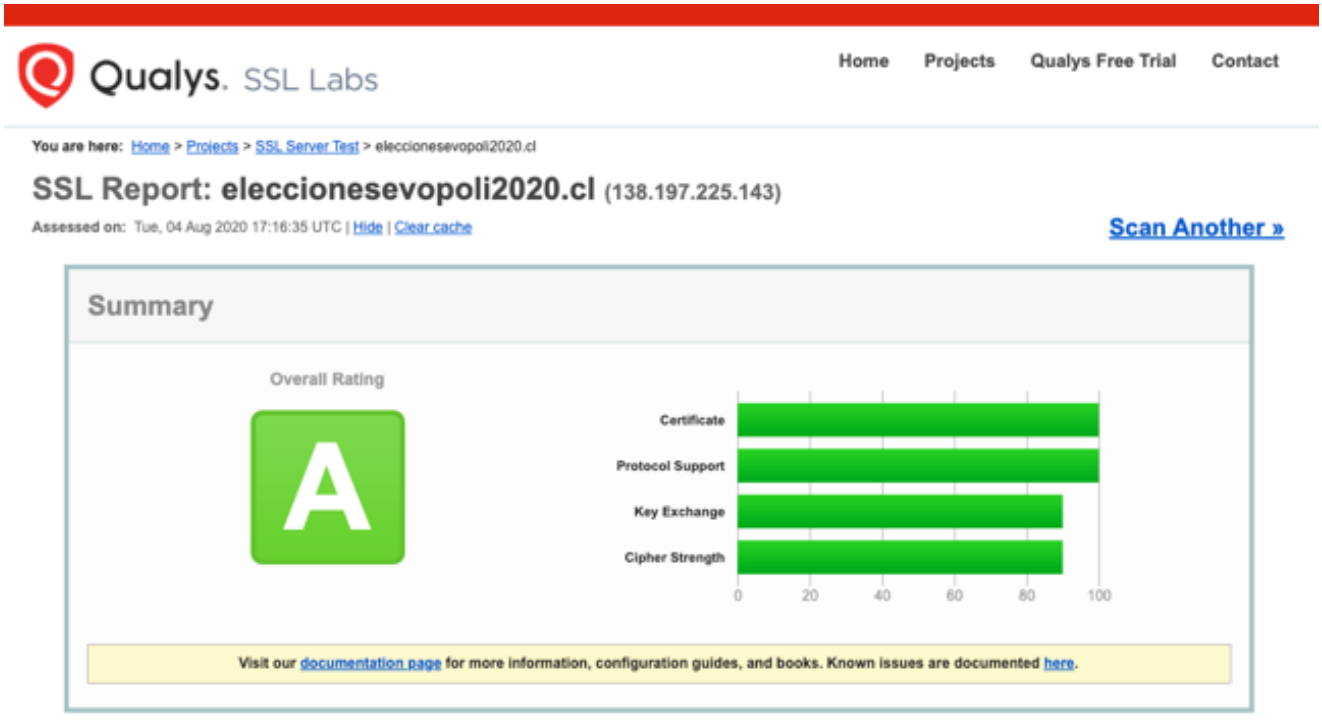
Seguridad Encriptada Plataforma de Votación electrónica Neovoting.

1. **Seguridad de la capa de transporte** con **protocolos criptográficos asimétricos** que proporcionan comunicaciones seguras en internet. **(TLS 1.2)**

2. **DataCenters de Neovoting** está certificado en el **estándar internacional ISO / IEC 27001: 2013**. Al lograr el cumplimiento de este marco de control de **seguridad de la información reconocido a nivel mundial**, auditado por un tercero, **Neovoting Chile** ha demostrado un compromiso para proteger la información confidencial de clientes y empresas. Ese compromiso no termina con un marco de cumplimiento, sino que es una línea de base **necesaria para la seguridad. ISO/IEC 27001:2013** Issue date of certificate: **April 18, 2018 Expiration date** of certificate: **April 18, 2021** (link certificado: https://prismic-io.s3.amazonaws.com/digitalocean%2Fd4b61fcf-ff39-4ebc-b86f-e17580ad31f7_digitaloceaneycp_certificate_final.pdf).

