SSL Server Rating Guide for TLS Client Certificate Authentication

Research Seminar in Cryptography

September 7, 2016

Automated TLS Configuration Testing

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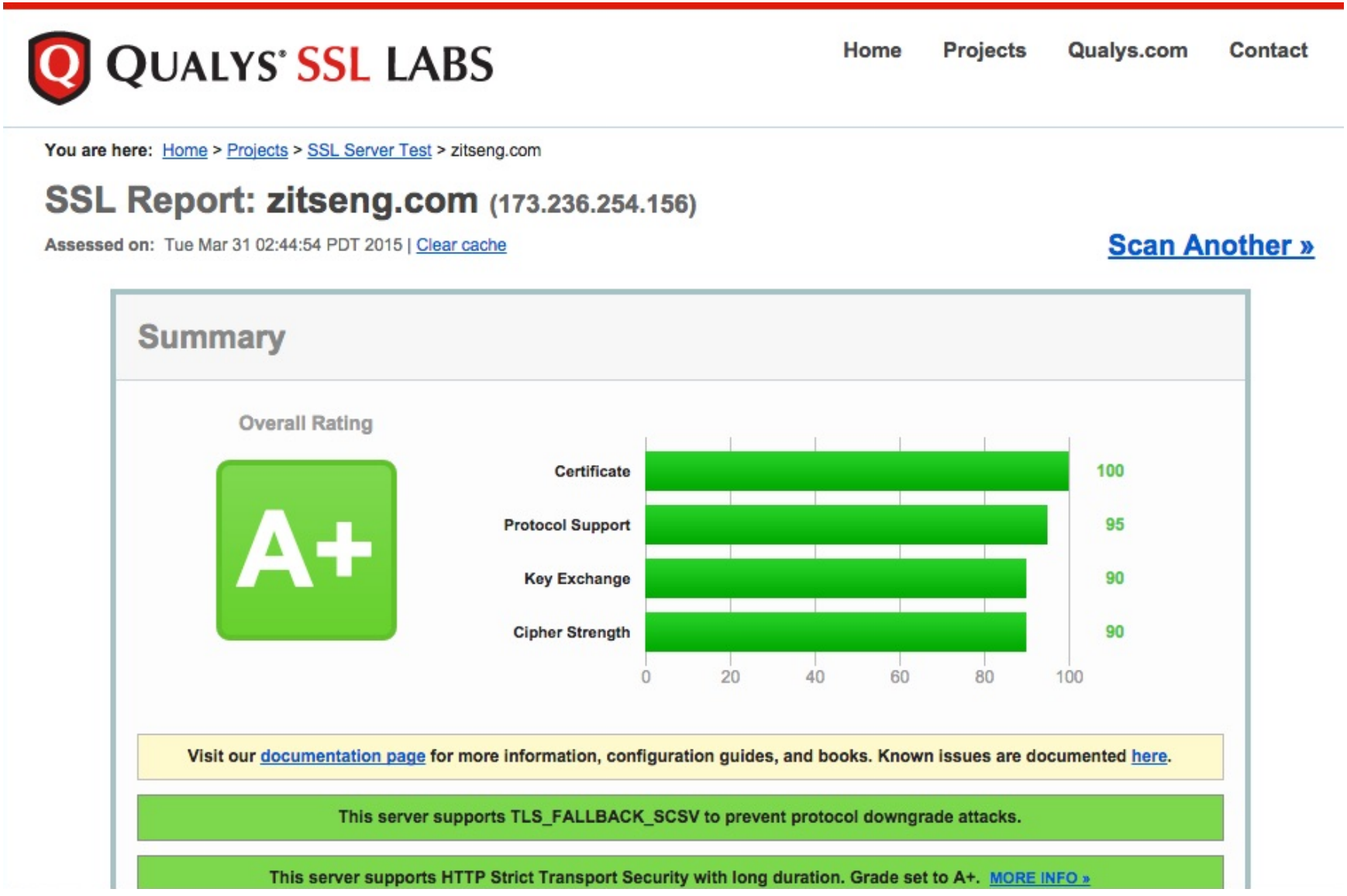

Automated TLS Configuration Testing

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SSL Report: www.ut.ee (193.40.5.73)

