



# Zeitgemäße Webserver-Konfiguration

Ein Serviervorschlag

# Protokolle

# HTTP

Seit 1991

# TLS 1.0

1999

# TLS I.1

2006

# TLS 1.2

2008

**HTTP/S**

**SPDY**

2009



# HTTP/2

2012 .. 2015

# HTTP/2

2012 .. 2015

# Motivation

**2016**

# Szenarien

**Status Quo**

# SSL Labs

<https://www.ssllabs.com/>

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## SSL Server Test

This free online service performs a deep analysis of the configuration of any SSL web server on the public Internet. **Please note that the information you submit here is used only to provide you the service. We don't use the domain names or the test results, and we never will.**

Hostname:

 Do not show the results on the boards

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You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > cert.at

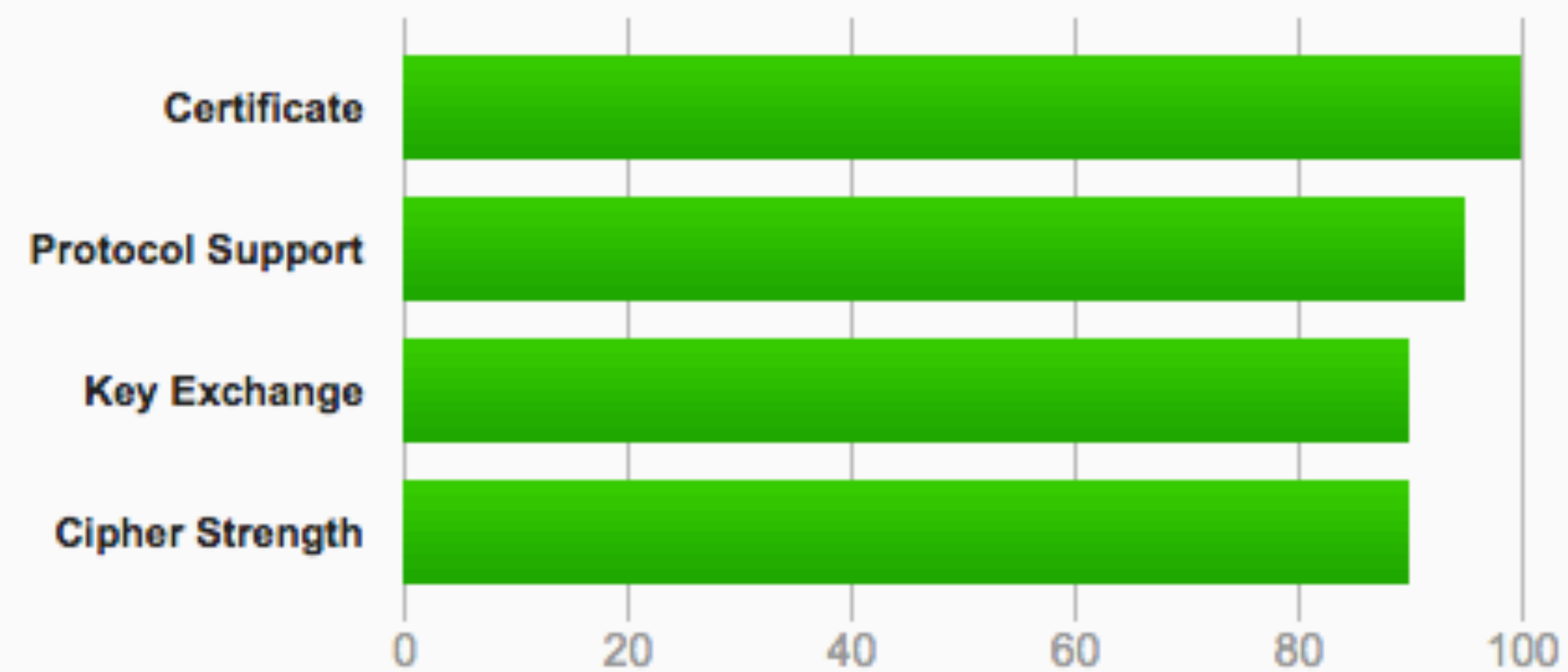
## SSL Report: cert.at (83.136.38.146)

Assessed on: Wed, 11 May 2016 11:45:04 UTC | **HIDDEN** | [Clear cache](#)

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### Summary

Overall Rating



Visit our [documentation page](#) for more information, configuration guides, and books. Known issues are documented [here](#).

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

# Authentication



## Server Key and Certificate #1



<b>Subject</b>	www.cert.at Fingerprint SHA1: 65a90b82d70498a38610ee8f8890453f89569cdd Pin SHA256: sXFif0uwTrjf/esuseltUSax6SQExOIMQunrIL6MBJM=
<b>Common names</b>	www.cert.at
<b>Alternative names</b>	www.cert.at cert.at wallace.cert.at
<b>Valid from</b>	Mon, 09 Mar 2015 00:00:00 UTC
<b>Valid until</b>	Thu, 08 Mar 2018 23:59:59 UTC (expires in 1 year and 9 months)
<b>Key</b>	RSA 4096 bits (e 65537)
<b>Weak key (Debian)</b>	No
<b>Issuer</b>	TERENA SSL CA 2 AIA: <a href="http://crt.usertrust.com/TERENASSLCA2.crt">http://crt.usertrust.com/TERENASSLCA2.crt</a>
<b>Signature algorithm</b>	SHA256withRSA
<b>Extended Validation</b>	No
<b>Certificate Transparency</b>	No
<b>Revocation information</b>	CRL, OCSP CRL: <a href="http://crl.usertrust.com/TERENASSLCA2.crl">http://crl.usertrust.com/TERENASSLCA2.crl</a> OCSP: <a href="http://ocsp.usertrust.com">http://ocsp.usertrust.com</a>
<b>Revocation status</b>	Good (not revoked)
<b>Trusted</b>	<b>Yes</b>



## Additional Certificates (if supplied)



Certificates provided 4 (5472 bytes)

Chain issues Contains anchor

### #2

**Subject** TERENA SSL CA 2  
Fingerprint SHA1: 38525c7140d285040e02dd2a7f3c7dba21042e01  
Pin SHA256: PYHJ7Ok9y2OoV3yMZFAcH45HI64yll/qcT9kRYmQFTY=  
**Valid until** Tue, 08 Oct 2024 23:59:59 UTC (expires in 8 years and 4 months)  
**Key** RSA 2048 bits (e 65537)  
**Issuer** USERTrust RSA Certification Authority  
**Signature algorithm** SHA384withRSA

### #3

**Subject** USERTrust RSA Certification Authority  
Fingerprint SHA1: eab040689a0d805b5d6fd654fc168cff00b78be3  
Pin SHA256: x4QzPSC810K5/cMjb05Qm4k3Bw5zBn4ITdO/nEW/Td4=  
**Valid until** Sat, 30 May 2020 10:48:38 UTC (expires in 4 years)  
**Key** RSA 4096 bits (e 65537)  
**Issuer** AddTrust External CA Root  
**Signature algorithm** SHA384withRSA

### #4

**Subject** AddTrust External CA Root **In trust store**  
Fingerprint SHA1: 02faf3e291435468607857694df5e45b68851868  
Pin SHA256: ICppFqbkrJ3EcVFAkeip0+44VaoJUymbnOaEUk7tEU=  
**Valid until** Sat, 30 May 2020 10:48:38 UTC (expires in 4 years)  
**Key** RSA 2048 bits (e 65537)  
**Issuer** AddTrust External CA Root Self-signed  
**Signature algorithm** SHA1withRSA Weak, but no impact on root certificate



