Browser Security

Robert Gabriel

R00102430

Task 1: (10 marks)

Write a short note on the security features of one the Browser's above.

Firefox is known for being one of the tightest web browsers on the web when it comes to security. Firefox uses a sandbox security model,(which separates running programs), it limits scripts from accessing data from other websites based on a system called same organ policy. It uses SSL/TLS to protect communications of the users with web servers and using custom made cryptography when using HTTPS when visiting websites. With a move in 2013, which saw Firefox disable all 3rd party cookies by default? As of 2013 Firefox is ranked with the second highest serecty by default.

Discuss what add-ons should be used to make the Browser more secure.

Adds for Firefox, are great as they add features and make the browsing on the web safer and easier. Some of the best adds on for Firefox are:

Web of Trust (WOT) : WOT rates every site on the Internet for its security risk: green equals safe, amber equals worrisome and red means avoid like the plague. Simple, easy, and a must-have security measure.

BetterPrivacy – The BetterPrivacy Firefox add-on is designed to scrape away the most persistent tracking cookies that websites (and, especially, advertisers) use to profile your online activity.

Torbutton – For those that don't know, Tor is a proxy surfing service that prevents even your ISP (or employer) from knowing exactly what web sites you're visiting

Give details of where you would go to download these add-ons.

- First, go to the Firefox Add-ons site and select the extension you would like to install.

- Click on the Add to Firefox button and the Software Installation window will appear .

- After a brief countdown (takes about 2 seconds), the Install Now button will be active.

- Click on Install Now.

- Once Firefox restarts you will now be able to use your add-on.

Task 2: (15 marks)

Write a short note on each of the following Browser Security Checkers

1. Shields Up

Shields Up is an online port scanning service created by Steve Gibson of Gibson Research Corporation and hosted at grc.com. The purpose of this utility is to alert the users of any ports that have been opened through their firewalls or through their NAT routers. The utility can scan the most common file sharing ports, as well as all service ports (1-1056), and user defined ports, in sets of 64.

Doing the following tests:

- File Sharing
- Common Ports
- All service ports
- Messengers spam
- Browser header

2. Qualys Browser Check

Qualys Browser Check is a free service allowing anyone to scan their browser and ensure their browsers and plug-ins is secure and up-to-date.Also included is the operation system with apps. I like this one alot.

3. Browser Scope,

Browserscope is an open-source project for profiling web browsers and storing and aggregating crowd-sourced data about browser performance. With any flaws in the system.

It tested on the following areas:

- postMessage
- JSON.parse
- toStaticHTML
- httpOnly cookies
- X-Frame-Options
- X-Content-Type-Options
- Block reflected XSS

- Block location spoofing

- Block JSON hijacking

- Block XSS in CSS

- Sandbox attribute

- Origin header

- Strict Transport Security

- Block cross-origin CSS attacks

- Cross Origin Resource Sharing

- Block visited link sniffing

- Content Security Policy

Task 3: (5 marks)

