NAT64Check

Version 2

steffann

Internet Society

go6

Background

- Fast growing number of IPv6-only networks with NAT64 & DNS64
  - Works fine most of the time
- Breaks when web hosters do stupid things
  - Bad DNS records
  - Hard-coded IPv4 addresses in URLs

BACKGROUND

- Bad AAAA records in DNS
  - ::
  - ::1
  - ::ffff:[IPv4_addr]
  - fe80::[some_value]
  - 64:ff9b::[some_value]
  - 2001:DB8::[some_value]

PROJECT HISTORY

- Version 0:
  - Jan wrote some Bash scripts
- Version 1:
  - Sander wrote a Python/Django application
  - Corinne designed a web interface

nat64check

www.go6.si

Test again

Last test finished:
20 December 2016, 00:57 CET

Image match

NAT64 — 100%

IPv4-only

IPv6-only — 100%

THE GOOD

go6.si

nat64check

textfiles.com

Test again

Last test finished:
6 September 2019, 12:18 CEST

Image match

NAT64 — 100%

IPv4-only

IPv6-only

THE BAD

gov.si

nat64check

foxnews.com

Test again

Last test finished:
28 May 2018, 10:26 CEST

Image match

NAT64

IPv4-only

IPv6-only

THE UGLY

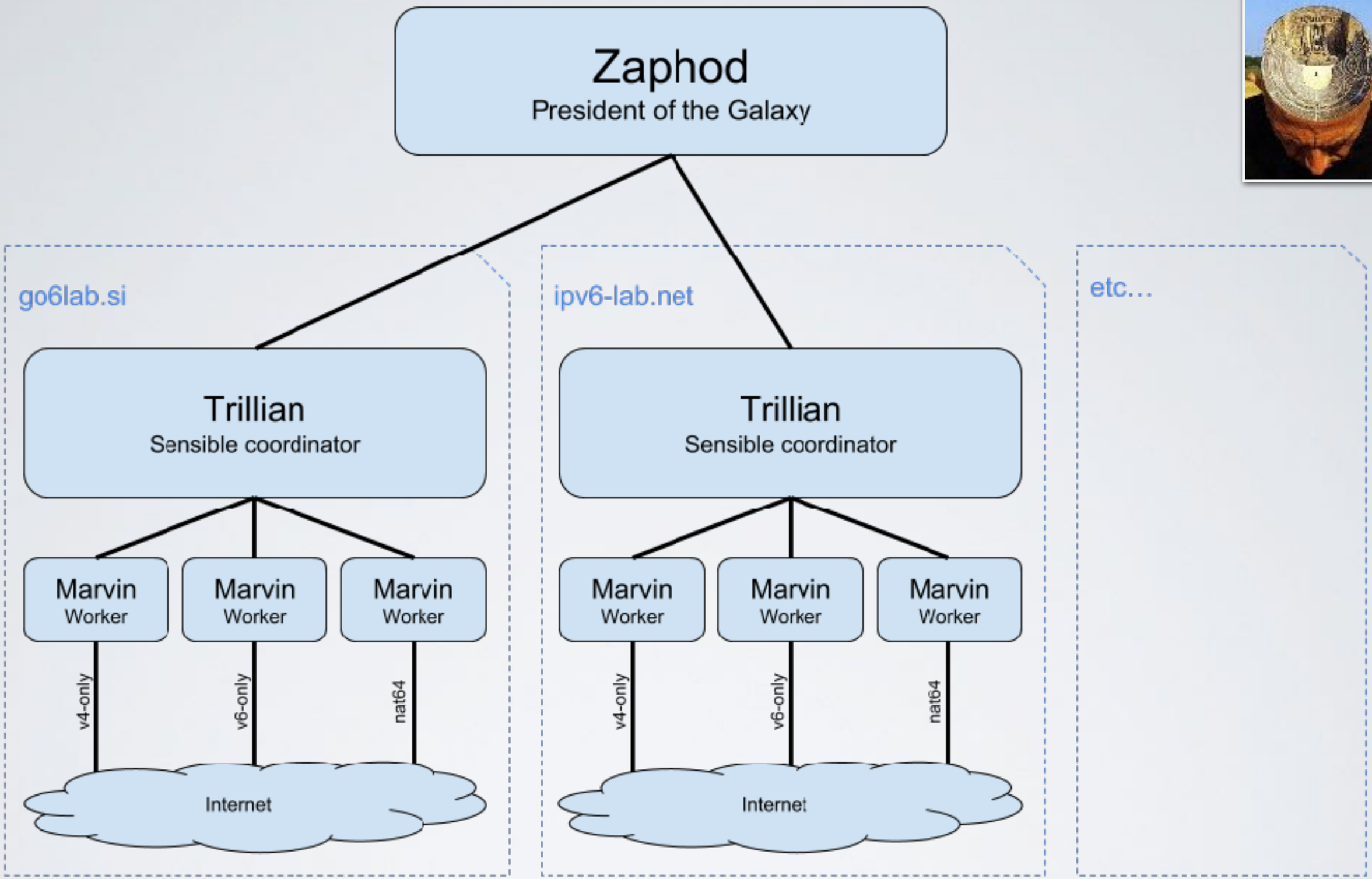
foxnews.com

VERSION 1 FLAWS

- Unclear what the cause of a failure is
- Bad error detection
- Two different systems:
  - ipv6-lab.net in NL
  - go6lab.si in SI
- No coordination between them

VERSION 2

- Distributed system
  - Central web interface
  - Many test-locations possible
  - Easy to install if you want to run your own test-location
- Better error detection and feedback
- Extendability for different tests



TECHNICAL DESIGN

All checks

Search | NAT64 | IPv6 | Poor | Okay | Good

Website	Date / Time	NAT64	IPv6
www.example.com	11 October 2017, 11:21 CEST	✔	✖
www.slovenian-example.com	11 October 2017, 11:21 CEST	–	✖
www.another-example.com	11 October 2017, 11:21 CEST	✔	✔
www.yet-another-example.com	11 October 2017, 11:21 CEST	✖	✖

COUNTRY SELECTION

multiple choices allowed

Running strict test...

