

# Technical Enablers within the Privacy Flag Framework

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FLAG**



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**Privacy Flag Project** Enabling Crowd-sourcing based privacy protection for smartphone applications, websites and Internet of Things deployments



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## About CTI

-  One of the major R&D institutes in Greece
-  Has undertaken more than 85 R&D projects
-  The team involved in Privacy Flag works within CTI's Research Unit 1 (RU1) which consists of 7 Faculty Members, 9 PhD Researchers and 20 Engineers-PhD Students
-  The CTI team is involved in relevant FP7 and national projects in the privacy/security, crowdsensing/crowdsourcing and IoT (PROTOS, ABC4Trust, IoT Lab)



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# SECURITY AND PRIVACY ENABLERS (UL)



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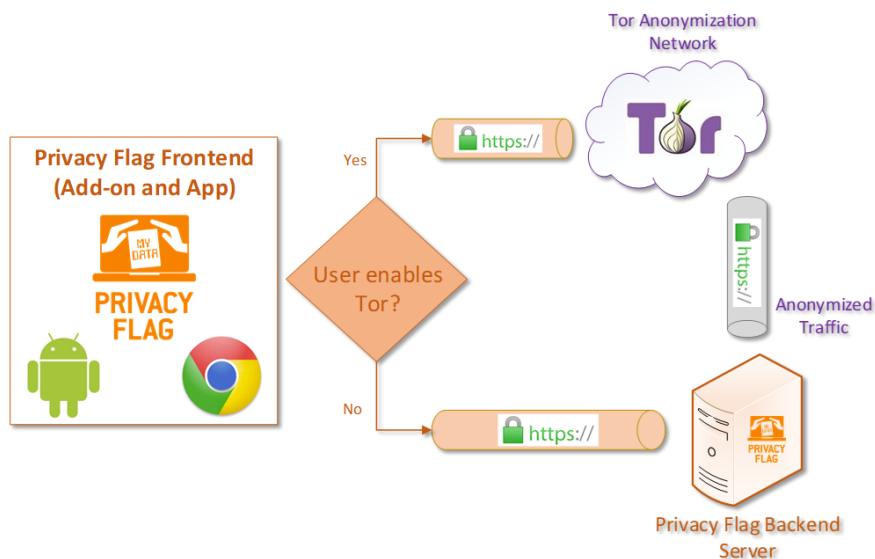
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# Security Architecture & Security Provision

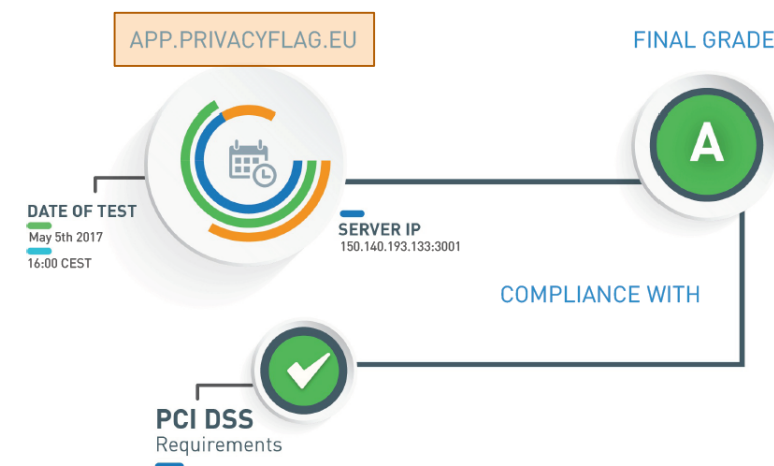


SSL SERVER SECURITY TEST

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

## SSL Server Security Test of app.privacyflag.eu

Test SSL/TLS implementation of any service on any port for compliance with PCI DSS requirements, HIPAA guidance and NIST guidelines.



## Assessment Executive Summary

The server configuration seems to be good, but is not entirely compliant with NIST guidelines and HIPAA guidance.

Information

The server prefers cipher suites supporting Perfect-Forward-Security.

Good configuration



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# **CROWD SOURCING MONITORING OF PRIVACY RISKS WITH DISTRIBUTED AGENTS (CTI)**



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# PF Threat Observatory





applications.js



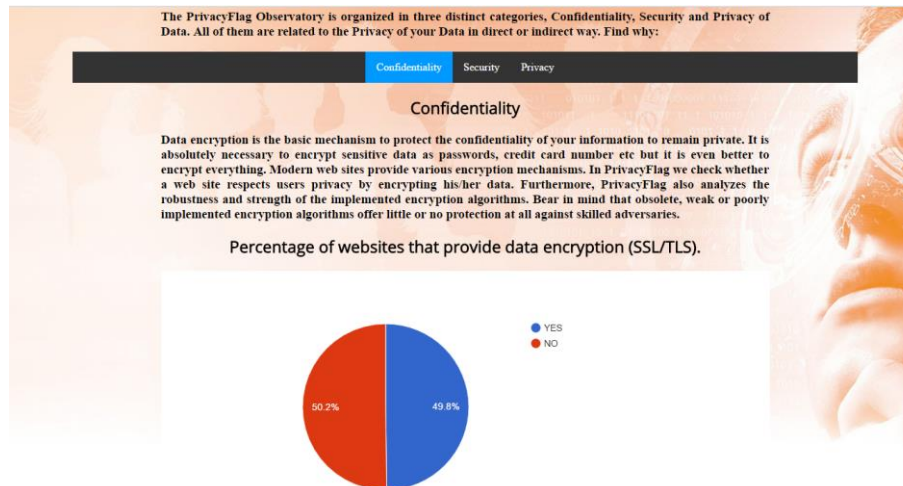
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# PF Observatory