Use one of the above Browser Scanners to check the security of your browser.
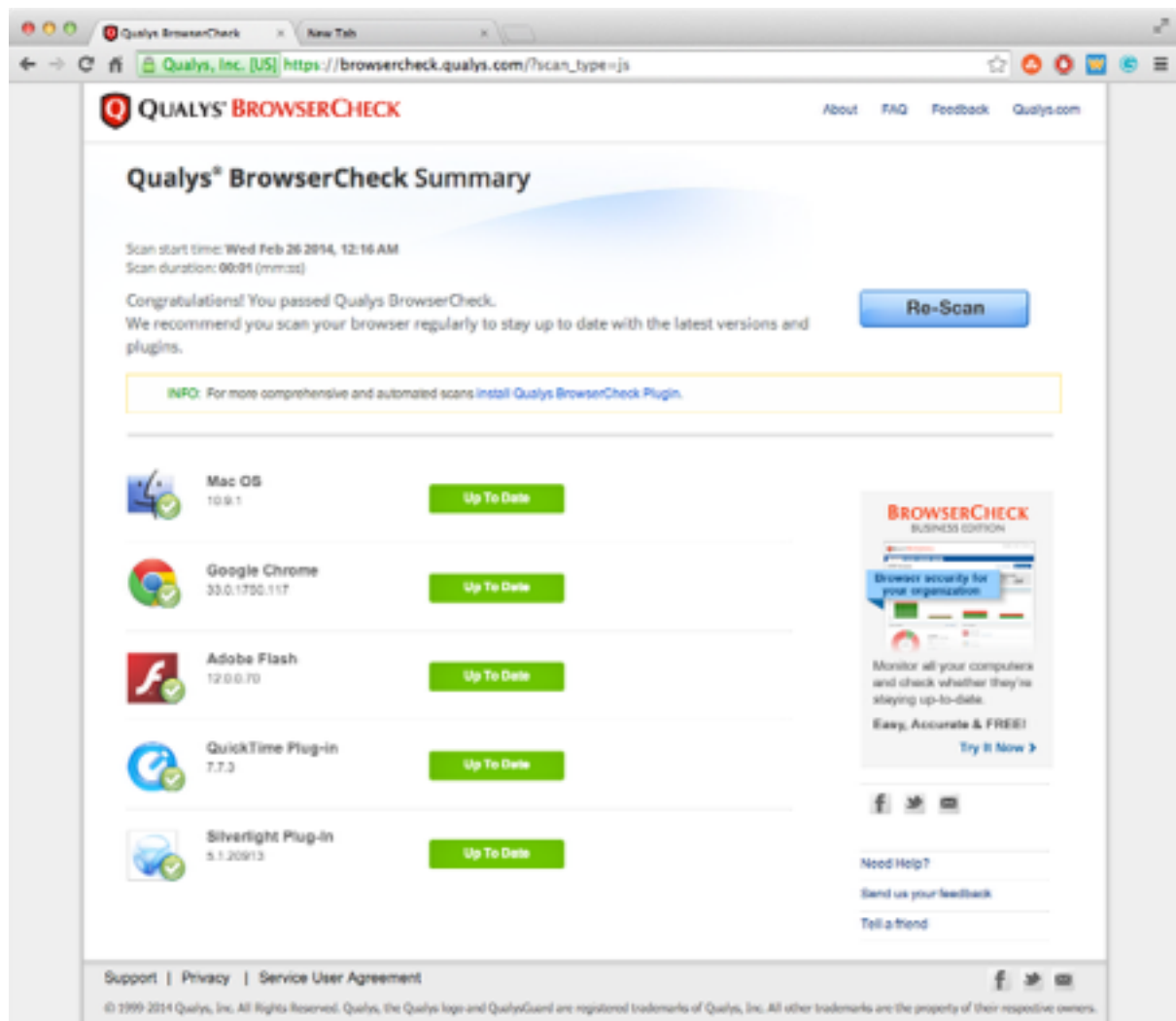
2. Qualys Browser Check