## Certification Paths

### Path #1: Trusted



1	Sent by server	<b>www.cert.at</b> Fingerprint SHA1: 65a90b82d70498a38610ee8f8890453f89569cdd Pin SHA256: sXFIf0uwTrjff/esuseltUSax6SQExOIMQunrIL6MBJM= RSA 4096 bits (e 65537) / SHA256withRSA
2	Sent by server	<b>TERENA SSL CA 2</b> Fingerprint SHA1: 38525c7140d285040e02dd2a7f3c7dba21042e01 Pin SHA256: PYHJ7Ok9y2OoV3yMZFAcH45HI64yll/qcT9kRYmQFTY= RSA 2048 bits (e 65537) / SHA384withRSA
3	In trust store	<b>USERTrust RSA Certification Authority Self-signed</b> Fingerprint SHA1: 2b8f1b57330dbba2d07a6c51f70ee90ddab9ad8e Pin SHA256: x4QzPSC810K5/cMjb05Qm4k3Bw5zBn4ITdO/nEW/Td4= RSA 4096 bits (e 65537) / SHA384withRSA

### Path #2: Trusted



1	Sent by server	<b>www.cert.at</b> Fingerprint SHA1: 65a90b82d70498a38610ee8f8890453f89569cdd Pin SHA256: sXFIf0uwTrjff/esuseltUSax6SQExOIMQunrIL6MBJM= RSA 4096 bits (e 65537) / SHA256withRSA
2	Sent by server	<b>TERENA SSL CA 2</b> Fingerprint SHA1: 38525c7140d285040e02dd2a7f3c7dba21042e01 Pin SHA256: PYHJ7Ok9y2OoV3yMZFAcH45HI64yll/qcT9kRYmQFTY= RSA 2048 bits (e 65537) / SHA384withRSA
3	Sent by server	<b>USERTrust RSA Certification Authority</b> Fingerprint SHA1: eab040689a0d805b5d6fd654fc168cff00b78be3 Pin SHA256: x4QzPSC810K5/cMjb05Qm4k3Bw5zBn4ITdO/nEW/Td4= RSA 4096 bits (e 65537) / SHA384withRSA
4	Sent by server In trust store	<b>AddTrust External CA Root Self-signed</b> Fingerprint SHA1: 02faf3e291435468607857694df5e45b68851868 Pin SHA256: ICppFqbkrJ3EcVFAkeip0+44VaoJUymbnOaEUK7tEU= RSA 2048 bits (e 65537) / SHA1withRSA Weak or insecure signature, but no impact on root certificate

## Configuration



### Protocols

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

# Die TLS Ampel

TLS 1.3

TLS 1.2

TLS 1.1

TLS 1.0

~~SSLv3~~

~~SSLv2~~



## Cipher Suites (SSL 3+ suites in server-preferred order; deprecated and SSL 2 suites at the end)

TLS_DHE_RSA_WITH_AES_256_GCM_SHA384 (0x9f) DH 4096 bits FS	256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA256 (0x6b) DH 4096 bits FS	256
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_DHE_RSA_WITH_AES_128_GCM_SHA256 (0x9e) DH 4096 bits FS	128
TLS_DHE_RSA_WITH_AES_128_CBC_SHA256 (0x67) DH 4096 bits FS	128
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_DHE_RSA_WITH_CAMELLIA_256_CBC_SHA (0x88) DH 4096 bits FS	256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA (0x39) DH 4096 bits FS	256
TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA (0xc014) ECDH secp256r1 (eq. 3072 bits RSA) FS	256
TLS_DHE_RSA_WITH_CAMELLIA_128_CBC_SHA (0x45) DH 4096 bits FS	128
TLS_DHE_RSA_WITH_AES_128_CBC_SHA (0x33) DH 4096 bits FS	128
TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA (0xc013) ECDH secp256r1 (eq. 3072 bits RSA) FS	128
TLS_RSA_WITH_CAMELLIA_256_CBC_SHA (0x84)	256
TLS_RSA_WITH_AES_256_CBC_SHA (0x35)	256
TLS_RSA_WITH_CAMELLIA_128_CBC_SHA (0x41)	128
TLS_RSA_WITH_AES_128_CBC_SHA (0x2f)	128



## Handshake Simulation

<a href="#">Android 2.3.7</a> <small>No SNI<sup>2</sup></small>	RSA 4096 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_128_CBC_SHA	DH 4096	FS
<a href="#">Android 4.0.4</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_256_CBC_SHA	DH 4096	FS
<a href="#">Android 4.1.1</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_256_CBC_SHA	DH 4096	FS
<a href="#">Android 4.2.2</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_256_CBC_SHA	DH 4096	FS
<a href="#">Android 4.3</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_256_CBC_SHA	DH 4096	FS
<a href="#">Android 4.4.2</a>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">Android 5.0.0</a>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256	DH 4096	FS
<a href="#">Baidu Jan 2015</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_CAMELLIA_256_CBC_SHA	DH 4096	FS
<a href="#">BingPreview Jan 2015</a>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">Chrome 48 / OS X</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_128_GCM_SHA256	DH 4096	FS
<a href="#">Firefox 31.3.0 ESR / Win 7</a>	RSA 4096 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH secp256r1	FS
<a href="#">Firefox 42 / OS X</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH secp256r1	FS
<a href="#">Firefox 44 / OS X</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH secp256r1	FS
<a href="#">Googlebot Feb 2015</a>	RSA 4096 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256	ECDH secp256r1	FS
<a href="#">IE 6 / XP</a> <small>No FS<sup>1</sup> No SNI<sup>2</sup></small>	Server closed connection				
<a href="#">IE 7 / Vista</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA	ECDH secp256r1	FS
<a href="#">IE 8 / XP</a> <small>No FS<sup>1</sup> No SNI<sup>2</sup></small>	Server sent fatal alert: handshake_failure				
<a href="#">IE 8-10 / Win 7</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA	ECDH secp256r1	FS
<a href="#">IE 11 / Win 7</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">IE 11 / Win 8.1</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">IE 10 / Win Phone 8.0</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA	ECDH secp256r1	FS
<a href="#">IE 11 / Win Phone 8.1</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256	ECDH secp256r1	FS
<a href="#">IE 11 / Win Phone 8.1 Update</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">IE 11 / Win 10</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">Edge 13 / Win 10</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">Edge 13 / Win Phone 10</a> <small>R</small>	RSA 4096 (SHA256)	TLS 1.2	TLS_DHE_RSA_WITH_AES_256_GCM_SHA384	DH 4096	FS
<a href="#">Java 6u45</a> <small>No SNI<sup>2</sup></small>	Client does not support DH parameters > 1024 bits RSA 4096 (SHA256)   TLS 1.0   TLS_DHE_RSA_WITH_AES_128_CBC_SHA   DH 4096				
<a href="#">Java 7u25</a>	Client does not support DH parameters > 1024 bits RSA 4096 (SHA256)   TLS 1.0   TLS_DHE_RSA_WITH_AES_128_CBC_SHA   DH 4096				
<a href="#">Java 8u31</a>	Client does not support DH parameters > 2048 bits RSA 4096 (SHA256)   TLS 1.2   TLS_DHE_RSA_WITH_AES_128_GCM_SHA256   DH 4096				
<a href="#">OpenSSL 0.9.8y</a>	RSA 4096 (SHA256)	TLS 1.0	TLS_DHE_RSA_WITH_AES_256_CBC_SHA	DH 4096	FS





