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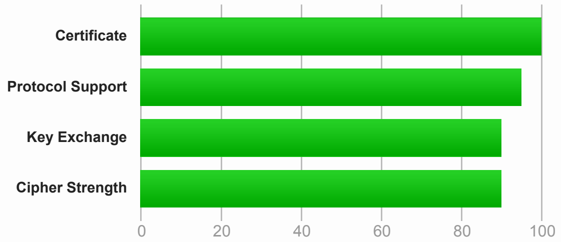
SSL Report: apps.apple.com (2600:1406:b000:18c:0:0:0:2a1)

Summary

Overall Rating

A+



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

This server supports TLS 1.0 and TLS 1.1. Grade will be capped to B from January 2020. 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	itunes.apple.com Fingerprint SHA256: 8d1433fae1f40b5847479cc0ea13daac611de2f6e4ca380ac3712f55809e632a Pin SHA256: q3XyMfeme/W+P4IV40xQ7nFZaMjcj2gIjsgDqwSTkBY=
Common names	itunes.apple.com
Alternative names	xp.apple.com web-experience.itunes.apple.com vpp-app.itunes.apple.com vocabulary.itunes.apple.com videos.apple.com uts-preview.itunes.apple.com uts-api.itunes.apple.com uts-api-siri.itunes.apple.com upp.itunes.apple.com tv.apple.com tf-feedback.itunes.apple.com sync.itunes.apple.com su.itunes.apple.com store.mzstatic.com sp.itunes.apple.com sitemaps.itunes.apple.com siri-search.itunes.apple.com sf-api-token-service.itunes.apple.com search.itunes.apple.com se2.itunes.apple.com se.itunes.apple.com se-edge.itunes.apple.com sb.tv.apple.com sb.music.apple.com s5.mzstatic.com s4.mzstatic.com s3.mzstatic.com s2.mzstatic.com s1.mzstatic.com s.mzstatic.com radio.itunes.apple.com radio-services.itunes.apple.com radio-quickplay.itunes.apple.com radio-activity.itunes.apple.com podcasts.apple.com play.itunes.apple.com play-edge.itunes.apple.com pd.itunes.apple.com pcr.apple.com partiality.itunes.apple.com np.itunes.apple.com np-edge.itunes.apple.com music.apple.com metrics.mzstatic.com itunesu.itunes.apple.com itunes.apple.com itc.mzstatic.com is5-ssl.mzstatic.com is4-ssl.mzstatic.com is3-ssl.mzstatic.com is2-ssl.mzstatic.com is1-ssl.mzstatic.com init.itunes.apple.com finance-app.itunes.apple.com files.itunes.apple.com embed.itunes.apple.com edge.itunes.apple.com edge-search.itunes.apple.com dzc-metrics.mzstatic.com desktop-store.itunes.apple.com desktop-music.itunes.apple.com desktop-music-legacy.itunes.apple.com configuration.apple.com client-api.itunes.apple.com carrierbundle.itunes.apple.com books.apple.com bookkeeper.itunes.apple.com bag.itunes.apple.com b5.mzstatic.com b4.mzstatic.com b3.mzstatic.com b2.mzstatic.com b1.mzstatic.com apps.mzstatic.com apps.apple.com api.videos.apple.com api.podcasts.apple.com api.music.apple.com api.itunes.apple.com api.edu.apple.com api.books.apple.com api.apps.apple.com api-edge.apps.apple.com amp-api.podcasts.apple.com amp-api-search-edge.apps.apple.com amp-api-edge.apps.apple.com accertify.mzstatic.com a5.mzstatic.com a4.mzstatic.com a3.mzstatic.com a2.mzstatic.com a1.mzstatic.com
Serial Number	0e50282b13571dfd78d4d902c6016a96
Valid from	Mon, 28 Oct 2019 00:00:00 UTC
Valid until	Wed, 28 Oct 2020 12:00:00 UTC (expires in 9 months and 3 days)

Key	RSA 2048 bits (e 65537)
Weak key (Debian)	No
Issuer	DigiCert SHA2 Extended Validation Server CA AIA: http://cacerts.digicert.com/DigiCertSHA2ExtendedValidationServerCA.crt
Signature algorithm	SHA256withRSA
Extended Validation	**Yes**
Certificate Transparency	**Yes (certificate)**
OCSP Must Staple	No
Revocation information	CRL, OCSP CRL: http://crl3.digicert.com/sha2-ev-server-g2.crl OCSP: http://ocsp.digicert.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 (5104 bytes)
Chain issues	None

#2

Subject	DigiCert SHA2 Extended Validation Server CA Fingerprint SHA256: 403e062a2653059113285baf80a0d4ae422c848c9f78fad01fc94bc5b87fef1a Pin SHA256: RRM1dGqnDFsCJXBTHky16vi1obOlCgFFn/yOhI/y+ho=
Valid until	Sun, 22 Oct 2028 12:00:00 UTC (expires in 8 years and 8 months)
Key	RSA 2048 bits (e 65537)
Issuer	DigiCert High Assurance EV Root CA
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 (server has no preference)

TLS_AES_128_GCM_SHA256 (0x1301) ECDH x25519 (eq. 3072 bits RSA) FS	128
TLS_AES_128_CCM_8_SHA256 (0x1305) ECDH x25519 (eq. 3072 bits RSA) FS	128
TLS_AES_128_CCM_SHA256 (0x1304) ECDH x25519 (eq. 3072 bits RSA) FS	128

