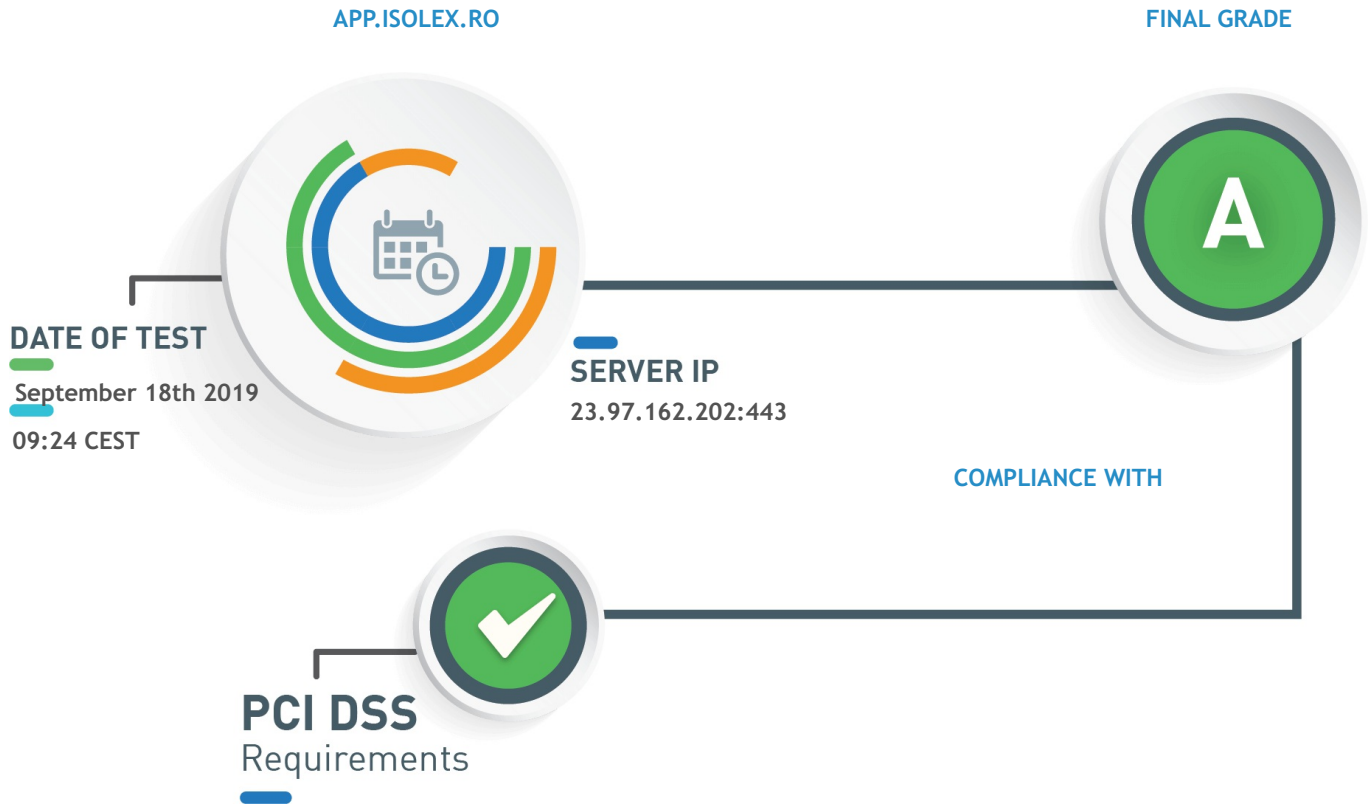


Test SSL/TLS implementation of any service on any port for compliance with PCI DSS requirements, HIPAA guidance and NIST guidelines.



Summary of app.isolex.ro:443 (HTTPS) SSL Security Test

The server configuration supports only TLSv1.2 protocol, precluding users with older browsers from accessing your website.

Information

SSL Certificate Analysis

RSA CERTIFICATE INFORMATION

| | |
|---------------------------|---|
| Issuer | GeoTrust RSA CA 2018 |
| Trusted | Yes |
| Common Name | app.isolex.ro |
| Key Type/Size | RSA 2048 bits |
| Signature Algorithm | sha256WithRSAEncryption |
| Subject Alternative Names | DNS:app.isolex.ro |
| Transparency | Yes |
| Validation Level | DV |
| CRL | http://cdp.geotrust.com/GeoTrustRSACA2018.crl |
| OCSP | http://status.geotrust.com |
| OCSP Must-Staple | No |
| Supports OCSP Stapling | No |
| Valid From | April 10th 2019, 02:00 CEST |
| Valid To | April 9th 2020, 14:00 CEST |