## Protocol Details

	No, server keys and hostname not seen elsewhere with SSLv2
<b>DROWN (experimental)</b>	(1) For a better understanding of this test, please read <a href="#">this longer explanation</a> (2) Key usage data kindly provided by the <a href="#">Censys</a> network search engine; original DROWN test <a href="#">here</a> (3) Censys data is only indicative of possible key and certificate reuse; possibly out-of-date and not complete
<b>Secure Renegotiation</b>	<b>Supported</b>
Secure Client-Initiated Renegotiation	No
Insecure Client-Initiated Renegotiation	No
<b>BEAST attack</b>	Not mitigated server-side ( <a href="#">more info</a> ) TLS 1.0: 0x88
<b>POODLE (SSLv3)</b>	No, SSL 3 not supported ( <a href="#">more info</a> )
<b>POODLE (TLS)</b>	No ( <a href="#">more info</a> )
<b>Downgrade attack prevention</b>	<b>Yes, TLS_FALLBACK_SCSV supported</b> ( <a href="#">more info</a> )
SSL/TLS compression	No
RC4	No
Heartbeat (extension)	Yes
Heartbleed (vulnerability)	No ( <a href="#">more info</a> )
OpenSSL CCS vuln. (CVE-2014-0224)	No ( <a href="#">more info</a> )
<b>Forward Secrecy</b>	<b>Yes (with most browsers) ROBUST</b> ( <a href="#">more info</a> )
ALPN	No
NPN	No
Session resumption (caching)	Yes
Session resumption (tickets)	Yes
OCSP stapling	No
<b>Strict Transport Security (HSTS)</b>	<b>Yes</b> max-age=15768000
HSTS Preloading	Not in: Chrome Edge Firefox IE Tor
Public Key Pinning (HPKP)	No
Public Key Pinning Report-Only	No
Long handshake intolerance	No
TLS extension intolerance	No
TLS version intolerance	No
<b>Incorrect SNI alerts</b>	<b>cert.at</b>
Uses common DH primes	No
DH public server param (Ys) reuse	No
SSL 2 handshake compatibility	Yes



### Miscellaneous

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**Test date** Wed, 11 May 2016 11:42:54 UTC

**Test duration** 130.432 seconds

**HTTP status code** 200

**HTTP server signature** Apache

**Server hostname** wallace.cert.at

---

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > maclemon.at

## SSL Report: maclemon.at

Assessed on: Fri, 29 Apr 2016 15:50:24 UTC | **HIDDEN** | [Clear cache](#)

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	Server	Test time	Grade
1	<a href="#">2001:470:6f:4ca:9a26:fb93:ba1c:e29a</a> Ready	Fri, 29 Apr 2016 15:44:58 UTC Duration: 157.904 sec	<b>A+</b>
2	<a href="#">86.59.70.21</a> pandora.maclemon.at Ready	Fri, 29 Apr 2016 15:47:36 UTC Duration: 168.489 sec	<b>A+</b>

SSL Report v1.22.37

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## SSL Report: yahoo.com

Assessed on: Wed, 11 May 2016 11:09:07 UTC | [Clear cache](#)

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	Server	Test time	Grade
1	<a href="#">98.139.183.24</a> ir2.fp.vip.bf1.yahoo.com Ready	Wed, 11 May 2016 11:01:03 UTC Duration: 88.971 sec	A
2	<a href="#">206.190.36.45</a> ir1.fp.vip.gq1.yahoo.com Ready	Wed, 11 May 2016 11:02:32 UTC Duration: 71.255 sec	A
3	<a href="#">98.138.253.109</a> ir1.fp.vip.ne1.yahoo.com Ready	Wed, 11 May 2016 11:03:43 UTC Duration: 80.807 sec	A
4	<a href="#">2001:4998:58:c02:0:0:0:a9</a> ir1.fp.vip.bf1.yahoo.com Ready	Wed, 11 May 2016 11:05:04 UTC Duration: 89.403 sec	A
5	<a href="#">2001:4998:c:a06:0:0:2:4008</a> ir1.fp.vip.gq1.yahoo.com Ready	Wed, 11 May 2016 11:06:33 UTC Duration: 72.571 sec	A
6	<a href="#">2001:4998:44:204:0:0:0:a7</a> ir1.fp.vip.ne1.yahoo.com Ready	Wed, 11 May 2016 11:07:46 UTC Duration: 81.577 sec	A

SSL Report v1.22.37

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## SSL Report: outlook.com

Assessed on: Tue, 10 May 2016 16:59:04 UTC | **HIDDEN** | [Clear cache](#)

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	Server	Test time	Grade
1	<a href="#">132.245.92.194</a> Ready	Tue, 10 May 2016 16:49:02 UTC Duration: 59.635 sec	<b>B</b>
2	<a href="#">132.245.23.242</a> Ready	Tue, 10 May 2016 16:50:01 UTC Duration: 72.852 sec	<b>B</b>
3	<a href="#">132.245.17.34</a> Ready	Tue, 10 May 2016 16:51:14 UTC Duration: 77.326 sec	<b>B</b>
4	<a href="#">132.245.13.210</a> Ready	Tue, 10 May 2016 16:52:32 UTC Duration: 76.303 sec	<b>B</b>
5	<a href="#">157.56.237.242</a> Ready	Tue, 10 May 2016 16:53:48 UTC Duration: 53.437 sec	<b>B</b>
6	<a href="#">132.245.113.194</a> Ready	Tue, 10 May 2016 16:54:41 UTC Duration: 68.344 sec	<b>B</b>
7	<a href="#">132.245.21.82</a> Ready	Tue, 10 May 2016 16:55:50 UTC Duration: 67.914 sec	<b>B</b>
8	<a href="#">132.245.81.130</a> Ready	Tue, 10 May 2016 16:56:58 UTC Duration: 53.699 sec	<b>B</b>
9	<a href="#">157.56.242.98</a> Ready	Tue, 10 May 2016 16:57:51 UTC Duration: 72.980 sec	<b>B</b>

SSL Report v1.22.37

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > icloud.com

## SSL Report: icloud.com

Assessed on: Wed, 11 May 2016 11:11:28 UTC | [Clear cache](#)

[Scan Another >>](#)

	Server	Test time	Grade
1	<a href="#">17.142.164.49</a> icloud.com Ready	Wed, 11 May 2016 10:54:19 UTC Duration: 56.224 sec	C
2	<a href="#">17.167.154.49</a> icloud.com Ready	Wed, 11 May 2016 10:55:15 UTC Duration: 72.144 sec	C
3	<a href="#">17.167.152.81</a> icloud.com Ready	Wed, 11 May 2016 10:56:27 UTC Duration: 71.570 sec	C
4	<a href="#">17.172.192.55</a> icloud.org Ready	Wed, 11 May 2016 10:57:39 UTC Duration: 71.533 sec	C
5	<a href="#">17.158.10.94</a> icloud.com Ready	Wed, 11 May 2016 10:58:50 UTC Duration: 63.584 sec	C
6	<a href="#">17.158.28.83</a> icloud.com Ready	Wed, 11 May 2016 10:59:54 UTC Duration: 62.89 sec	C
7	<a href="#">17.133.238.52</a> icloud.com Ready	Wed, 11 May 2016 11:00:56 UTC Duration: 56.690 sec	C
8	<a href="#">17.172.208.84</a> icloud.com Ready	Wed, 11 May 2016 11:01:53 UTC Duration: 73.59 sec	C
9	<a href="#">17.133.236.52</a> icloud.com Ready	Wed, 11 May 2016 11:03:06 UTC Duration: 56.984 sec	C
	<a href="#">17.110.244.84</a>		

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > openbsd.org

## SSL Report: openbsd.org (129.128.5.194)

Assessed on: Fri, 29 Apr 2016 15:49:34 UTC | **HIDDEN** | [Clear cache](#)

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Assessment failed: Unable to connect to the server

### Known Problems

There are some errors that we cannot fix properly in the current version. They will be addressed in the next generation version, which is currently being developed.

