Qualys. SSL Labs

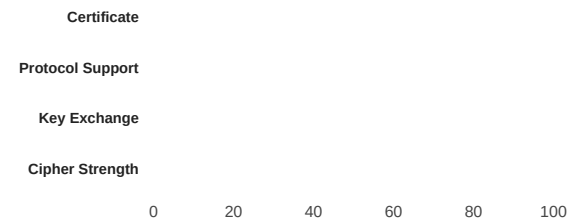
SSL Report: a3.tuyaeu.com (18.185.182.159)

Summary

Overall Rating

T

If trust issues are ignored: A



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

This server's certificate is not trusted, see below for details.

This server supports TLS 1.3.

Certificate #1: RSA 2048 bits (SHA256withRSA)

Server Key and Certificate #1

Subject	*.tuyacn.com *.tuyaeu.com *.tuyarf.com *.tuyajp.com *.tuyain.com *.tuyaas.com *.tuyaaf.com *.tuyasa.com *.wgine.com *.tuya-inc.cn *.tuyaus.com *.tuya.com Fingerprint SHA256: 1076a1508a0757ab5285abf4f5ce1df7570f4bd1d763e2d46dd3cf4a72f41af3 Pin SHA256: aKgOe1sCU5Ext79Su7pOcDRlkC3XU/eJ9GMoWvQSjEk=
Common names	*.tuyacn.com *.tuyaeu.com *.tuyarf.com *.tuyajp.com *.tuyain.com *.tuyaas.com *.tuyaaf.com *.tuyasa.com *.wgine.com *.tuya-inc.cn *.tuyaus.com *.tuya.com
Alternative names	- INVALID
Serial Number	0086cd856e1ee3ae33
Valid from	Wed, 31 Oct 2018 05:30:48 UTC
Valid until	Fri, 07 Oct 2118 05:30:48 UTC (expires in 94 years and 3 months)
Key	RSA 2048 bits (e 65537)
Weak key (Debian)	No
Issuer	*.tuyacn.com Self-signed
Signature algorithm	SHA256withRSA
Extended Validation	No
Certificate Transparency	No
OCSP Must Staple	No
Revocation information	None
DNS CAA	No (more info)
Trusted	No NOT TRUSTED (Why?) Mozilla Apple Android Java Windows

Additional Certificates (if supplied)

Certificates provided	1 (2002 bytes)
Chain issues	None

Certification Paths

Mozilla Apple Android Java Windows

Path #1: Not trusted (path does not chain to a trusted anchor)

1	Sent by server Not in trust store	*.tuyacn.com *.tuyaeu.com *.tuyarf.com *.tuyajp.com *.tuyain.com *.tuyaas.com *.tuyaaf.com *.tuyasa.com *.wgine.com *.tuya-inc.cn *.tuyaus.com *.tuya.com Self-signed Fingerprint SHA256: 1076a1508a0757ab5285abf4f5ce1df7570f4bd1d763e2d46dd3cf4a72f41af3 Pin SHA256: aKgOe1sCU5Ext79Su7pOcDRlkC3XU/eJ9GMoWvQSjEk= RSA 2048 bits (e 65537) / SHA256withRSA

Configuration

Protocols

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

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_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

 # TLS 1.2 (suites in server-preferred order)

TLS_PSK_WITH_AES_128_CBC_SHA256 (0xae) **WEAK**	128
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (0xc02f) ECDH x25519 (eq. 3072 bits RSA) FS	128

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_AES_128_GCM_SHA256	ECDH x25519 FS
Android 8.0	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH x25519 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
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_AES_128_GCM_SHA256	ECDH secp256r1 FS
Chrome 69 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH x25519 FS
Chrome 70 / Win 10	-	TLS 1.3	TLS_AES_128_GCM_SHA256	ECDH x25519 FS
Chrome 80 / Win 10 R	-	TLS 1.3	TLS_AES_128_GCM_SHA256	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	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH secp256r1 FS
Firefox 49 / XP SP3	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH secp256r1 FS
Firefox 62 / Win 7 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH x25519 FS
Firefox 73 / Win 10 R	-	TLS 1.3	TLS_AES_128_GCM_SHA256	ECDH x25519 FS
Googlebot Feb 2018	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH x25519 FS