CERTIFICATE CHAIN

DigiCert Global Root CA

Self-signed

Root CA

| | |
|---------------------|---|
| Key Type/Size | RSA 2048 bits |
| Signature Algorithm | sha1WithRSAEncryption |
| SHA256 | 4348a0e9444c78cb265e058d5e8944b4d84f9662bd26db257f8934a443c70161 |
| PIN | r/mlkG3eEpVdm+u/ko/cwxyzOMo1bk4TyHlIByibiA5E= |
| Expires in | 4,436 days |

↳ GeoTrust RSA CA 2018

Intermediate CA

| | |
|---------------------|---|
| Key Type/Size | RSA 2048 bits |
| Signature Algorithm | sha256WithRSAEncryption |
| SHA256 | 8cc34e11c167045824ade61c4907a6440edb2c4398e99c112a859d661f8e2bc7 |
| PIN | zUIraRNo+4JoAYA7ROeWjARtIoN4rIEbCpfCRQT6N6A= |
| Expires in | 2,971 days |

↳ app.isolex.ro

Server certificate

| | |
|---------------|----------------------|
| Key Type/Size | RSA 2048 bits |
|---------------|----------------------|

Signature Algorithm

sha256WithRSAEncryption

SHA256

beb2d371d47cd2ffb1a75e0b0356c4db34f61dcf0ca2e7892a7c40538d31c6a3

PIN

L2Rh8KFAtKGpRqiRPik+iNOY0Xh+TKjJuZdh15ChRMU=

Expires in

204 days

Test For Compliance With PCI DSS Requirements

Reference: PCI DSS 3.1 - Requirements 2.3 and 4.1

CERTIFICATES ARE TRUSTED

All the certificates provided by the server are trusted.

Good configuration

SUPPORTED CIPHERS

List of all cipher suites supported by the server:

TLSV1.2

TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256

Good configuration

TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256

Good configuration

TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA

Good configuration

TLS_RSA_WITH_AES_256_GCM_SHA384

Good configuration

TLS_RSA_WITH_AES_128_GCM_SHA256

Good configuration

TLS_RSA_WITH_AES_256_CBC_SHA256

Good configuration

TLS_RSA_WITH_AES_128_CBC_SHA256

Good configuration

TLS_RSA_WITH_AES_256_CBC_SHA

Good configuration

TLS_RSA_WITH_AES_128_CBC_SHA

Good configuration

SUPPORTED PROTOCOLS

List of all SSL/TLS protocols supported by the server:

TLSv1.2

Good configuration

SUPPORTED ELLIPTIC CURVES

List of all elliptic curves supported by the server:

P-256 (prime256v1) (256 bits)

Good configuration

P-384 (secp384r1) (384 bits)

Good configuration

POODLE OVER TLS

The server is not vulnerable to POODLE over TLS.

Not vulnerable

GOLDENDOODLE

The server is not vulnerable to GOLDENDOODLE.

Not vulnerable

ZOMBIE POODLE

The server is not vulnerable to Zombie POODLE.

Not vulnerable

SLEEPING POODLE

The server is not vulnerable to Sleeping POODLE.

Not vulnerable

0-LENGTH OPENSLL

The server is not vulnerable 0-Length OpenSSL.

Not vulnerable

CVE-2016-2107

The server is not vulnerable to OpenSSL padding-oracle flaw (CVE-2016-2107).

Not vulnerable

SERVER DOES NOT SUPPORT CLIENT-INITIATED INSECURE RENEGOTIATION

The server does not support client-initiated insecure renegotiation.

Good configuration

ROBOT

The server is not vulnerable to ROBOT (Return Of Bleichenbacher's Oracle Threat) vulnerability.

Not vulnerable

HEARTBLEED

The server version of OpenSSL is not vulnerable to Heartbleed attack.

Not vulnerable

CVE-2014-0224

The server is not vulnerable to CVE-2014-0224 (OpenSSL CCS flaw).

Not vulnerable

Test For Compliance With HIPAA Guidance

Reference: HIPAA of 1996, Guidance Specifying the Technologies and Methodologies that Render Protected Health Information Unusable, Unreadable, or Indecipherable to Unauthorized Individuals.

X509 CERTIFICATES ARE IN VERSION 3

All the X509 certificates provided by the server are in version 3.

Good configuration

SERVER DOES NOT SUPPORT OCSP STAPLING

The server does not support OCSP stapling for its RSA certificate. Its support allows better verification of the certificate validation status.