- **No secure protocols supported** - if you get this message, but you know that the site supports SSL, wait until the cache expires on its own, then try again, making sure the hostname you enter uses the "www" prefix (e.g., "www.ssllabs.com", not just "ssllabs.com").
- **no more data allowed for version 1 certificate** - the certificate is invalid; it is declared as version 1, but uses extensions, which were introduced in version 3. Browsers might ignore this problem, but our parser is strict and refuses to proceed. We'll try to find a different parser to avoid this problem.
- **Failed to obtain certificate** and **Internal Error** - errors of this type will often be reported for servers that use connection rate limits or block connections in response to unusual traffic. Problems of this type are very difficult to diagnose. If you have access to the server being tested, before reporting a problem to us, please check that there is no rate limiting or IDS in place.
- **NetScaler issues** - some NetScaler versions appear to reject SSL handshakes that do not include certain suites or handshakes that use a few suites. If the test is failing and there is a NetScaler load balancer in place, that's most likely the reason.
- **Unexpected failure** - our tests are designed to fail when unusual results are observed. This usually happens when there are multiple TLS servers behind the same IP address. In such cases we can't provide accurate results, which is why we fail.

### Common Error Messages

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > openbsd.org

## SSL Report: openbsd.org (129.128.5.194)

Assessed on: Wed, 11 May 2016 13:51:13 UTC | **HIDDEN** | [Clear cache](#)

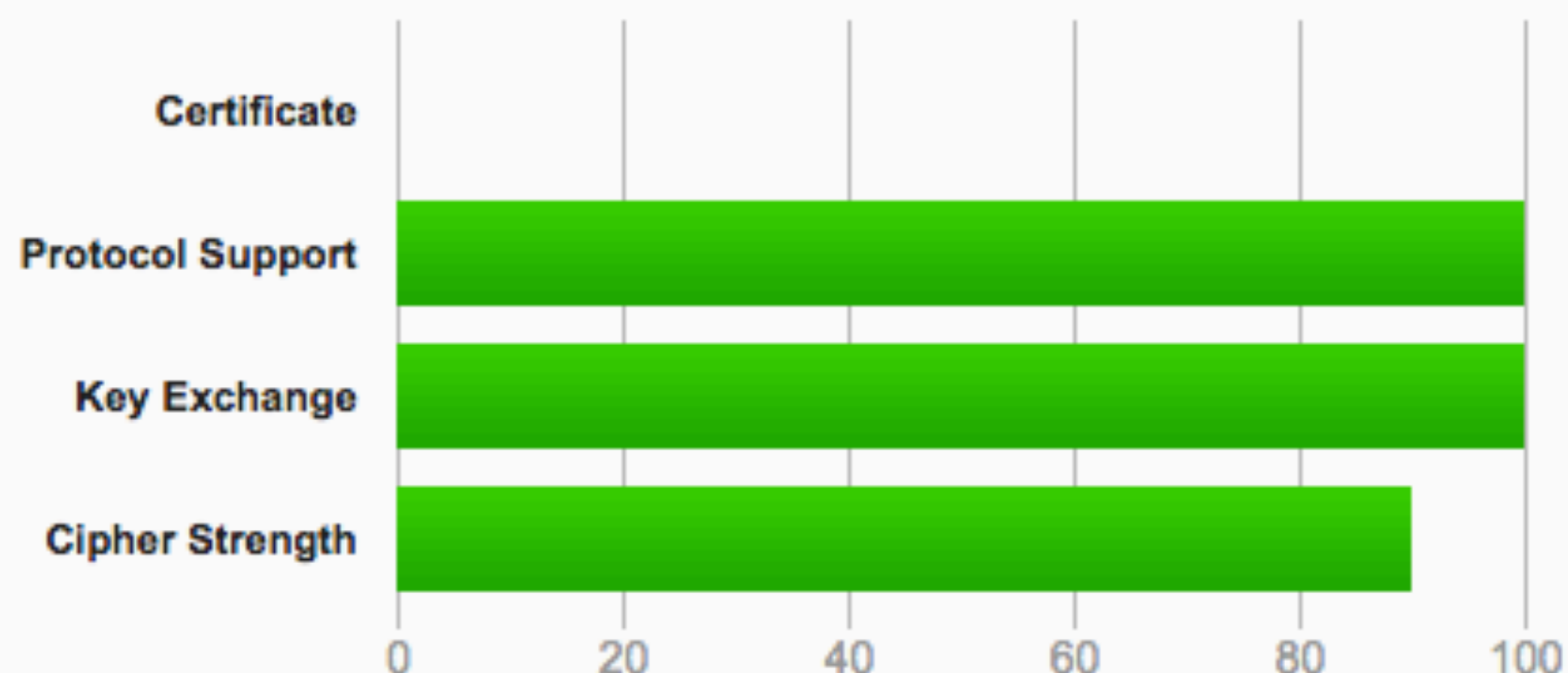
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### Summary

#### Overall Rating



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.



You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > [redacted].gv.at

## SSL Report: [redacted].gv.at [redacted]

Assessed on: Fri, 29 Apr 2016 16:06:25 UTC | **HIDDEN** | [Clear cache](#)

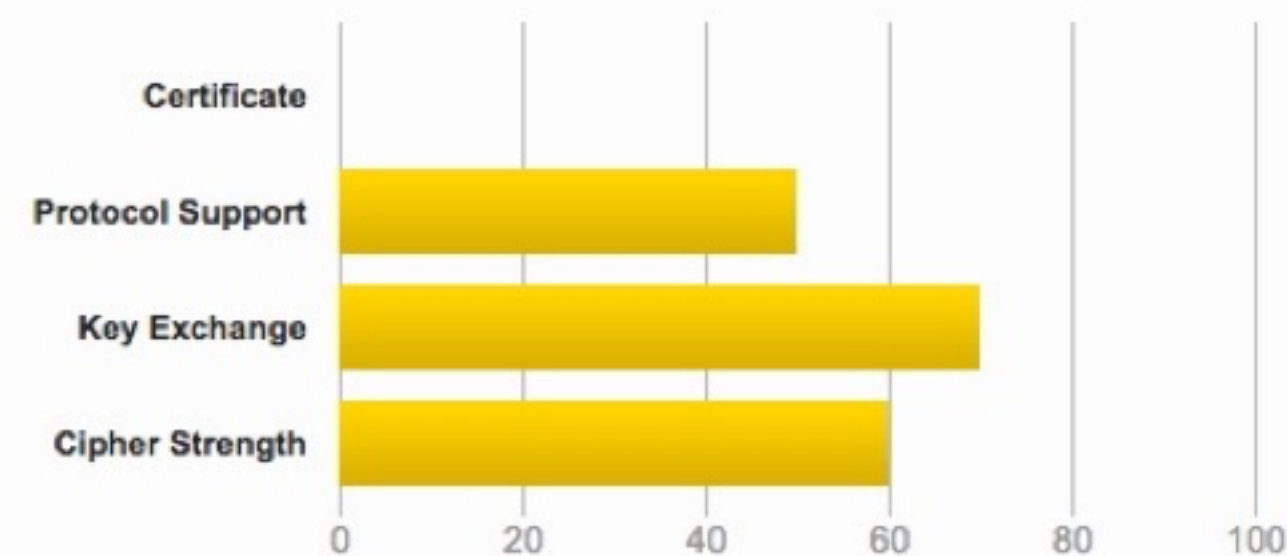
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### Summary

#### Overall Rating



If trust issues are ignored: C



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 is vulnerable to the POODLE attack. If possible, disable SSL 3 to mitigate. Grade capped to C. [MORE INFO »](#)

This server supports weak Diffie-Hellman (DH) key exchange parameters. Grade capped to B. [MORE INFO »](#)

Certificate uses a weak signature. When renewing, ensure you upgrade to SHA2. [MORE INFO »](#)

The server supports only older protocols, but not the current best TLS 1.2. Grade capped to C. [MORE INFO »](#)

The server private key is not strong enough. Grade capped to B.

