



Kommunikation schützen

mit Verschlüsselung

Warnungen

technisch

beängstigend

praktisch

interaktiv



interaktiv

interaktiv

Kommunikation



Kommunikation



Internet

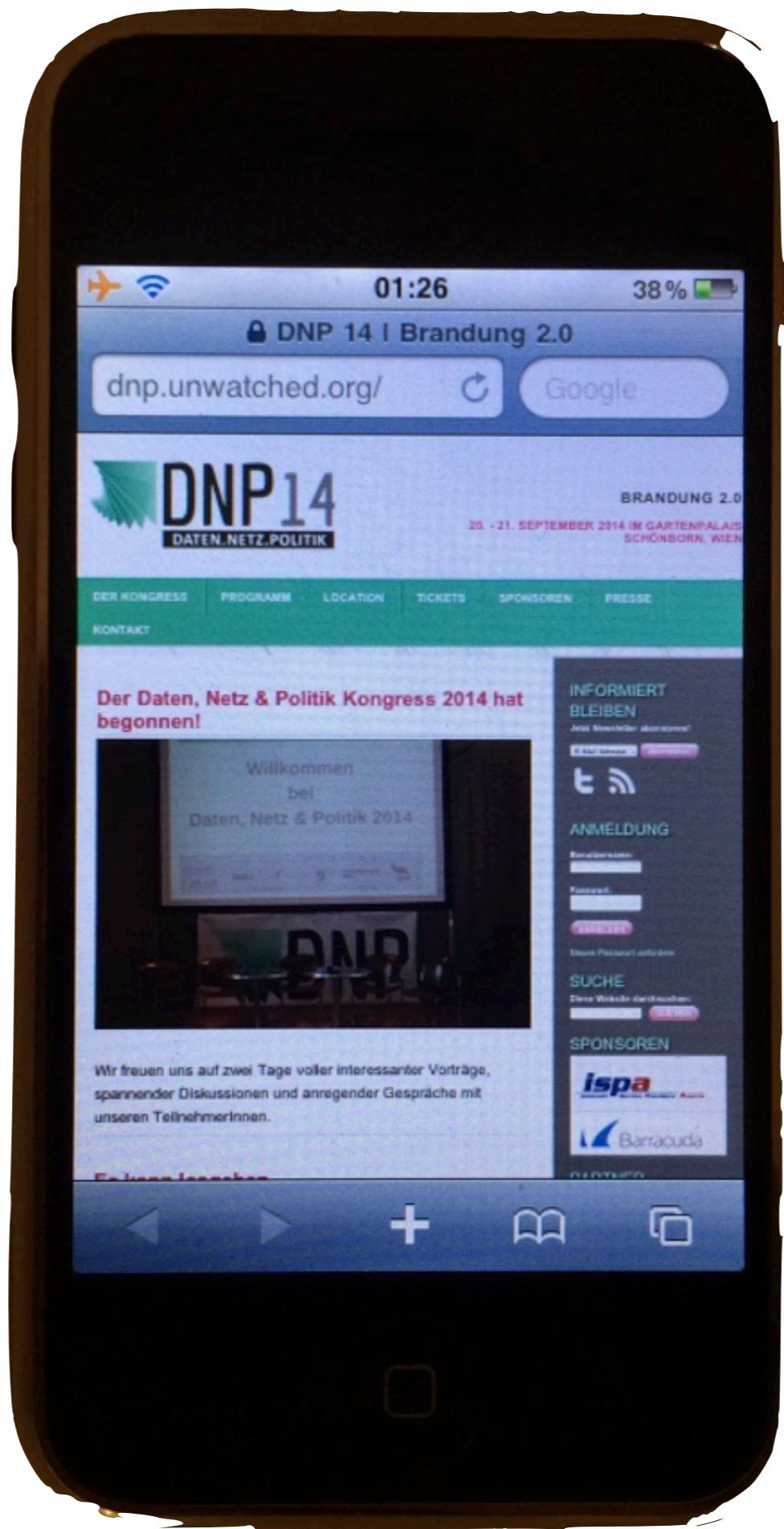
Internet

Alice - Bob

Programm - Server

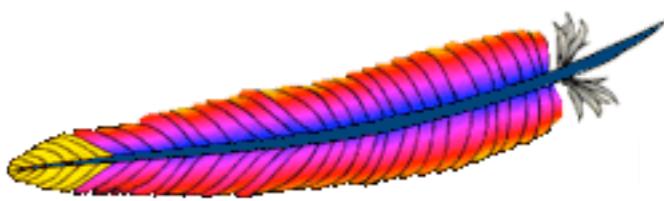
Software - Software



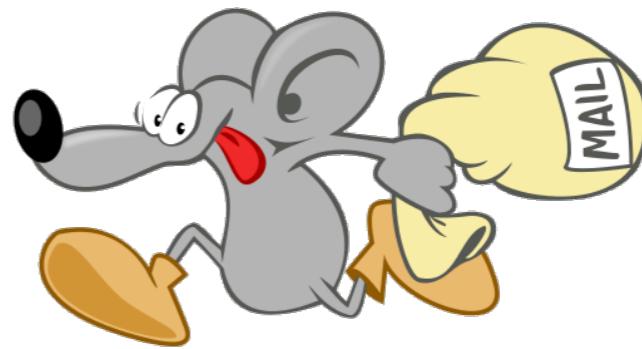




DNA



NGINX™





ejabberd

Technik

Protokolle



http



xmPP



**smtp
submission
imap
pop**

Gemeinsamkeiten?

Alt

Klartext

Angst

WLAN

Internet Provider



\(=\wedge\ldots\wedge)

Und nun?

Irefpuyüffryhat

Verschlüsselung



Vertraulichkeit



Integrität

3 Authentizität

Nichtabstreichbarkeit

Transportverschlüsselung

TLS 1.2

TLS 1.1

TLS 1.0

~~SSLv3~~

~~SSLv2~~



Testen

Webserver testen

<https://ssllabs.com/ssltest>

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

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.

Domain name:

Do not show the results on the boards

Recently Seen

metronets.com	Err
slack.com	
owncloud.jonaskim.de	
wasserwacht-magdeburg.de	A-
pescaboutique.com	C
openmailbox.org	A
d2p-dev.novartis.com	Err
pop.openmailbox.org	A
client.investia.ca	F
smtp.openmailbox.org	A

Recent Best-Rated

londoners.ro	A+
openmailbox.org	A
pop.openmailbox.org	A
smtp.openmailbox.org	A
scottlinux.com	A-
sal.investpoint.automatedfin ...	A-
vlietlandziekenhuis.nl	B
votesmart.org	B
pescaboutique.com	C
office.com	C

Recent Worst-Rated

client.investia.ca	F
outlook.com	F
webmin.studiotwo.com	Trust
myhr.agh.com.au	F
portal.irgh.org	F
guestful.com	F
poulp.net	Trust
mysql.triedtoswimminlava.net	Trust
my.sph.harvard.edu	F
api.2dehands.com	F