Image matching...

Resource matching...

Checking DNS Records...

Checking ping times....

Your report is being generated... Please wait!

BETTER FEEDBACK

while testing

nat64check

Sander Steffann

www.example.com

Check again

Last test completed:
10 October 2017, 19:11 CEST
Local time 10 October 2017, 22:11 GMT

Results

This website has an overall moderate rating. It is experiencing some problems with **NAT64** and **IPv6**. The following report details some of the steps you can take to improve your website's rating and reach more customers.

Overall rating
MODERATE

Summary | All locations | Search

Image matching

We compared snapshots of how your website looks over IPv4,

NAT64 **IPv6**

CLEAR SUMMARY

all test locations combined

3 Customers on NAT64 see a different website

4 Missing files on NAT64

Print | Download report data | Sign up for an account

- Regular emails on how to improve your websites
- Schedule regular checks
- Added privacy options

latest trends in our blog.

Read the blog

nat64check

is an open source project.
You can run your own version, test locally, or add to the global pool.

Interested? Get in touch.

Internet Society | go6 | steffann | SIMPLY UNDERSTAND | max

About us

nat64check is an open source project, developed by the Internet Society.

Information

- Frequently Asked Questions
- Our blog
- Map
- About

Contact us

info@nat64check.org

CLEAR SUMMARY

all test locations combined

www.example.com

Check again

Last test completed:
10 October 2017, 19:11 CEST
Local time 10 October 2017, 22:11 GMT

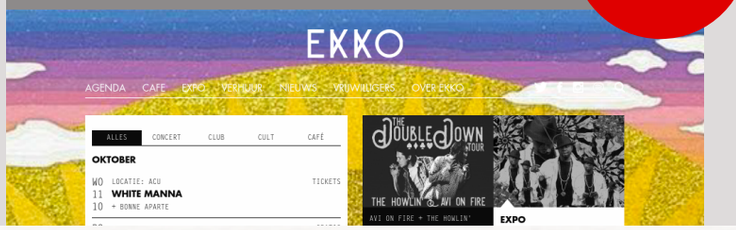
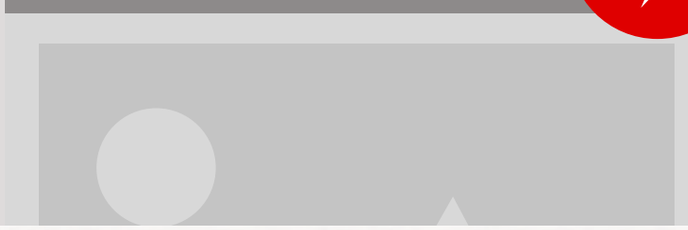
Results

This website has an overall moderate rating. It is experiencing some problems with **NAT64** and **IPv6**. The following report details some of the steps you can take to improve your website's rating and reach more customers.