This server accepts RC4 cipher, but only with older protocol versions. Grade capped to B. [MORE INFO »](#)

The server does not support Forward Secrecy with the reference browsers. [MORE INFO »](#)



<b>Subject</b>	.gv.at Fingerprint SHA1: fcc979e0dd8a12076014bba7f22927500354170f Pin SHA256: aN5tDiTgq7aloa7UW+UdfNTF3A+N1YAgu0mW1SgjfNo=
<b>Common names</b>	.gv.at <b>MISMATCH</b>
<b>Alternative names</b>	-
<b>Valid from</b>	Mon, 26 Nov 2007 14:52:01 UTC
<b>Valid until</b>	Tue, 25 Nov 2008 14:52:01 UTC (expired 7 years and 5 months ago) <b>EXPIRED</b>
<b>Key</b>	RSA 1024 bits (Exponent 65537) <b>WEAK</b>
<b>Weak key (Debian)</b>	No
<b>Issuer</b>	.gv.at Self-signed
<b>Signature algorithm</b>	SHA1withRSA <b>WEAK</b>
<b>Extended Validation</b>	No
<b>Certificate Transparency</b>	No
<b>Revocation information</b>	None
<b>Trusted</b>	No <b>NOT TRUSTED</b> ( <a href="#">Why?</a> )



### Additional Certificates (if supplied)

<b>Certificates provided</b>	1 (1042 bytes)
<b>Chain issues</b>	Contains anchor



### Certification Paths

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

		.gv.at Self-signed Fingerprint SHA1: fcc979e0dd8a12076014bba7f22927500354170f Pin SHA256: aN5tDiTgq7aloa7UW+UdfNTF3A+N1YAgu0mW1SgjfNo=
1	Sent by server Not in trust store	RSA 1024 bits (e 65537) / SHA1withRSA Valid until: Tue, 25 Nov 2008 14:52:01 UTC <b>EXPIRED WEAK KEY</b> Weak or insecure signature, but no impact on root certificate

# Configuration



## Protocols

TLS 1.2	No
TLS 1.1	No
TLS 1.0	Yes
SSL 3 <b>INSECURE</b>	Yes
SSL 2	No



## Cipher Suites (sorted by strength as the server has no preference; deprecated and SSL 2 suites at the end)

TLS_RSA_WITH_DES_CBC_SHA (0x9) <b>WEAK</b>	56
TLS_DHE_RSA_WITH_DES_CBC_SHA (0x15) DH 1024 bits FS <b>WEAK</b>	56
TLS_RSA_WITH_3DES_EDE_CBC_SHA (0xa)	112
TLS_DHE_RSA_WITH_3DES_EDE_CBC_SHA (0x16) DH 1024 bits FS <b>WEAK</b>	112
TLS_RSA_WITH_RC4_128_MD5 (0x4) <b>INSECURE</b>	128
TLS_RSA_WITH_RC4_128_SHA (0x5) <b>INSECURE</b>	128
TLS_RSA_WITH_AES_128_CBC_SHA (0x2f)	128
TLS_DHE_RSA_WITH_AES_128_CBC_SHA (0x33) DH 1024 bits FS <b>WEAK</b>	128
TLS_RSA_WITH_AES_256_CBC_SHA (0x35)	256
TLS_DHE_RSA_WITH_AES_256_CBC_SHA (0x39) DH 1024 bits FS <b>WEAK</b>	256

# HTTP Response Header

# Security Headers

<https://securityheaders.io>

# Scan your site now

 Hide results

## Grand Totals

<b>A+</b>	52,631
<b>A</b>	58,483
<b>B</b>	43,164
<b>C</b>	2,170
<b>D</b>	36,204
<b>E</b>	188,265
<b>F</b>	192,728
<b>R</b>	136,670
<b>Total</b>	710,315

## Recent Scans

<a href="http://www.nubix.nl">www.nubix.nl</a>	<b>E</b>
<a href="http://rungo.idnes.cz">rungo.idnes.cz</a>	<b>F</b>
<a href="http://vyvoj1.larx.cz">vyvoj1.larx.cz</a>	<b>A</b>
<a href="http://sso.yatun.cz">sso.yatun.cz</a>	<b>E</b>
<a href="http://www.file.io">www.file.io</a>	<b>F</b>
<a href="http://www.fidelity.com">www.fidelity.com</a>	<b>F</b>
<a href="http://bistrodengi.ru">bistrodengi.ru</a>	<b>B</b>
<a href="http://wien52.at">wien52.at</a>	<b>F</b>
<a href="http://orf.at">orf.at</a>	<b>F</b>

## Hall of Fame

<a href="http://vyvoj1.larx.cz">vyvoj1.larx.cz</a>	<b>A</b>
<a href="http://www.wetterstation-...">www.wetterstation-...</a>	<b>A+</b>
<a href="http://securityheaders.io">securityheaders.io</a>	<b>A</b>
<a href="http://penfold.fr">penfold.fr</a>	<b>A</b>
<a href="http://www.slevomat.cz">www.slevomat.cz</a>	<b>A+</b>
<a href="http://raspi.madavi.de">raspi.madavi.de</a>	<b>A</b>
<a href="http://addons.mozilla.org">addons.mozilla.org</a>	<b>A</b>
<a href="http://www.handicapmaster...">www.handicapmaster...</a>	<b>A+</b>
<a href="http://www.michalspacek.c...">www.michalspacek.c...</a>	<b>A</b>

## Hall of Shame

<a href="http://rungo.idnes.cz">rungo.idnes.cz</a>	<b>F</b>
<a href="http://www.file.io">www.file.io</a>	<b>F</b>
<a href="http://www.fidelity.com">www.fidelity.com</a>	<b>F</b>
<a href="http://wien52.at">wien52.at</a>	<b>F</b>
<a href="http://orf.at">orf.at</a>	<b>F</b>
<a href="http://onlinebanking.nati...">onlinebanking.nati...</a>	<b>F</b>
<a href="http://uk.passion-radio.c...">uk.passion-radio.c...</a>	<b>F</b>
<a href="http://www.auctiva.com">www.auctiva.com</a>	<b>F</b>
<a href="http://ac2.happyforever.c...">ac2.happyforever.c...</a>	<b>F</b>