Non-compliant with HIPAA guidance

SUPPORTED PROTOCOLS

List of all SSL/TLS protocols supported by the server:

TLSv1.2

Good configuration

SUPPORTED CIPHERS

List of all cipher suites supported by the server:

TLSV1.2

TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256

Good configuration

TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256

Good configuration

TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA

Good configuration

TLS_RSA_WITH_AES_256_GCM_SHA384

Good configuration

TLS_RSA_WITH_AES_128_GCM_SHA256

Good configuration

TLS_RSA_WITH_AES_256_CBC_SHA256

Good configuration

TLS_RSA_WITH_AES_128_CBC_SHA256

Good configuration

TLS_RSA_WITH_AES_256_CBC_SHA

Good configuration

TLS_RSA_WITH_AES_128_CBC_SHA

Good configuration

SUPPORTED ELLIPTIC CURVES

List of all elliptic curves supported by the server:

P-256 (prime256v1) (256 bits)

Good configuration

P-384 (secp384r1) (384 bits)

Good configuration

EC_POINT_FORMAT EXTENSION

The server does not send EC_POINT_FORMAT TLS extension according to RFC 4492 (section 5.2, page 15).

Information

Test For Compliance With NIST Guidelines

Reference: NIST Special Publication 800-52 Revision 1 - Section 3

NIST Update to Current Use and Deprecation of TDEA abrogates 3DES authorized in the NIST guidelines.

Information

X509 CERTIFICATES ARE IN VERSION 3

All the X509 certificates provided by the server are in version 3.

Good configuration

SERVER DOES NOT SUPPORT OCSP STAPLING

The server does not support OCSP stapling for its RSA certificate. Its support allows better verification of the certificate validation status.

Non-compliant with NIST guidelines

SUPPORTED CIPHERS

List of all cipher suites supported by the server:

TLSV1.2

TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256

Good configuration

TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256

Good configuration

TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA

Good configuration

TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA

Good configuration

TLS_RSA_WITH_AES_256_GCM_SHA384

Good configuration

TLS_RSA_WITH_AES_128_GCM_SHA256

Good configuration

TLS_RSA_WITH_AES_256_CBC_SHA256

Good configuration

TLS_RSA_WITH_AES_128_CBC_SHA256

Good configuration

TLS_RSA_WITH_AES_256_CBC_SHA

Good configuration

TLS_RSA_WITH_AES_128_CBC_SHA

Good configuration

SUPPORTED PROTOCOLS

List of all SSL/TLS protocols supported by the server:

TLSv1.2

Good configuration

SUPPORTED ELLIPTIC CURVES

List of all elliptic curves supported by the server:

P-256 (prime256v1) (256 bits)

Good configuration

P-384 (secp384r1) (384 bits)

Good configuration

EC_POINT_FORMAT EXTENSION

The server does not send EC_POINT_FORMAT TLS extension according to RFC 4492 (section 5.2, page 15).

Information

Test For Industry Best-Practices

DNSCAA

This domain does not have a Certification Authority Authorization (CAA) record.

Information

CERTIFICATES DO NOT PROVIDE EV

The RSA certificate provided is NOT an Extended Validation (EV) certificate.

Information

NO SUPPORT OF TLSV1.3

The server does not support TLSv1.3 which is the only version of TLS that currently has no known flaws or exploitable weaknesses.

Misconfiguration or weakness

SERVER HAS CIPHER PREFERENCE

The server enforces cipher suites preference.

Good configuration

SERVER PREFERRED CIPHER SUITES

Preferred cipher suite for each protocol supported (except SSLv2). Expected configuration are ciphers allowed by PCI DSS and enabling PFS:

TLSv1.2 TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

TLSv1.2 TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384

Good configuration

SERVER PREFERS CIPHER SUITES PROVIDING PFS

For TLS family of protocols, the server prefers cipher suite(s) providing Perfect Forward Secrecy (PFS).

Good configuration

ALWAYS-ON SSL

The HTTP version of the website redirects to the HTTPS version.

Good configuration

SERVER DOES NOT PROVIDE HSTS

The server does not enforce HTTP Strict Transport Security. We advise to enable it to enforce the user to browse the website in HTTPS.

Misconfiguration or weakness

SERVER DOES NOT PROVIDE HPKP

The server does not enforce HTTP Public Key Pinning that helps preventing man-in-the-middle attacks.

Information

SERVER DOES NOT SUPPORT CLIENT-INITIATED SECURE RENEGOTIATION

The server does not support client-initiated secure renegotiation.

Good configuration

SERVER-INITIATED SECURE RENEGOTIATION

The server supports secure server-initiated renegotiation.

Good configuration

SERVER DOES NOT SUPPORT TLS COMPRESSION

TLS compression is not supported by the server.

Good configuration