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Proposal for :

A secure Internet for a secure world

I. Introduction/Summary

Something needs to be done about the insecurities on the web because Identity theft and general mischief has gone on for way too long. Securing the Internet involves examining the vulnerabilities on the web and revamping how communication works on the web as a whole creating a safer experience for the end user. This will be no easy task, and in fact, it may require years of research, testing, coding and integration before it can truly be effective, but don't we owe it to ourselves, our children and our grandchildren to come up with a more effective web, an Internet 2.0 that is free of vulnerabilities and loopholes.

This proposal is for extensive funding to look into a way of better protecting the web, which will come in the form of new protocols, new hardware infrastructure,

II. Needs/Problems

The difficulty in securing the web stems from the fact that there is not enough information on the topic, and changing the communication can take a long time and will involve extensive marketing and public awareness to effect change at a higher level.

III. Goals/Objectives

Our goals are purely broad and are more of a high-level overview since the technology that is being invented does not exist by virtue of the fact that it needs to be invented.

- Design new Internet Protocols that are more secure, and protect against future attacks
- Design new Infrastructure that can scale properly and better protect the internet at every level
- Marketing campaign to increase public awareness
- Extensive presentations at network conventions to attract more appeal towards our research

IV. Procedures/Scope of Work

Intellectual Merit

Research into securing the Internet will advance knowledge in the cyber security field, allowing us to have a safer experience on the web. In the past inventing new protocols has created a more secure web, such as the invention of the TLS/SSL protocol[2], which uses a complicated encryption algorithm to secure traffic on the web. With the new protocols, we will work closely with the IETF (Internet Engineering Task Force) [1] to create public awareness and force the new security methods into place. Later phases will need time to be implemented, the hardware will be more secure by means of inserting firewalls[3] into all major routers, which will look for any incoming malicious signals and block them on demand, even from things such as D.o.S attacks[4]. The new hardware will need to be manufactured and made easily available to all companies before they can be easily disseminated, the second phase will require much more time to be effective but we are considering within 10 years most of the Internet will be up to date.

Broader Impact

The overall impact to the community is that there will be significantly less identity theft cases in the world. Through the marketing campaign and networking conventions we will help spread awareness of the need for better security measures on the web and how we intend to improve them, creating a more secure web for everyone

V. Timetable

The dates are undeterminable at the current moment, because you can't rush creativity.

	Description of Work	Start and End Dates
Phase One	Design new secure Internet Protocol	TBD
Phase Two	Design new secure hardware infrastructure	TBD
Phase Three	Marketing campaign	TBD
Phase Three	Networking convention presentation	TBD

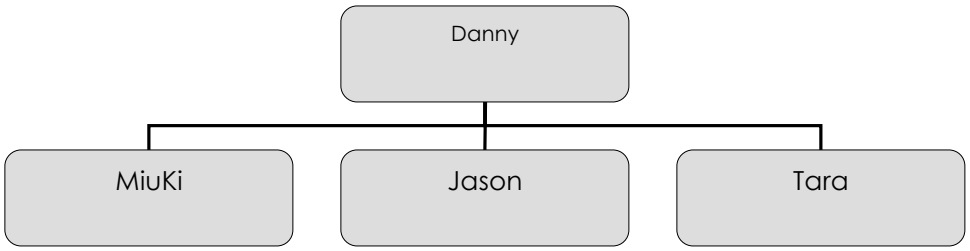
VI. Budget

The budget will involve yearly salary for each of the 4 employees for 2 years plus additional costs in hardware and office supplies. Later phases will involve hiring a marketer and the cost of a campaign, and finally the cost of travel for the conventions

	Description of Work	Anticipated Costs
Phase One	Research Secure protocols	$360k
Phase Two	Research and test secure Hardware	$500k
Phase Three	Marketing	$100k
Phase Four	Networking Convention presentation	$4k
	Total	$ 964,000.00

VII. Key Personnel

Most research will be done by Danny, but will be supported by the others



VIII. Endorsements

Amy Southworth

The Internet

IX. References

1. "Internet Engineering Task Force (IETF)." Internet Engineering Task Force (IETF). Accessed November 6, 2015. https://www.ietf.org/.
2. "What Is SSL (Secure Sockets Layer) and What Are SSL Certificates?" What Is SSL (Secure Sockets Layer)? Accessed November 6, 2015. https://www.digicert.com/ssl.htm.
3. "What Is a Firewall?" SearchSecurity. Accessed November 6, 2015. http://searchsecurity.techtarget.com/definition/firewall.
4. "Understanding Denial-of-Service Attacks - Security Tip (ST04-015)." Understanding Denial-of-Service Attacks. Accessed November 6, 2015. https://www.us-cert.gov/ncas/tips/ST04-015.