Los detalles de encriptación de la capa de transporte se pueden revisar directamente en el siguiente link: https://www.ssllabs.com/ssltest/analyze.html?d=eleccionesevopoli2020.cl



Certificate #1: RSA 2048 bits (SHA256withRSA)

Server Key and Certificate #1

Subject	eleccionesevopoli2020.cl Fingerprint SHA256: efebc5e15c5b480e5d6ca268b0f7f06bbabdf9aa2e2a51dbab1fcc93bfcbd1eb Pin SHA256: 4RGbm5gI4dpqr2Flw18GUSy0ZvB1QGsvWkwkyrPa8M4=
Common names	eleccionesevopoli2020.cl
Alternative names	eleccionesevopoli2020.cl www.eleccionesevopoli2020.cl
Serial Number	033be1f339a08b6d8884bed5dc6f4a9bdca3
Valid from	Sun, 02 Aug 2020 18:44:08 UTC
Valid until	Sat, 31 Oct 2020 18:44:08 UTC (expires in 2 months and 27 days)
Key	RSA 2048 bits (e 65537)
Weak key (Debian)	No
Issuer	Let's Encrypt Authority X3 AIA: http://cert.int-x3.letsencrypt.org/
Signature algorithm	SHA256withRSA
Extended Validation	No
Certificate Transparency	Yes (certificate)
OCSP Must Staple	No
Revocation information	OCSP OCSP: http://ocsp.int-x3.letsencrypt.org
Revocation status	Good (not revoked)
DNS CAA	No (more info)
Trusted	Yes Mozilla Apple Android Java Windows

Additional Certificates (if supplied)

Certificates provided	2 (2592 bytes)
Chain issues	None

#2

Subject	Let's Encrypt Authority X3 Fingerprint SHA256: 25847d668eb4f04fdd40b12b6b0740c567da7d024308eb6c2c96fe41d9de218d Pin SHA256: YLh1dUR9y6Kja30RrAn7JKnbQG/uEtLMkBgFF2Fuihg=
Valid until	Wed, 17 Mar 2021 16:40:46 UTC (expires in 7 months and 12 days)
Key	RSA 2048 bits (e 65537)
Issuer	DST Root CA X3
Signature algorithm	SHA256withRSA

Certification Paths

Click here to expand

Configuration

Protocols

TLS 1.3	No
TLS 1.2	Yes
TLS 1.1	No
TLS 1.0	No
SSL 3	No
SSL 2	No

Cipher Suites

# TLS 1.2 (suites in server-preferred order)	
TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 (0xcca8) ECDH secp256r1 (eq. 3072 bits RSA) FS	256
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (0xc02f) ECDH secp256r1 (eq. 3072 bits RSA) FS	128
TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (0xc030) ECDH secp256r1 (eq. 3072 bits RSA) FS	256
TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 (0x9e) DH 2048 bits FS	128
TLS_DHE_RSA_WITH_AES_256_GCM_SHA384 (0x9f) DH 2048 bits FS	256
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (0xc027) ECDH secp256r1 (eq. 3072 bits RSA) FS WEAK	128
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (0xc028) ECDH secp256r1 (eq. 3072 bits RSA) FS WEAK	256
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (0xc013) ECDH secp256r1 (eq. 3072 bits RSA) FS WEAK	128
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (0xc014) ECDH secp256r1 (eq. 3072 bits RSA) FS WEAK	256
TLS_DHE_RSA_WITH_AES_128_CBC_SHA256 (0x67) DH 2048 bits FS WEAK	128
TLS_DHE_RSA_WITH_AES_128_CBC_SHA (0x33) DH 2048 bits FS WEAK	128
TLS_DHE_RSA_WITH_AES_256_CBC_SHA256 (0x6b) DH 2048 bits FS WEAK	256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA (0x39) DH 2048 bits FS WEAK	256
TLS_RSA_WITH_AES_128_GCM_SHA256 (0x9c) WEAK	128
TLS_RSA_WITH_AES_256_GCM_SHA384 (0x9d) WEAK	256
TLS_RSA_WITH_AES_128_CBC_SHA256 (0x3c) WEAK	128
TLS_RSA_WITH_AES_256_CBC_SHA256 (0x3d) WEAK	256
TLS_RSA_WITH_AES_128_CBC_SHA (0x2f) WEAK	128
TLS_RSA_WITH_AES_256_CBC_SHA (0x35) WEAK	256

Handshake Simulation

Android 4.4.2	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Android 5.0.0	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Android 6.0	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Android 7.0	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Android 8.0	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Android 8.1	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Android 9.0	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
BingPreview Jan 2015	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Chrome 49 / XP SP3	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Chrome 69 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Chrome 70 / Win 10	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Chrome 80 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Firefox 31.3.0 ESR / Win 7	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Firefox 47 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Firefox 49 / XP SP3	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Firefox 62 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Firefox 73 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS

