

**THE BACKGROUND OF U.S. DECISION TO INCREASE THE
DEVELOPMENT OF CYBERSECURITY ON CRITICAL
INFRASTRUCTURE UNDER OBAMA ADMINISTRATION**



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DEVELOPMENT OF CYBERSECURITY ON CRITICAL
INFRASTRUCTURES UNDER OBAMA ADMINISTRATION**

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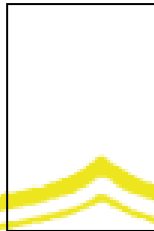
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ENDORSEMENT PAGE

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STATEMENT OF ORIGINALITY

This is to certify that to the best of my knowledge, the content of this thesis is my own work and has not been submitted for any degree or other purposes.

I certify that the intellectual content of this thesis is the product of my own work and that all the assistance received in preparing this thesis and sources have been acknowledged.

Yogyakarta, May 14th, 2017

Author,

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QUOTATION

For my beloved Mom and Dad...

“First bird gets the worm
And second mouse gets the cheese”

-anonymous

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The highest gratitude is dedicated to Allah subhanahu wa ta'ala for His kindness and blessings that make it possible for the writer to accomplish this undergraduate thesis entitled "The Background of U.S. Decision to Increase the Development of Cybersecurity on Critical Infrastructure under Obama Administration" in a well-allocated time. The praises also dedicated to Prophet Muhammad (Peace be upon Him) that has guided us from the world of darkness to the lightness.

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This undergraduate thesis itself is the product from the cumulative knowledge that had been obtained during the study of undergraduate degree in department of International Relations, Universitas Muhammadiyah Yogyakarta. The writer realized that this undergraduate thesis is far from perfect and there is still room for improvements, as it is also the essence of learning, thus, constructive suggestions are welcomed for the better development of writer's writings in the future.

The writer wished that this undergraduate thesis will be useful for the development of International Relations study and can be used as a literature reference towards the further study in the issue of cybersecurity.

Yogyakarta, May 14th, 2017

Rahma Triwahyuni

EXTENDED GRATITUDE

Alhamdulillah rabbi'l'alam, the highest compliment is dedicated to Allah ﷻ because only by His blessings this undergraduate thesis can be accomplished as one of the requirements to obtain the Bachelor degree of International Relations in Universitas Muhammadiyah Yogyakarta. The praise is also addressed to Prophet Muhammad ﷺ for his guidance that has led the mankind towards the world of betterment.

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ABSTRACT

Name : Rahma Triwahyuni
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Title : The Background of U.S. Decision to Increase the
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under Obama Administration

It can be perceived that past globalization was characterized by the falling trade barriers that enabled the freer movement of people, goods and services as well as capitals. However, in today's era globalization has been perceived as something wider since the involvement of technology such as internet and network system have been influenced much of aspects in our life including the management of critical infrastructure by the government. The new dilemma was emerged as the management of critical infrastructure that used the internet and network systems was like two sides of coin which in one hand can facilitate a state to conduct a more efficient and less costly management effort while at the same time it required a maximum protection in security both physically and in cyber aspects. This is in fact has been becoming a growing concern for many states including United States of America. It was proven by the attempt of U.S. government under Obama administration that tried to increase the effort in increasing its cybersecurity through the increasing budget in FISMA and IT Spending as well as the establishment and strengthening effort of several cybersecurity related agencies particularly in critical infrastructure sectors.

The objective of this research is to analyze the international and domestic factors that influenced U.S. decision to increase its cybersecurity in critical infrastructure aspects based on Easton's theory of decision-making process. Furthermore, in order to execute this research, the writer was using qualitative method by using secondary data taken from sources such as books, journal articles, government publications and other literatures sources.

This research then revealed several findings that proved the existence of international and domestic factors that influenced U.S. in increasing its critical infrastructure cybersecurity. In international factors, cyberattack that was experienced directly by U.S. and lesson learnt from other state experience were a focal considerations for U.S. in this extent. Meanwhile the domestic factors were mainly shaped in form of demand and supports from U.S. statehood especially society such as interest groups, academic scholars and the political elites.

Keywords:

Cybersecurity, Cyberattack, Critical Infrastructure, Obama Administration

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List of Abbreviations

CNCI	Comprehensive National Cyberspace Initiative
CSIS	Center for Strategic and International Studies
DHS	Department of Homeland Security
DOD	Department of Defense
FBI	Federal Bureau Investigation
FISMA	Federal Information Security Management Act
ICS	Industrial Control System
ICS-CERT	Industrial Control System - Cyber Emergency Response Team
ISACs	Information Sharing and Analysis Centers
IT	Information Technology
NCCIC	National Cybersecurity and Communication Integration Center
NIST	National Institute of Standards and Technology
SCADA	Supervisory Control and Data Acquisition
UN	United Nations
US-CERT	U.S. Computer Emergency Readiness Team
U.S.	United States