Operation system used : Mac os Marcets

Browser Chrome

No Pluin Scan

> First I went to https://browsercheck.qualys.com and i clicked on t the link that said "Launch a quick scan now.
>
> After its run you will get a list of all found plugins. Any of the definitely outdated appear first in line, with a red warning and a Fix It button next to it. Clicking the button updates the plugin. It also checks if your browser is up to date aswell.
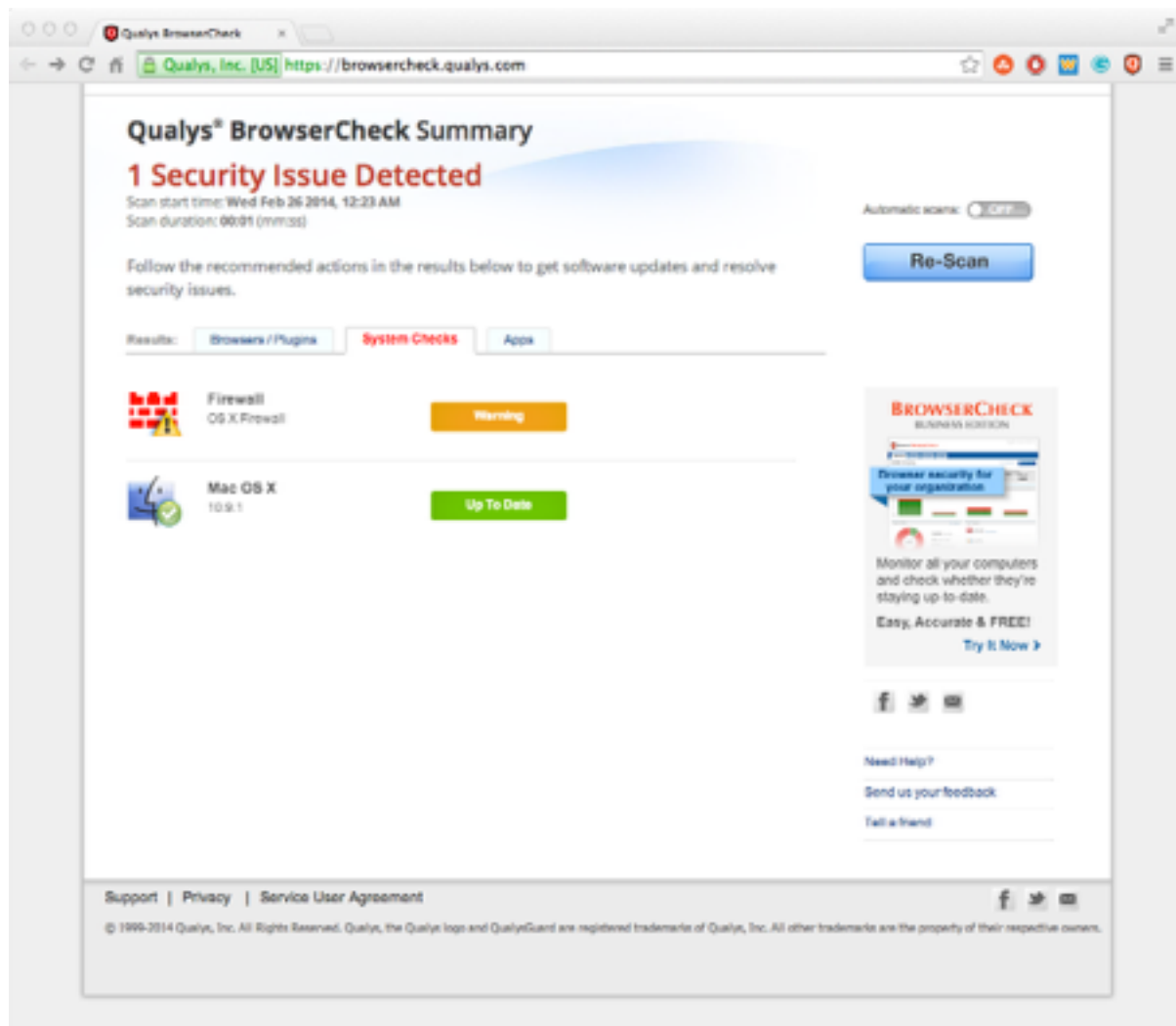
Plug-ins that BrowserCheck has green-flagged as fully secure show up at the end of the list.