Googlebot Feb 2018	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
IE 11 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 DH 2048 FS
IE 11 / Win 8.1 R	RSA 2048 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 DH 2048 FS
IE 11 / Win Phone 8.1 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 ECDH secp256r1 FS
IE 11 / Win Phone 8.1 Update R	RSA 2048 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 DH 2048 FS
IE 11 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Edge 15 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Edge 16 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Edge 18 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Edge 13 / Win Phone 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Java 8u161	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Java 11.0.3	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Java 12.0.1	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
OpenSSL 1.0.1l R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
OpenSSL 1.0.2s R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
OpenSSL 1.1.0k R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
OpenSSL 1.1.1c R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Safari 6 / iOS 6.0.1	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 ECDH secp256r1 FS
Safari 7 / iOS 7.1 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 ECDH secp256r1 FS
Safari 7 / OS X 10.9 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 ECDH secp256r1 FS
Safari 8 / iOS 8.4 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 ECDH secp256r1 FS
Safari 8 / OS X 10.10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 ECDH secp256r1 FS
Safari 9 / iOS 9 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Safari 9 / OS X 10.11 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Safari 10 / iOS 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Safari 10 / OS X 10.12 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Safari 12.1.2 / MacOS 10.14.6 Beta R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Safari 12.1.1 / iOS 12.3.1 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Apple ATS 9 / iOS 9 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Yahoo Slurp Jan 2015	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
YandexBot Jan 2015	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS

 # Not simulated clients (Protocol mismatch)

Click here to expand

(1) Clients that do not support Forward Secrecy (FS) are excluded when determining support for it.
(2) No support for virtual SSL hosting (SNI). Connects to the default site if the server uses SNI.
(3) Only first connection attempt simulated. Browsers sometimes retry with a lower protocol version.
(R) Denotes a reference browser or client, with which we expect better effective security.
(All) We use defaults, but some platforms do not use their best protocols and features (e.g., Java 6 & 7, older IE).
(All) Certificate trust is not checked in handshake simulation, we only perform TLS handshake.

Protocol Details

DROWN	No, server keys and hostname not seen elsewhere with SSLv2 (1) For a better understanding of this test, please read this longer explanation (2) Key usage data kindly provided by the Censys network search engine; original DROWN website here (3) Censys data is only indicative of possible key and certificate reuse; possibly out-of-date and not complete
Secure Renegotiation	**Supported**
Secure Client-Initiated Renegotiation	No
Insecure Client-Initiated Renegotiation	No
BEAST attack	Mitigated server-side (more info)
POODLE (SSLv3)	No, SSL 3 not supported (more info)
POODLE (TLS)	No (more info)
Zombie POODLE	No (more info) TLS 1.2 : 0xc027
GOLDENDOODLE	No (more info) TLS 1.2 : 0xc027
OpenSSL 0-Length	No (more info) TLS 1.2 : 0xc027
Sleeping POODLE	No (more info) TLS 1.2 : 0xc027
Downgrade attack prevention	Unknown (requires support for at least two protocols, excl. SSL2)
SSL/TLS compression	No
RC4	No
Heartbeat (extension)	No
Heartbleed (vulnerability)	No (more info)
Ticketbleed (vulnerability)	No (more info)
OpenSSL CCS vuln. (CVE-2014-0224)	No (more info)
OpenSSL Padding Oracle vuln. (CVE-2016-2107)	No (more info)
ROBOT (vulnerability)	No (more info)
Forward Secrecy	**Yes (with most browsers) ROBUST** (more info)
ALPN	No
NPN	No
Session resumption (caching)	Yes
Session resumption (tickets)	No
OCSP stapling	No
Strict Transport Security (HSTS)	No
HSTS Preloading	Not in: Chrome Edge Firefox IE
Public Key Pinning (HPKP)	No (more info)
Public Key Pinning Report-Only	No
Public Key Pinning (Static)	No (more info)
Long handshake intolerance	No
TLS extension intolerance	No
TLS version intolerance	No
Incorrect SNI alerts	No
Uses common DH primes	No
DH public server param (Ys) reuse	No
ECDH public server param reuse	No
Supported Named Groups	secp256r1
SSL 2 handshake compatibility	Yes

HTTP Requests

1 https://eleccionesevopoli2020.cl/ (HTTP/1.1 200)

Miscellaneous

Test date	Tue, 04 Aug 2020 17:14:57 UTC
Test duration	97.780 seconds
HTTP status code	200
HTTP server signature	Apache/2.4.43 (Ubuntu)
Server hostname	-