TLS_AES_256_GCM_SHA384 (0x1302) ECDH x25519 (eq. 3072 bits RSA) FS	256
TLS_CHACHA20_POLY1305_SHA256 (0x1303) ECDH x25519 (eq. 3072 bits RSA) FS	256[P]

# 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_128_GCM_SHA256 (0xc02f) ECDH secp256r1 (eq. 3072 bits RSA) FS	128
TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 (0xcca8) ECDH secp256r1 (eq. 3072 bits RSA) FS	256[P]
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA384 (0xc028) ECDH secp256r1 (eq. 3072 bits RSA) FS **WEAK**	256
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (0xc014) ECDH secp256r1 (eq. 3072 bits RSA) FS **WEAK**	256
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256 (0xc027) ECDH secp256r1 (eq. 3072 bits RSA) FS **WEAK**	128
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (0xc013) ECDH secp256r1 (eq. 3072 bits RSA) FS **WEAK**	128
TLS_RSA_WITH_AES_256_GCM_SHA384 (0x9d) **WEAK**	256
TLS_RSA_WITH_AES_128_GCM_SHA256 (0x9c) **WEAK**	128
TLS_RSA_WITH_AES_256_CBC_SHA256 (0x3d) **WEAK**	256
TLS_RSA_WITH_AES_128_CBC_SHA256 (0x3c) **WEAK**	128
TLS_RSA_WITH_AES_128_CBC_SHA (0x2f) **WEAK**	128
TLS_RSA_WITH_3DES_EDE_CBC_SHA (0xa) **WEAK**	112

# TLS 1.1 (suites in server-preferred order) ⊞

# TLS 1.0 (suites in server-preferred order) ⊞

(P) This server prefers ChaCha20 suites with clients that don't have AES-NI (e.g., Android devices)

Handshake Simulation

Android 2.3.7 No SNI [2]	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 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_128_GCM_SHA256 ECDH secp256r1 FS
Android 6.0	RSA 2048 (SHA256)	TLS 1.2 > http/1.1	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 ECDH secp256r1 FS
Android 7.0	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Android 8.0	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256 ECDH secp256r1 FS
Android 8.1	-	TLS 1.3	TLS_CHACHA20_POLY1305_SHA256 ECDH x25519 FS
Android 9.0	-	TLS 1.3	TLS_CHACHA20_POLY1305_SHA256 ECDH x25519 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 x25519 FS
Chrome 75 / Win 10 R	-	TLS 1.3	TLS_AES_256_GCM_SHA384 ECDH x25519 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 > 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
Firefox 67 / Win 10 R	-	TLS 1.3	TLS_AES_256_GCM_SHA384 ECDH x25519 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]	RSA 2048 (SHA256)	TLS 1.0	TLS_RSA_WITH_3DES_EDE_CBC_SHA
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 16 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2 > h2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
Edge 18 / 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]	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
Java 11.0.3	-	TLS 1.3	TLS_AES_256_GCM_SHA384 ECDH secp256r1 FS
Java 12.0.1	-	TLS 1.3	TLS_AES_256_GCM_SHA384 ECDH secp256r1 FS
OpenSSL 0.9.8y	RSA 2048 (SHA256)	TLS 1.0	TLS_RSA_WITH_AES_128_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 1.0.2s R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
OpenSSL 1.1.0k R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 ECDH secp256r1 FS
OpenSSL 1.1.1c R	-	TLS 1.3	TLS_AES_256_GCM_SHA384 ECDH x25519 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
Safari 12.1.2 / MacOS 10.14.6 Beta R	-	TLS 1.3	TLS_CHACHA20_POLY1305_SHA256 ECDH x25519 FS
Safari 12.1.1 / iOS 12.3.1 R	-	TLS 1.3	TLS_CHACHA20_POLY1305_SHA256 ECDH x25519 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
Secure Renegotiation	**Supported**
Secure Client-Initiated Renegotiation	No

Insecure Client-Initiated Renegotiation	No
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)
Zombie POODLE	No (more info) TLS 1.2 : `0xc014`
GOLDENDOODLE	No (more info) TLS 1.2 : `0xc014`
OpenSSL 0-Length	No (more info) TLS 1.2 : `0xc014`
Sleeping POODLE	No (more info) TLS 1.2 : `0xc014`
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 h2 h2-14 http/1.1
NPN	Yes http/1.1 http/1.0
Session resumption (caching)	**No (IDs assigned but not accepted)**
Session resumption (tickets)	Yes
OCSP stapling	**Yes**
Strict Transport Security (HSTS)	**Yes** max-age=31536000; includeSubDomains
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, 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, x25519 (server preferred order)
SSL 2 handshake compatibility	Yes
0-RTT enabled	No

HTTP Requests

1 **https://apps.apple.com/** (HTTP/1.1 302 Moved Temporarily)

Miscellaneous

Test date	Fri, 24 Jan 2020 17:07:18 UTC
Test duration	107.734 seconds
HTTP status code	302
HTTP forwarding	https://www.apple.com
HTTP server signature	daiquiri/3.0.0
Server hostname	g2600-1406-b000-018c-0000-0000-0000-02a1.deploy.static.akamaitechnologies.com

SSL Report v2.0.7

Terms and Conditi