Vault 8

Source code and analysis for CIA software projects including those described in the Vault7 series.

This publication will enable investigative journalists, forensic experts and the general public to better identify and understand covert CIA infrastructure components.

Source code published in this series contains software designed to run on servers controlled by the CIA. Like WikiLeaks' earlier Vault7 series, the material published by WikiLeaks does **not** contain 0-days or similar security vulnerabilities which could be repurposed by others.

Releases ▼ **Documents ▼**

All Releases

Hive - 9 November, 2017

Hive

9 November, 2017

Today, 9 November 2017, WikiLeaks publishes the source code and development logs to *Hive*, a major component of the CIA infrastructure to control its malware.

Hive solves a critical problem for the malware operators at the CIA. Even the most sophisticated malware implant on a target computer is useless if there is no way for it to communicate with its operators in a secure manner that does not draw attention. Using *Hive* even if an implant is discovered on a target computer, attributing it to the CIA is

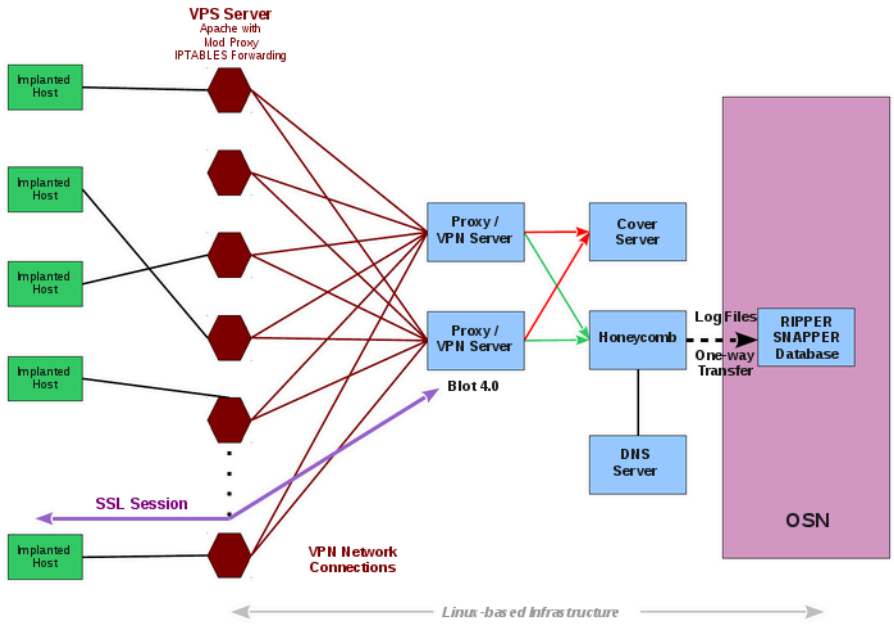
Leaked Documents

DOC Hive Repository

DOC Hive Commit History

operators at the CIA.

Hive can serve multiple operations using multiple implants on target computers. Each operation anonymously registers at least one cover domain (e.g. "perfectly-boring-looking-domain.com") for its own use. The server running the domain website is rented from commercial hosting providers as a VPS (virtual private server) and its software is customized according to CIA specifications. These servers are the public-facing side of the CIA back-end infrastructure and act as a relay for HTTP(S) traffic over a VPN connection to a "hidden" CIA server called 'Blot'.



The cover domain delivers 'innocent' content if somebody browses it by chance. A visitor will not suspect that it is anything else but a normal website. The only peculiarity is not visible to non-technical users - a HTTPS server option that is not widely used: *Optional Client Authentication*. But *Hive* uses the uncommon *Optional Client Authentication* so that the user browsing the website is not required to authenticate - it is optional. But implants talking to *Hive* do authenticate themselves and can therefore be detected by the *Blot* server. Traffic from implants is sent to an implant operator management gateway called *Honeycomb* (see graphic above) while

in the source code build a fake certificate for the anti-virus company Kaspersky Laboratory, Moscow pretending to be signed by Thawte Premium Server CA, Cape Town. In this way, if the target organization looks at the network traffic coming out of its network, it is likely to misattribute the CIA exfiltration of data to uninvolved entities whose identities have been impersonated.

The documentation for *Hive* is available from the WikiLeaks Vault7 series.

Top

WL Research Community - user contributed research based on documents published by WikiLeaks.

Tor is an encrypted anonymising network that makes it harder to intercept internet communications, or see where communications are coming from or going to.

Tails is a live operating system, that you can start on almost any computer from a DVD, USB stick, or SD card. It aims at preserving your privacy and anonymity.

The Courage Foundation is an international organisation that supports those who risk life or liberty to make significant contributions to the historical record.

Bitcoin uses peer-to-peer technology to operate with no central authority or banks; managing transactions and the issuing of bitcoins is carried out collectively by the network.