# Scan your site now

 Hide results

## Security Report Summary



**Site:** <http://cert.at/> - [\(Scan again over https\)](#)

**IP Address:** 83.136.38.146

**Report Time:** 11 May 2016 12:22:50 UTC

**Headers:**

X-Frame-Options

Content-Security-Policy

X-XSS-Protection

X-Content-Type-Options

# Scan your site now

 Hide results

## Security Report Summary



Site: <https://cert.at/>

IP Address: 83.136.38.146

Report Time: 11 May 2016 14:03:29 UTC

Headers:

X-Frame-Options

Strict-Transport-Security

Content-Security-Policy

Public-Key-Pins

X-XSS-Protection

X-Content-Type-Options

## Raw Headers

HTTP/1.1 200 OK

Date Wed, 11 May 2016 14:03:28 GMT

Server Apache



# Scan your site now

 Hide results

## Security Report Summary



**Redirect:** [Click here](https://maclemon.at/) to follow the redirect to https://maclemon.at/.

**Site:** <http://maclemon.at/> - [\(Scan again over https\)](https://maclemon.at/)

**IP Address:** 2001:470:6f:4ca:9a26:fb93:ba1c:e29a

**Report Time:** 11 May 2016 14:08:02 UTC

**Headers:** [X-Frame-Options](#) [X-Content-Type-Options](#) [X-XSS-Protection](#) [Content-Security-Policy](#)

## Raw Headers

HTTP/1.1	301 Moved Permanently
<b>Server</b>	nginx
<b>Date</b>	Wed, 11 May 2016 14:08:02 GMT

# Scan your site now

 Hide results

## Security Report Summary



**Site:** <https://maclemon.at/>

**IP Address:** 2001:470:6f:4ca:9a26:fb93:ba1c:e29a

**Report Time:** 27 Mar 2016 11:55:16 UTC

**Headers:**

✓ X-Frame-Options   ✓ X-Content-Type-Options   ✓ X-XSS-Protection   ✓ Strict-Transport-Security  
✓ Public-Key-Pins   ✓ Content-Security-Policy

## Raw Headers

HTTP/1.1 200 OK

**Server** nginx

**Date** Sun, 27 Mar 2016 11:55:14 GMT

## Raw Headers

<b>HTTP/1.1</b>	200 OK
<b>Server</b>	nginx
<b>Date</b>	Sun, 27 Mar 2016 11:55:14 GMT
<b>Content-Type</b>	text/html; charset=utf-8
<b>Content-Length</b>	134619
<b>Last-Modified</b>	Fri, 15 Jan 2016 12:15:53 GMT
<b>Connection</b>	keep-alive
<b>Vary</b>	Accept-Encoding
<b>ETag</b>	"5698e2f9-20ddb"
<b>X-Frame-Options</b>	DENY
<b>X-Content-Type-Options</b>	nosniff
<b>X-XSS-Protection</b>	1; mode=block
<b>strict-transport-security</b>	max-age=31104000; includeSubDomains; preload
<b>Public-Key-Pins</b>	max-age=2592000; pin-sha256="rFfvG6DlxgDwHy4qfCvEnDKoFJ2XG3szxQHeeaRv9g8="; pin-sha256="gXaQqXAAR+AjznLZGRIBAYOabhv/II5Bc+CL9e7Kpmg="; pin-sha256="5noWBr53rhdxeVxcQagM3hqYu+Cw0m34VjrBo1Cu5Ag="
<b>Content-Security-Policy</b>	upgrade-insecure-requests
<b>Accept-Ranges</b>	bytes

## Additional Information

<b>Server</b>	This <a href="#">Server</a> header seems to advertise the software being run on the server but you can remove or change this value.
<b>X-Frame-Options</b>	<a href="#">X-Frame-Options</a> tells the browser whether you want to allow your site to be framed or not. By preventing a browser from framing your site you can defend against attacks like clickjacking.
<b>X-Content-Type-Options</b>	<a href="#">X-Content-Type-Options</a> stops a browser from trying to MIME-sniff the content type and forces it to stick with the declared content-type. This helps to reduce the danger of drive-by downloads. The only valid value for this header is "X-Content-Type-Options: nosniff".
<b>X-XSS-Protection</b>	<a href="#">X-XSS-Protection</a> sets the configuration for the cross-site scripting filters built into most browsers. The best configuration is "X-XSS-Protection: 1; mode=block".
<b>strict-transport-security</b>	<a href="#">HTTP Strict Transport Security</a> is an excellent feature to support on your site and strengthens your implementation of TLS by getting the User Agent to enforce the use of HTTPS.
<b>Public-Key-Pins</b>	<a href="#">HTTP Public Key Pinning</a> protects your site from MiTM attacks using rogue X.509 certificates. By whitelisting only the identities that the browser should trust, your users are protected in the event a certificate authority is compromised. <a href="#">Analyze</a> this policy in more detail.
<b>Content-Security-Policy</b>	<a href="#">Content Security Policy</a> is an effective measure to protect your site from XSS attacks. By whitelisting sources of approved content, you can prevent the browser from loading malicious assets. <a href="#">Analyze</a> this policy in more detail.

X-Frame-Options: DENY

X-Content-Type-Options: nosniff

X-XSS-Protection: 1;mode=block

```
# CSP
```

```
Content-Security-Policy
```

```
"default-src 'self'; upgrade-  
insecure-requests";
```

HTTPS only

# HSTS

```
strict-transport-security "max-age=31104000";  
                           includeSubDomains; preload;
```

# HPKP

```
Public-Key-Pins "pin-sha256=\"YOUR_HASH=\"; pin-sha256=  
\"YOUR_BACKUP_HASH=\"; max-age=7776000; report-uri=\"https://  
YOUR.REPORT.URL\""
```

```
curl -I https://macLemon.at/
```

```
[-4|-6]
```



```
$ curl -I https://maclemon.at/  
HTTP/2.0 200  
server:nginx  
date:Sun, 27 Mar 2016 12:50:15 GMT  
content-type:text/html; charset=utf-8  
content-length:134619  
last-modified:Fri, 15 Jan 2016 12:15:53 GMT  
vary:Accept-Encoding  
etag:"5698e2f9-20ddb"  
x-frame-options:DENY  
x-content-type-options:nosniff  
x-xss-protection:1; mode=block  
strict-transport-security:max-age=31104000; includeSubDomains; preload  
public-key-pins:max-age=2592000; pin-  
sha256="rFfvG6DIxgDwHy4qfCVEnDKoFJ2XG3szxQHeeaRv9g8="; pin-sha256="gXaQqXAAR  
+AjznLZGR1BAY0abhv/II5Bc+CL9e7Kpmg="; pin-sha256="5noWBr53rhdxevxcQagM3hqYu  
+Cw0m34VjrBo1Cu5Ag="  
content-security-policy:upgrade-insecure-requests  
accept-ranges:bytes
```

```
wget -S -O/dev/null https://mac1emon.at/  
[-4|-6]
```

```
$ wget -S -O/dev/null https://maclemon.at/
--2016-03-27 14:49:46-- https://maclemon.at/
Resolving maclemon.at (maclemon.at)... 86.59.70.21, 2001:470:6f:4ca:9a26:fb93:ba1c:e29a
Connecting to maclemon.at (maclemon.at)|86.59.70.21|:443... connected.
HTTP request sent, awaiting response...
  HTTP/1.1 200 OK
  Server: nginx
  Date: Sun, 27 Mar 2016 12:49:46 GMT
  Content-Type: text/html; charset=utf-8
  Content-Length: 134619
  Last-Modified: Fri, 15 Jan 2016 12:15:53 GMT
  Connection: keep-alive
  Vary: Accept-Encoding
  ETag: "5698e2f9-20ddb"
  X-Frame-Options: DENY
  X-Content-Type-Options: nosniff
  X-XSS-Protection: 1; mode=block
  strict-transport-security: max-age=31104000; includeSubDomains; preload
  Public-Key-Pins: max-age=2592000; pin-sha256="rFfvG6DIxgDwHy4qfCVEnDKoFJ2XG3szxQHeeaRv9g8=";pin-sha256="gXaQqXAAR
+AjznLZGRlBAY0abhv/II5Bc+CL9e7Kpmg=";pin-sha256="5noWBr53rhdxVxcQagM3hqYu+Cw0m34VjrBo1Cu5Ag="
  Content-Security-Policy: upgrade-insecure-requests
  Accept-Ranges: bytes
Length: 134619 (131K) [text/html]
Saving to: '/dev/null'
```

```
/dev/null 100%
[=====>] 131.46K 509KB/s in 0.3s
```

```
2016-03-27 14:49:47 (509 KB/s) - '/dev/null' saved [134619/134619]
```

