7070 Capitol CT

Omaha NE,68131

[Rdanuwar@unomaha.edu](mailto:Rdanuwar@unomaha.edu)

402-111-1111

September 18, 2019

Thom Davis, Professor

University of Nebraska at Omaha

1111 S 67th St,

Omaha, NE 68000

Dear Mr. Davis:

As per the discussion of the project report, requirements and spending a lot of time on finding a good topic, I came up with my project topic of “Multifactor-authentication (MFA)”. Throughout my report, I will be talking about different types of Multifactor authentication (MFA), comparison of easiness, cost and their possibility.

Very firstly, in my report, I will walk through the introduction of multifactor authentication where I will cover up the history, current advancement, and what is going on in the present situation. After that, I will go in deep about its different types, make comparisons based on their cost, easiness, and feasibility. At the end, the reader will have a good understanding and knowledge of multifactor-authentication and you will be able to protect yourself from different cyber-attacks in this cyber-world.

My report on the topic of Multifactor authentication (MFA) will provide a lot of useful and relevant information especially on how to be secure in today’s cyber world. I hope this will help you to protect yourself and be safe from being the cyber victim.

Thank you for the consideration of my proposal

Regards,

Ramesh Danuwar

UNO IS&T Student

Enclosure: Proposal for Report

**Multifactor-Authentication (MFA)**

For

Thomas Davis

Technical Writing

University of Nebraska at Omaha

Omaha, Nebraska

By

Ramesh Danuwar

CIST-3000

September 17, 2019

Section A:

Problem Statement: Nowadays, rapidly growing networks, online applications, and other online services have made our lives more comfortable, however it also made us more concerned about cyber security. Communication between users and internet server has been unsecured. A lot of user’s information has been hacked or stolen online daily. Individuals, organizations, nations and even the world are facing these data breaches. Some of the social issues that arise from identity theft start with emotional, and physical trouble. The stress that is created in one’s family when this happens is tremendous because their whole life financially is flipped. Headaches happen and it creates a huge burden on someone’s back. In this critical circumstance, Multifactor Authentication (MFA) plays a vital role on protecting someone’s information. There are different types of Multifactor- Authentication. Depending on what people want either software based or hardware, individual or biometric, it is their choice and they also can compare the price. I will be describing all of these types with their cost comparison and ease-of-use in my report.

Scope of Work:

Audience: My audiences would be all those individuals, organizations, nations and the whole world who are looking for alternative methods to get secure online services. In short, all the internet services and online application users would be the perfect audiences for my report.

Author Qualification: Being an IS&T student, I have studied some cyber security classes where I learned more specifically about how to protect from cyber-attacks and methods for protection. As an outcome for protection, Multifactor- Authentication came as on the top. That class really opened my eyes and increased my interest for more information `on its types, cost comparisons, and ease-to-use.

Work Plan: This is really very interesting topic for me. I will continue doing research and keep myself up to date with the changing new technology within this field. I am planning to use the college database, journals, articles and whatever the sources available to advance my report in this semester.

Section B: Outline

1. Introduction
   * 1. History
     2. Recent Encroachment
2. Types of Authentication
3. Single Factor Authentication
4. Software Based Authentication
5. Password Input
6. SMS One-time use tokens
7. Time based onetime passwords
8. Hardware Based Authentication
9. Token Based
10. Badge Verification
11. Biometric-based Authentication
12. Fingerprint
13. Face Recognition
14. Retina Scan
15. Cost Comparison and easiness
16. Conclusion

RESEARCH:

R. Amin and G. P. Biswas, “Anonymity preserving secure hash function-based authentication scheme for consumer USB mass storage device,” In Proceedings of the Computer, Communication, Control and Information Technology (C3IT’15), pp. 1–6, 2015