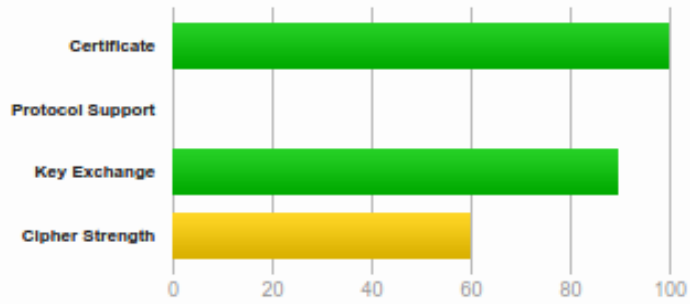
Assessed on: Thu, 01 Sep 2016 14:05:29 UTC | Hide | Clear cache

Scan Another »

Summary

Overall Rating

F



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

This server is vulnerable to the OpenSSL Padding Oracle vulnerability (CVE-2016-2107) and insecure. Grade set to F.

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 »

Automated TLS Configuration Testing

Automated TLS Configuration Testing

SSL Report: mailhost.ut.ee (193.40.5.66)

Assessed on: Thu, 01 Sep 2016 14:23:15 UTC | Hide | Clear cache

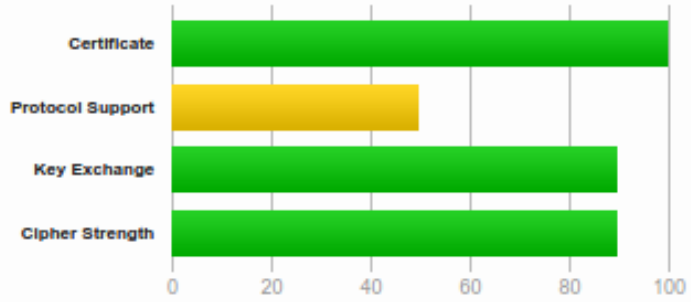
Scan Another »

Summary

Overall Rating

C

No support for TLS 1.2, which is the only secure protocol version. MORE »



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

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

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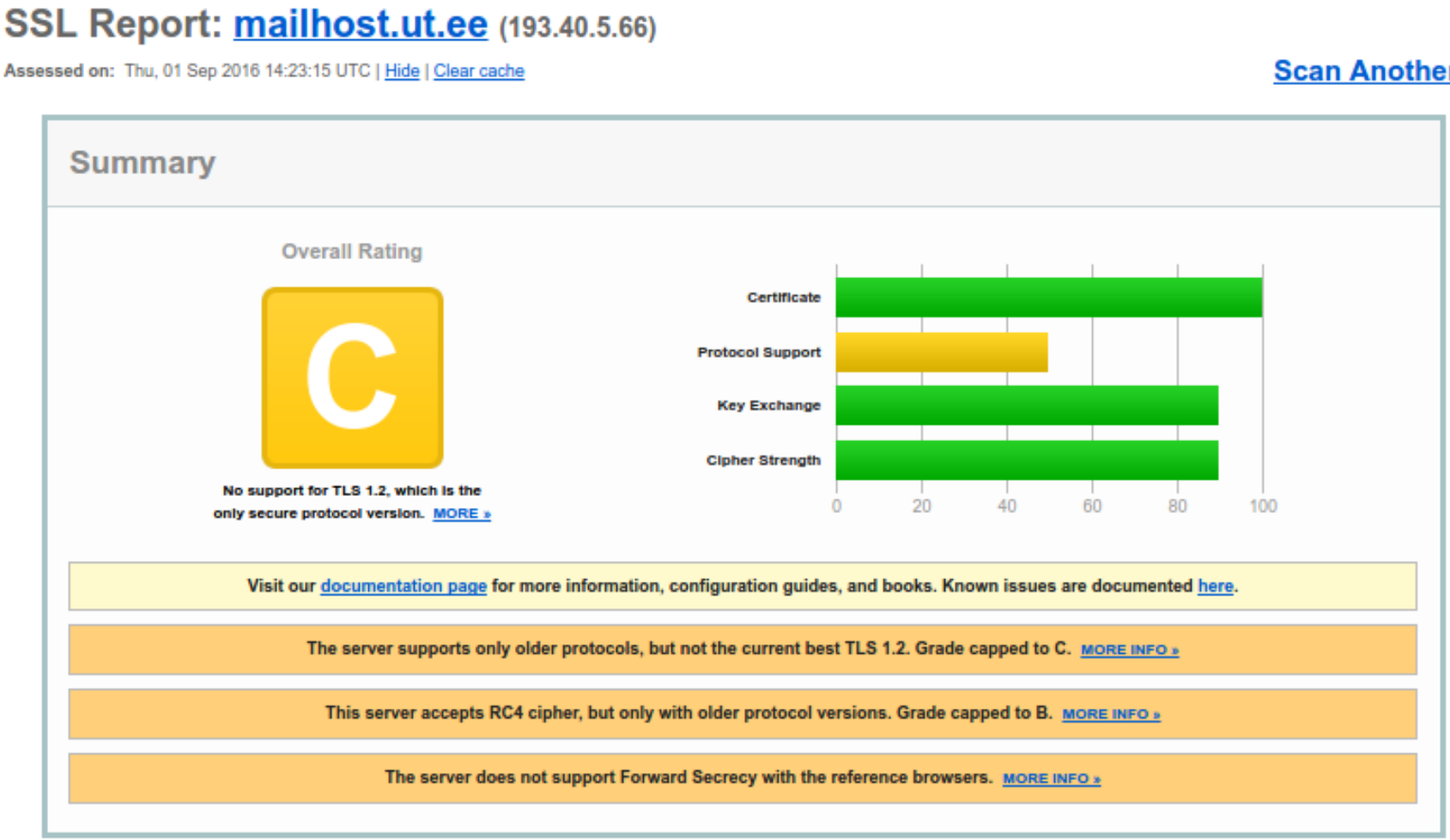