Overall rating
POOR

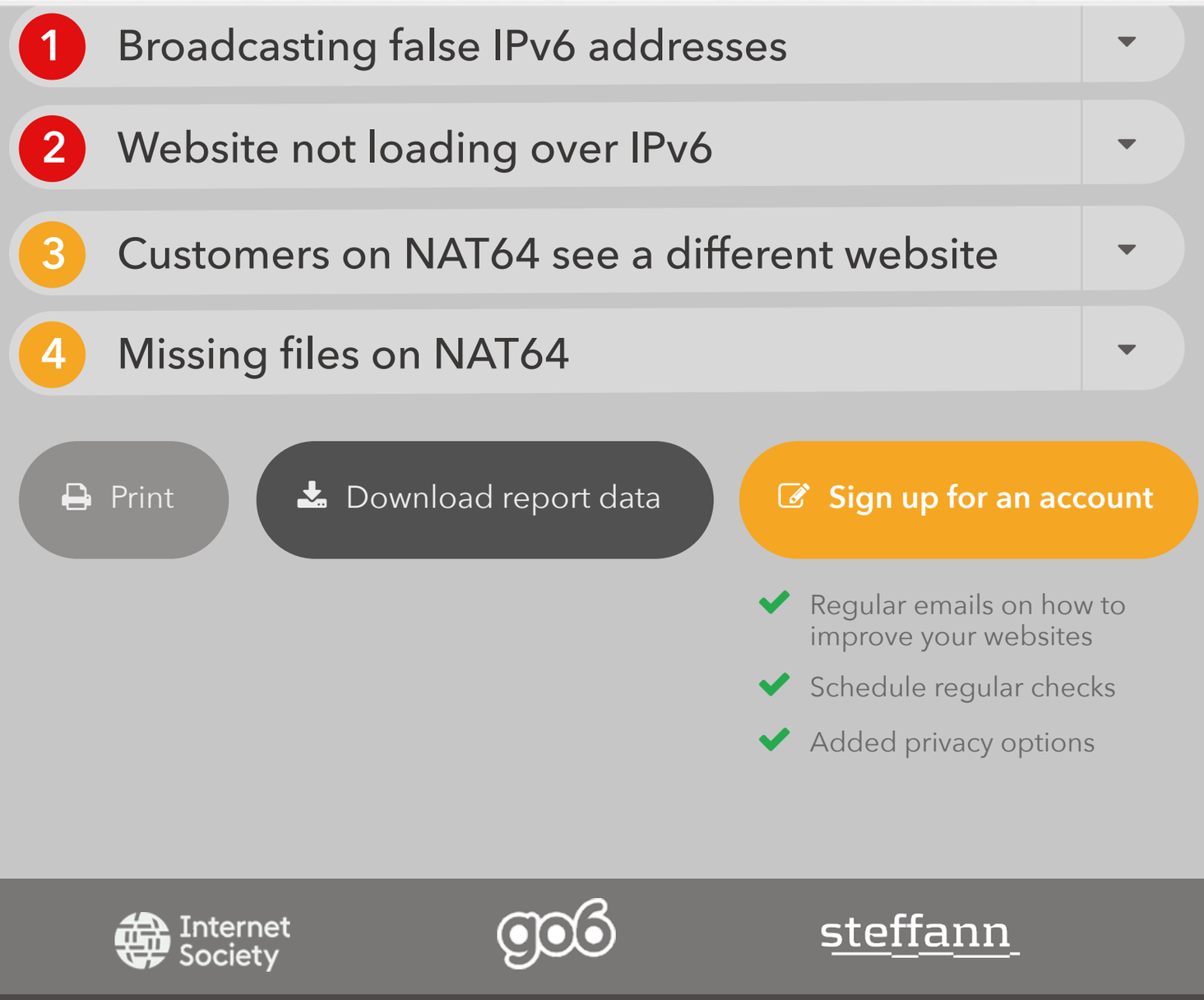
Summary | steffann.nl | Search

Image match

IPv4	NAT64	IPv6
	42% 	

DETAILED VIEW

shown per test location



DETAILED VIEW

shown per test location

History

Search

Filter

repetition

Every 0 day(s)

Website	NAT64	IPv6	View report	Latest activity
www.yet-another-example-of-a-website.com	✔	✖		Latest activity

RECURRING TESTS

get alerts when things break

Top questions

Why should I offer IPv6 to my customers?

This is the answer to why you should do this but I don't actually know what that answer would be.

Read more…

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BACKGROUND INFORMATION

learn more about IPv6, NAT64 and the modern internet

Credits / blame

- Zaphod:
  - Design: **Corinne Pritchard**
  - Front-end implementation: **Internetbureau Max**
  - Back-end implementation: **Sander Steffann**
- Trillian:
  - Implementation: **Sander Steffann**
- Marvin:
  - Initial implementation: **Musa Stephen Honlue**
  - Final implementation: **Sander Steffann**

We are working hard on version 2!

The back-end is up and running
The front-end is being connected to it

Sorry for the delay
But any day now!!!

Many thanks to ISOC
for sponsoring the development

steffann

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go6