SSL Report: www.cam.ac.uk (128.232.132.8)

Assessed on: Fri, 22 Feb 2019 12:08:15 UTC | Hide | Clear cache

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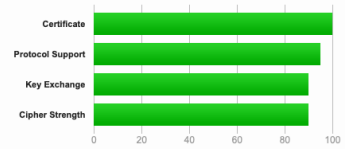
Summary

Overall Rating

A+



Visit our documentation page for more information, configuration guides, and books. Known issues are documented here.

Renegotiation test has been disabled temporarily due to an Apache httpd 2.4.37 bug. MORE INFO »

Experimental: This server supports TLS 1.3 (RFC 8446).

HTTP Strict Transport Security (HSTS) with long duration deployed on this server. MORE INFO »

Certificate #1: RSA 2048 bits (SHA256withRSA)

Server Key and Certificate #1

Subject	www.cam.ac.uk Fingerprint SHA256: ea10c7738d29dd6e1f1e716c-c526a2900eb9f835c77cae53d8e5457635d62c66 Pin SHA256: cl55LG+w0fCfXXLX7mlY2WNkuNfONurTHqAmOUqdBc4=
Common names	www.cam.ac.uk
Alternative names	www.cam.ac.uk cam.ac.uk
Serial Number	345c3224516617a7adb756621bd1a515911e85ee
Valid from	Tue, 24 Jul 2018 14:23:57 UTC
Valid until	Fri, 24 Jul 2020 14:34:00 UTC (expires in 1 year and 5 months)
Key	RSA 2048 bits (e 65537)
Weak key (Debian)	No
Issuer	QuoVadis EV SSL ICA G3 AIA: http://trust.quovadisglobal.com/qvevsslg3.crt
Signature algorithm	SHA256withRSA
Extended Validation	**Yes**
Certificate Transparency	**Yes (certificate)**
OCSP Must Staple	No
Revocation information	CRL, OCSP CRL: http://crl.quovadisglobal.com/qvevsslg3.crl OCSP: http://ev.ocsp.quovadisglobal.com
Revocation status	Good (not revoked)
DNS CAA	No (more info)
Trusted	**Yes** **Mozilla Apple Android Java Windows**

Additional Certificates (if supplied)

Certificates provided	2 (3862 bytes)
Chain issues	None

#2

Subject	QuoVadis EV SSL ICA G3 Fingerprint SHA256: f18442bedf70b4d15211356c72b659332bed03ffd3b-ba7afaaabe6de9d723002 Pin SHA256: S0SyfMJffMM5SZRx8KboH82naxKe+XlFltR/gu3qSzg=
Valid until	Mon, 30 Nov 2026 16:21:01 UTC (expires in 7 years and 9 months)
Key	RSA 4096 bits (e 65537)
Issuer	QuoVadis Root CA 2 G3
Signature algorithm	SHA256withRSA

Certification Paths

Click here to expand

Configuration

Protocols

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

For TLS 1.3 tests, we only support RFC 8446.

Cipher Suites

 # TLS 1.3 (suites in server-preferred order)

TLS_AES_256_GCM_SHA384 (0x1302) ECDH secp256r1 (eq. 3072 bits RSA) FS	256
TLS_AES_128_GCM_SHA256 (0x1301) ECDH secp256r1 (eq. 3072 bits RSA) FS	128

 # TLS 1.2 (suites in server-preferred order)

TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (0xc030) ECDH secp256r1 (eq. 3072 bits RSA) FS	256
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (0xc028) ECDH secp256r1 (eq. 3072 bits RSA) FS	256
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (0xc014) ECDH secp256r1 (eq. 3072 bits RSA) FS	256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA (0x39) DH 2048 bits FS	256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA256 (0x6b) DH 2048 bits FS	256
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (0xc02f) ECDH secp256r1 (eq. 3072 bits RSA) FS	128
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (0xc027) ECDH secp256r1 (eq. 3072 bits RSA) FS	128
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (0xc013) ECDH secp256r1 (eq. 3072 bits RSA) FS	128
TLS_DHE_RSA_WITH_AES_256_GCM_SHA384 (0x9f) DH 2048 bits FS	256
TLS_DHE_RSA_WITH_AES_128_GCM_SHA256 (0x9e) DH 2048 bits FS	128
TLS_DHE_RSA_WITH_AES_128_CBC_SHA (0x33) DH 2048 bits FS	128
TLS_DHE_RSA_WITH_AES_128_CBC_SHA256 (0x67) DH 2048 bits FS	128

