

2020

State of the Onion

Integration of Tor in Applications

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The Tor Application Ecosystem

Applications and Systems with Tor support:

- Tor Browser.
- Onion Browser for Apple's iOS platform.
- Tails.
- OnionShare.
- Briar, Ricochet, Cwtch, and Ricochet Refresh.
- SecureDrop.
- OONI Probe.
- Brave.



The Components of Tor

The Tor software is a single binary, with quite a few different purposes:

- ➔ Tor Client (access to onion services and the internet via Exit nodes).
- ➔ Onion Service access.
- ➔ Relay (Guard, Middle, and Exit):
 - Onion Routing.
 - Directory service.
 - Directory and Bridge Authority service (9 of these in total).

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Tor and Apple's iOS platform

Since 2018, The Tor Project have had a strong focus on mobile, but primarily Android.

In 2020, we have worked together with our friends at The Guardian Project on enhancing Tor for Apple's iOS platform:

- Memory profiling.
- Tor Network Extension (handle TCP flows, DNS traffic, etc.)
- Onion Browser integration enhancements.

Tor and Apple's iOS platform

WebKit 1 deprecation, and missing WebKit 2 API :-)

Best option here: **The Network Extension.**

Next Steps

- Continued focus on helping others being successful with **integrating Tor into their apps.**
- Continued focus on **enhancing Tor for mobile experiences.**
- 2021 should also be the year where we begin enhancing Tor for more **VPN-like experiences.**

Thanks for listening!

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