Qualys SSL Labs "SSL Server Rating Guide"
(`https://www.ssllabs.com/downloads/SSL_Server_Rating_Guide.pdf`)

TLS CCA Configuration Testing

Service provider	Spare	Request	Depth	Timeout	Privacy	Resume	Bind	Validity
Banking:								
citadele.ee	0	optional	3	–	–	+	+	OCSP
krediidipank.ee	5	optional	2	–	–	+	+	OCSP
seb.ee	2	optional	2	–	–	+	+	OCSP
tbb.ee	4	require	3	–	+	–	–*	OCSP
unicreditbank.ee	0	require	5	–	–	+	?	?
versobank.com	0	optional	3	40 sec	–	+	?	?
Education:								
e-ope.ee	4	optional	3	–	–	+	+	–
eek.ee	0	require	2	–	+	–	?	?
ekool.eu	0	optional	2	–*	+	–	–	–
emu.ee	0	require	2	–	+	–	–	OCSP 2007
tlu.ee	0	require	2	9 hour	–	+	–	?
Government:								
ariregister.rik.ee	0	optional	6	–	+	–	–	CRL
digidoc.sk.ee	4	require	2	–	+	–	–	OCSP
e-register.ee	0	require	3	–	+	–	–	OCSP
e-toimik.ee	0	optional	2	–	+	–	–	OCSP
eesti.ee	5	require	2	–*	+	–	–	OCSP
emta.ee	0	optional	3	–	–	+	–	OCSP

TLS CCA Configuration Testing

Service provider	Spare	Request	Depth	Timeout	Privacy	Resume	Bind	Validity
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seb.ee	2	optional	2	–	–	+	+	OCSP
tbb.ee	4	require	3	–	+	–	–*	OCSP
unicreditbank.ee	0	require	5	–	–	+	?	?
versobank.com	0	optional	3	40 sec	–	+	?	?
Education:								
e-ope.ee	4	optional	3	–	–	+	+	–
eek.ee	0	require	2	–	+	–	?	?
ekool.eu	0	optional	2	–*	+	–	–	–
emu.ee	0	require	2	–	+	–	–	OCSP 2007
tlu.ee	0	require	2	9 hour	–	+	–	?
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e-register.ee	0	require	3	–	+	–	–	OCSP
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eesti.ee	5	require	2	–*	+	–	–	OCSP
emta.ee	0	optional	3	–	–	+	–	OCSP

"Practical Issues with TLS Client Certificate Authentication"
(`https://eprint.iacr.org/2013/538.pdf`)

Tasks

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  - describe how the tests could be implemented in an automated manner

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- In your report describe:
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  - what scores should be assigned to the tests
  - describe how the tests could be implemented in an automated manner
  - sketch GUI of example test result

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- In your report describe:
  - what TLS CCA configuration options could be tested
  - what scores should be assigned to the tests
  - describe how the tests could be implemented in an automated manner
  - sketch GUI of example test result
- For an example refer to "SSL Server Rating Guide"