Below is the results it had for the installed Qualys BrowserCheck plugin. The first screen is the browser and plugins I had on my computer.
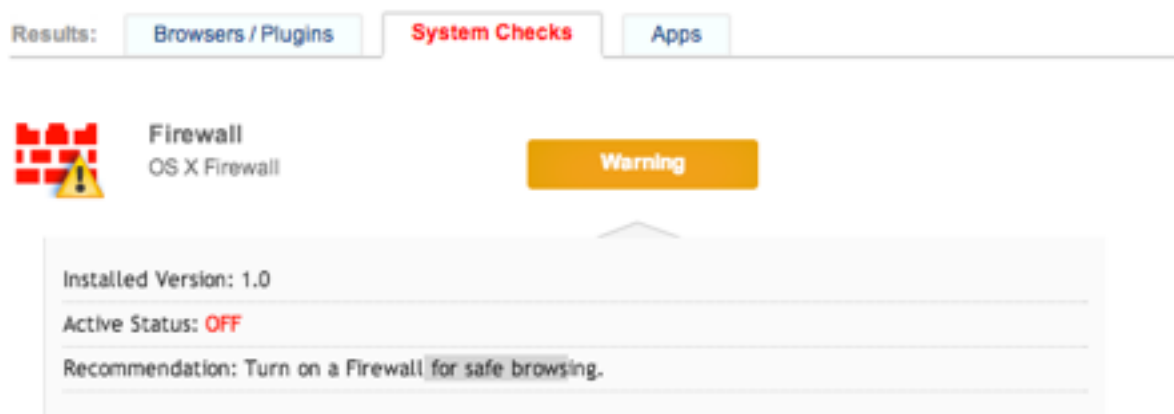
As you can see I had Chrome,sarfria and firefox which where all updated and safe .
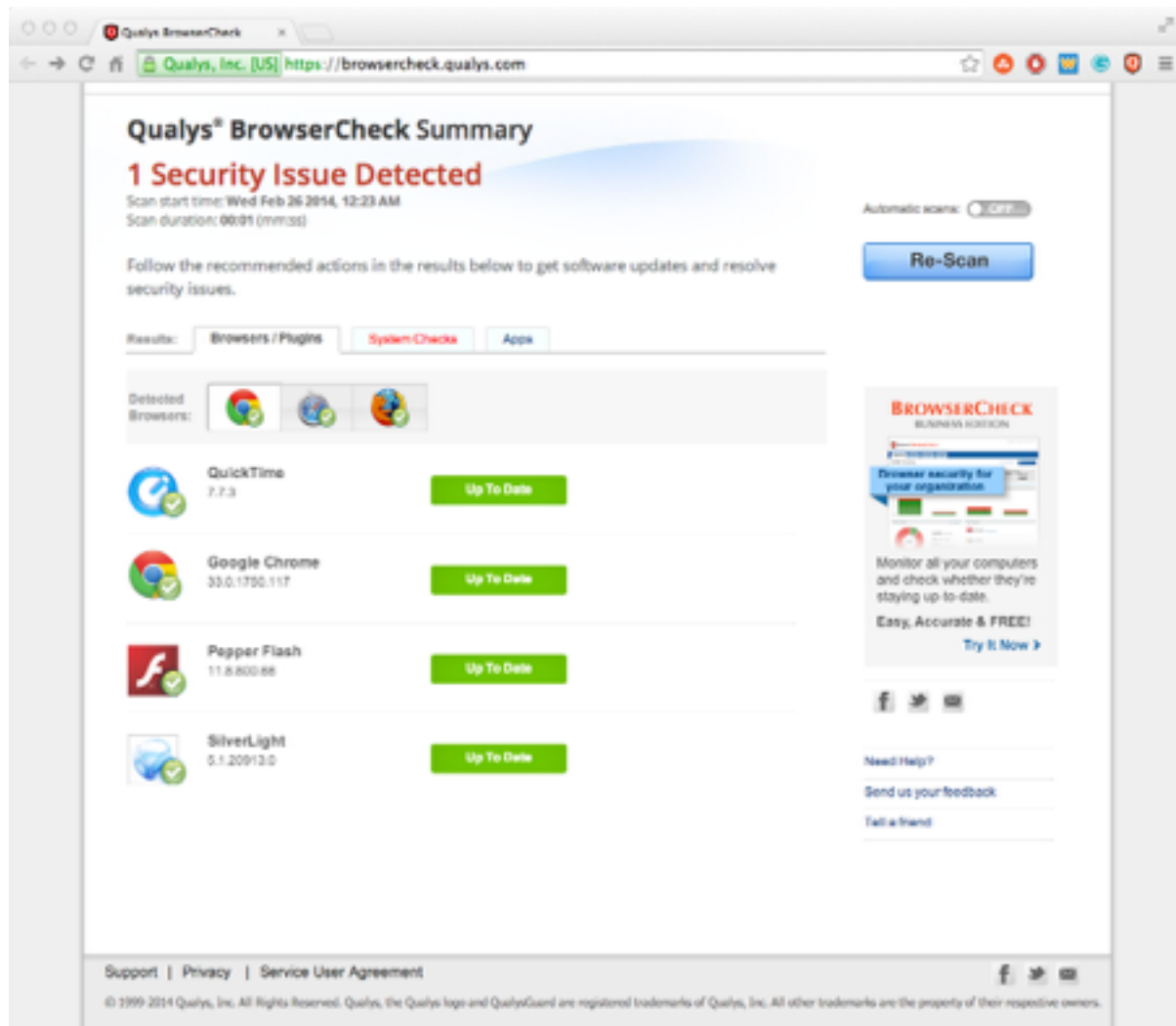
The plush where all updated as well.

The second screen is the System check, which checks over my Operating system and sercuity settings. As you can the operation system is up to date and perfect while the firewall isn't all that safe.