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

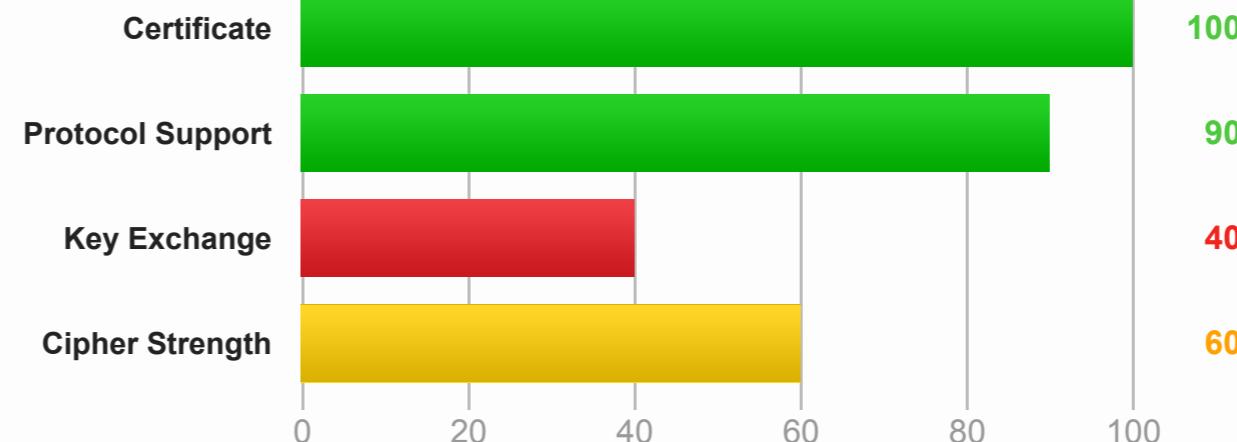
SSL Report: nsa.gov (23.39.50.161)

Assessed on: Sat Sep 20 20:37:28 UTC 2014 | HIDDEN | [Clear cache](#)

[Scan Another »](#)

Summary

Overall Rating



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

Certificate uses SHA1. When renewing, ensure you upgrade to SHA256. [MORE INFO »](#)

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

Authentication



<https://isitchristmas.com>

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

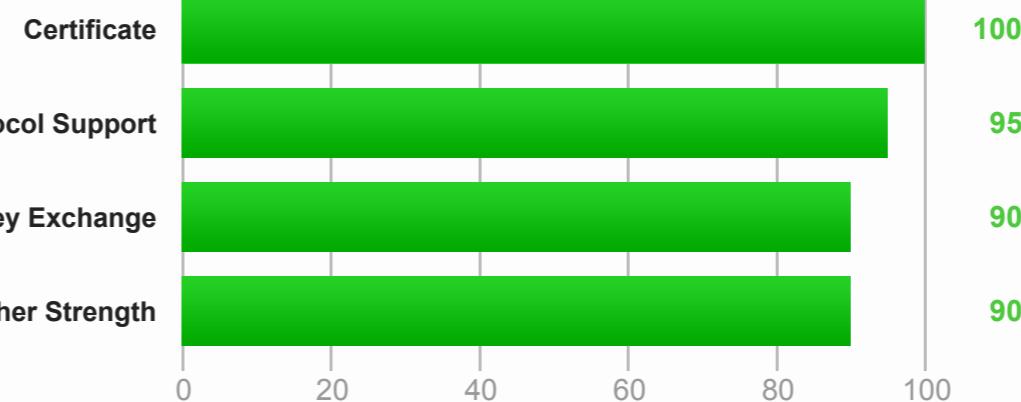
SSL Report: isitchristmas.com (54.235.64.112)

Assessed on: Mon Jul 28 06:42:17 UTC 2014 | [Clear cache](#)

[Scan Another »](#)

Summary

Overall Rating



Documentation: [SSL/TLS Deployment Best Practices](#), [SSL Server Rating Guide](#), and [OpenSSL Cookbook](#).

This server supports HTTP Strict Transport Security with long duration. Grade set to A+. [MORE INFO »](#)

This server is not vulnerable to the [Heartbleed attack](#).

Experimental: This server is not vulnerable to the OpenSSL CCS vulnerability (CVE-2014-0224).

Authentication



Server Key and Certificate #1

You are here: [Home](#) > [Projects](#) > [SSL Server Test](#) > [ecb.europa.eu](#)

SSL Report: ecb.europa.eu (184.25.151.166)

Assessed on: Sat Sep 20 20:51:40 UTC 2014 | HIDDEN | [Clear cache](#)

[Scan Another »](#)

Summary

Overall Rating



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

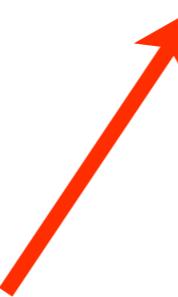
This server supports SSL 2, which is obsolete and insecure. Grade set to F.