## Final Version:

PF Observatory version 3

(current version): <http://app.privacyflag.eu:2080/privacy/addon/observatory.php>



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# **BROWSER ADD-ONS & SMART PHONE APP (Velti)**



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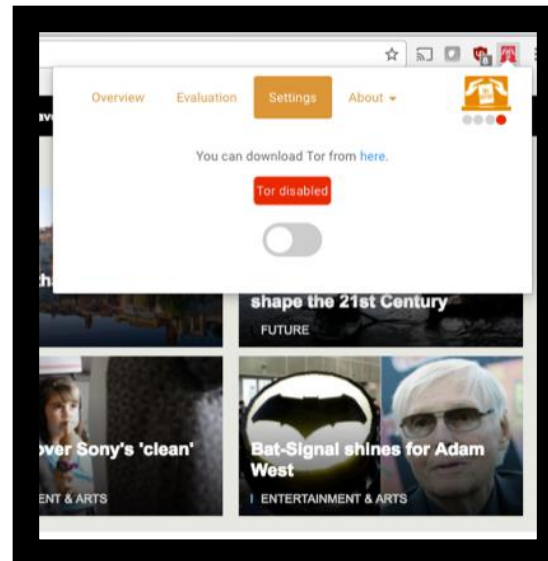
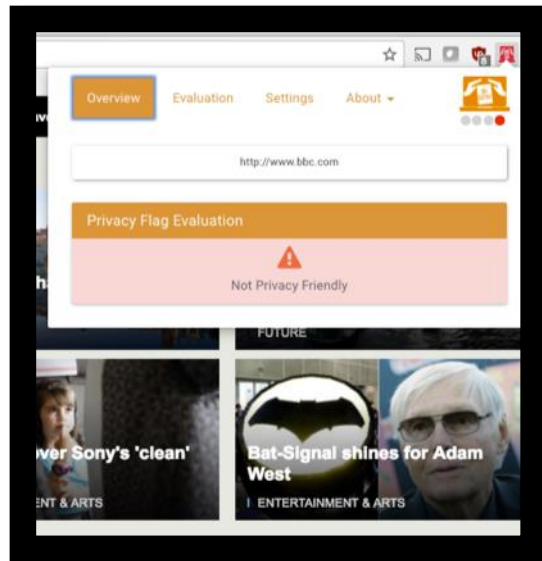
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PF flag quickly shows the evaluation of the site

Users can through the settings Enable or Disable ToR communication



Early Warning System implementation





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## About

-  A tool to inform users on the privacy risks from the applications installed in his mobile (Android)
-  Characterize a site as “privacy friendly” or “not privacy friendly” based on
  - ❖ User evaluation (URPAAM)
  - ❖ Automated threat recognition (Distributed agents – based on Android permissions)



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# **DATABASE AND SERVER IMPLEMENTATION (CTI)**



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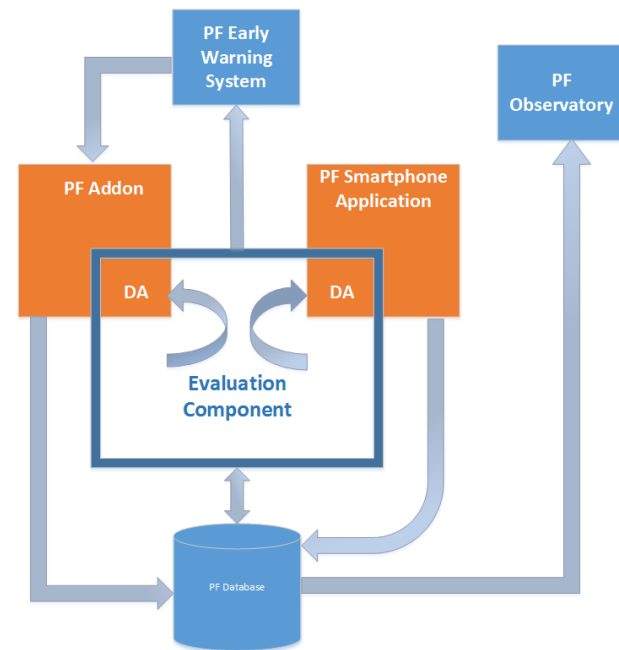
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## T4.5 Database and server implementation

A holistic fully integrated approach combining:

- PF Distributed Agents
- PF Evaluation Component
- PF DataBase
- PF Observatory



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# WEBSITE AND BACKEND MANAGEMENT PLATFORM



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# Main achievements/ outcomes

The website is redeveloped in php technology based on Wordpress CMS (due to some legacy issues with .NetNuke CMS ) and frontend is redesigned to support more up to date look & feel

1. User engagement: is enhanced, tools presented with how-to install manual and in more user friendly manner.
2. Tools available from the website
3. News, Dissemination, etc updated

## Privacy Flag Tools

**Tool 1:** Privacy Flag browser add-on [Read more](#) >

**Tool 2:** Privacy Flag smart phone application

**Tool 3:** Privacy Software as a Service (PSaaS)



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@DSMeu

We want to mobilise €50 billion of investments to support digitalisation of industry [bit.ly/1P82UIU](https://bit.ly/1P82UIU) #DigitalDay17 #DigitiseEU



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## Latest news

**IEEE Webinar**  
July 1, 2016

Privacy Flag has been presented by Sébastien Ziegler and Luca Bolognini in an IEEE Webinar on European personal data protection. [Read more](#) >

**IoT Week 2016**  
June 5, 2016

Privacy Flag organized a session on Privacy at the IoT Week 2016 conference in Belgrade. [Read more](#) >



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# Thank You!

## Q&A