When I clicked on the warning it showed me why it was bad. That the firewall was also turned off. This is a easy fix and makes my computer safer too.
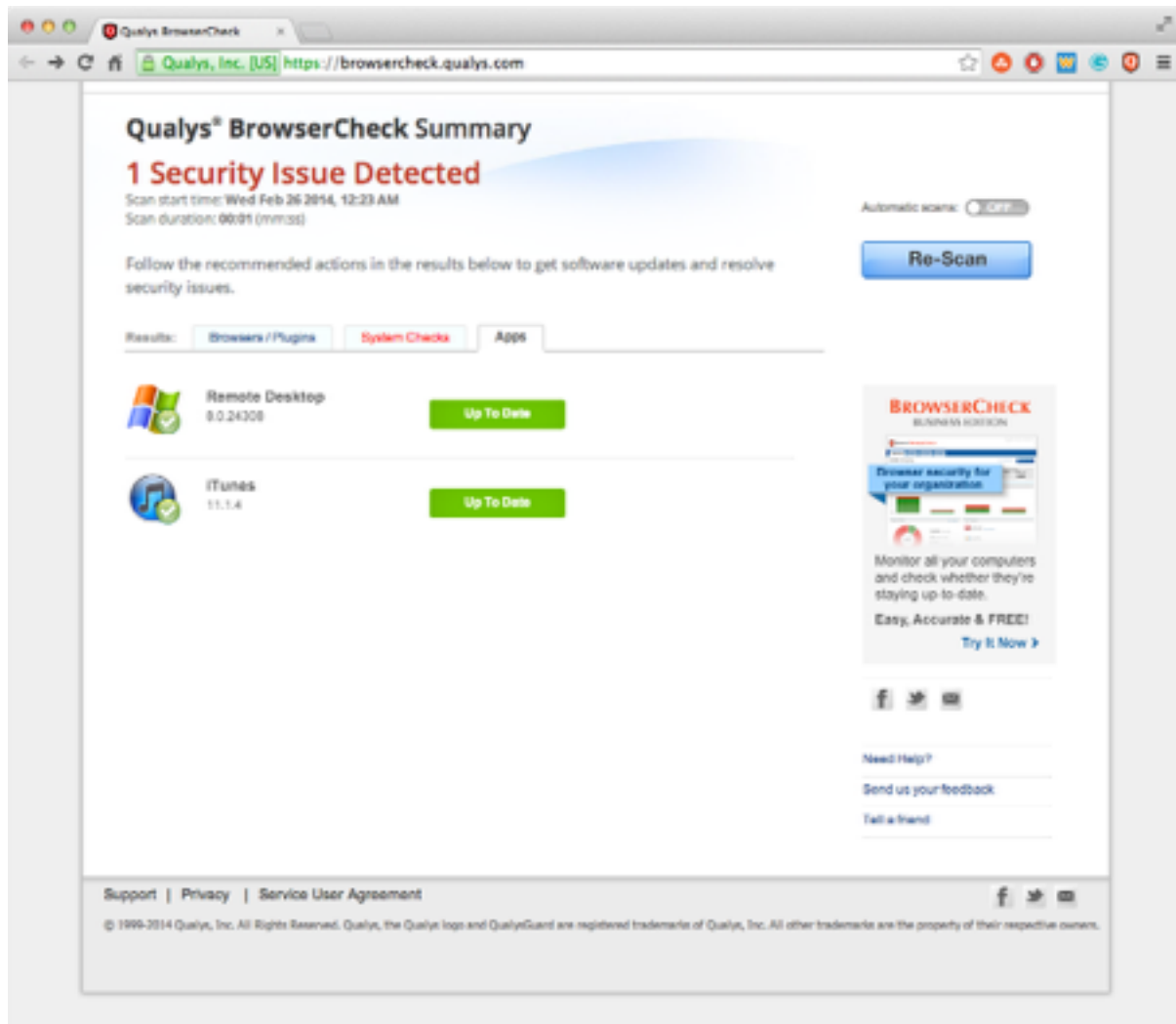
Last but not least was the Apps section, these are the are for any apps that use or download third party apps and files. There all updated and verity.

This is a great software that should me all the problems i could have with my system. I was pretty safe with my settings beside the firewall. I didn't know it was turned off, but is now fixed.

I would highly rate this software for everyone to check there system. 10/10