

The Darknet Project: netroots activists dream of global mesh network

Written by computathug

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A group of Internet activists gathered last week in an Internet Relay Chat (IRC) channel to begin planning an ambitious project—they hope to overcome electronic surveillance and censorship by creating a whole new Internet. The group, which coordinates its efforts through the Reddit social networking site, calls its endeavor The Darknet Project (TDP).

The goal behind the project is to create a global darknet, a decentralized web of interconnected

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wireless mesh networks that operate independently of each other and the conventional internet. In a wireless mesh network, individual nodes can relay data for other nodes, ensuring that the routing of data remains robust as nodes on the network are added and removed. The idea behind TDP is that such a network would be resistant to censorship and shutdown because there would be no central point of control over the infrastructure.

"Basically, the goal of the darknet plan project is to create an alternative, more free internet through a global mesh network," explained a TDP organizer who goes by the Internet handle 'Wolfeater.' "To accomplish this, we will establish local meshes and connect them via current infrastructure until our infrastructure begins to reach other meshes."

TDP seems to have been influenced in part by an earlier unofficial effort launched by the Internet group Anonymous called Operation Mesh. The short-lived operation, which was conceived as a response to the Anti-Counterfeiting Trade Agreement (ACTA) and its potential impact on Internet infrastructure, called for supporters to create a parallel Internet of wireless mesh networks.

The idea is intriguing, but it poses major technical and logistical challenges, and it's hard to imagine that TDP will ever move beyond the conceptual stage. The group behind the effort is big on ideas but short on technical solutions for rolling out a practical implementation. During the IRC meeting, they struggled to coordinate a simple discussion about how to proceed with their agenda.

Still, despite TDP's dysfunctional organizational structure and lack of concrete strategy, their message seems to resonate with an audience on the Internet. And enthusiasm for mesh networks and decentralized Internet isn't isolated to the tinfoil hat crowd; serious government programs aim at producing similar technology. Earlier this year, the New York Times reported on a US government-funded program to create wireless mesh networks that could help dissidents circumvent political censorship in authoritarian countries.

As repressive governments continue to get better at thwarting circumvention of their censorship tools, dissidents will need more robust tools of their own to continue propagating information. The US State Department seems to view decentralized darknets as an important area of research for empowering free expression abroad.

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A growing number of independent open source software projects have also emerged to fill the need for darknet technology. Many of these projects are backed by credible non-profit organizations and segments of the security research community. Such projects could find a useful ally in the TDP if they were to engage with the growing community and help mobilize its members in a constructive direction.

Unlike TDP, the original Operation Mesh coordinators had specific technologies in mind: they highlighted the I2P anonymous network layer software and the BATMAN ad-hoc wireless routing protocol as the best prospective candidates. Both projects are actively maintained and have modest communities, though the I2P website is currently down. Promising projects like Freenet develop software for building darknets on top of existing Internet infrastructure.

Another group that might benefit from broader community support is Serval, a project to create ad-hoc wireless mesh networks using regular smartphones. The group has recently developed a software prototype that runs on Android handsets. They are actively looking for volunteers to help test the software and participate in a number of other ways.

TDP members who are serious about fostering decentralized Internet infrastructure could meaningfully advance their goals by assisting any of the previously mentioned projects. The growing amount of popular grassroots support for Internet decentralization suggests that the momentum behind darknets is increasing.