Certificate uses SHA1. When renewing, ensure you upgrade to SHA256. [MORE INFO »](#)

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

Email

<https://starttls.info/>



Does your mail server support STARTTLS?

If you care about privacy, it should. Read more in the [blog](#).

Results for: digitalcity.wien



Mail server	Result
us2.mx1.mailhostbox.com	STARTTLS not supported!
us2.mx2.mailhostbox.com	STARTTLS not supported!
us2.mx3.mailhostbox.com	STARTTLS not supported!

Click the score for details.

[Test another!](#)

This site is a beta. | Read [about this](#). | Check the [stats](#).

Developed by [Einar Otto Stangvik](#).

Does your mail server support STARTTLS?

If you care about privacy, it should. Read more in the [blog](#).

Results for: parliament.gv.at



Mail server	Result
mta3.parliament.gv.at	STARTTLS not supported!
mta2.parliament.gv.at	STARTTLS not supported!

Click the score for details.

[Test another!](#)

This site is a beta. | Read [about this](#). | Check the [stats](#).

Developed by [Einar Otto Stangvik](#).

Does your mail server support STARTTLS?

If you care about privacy, it should. Read more in the [blog](#).

Results for: wko.at



Mail server	Result
mail1.wk.or.at	Grade: C (58.0%) ▾

Certificate

- The certificate is not valid for the server's hostname.
- There is a self-signed certificate in the trust chain. It may be a configuration problem.
- There are one or more fatal problems which causes the certificate not to be trusted.

There are validity issues for the certificate. Certificates are seldom verified for SMTP servers, so this doesn't mean that STARTTLS won't be used.

Generally speaking it's a bad practice not to have a valid certificate, and an even worse practice not to verify them. Any attempted encrypted communication is left all but wide open to Man-in-the-Middle attacks.

Protocol

- Supports TLSV1.

Key exchange

- Key size is 2048 bits; that's good.

Cipher

- Weakest accepted cipher: 40.
- Strongest accepted cipher: 56.

Does your mail server support STARTTLS?

If you care about privacy, it should. Read more in the [blog](#).

Results for: [ubermorgen.com](#)



Mail server	Result
ubermorgen.com	Grade: A (93.4%) 

Certificate

- No remarks.

Protocol

- Supports SSLV3.
- Supports TLSV1.
- Supports TLSV1.1.
- Supports TLSV1.2.

Key exchange

- Key size is 4096 bits; that's very good.

Cipher

- Weakest accepted cipher: 128.
- Strongest accepted cipher: 256.

Results for: nsa.gov



Mail server	Result
emvm-gh1-uea09.nsa.gov	Grade: D (42.8%)

Certificate

- The certificate is not valid for the server's hostname.

There are validity issues for the certificate. Certificates are seldom verified for SMTP servers, so this doesn't mean that STARTTLS won't be used.

Generally speaking it's a bad practice not to have a valid certificate, and an even worse practice not to verify them. Any attempted encrypted communication is left all but wide open to Man-in-the-Middle attacks.

Protocol

- Supports SSLV3.
- Supports TLSV1.