# High Tech Bridge

<https://www.htbridge.com/websec/>

WEB SERVER TEST

LATEST TESTED

ABOUT

API

254,677 servers tested

## Web Server Security Test by High-Tech Bridge

Test your web server configuration, web application cookies, and HTTP headers for security and compliance with best-practices, such as [OWASP](#):

Switch to HTTP



Do not display test results in statistics

Provided "as is" without any warranty of any kind

Step 1

Enter your web server URL

Step 2

Wait a few seconds

Step 3

View test results

## Assessment of cert.at Executive Summary

By default, if available, the secure version of the website is tested (using HTTPS). If you want to test the HTTP version, please enter the URL with http:// prefix.

### FINAL GRADE



### DNS

SERVER IP  
83.136.38.146

REVERSE DNS  
wallace.cert.at

### INFO

DATE OF TEST  
May 11th 2016, 17:07 CEST

SERVER LOCATION  
Wien, Austria

### OPTIONS



Download PDF



Refresh results



Test SSL/TLS

## Web Server Security Overview



TESTED URL

REDIRECT TO

HTTP RESPONSE

# Browser

# Qualys SSLabs

<https://www.ssllabs.com/ssltest/viewMyClient.html>

You are here: [Home](#) > [Projects](#) > SSL Client Test

## SSL/TLS Capabilities of Your Browser

[Other User Agents »](#)

User Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_10\_5) AppleWebKit/537.36 (KHTML, like Gecko)

Chrome/51.0.2683.0 Safari/537.36

### Protocol Features



#### Protocols

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



#### Cipher Suites (in order of preference)

TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256 (0xc02b) <i>Forward Secrecy</i>	128
TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256 (0xc02f) <i>Forward Secrecy</i>	128
TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384 (0xc02c) <i>Forward Secrecy</i>	256
TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384 (0xc030) <i>Forward Secrecy</i>	256
TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305_SHA256 (0xc03a) <i>Forward Secrecy</i>	256





## Protocol Details

Server Name Indication (SNI)	Yes
Secure Renegotiation	Yes
<b>TLS compression</b>	No
Session tickets	Yes
OCSP stapling	Yes
Signature algorithms	SHA512/RSA, SHA512/ECDSA, SHA384/RSA, SHA384/ECDSA, SHA256/RSA, SHA256/ECDSA, SHA1/RSA, SHA1/ECDSA
Elliptic curves	x25519, secp256r1, secp384r1
Next Protocol Negotiation	Yes
Application Layer Protocol Negotiation	Yes h2 spdy/3.1 http/1.1
<b>SSL 2 handshake compatibility</b>	No

# RC4 Test

<https://rc4.io/>

**VULNERABLE!**

You have connected to RC4.IO using the following cipher suite:  
TLS\_ECDHE\_RSA\_WITH\_RC4\_128\_SHA (0xc011)

Your browser supports RC4 by default.

Testing RC4 default support:

**VULNERABLE**

Your browser supports  
TLS\_ECDHE\_RSA\_WITH\_RC4\_128\_SHA  
(0xc011) by default.

**VULNERABLE**

Your browser supports  
TLS\_RSA\_WITH\_RC4\_128\_SHA (0x5)  
by default.

**VULNERABLE**

Your browser supports  
TLS\_RSA\_WITH\_RC4\_128\_MD5 (0x4)  
by default.

Testing RC4 fallback support:

**FALLBACK VULNERABILITY**

TLS\_ECDHE\_RSA\_WITH\_RC4\_128\_SHA  
(0xc011)

# Uni-Hannover

<https://cc.dcsec.uni-hannover.de/>

# SSL Cipher Suite Details of Your Browser



This website gives you information on the SSL cipher suites your browser supports for securing HTTPS connections.



Cipher Suites Supported by Your Browser (ordered by preference):

Spec	Cipher Suite Name	Key Size	Description
(c0,2b)	ECDHE-ECDSA-AES128-GCM-SHA256	128 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA256</a> .
(c0,2f)	ECDHE-RSA-AES128-GCM-SHA256	128 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA256</a> .
(c0,2c)	ECDHE-ECDSA-AES256-GCM-SHA384	256 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA384</a> .
(c0,30)	ECDHE-RSA-AES256-GCM-SHA384	256 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA384</a> .
(cc,a9)	Unknown	Unknown	
(cc,a8)	Unknown	Unknown	
(cc,14)	ECDHE-ECDSA-CHACHA20-POLY1305-SHA256	128 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">ChaCha20 Poly1305</a> , MAC: <a href="#">SHA256</a> .
(cc,13)	ECDHE-RSA-CHACHA20-POLY1305-SHA256	128 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">ChaCha20 Poly1305</a> , MAC: <a href="#">SHA256</a> .
(c0,09)	ECDHE-ECDSA-AES128-SHA	128 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA1</a> .
(c0,13)	ECDHE-RSA-AES128-SHA	128 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA1</a> .
(c0,0a)	ECDHE-ECDSA-AES256-SHA	256 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA1</a> .
(c0,14)	ECDHE-RSA-AES256-SHA	256 Bit	Key exchange: <a href="#">ECDH</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA1</a> .
(00,9c)	RSA-AES128-GCM-SHA256	128 Bit	Key exchange: <a href="#">RSA</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA256</a> .
(00,9d)	RSA-AES256-GCM-SHA384	256 Bit	Key exchange: <a href="#">RSA</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA384</a> .
(00,2f)	RSA-AES128-SHA	128 Bit	Key exchange: <a href="#">RSA</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA1</a> .
(00,35)	RSA-AES256-SHA	256 Bit	Key exchange: <a href="#">RSA</a> , encryption: <a href="#">AES</a> , MAC: <a href="#">SHA1</a> .
(00,0a)	RSA-3DES-EDE-SHA	168 Bit	Key exchange: <a href="#">RSA</a> , encryption: <a href="#">3DES</a> , MAC: <a href="#">SHA1</a> .

