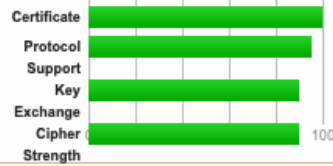


SSL Report: www.ed.ac.uk (129.215.228.101)Assessed on: Fri, 22 Feb 2019 14:44:46 UTC | [Hide](#) | [Clear cache](#)[Scan Another »](#)

Summary

Overall Rating



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 »](#)

Certificate #1: RSA 2048 bits (SHA256withRSA)



Server Key and Certificate #1

Subject	www.ed.ac.uk Fingerprint SHA256: ee340c8af9ab06cc304b01f74774961eefa3f1ecbe-e9425c1cd7ddcefd6faa5f Pin SHA256: E/J2zP+OTJkYu/33ZuPqPcxihuaJyYXdYkr4VQWszMY=
Common names	www.ed.ac.uk
Alternative names	www.ed.ac.uk
Serial Number	0d32eb19f841ad829726c8fcd8e5f166d2e047f0
Valid from	Tue, 29 Nov 2016 12:28:47 UTC
Valid until	Fri, 29 Nov 2019 12:28:43 UTC (expires in 9 months and 6 days)
Key	RSA 2048 bits (e 65537)
Weak key (Debian)	No
Issuer	QuoVadis Global SSL ICA G2 AIA: http://trust.quovadisglobal.com/qvsslsg2.crt
Signature algorithm	SHA256withRSA
Extended Validation	No
Certificate Transparency	No
OCSP Must Staple	No
Revocation information	CRL: OCSP CRL: http://crl.quovadisglobal.com/qvsslsg2.crl OCSP: http://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	3 (4115 bytes)
Chain issues	Contains anchor
#2	QuoVadis Global SSL ICA G2 Fingerprint SHA256: a4879ec0f36cf84b6f2ed87ae57e-e3b94a0785c6862238cd45481084d152eb18 Pin SHA256: tYkfFN27P1GUjH5ME128BCg302dL2iwOYhz5wwFJb50=
Subject	QuoVadis Global SSL ICA G2 Fingerprint SHA256: a4879ec0f36cf84b6f2ed87ae57e-e3b94a0785c6862238cd45481084d152eb18 Pin SHA256: tYkfFN27P1GUjH5ME128BCg302dL2iwOYhz5wwFJb50=
Valid until	Thu, 01 Jun 2023 13:35:05 UTC (expires in 4 years and 3 months)
Key	RSA 2048 bits (e 65537)
Issuer	QuoVadis Root CA 2
Signature algorithm	SHA256withRSA
#3	QuoVadis Root CA 2 In trust store Fingerprint SHA256: 85a0dd7dd720adb7f05f83d542b209dc7f4528f7d677b18389fe-a5e5c49e86 Pin SHA256: j9ESw8g3DxR9XM06fYZeuN1UB4O6xp/GAljJd/zM3g=
Subject	QuoVadis Root CA 2 In trust store Fingerprint SHA256: 85a0dd7dd720adb7f05f83d542b209dc7f4528f7d677b18389fe-a5e5c49e86 Pin SHA256: j9ESw8g3DxR9XM06fYZeuN1UB4O6xp/GAljJd/zM3g=
Valid until	Mon, 24 Nov 2031 18:23:33 UTC (expires in 12 years and 9 months)
Key	RSA 4096 bits (e 65537)
Issuer	QuoVadis Root CA 2 Self-signed
Signature algorithm	SHA1withRSA Weak, but no impact on root certificate

Configuration



Protocols

TLS 1.3	No
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 1.2 (suites in server-preferred order)			⋮
TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (0xc030)	EC DH secp256r1 (eq. 3072 bits RSA) FS	256	
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (0xc02f)	EC DH secp256r1 (eq. 3072 bits RSA) FS	128	
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (0xc028)	EC DH secp256r1 (eq. 3072 bits RSA) FS	256	
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (0xc027)	EC DH secp256r1 (eq. 3072 bits RSA) FS	128	
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (0xc014)	EC DH secp256r1 (eq. 3072 bits RSA) FS	256	
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (0xc013)	EC DH secp256r1 (eq. 3072 bits RSA) FS	128	
TLS_RSA_WITH_AES_256_CBC_SHA (0x35)	WEAK	256	
TLS_RSA_WITH_AES_128_CBC_SHA (0x2f)	WEAK	128	
# TLS 1.1 (suites in server-preferred order)			⋮
# TLS 1.0 (suites in server-preferred order)			⋮



Handshake Simulation

Android 2.3.7 SNI [*]	No	RSA 2048 (SHA256)	TLS 1.0	TLS_RSA_WITH_AES_128_CBC_SHA No FS
Android 4.0.4		RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA EC DH secp256r1 FS
Android 4.1.1		RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA EC DH secp256r1 FS
Android 4.2.2		RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA EC DH secp256r1 FS
Android 4.3		RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA EC DH secp256r1 FS
Android 4.4.2		RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
Android 5.0.0		RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 EC DH secp256r1 FS
Android 6.0		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 EC DH secp256r1 FS
Android 7.0		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
Baidu Jan 2015		RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA EC DH secp256r1 FS
BingPreview Jan 2015		RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
Chrome 49 / XP SP3		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 EC DH secp256r1 FS
Chrome 69 / Win 7 R		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
Chrome 70 / Win 10		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
Firefox 31.3.0 ESR / Win 7		RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 EC DH secp256r1 FS
Firefox 47 / Win 7 R		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 EC DH secp256r1 FS
Firefox 49 / XP SP3		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
Firefox 62 / Win 7 R		RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
Googlebot Feb 2018		RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 EC DH secp256r1 FS
IE 7 / Vista		RSA 2048 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA EC DH secp256r1 FS
IE 8 / XP No SNI [*]	No FS [*]	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_128_CBC_SHA256 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 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Edge 15 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Edge 13 / Win Phone 10 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Java 6u45 No SNI ²	RSA 2048 (SHA256)	TLS 1.0	TLS_RSA_WITH_AES_128_CBC_SHA No FS
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_RSA_WITH_AES_256_CBC_SHA No 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 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Safari 9 / OS X 10.11 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Safari 10 / iOS 10 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Safari 10 / OS X 10.12 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Apple ATS 9 / iOS 9 R	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	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 FS¹
No SNI²

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

	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	
DROWN		
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	With modern browsers (more info)	
ALPN	Yes http/1.1	
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	TLS 1.152 TLS 2.152	
Incorrect SNI alerts	No	
Uses common DH primes	No, DHE suites not supported	
DH public server param (Ys) reuse	No, DHE suites not supported	
ECDH public server param reuse	No	
Supported Named Groups	secp256r1, secp384r1, secp224r1, secp521r1 (server preferred order)	
SSL 2 handshake compatibility	Yes	



HTTP Requests



1 <https://www.ed.ac.uk/> (HTTP/1.1 200 OK)



Miscellaneous

Test date	Fri, 22 Feb 2019 14:42:46 UTC
Test duration	120.14 seconds
HTTP status code	200
HTTP server signature	Apache/2.4.6 (CentOS)
Server hostname	edwc.is.ed.ac.uk