

LOIC and Anonymous

Originally designed as a network stress tool, the Large Orbit Ion Cannon (LOIC) has contributed to much of the controversy surrounding Anonymous' role in the protests supporting Wikileaks. The program, widely available online, is simple enough to use - download, install, and, for most convenience, turn on "Hivemind" mode. This will automatically synch with all other computers running LOIC in Hivemind, creating an ad hoc, voluntary botnet, which can then be used to issue Distributed Denial of Service (DDOS) attacks against targeted servers, wherein thousands of computer try to download large files from the same location, for as long as the attack takes place.

Anonymous and 4chan have been using this tool for quite a while, but when it was used to attack Mastercard, Paypal, Visa and other servers around the world (most recently in Egypt and Tunisia), in protest against those companies refusal to process payments for Wikileaks, it immediately got attention by the media and the government as actual hacking, which it really is not. What this tool may demonstrate is a modern-day version of a protest sit-in. It is effective on a brute force level for disrupting day to day operations of a business, in the same way that organizing a large body of people to sit-in all day at coffee shop raises awareness.

Essentially flooding a server with requests and flooding a facility with people to disrupt activity are similar, except the LOIC tool lacks the same accountability and sustainability that participating with real people in a tangible environment has. Without constant encouragement from peers, and the social feedback loop that a real-world protest brings, this makes the virtual sit-in less effective and consistent. Another problem is scalability, as reducing business at a coffee shop has a minimal impact on the economy, while taking down world-wide financial servers for over a day may cross the threshold of awareness into retaliation.

This retaliation is a major design problem for LOIC users - the advantage of Internet protests and the main ideology behind Anonymous is the ability to cross this threshold while still masked in anonymity. LOIC is very bad at masking users' IP addresses, exposing them to retaliation by the FBI and other world-wide government agencies. Other application developments that completely gut LOIC and rebuild it with more intelligent software design and a concentration on hiding IP addresses have been created since the Wikileaks attacks (High Orbit Ion Cannon, among others), but the ease of use and ubiquity of LOIC has made it the preferred choice for the majority of Anonymous.

Another design idea that is both beneficial and disadvantageous for users is the open-source nature of LOIC. While having the source code available for anyone to inspect has built an assurance system with users, making distribution easier since the software can be trusted, major agencies retaliating against Anonymous can find ways to exploit the open source for their objectives. HBGary Federal, who are working with Bank of America to destroy Wikileaks and Anonymous, was recently hacked for claiming to have identified major Anonymous figures, planning to sell the information to the FBI - their rootkit and emails were breached, etc. - although they were wrong about the Anonymous identities, many controversial and corrupt activities have come to light from their ~70,000 emails. A few emails paint a conversation between employees about ways of taking the open source LOIC code and injecting malware into the program to fight back against Anonymous using their own protesting tools. They would have slowly seeded the modified program through Anonymous IRC channels, which are the most trusted communication networks.

Although it would be much more dangerous to the community if the LOIC code was closed, there are some indirect consequences of the Utopian, open-source ideal, where nothing that is open source can be bad for your computer and Anonymous can trust Anonymous, even though that can be anyone, anywhere.