 # TLS 1.1 (suites in server-preferred order)

 # TLS 1.0 (suites in server-preferred order)

Handshake Simulation

Android 2.3.7 No SNI ²	RSA 2048 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_128_CBC_SHA DH 2048 FS
Android 4.0.4	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Android 4.1.1	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Android 4.2.2	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Android 4.3	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Android 4.4.2	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Android 5.0.0	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Android 6.0	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Android 7.0	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Baidu Jan 2015	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
BingPreview Jan 2015	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Chrome 49 / XP SP3	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Chrome 69 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Chrome 70 / Win 10	-	TLS 1.3	TLS_AES_256_GCM_SHA384 ECDH secp256r1 FS
Firefox 31.3.0 ESR / Win 7	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Firefox 47 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Firefox 49 / XP SP3	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Firefox 62 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Googlebot Feb 2018	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
IE 7 / Vista	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
IE 8 / XP No FS ¹ No SNI ²	Server sent fatal alert: handshake_failure		

IE 8-10 / Win 7 R	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
IE 11 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
IE 11 / Win 8.1 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
IE 10 / Win Phone 8.0	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
IE 11 / Win Phone 8.1 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
IE 11 / Win Phone 8.1 Update R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
IE 11 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Edge 15 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Edge 13 / Win Phone 10 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Java 6u45 No SNI [2]	Server sent fatal alert: handshake_failure		
Java 7u25	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA ECDH secp256r1 FS
Java 8u161	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
OpenSSL 0.9.8y	RSA 2048 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_256_CBC_SHA DH 2048 FS
OpenSSL 1.0.1l R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
OpenSSL 1.0.2e R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Safari 5.1.9 / OS X 10.6.8	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Safari 6 / iOS 6.0.1	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
Safari 6.0.4 / OS X 10.8.4 R	RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA ECDH secp256r1 FS
Safari 7 / iOS 7.1 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
Safari 7 / OS X 10.9 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
Safari 8 / iOS 8.4 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
Safari 8 / OS X 10.10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 ECDH secp256r1 FS
Safari 9 / iOS 9 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Safari 9 / OS X 10.11 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Safari 10 / iOS 10 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Safari 10 / OS X 10.12 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Apple ATS 9 / iOS 9 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Yahoo Slurp Jan 2015	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
YandexBot Jan 2015	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS

 # Not simulated clients (Protocol mismatch)

IE 6 / XP No FS [1] No SNI [2] Protocol mismatch (not simulated)

(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
BEAST attack	Not mitigated server-side (more info) TLS 1.0: `0xc014`
POODLE (SSLv3)	No, SSL 3 not supported (more info)
POODLE (TLS)	No (more info)
Downgrade attack prevention	**Yes, TLS_FALLBACK_SCSV supported** (more info)
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	Yes h2 http/1.1
NPN	No
Session resumption (caching)	Yes
Session resumption (tickets)	Yes
OCSP stapling	No
Strict Transport Security (HSTS)	**Yes** max-age=15638400
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, secp384r1, secp521r1 (server preferred order)
SSL 2 handshake compatibility	No

HTTP Requests

1 **https://www.cam.ac.uk/** (HTTP/1.1 200 OK)

Miscellaneous

Test date	Fri, 22 Feb 2019 12:06:53 UTC
Test duration	81.473 seconds
HTTP status code	200
HTTP server signature	Apache 4.7 (ZX81), GNUTLS 3.1415
Server hostname	tm-128-232-132-8.tm.uis.cam.ac.uk