GLOBALEAKS

TECHNICAL AND OPERATIONAL APPROACHES TO PRIVACY IN WHISTLEBLOWING

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What is GlobaLeaks 1/2

GlobaLeaks is a project started in 2011 to support the development of whistleblowing best practices.

Today GlobaLeaks is a **omni-comprehensive whistleblowing framework** result of the experimentation in **13 years** by more than **30.000 organizations worldwide** using the methodology for whistleblowing projects in highly sensitive initiatives protecting at-risk communities in 4 major fields of application:

- Anti-Corruption
- Corporate Compliance
- Human Rights Protection
- Investigative Journalism

What is GlobaLeaks 2/2

The initial <u>project idea</u> was to merge security with usability.

For this reason the software:

- Is built in full adherence with ISO27001, ISO37002 and GDPR and features privacy, security and anonymity configurations <u>by design and by default</u>;
- Embeds <u>whistleblowing workflow logics</u> and <u>case management features</u> in continuous development and improvement by the whistleblowing community;
- Features wide-range internationalization and localization with translations in **93 <u>languages</u>** including all the official EU languages and a large set of languages spoken by European citizenships (protecting minorities like Uyghurs and Tatars).

A Digital Public Good

The GlobaLeaks framework is recognized as a Digital Public Good by the Digital Public Good Alliance

The alliance includes UNDP, UNICEF, Federal Ministry of Economic Cooperation and Development of Germany (BMZ), Norwegian Agency for Development Cooperation (Norad) and GitHUB and other international organizations

https://digitalpublicgoods.net/registry/globaleaks.html

The meaning of "Free and Open-Source"

Free: there is no cost of license to use it

Open-Source: everyone has access to any project detail enabling large peer-review

We consider that **any whistleblowing software should be open source** to maximize public auditing and enable the whistleblowing protection community at large to contribute improve whistleblowers' protection

GlobaLeaks is both Free and Open-Source.

Use cases

Anti-corruption

Corporate compliance

Human rights protection

Investigative journalism

Relevant users by field of application: Anticorruption

Italy: National Authority for Anti-corruption (ANAC), Ministry of Justice, Ministry of Defense, AgID and 4.000 other italian organisations.

Europe: Barcelona City Hall, Valencia Anti-fraud Authority and many other ~400 orgs.

Worldwide: Madagascar Anti-Corruption Authority (BIANCO), Government of Mexico, Government of Maldives.

Transparency International chapters (EU): Bulgaria, France, Ireland, Italy, Kosovo, Latvia, Macedonia, Montenegro, Portugal, Serbia, Slovenia.

Transparency International chapters (world): Chile, Ghana, Pakistan.

Relevant users by field of application: Compliance

Italy: Fiorentina football club, Clementoni, Médecins Sans Frontières, Edison energy company, Rai national television, Enav air traffic control company and more than ~1.000 other companies.

World: Many chambers of commerce implement GlobaLeaks and serve ~200 companies each, around 20 software providers serve around ~200 customers each.

Relevant users by field of application: Human Rights

The International Criminal Court (ICC) runs 2 pilot projects for reporting war crimes in Central African Republic II and Libya.

Amnesty International ran a human rights violations' reporting project in Pakistan and Saudi Arabia.

More than 200 NGOs and networks of whistleblowing protection worldwide run projects based on the GlobaLeaks framework (e.g. PPLAAF in Africa, LatamLeaks in Latin America, etc.)

Relevant users by field of application: Journalism

Several media outlets worldwide use GlobaLeaks to receive tips for investigative journalism:

- LeMonde
- Radio Free Asia
- Radio Free Europe
- Radio France
- WIRED: WiredLeaks
- Investigative Reporting Project Italy (IRPI): IrpiLeaks
- RE-CHECK
- Earth League International: WildLeaks
- Arab Reporters for Investigative Journalism (ARIJ): IARIJ

How were these results achieved?

The basic main concept has been to merge: **security** with **usability**.

The idea is that an app in this context should feature both this two characteristics in a **correct balance**.

Since the threat model of users is very broad the application should feature **secure by default and by design configurations**.

Main drivers that lead to the current result

- **Motivation**

- **Funding / Sustainability Plan**

- **Collaboration with stakeholders and experts in whistleblowing and IT security**

- **Large user testing and continuous feedback**

- **Open-Source know-how and Public Peer Review**

App Components

- **Self contained web app developed with:** Python and Javascript

- **Frameworks:** Python-Twisted, SQLAlchemy/SQLITE, Angular, Bootstrap

- **Encryption Libraries**: pyopenSSL, python-cryptography, libsodium

- **Additional Software:** Tor, AppArmor, IPTables, Modern Browsers, Tor Browser

- **Packaging:** Debian

Main App Features

- **Encryption:** Encrypt Everything! (ISO27001:2002)

- **Data ACL and Retention Policies:** Automatically applied to everything! (GDPR)

- **Data Minimization and Optimization of the Process:** Less data and subject to same policies.

  https://docs.globaleaks.org/en/main/security/ThreatModel.html

  https://docs.globaleaks.org/en/main/security/ApplicationSecurity.html

Encryption Protocols and Ciphers

- **Transit:**
    - **TLS: 1.3 / 1.2 - Elliptic Curve Keys (PFS)**
    - **Let'sEncrypt Certificates**
    - **AES: on temporary files**

- **Rest:**
    - **Libsodium:**
        - **Asymmetric:** SealedBoxes, an encryption implementation that combines Curve25519, XSalsa20 and Poly1305 algorithms
        - **Symmetric:** SecretBoxes, an encryption implementation that combines XSalsa20 and Poly1305.

    - **Encryption Protocol:** https://docs.globaleaks.org/en/main/security/EncryptionProtocol.html

GlobaLeaks

DEMO and TRY Platforms

https://demo.globaleaks.org

https://try.globaleaks.org

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Thank you for your attention

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