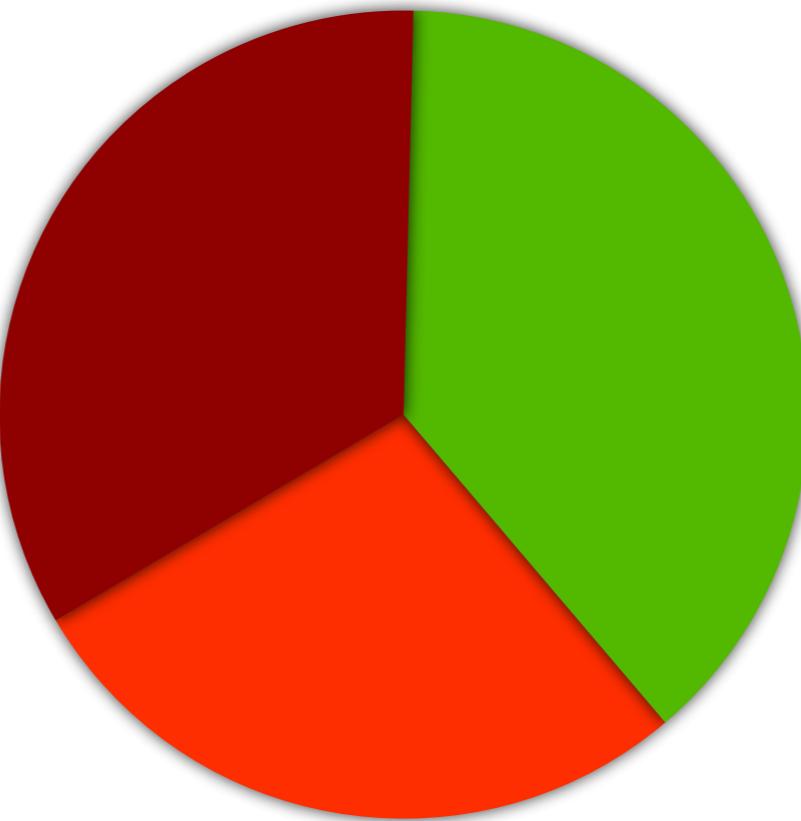
Key exchange

- Anonymous Diffie-Hellman is accepted. This is susceptible to Man-in-the-Middle attacks.
- Key size is 2048 bits; that's good.

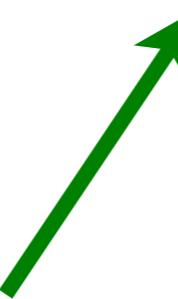
Cipher

- Weakest accepted cipher: 0.
- Strongest accepted cipher: 256.

emvm-gh1-uea08.nsa.gov	Grade: D (44.3%)
--	------------------



<https://starttls.info/stats>



Chat

<https://xmpp.net/>

[Score](#)[General](#)[DNS](#)[TLS](#)

IM Observatory client report for jabber.maclemon.at

Test started 2014-09-20 20:38:05 UTC 28 minutes ago.

[Show server to server result](#) | [Permalink to this report](#)

Score

jabber.maclemon.at:5222

Certificate score:	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	100
Key exchange score:	<div style="width: 100%; background-color: #2e7131; height: 10px;"></div>	100
Protocol score:	<div style="width: 95%; background-color: #2e7131; height: 10px;"></div>	95
Cipher score:	<div style="width: 90%; background-color: #2e7131; height: 10px;"></div>	90

Grade:

A

General

jabber.maclemon.at:5222

Version	unknown unknown
StartTLS	REQUIRED

A

Handlungsbedarf F

Verschlüsselung
muß Standard sein

CRYPTO
PARTY



bettercrypto.org

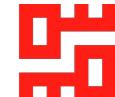


Fragen?

Hausübung:

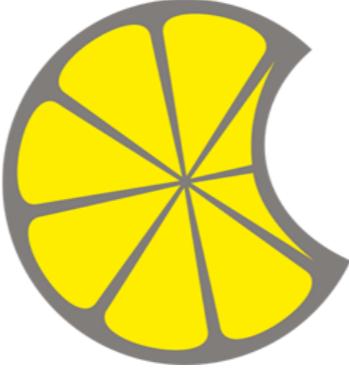
https://SSLLabs.com	Web
https://StartTLS.info	Mail
https://xmpp.net	Chat

Weitere Information

 <https://CryptoParty.at>

 <https://BetterCrypto.org>

 <https://MacLemon.at>



Pepi Zawodsky

@MacLemon

<https://MacLemon.at/>

Bilder und Logos



Slide 16: PowerBook G4



Slide 17: iPhone



Slide 18: Nokia 7110

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<http://www.postfix.org/documentation.html>



<https://adium.im/about/>



<https://pidgin.im/about/>



<https://www.process-one.net/en/company/>