Further information:

User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_10\_5) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/51.0.2683.0 Safari/537.36

Preferred SSL/TLS version: TLSv1

[SNI](#) information: cc.dcsec.uni-hannover.de

SSL stack current time: Thu, 07 Jun 1984 21:06:04



**about:config**



**chrome://net-internals/**





# Webserver Konfiguration



<https://bettercrypto.org/>

# BetterCrypto Arbeitstreffen

2016-05-23, 18:00 MESZ, CERT.at



httpd 2.4

mod\_ssl  
mod\_header

mod\_h2

HTTP/2

```
/etc/apache2/httpd.conf
  NameVirtualHost *:443
  # Linux / Windows
  # AcceptFilter http data
  AcceptFilter https data

  # FreeBSD
  # AcceptFilter http httpready
  # AcceptFilter https dataready
```

```
/etc/apache2/ports.conf
  Listen 443
```

```
<VirtualHost *:443>
```

```
ServerName www.yoursite.com
```

```
DocumentRoot /var/www/site
```

```
SSLEngine on
```

```
Protocols h2 http/1.1
```

```
SSLCertificateFile /etc/ssl/certs/ssl-cert-snakeoil.pem
```

```
SSLCertificateKeyFile /etc/ssl/private/ssl-cert-snakeoil.key
```

```
SSLCertificateChainFile /etc/apache2/ssl.crt/server-ca.crt
```

```
SSLProtocol All -SSLv2 -SSLv3
```

```
SSLCipherSuite 'EDH+CAMELLIA:EDH+aRSA:EECDH+aRSA+AESGCM:EECDH  
+aRSA+SHA384:EECDH+aRSA+SHA256:EECDH:  
+CAMELLIA256:+AES256:+CAMELLIA128:+AES128:+SSLv3:!aNULL:!eNULL:!  
LOW:!3DES:!MD5:!EXP:!PSK:!DSS:!RC4:!SEED:!ECDSA:CAMELLIA256-  
SHA:AES256-SHA:CAMELLIA128-SHA:AES128-SHA'
```



```
SSLHonorCipherOrder On  
SSLCompression off
```

```
# TLS_DHE_
```

```
SSLDHParametersFile /etc/ssl/dh4096.pem
```

```
</VirtualHost>
```

Security Header

```
# For HTTPS only
```

```
# HSTS
```

```
Header always set strict-transport-security "max-age=15768000"
```

```
# HPKP
```

```
Header always set Public-Key-Pins "pin-sha256=\"YOUR_HASH=\"; pin-sha256=\"YOUR_BACKUP_HASH=\"; max-age=7776000; report-uri=\"https://YOUR.REPORT.URL\""
```

```
# For HTTPS and HTTP
```

```
Header always set X-Frame-Options DENY
```

```
Header always set X-Content-Type-Options "nosniff"
```

```
Header always set X-XSS-Protection "1; mode=block"
```

```
# CSP
```

```
Header always set Content-Security-Policy "default-src  
https: data: 'unsafe-inline' 'unsafe-eval'" always; upgrade-  
insecure-requests"
```

HTTP → HTTPS  
301

```
# mod_rewrite syntax
<VirtualHost cert.at:80>
  RewriteRule ^/?(.*) https://%{SERVER_NAME}/$1 [R,L]
</VirtualHost>
```

```
# mod_alias syntax
```

```
<VirtualHost cert.at:80>
  Redirect permanent / https://%{SERVER_NAME}/
</VirtualHost>
```

ServerTokens Prod[uctOnly]

Server:Apache

# NGINX

nginx 1.10 stable / 1.11 mainline



```
--with-http_ssl_module
```

--with-http\_v2\_module  
HTTP/2

```
server {
    # listen [2001:470:6f:4ca:9a26:fb93:ba1c:e29a]:443 ssl http2
    deferred; # Tux
    listen [2001:470:6f:4ca:9a26:fb93:ba1c:e29a]:443 ssl http2
    accept_filter=dataready; # FreeBSD

    server_name maclemon.at;

    ssl_certificate_key /etc/nginx/certificates/maclemon.at.key;
    ssl_certificate /etc/nginx/certificates/maclemon.at_chained.pem;

    ssl_protocols TLSv1 TLSv1.1 TLSv1.2;

    ssl_ciphers EDH+CAMELLIA:EDH+aRSA:EECDH+aRSA+AESGCM:EECDH+aRSA
+SHA384:EECDH+aRSA+SHA256:EECDH:
+CAMELLIA256:+AES256:+CAMELLIA128:+AES128:+SSLv3:!aNULL:!eNULL:!
LOW:!3DES:!MD5:!EXP:!PSK:!DSS:!RC4:!SEED:!IDEA:!
```

```
ssl_prefer_server_ciphers on;
```

```
# TLS_DHE_
```

```
ssl_dhparam /etc/nginx/dhparam/dh4096.pem;
```

```
# TLS compression is automatically turned OFF in
```

```
# nginx 1.1.6+/1.0.9+ (if OpenSSL 1.0.0+ used)
```

```
# nginx 1.3.2+/1.2.2+ (if older OpenSSL).
```

```
# spdy_headers_comp 0; # SPDY Header Compression off
```

```
ssl_ecdh_curve secp384r1;
```

```
# Speed improvements to first byte for smaller files.
```

```
ssl_buffer_size 4k;
```

```
}
```

Security Header

```
# For HTTPS only
```

```
# HSTS
```

```
add_header strict-transport-security "max-age=31104000;  
includeSubDomains; preload" always;
```

```
# HPKP
```

```
add_header Public-Key-Pins 'max-age=2592000; pin-  
sha256="rFfvG6DIxgDwHy4qfCVEnDKoFJ2XG3szxQHeeaRv9g8="; pin-  
sha256="gXaQqXAAR+AjznLZGR1BAY0abhv/II5Bc+CL9e7Kpmg="; pin-  
sha256="5noWBr53rhdxevxcQagM3hqYu+Cw0m34VjrBo1Cu5Ag="' always;
```

```
# For HTTPS and HTTP
```

```
    add_header X-Frame-Options DENY always;
```

```
    add_header X-Content-Type-Options "nosniff" always;
```

```
    add_header X-XSS-Protection "1; mode=block" always;
```

```
# CSP
```

```
    add_header Content-Security-Policy "default-src https: data:  
'unsafe-inline' 'unsafe-eval' upgrade-insecure-requests" always;
```

HTTP → HTTPS  
301



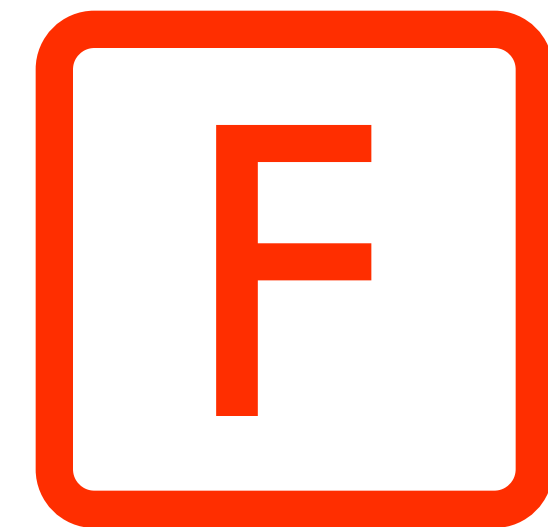
```
server {
    listen [2001:470:6f:4ca:9a26:fb93:ba1c:e29a]:80;
    server_name maclemon.at;
    server_name www.maclemon.at;
    server_name [2001:470:6f:4ca:9a26:fb93:ba1c:e29a];

    return 301 https://maclemon.at$request_uri;
    # return 301 https://$server_name$request_uri;
}
```

```
server_tokens off;
```

```
Server: nginx
```

Handlungsbedarf





Fragen?

# Zeitgemäße Webserver-Konfiguration

<https://media.ccc.de/c/eh16>

<https://macLemon.at/talks>

@leyrer  
@MacLemon