Handshake Simulation

IE 11 / Win 7 R	Server sent fatal alert: handshake_failure			
IE 11 / Win 8.1 R	Server sent fatal alert: handshake_failure			
IE 11 / Win Phone 8.1 R	Server sent fatal alert: handshake_failure			
IE 11 / Win Phone 8.1 Update R	Server sent fatal alert: handshake_failure			
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 x25519 FS
Edge 16 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH x25519 FS
Edge 18 / Win 10 R	RSA 2048 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH x25519 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	-	TLS 1.3	TLS_AES_128_GCM_SHA256	ECDH secp256r1 FS
Java 12.0.1	-	TLS 1.3	TLS_AES_128_GCM_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_AES_128_GCM_SHA256	ECDH x25519 FS
OpenSSL 1.1.1c R	-	TLS 1.3	TLS_AES_256_GCM_SHA384	ECDH x25519 FS
Safari 6 / iOS 6.0.1	Server sent fatal alert: handshake_failure			
Safari 7 / iOS 7.1 R	Server sent fatal alert: handshake_failure			
Safari 7 / OS X 10.9 R	Server sent fatal alert: handshake_failure			
Safari 8 / iOS 8.4 R	Server sent fatal alert: handshake_failure			
Safari 8 / OS X 10.10 R	Server sent fatal alert: handshake_failure			
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	-	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	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

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	Unknown (more info)
GOLDENDOODLE	Unknown (more info)
OpenSSL 0-Length	Unknown (more info)
Sleeping POODLE	Unknown (more info)

Protocol Details

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	No
NPN	No
Session resumption (caching)	Yes
Session resumption (tickets)	Yes
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, DHE suites not supported
DH public server param (Ys) reuse	No, DHE suites not supported
ECDH public server param reuse	No
Supported Named Groups	x25519, secp256r1 (server preferred order)
SSL 2 handshake compatibility	No
0-RTT enabled	No

HTTP Requests

1 **https://a3.tuyaeu.com/** (HTTP/1.1 404 Not Found)

Miscellaneous

Test date	Mon, 10 Jun 2024 19:28:57 UTC
Test duration	70.430 seconds
HTTP status code	404
HTTP server signature	https
Server hostname	ec2-18-185-182-159.eu-central-1.compute.amazonaws.com

Why is my certificate not trusted?

There are many reasons why a certificate may not be trusted. The exact problem is indicated on the report card in bright red. The problems fall into three categories:

1. Invalid certificate
2. Invalid configuration
3. Unknown Certificate Authority

1. Invalid certificate

A certificate is invalid if:

- It is used before its activation date
- It is used after its expiry date
- Certificate hostnames don't match the site hostname
- It has been revoked
- It has insecure signature
- It has been blacklisted

2. Invalid configuration

In some cases, the certificate chain does not contain all the necessary certificates to connect the web server certificate to one of the root certificates in our trust store. Less commonly, one of the certificates in the chain (other than the web server certificate) will have expired, and that invalidates the entire chain.

3. Unknown Certificate Authority

In order for trust to be established, we must have the root certificate of the signing Certificate Authority in our trust store. SSL Labs does not maintain its own trust store; instead we use the store maintained by Mozilla.

If we mark a web site as not trusted, that means that the average web user's browser will not trust it either. For certain special groups of users, such web sites can still be secure. For example, if you can securely verify that a self-signed web site is operated by a person you trust, then you can trust that self-signed web site too. Or, if you work for an organisation that manages its own trust, and you have their own root certificate already embedded in your browser. Such special cases do not work for the general public, however, and this is what we indicate on our report card.

4. Interoperability issues

In some rare cases trust cannot be established because of interoperability issues between our code and the code or configuration running on the server. We manually review such cases, but if you encounter such an issue please feel free to contact us. Such problems are very difficult to troubleshoot and you may be able to provide us with information that might help us determine the root cause.

SSL Report v2.3.0