



FACULTY OF APPLIED SCIENCES
DEPARTMENT OF COMPUTER SCIENCE
MSc. INFORMATION SYSTEMS

**DESIGN OF A FRAMEWORK FOR IMPLEMENTING THE CYBER
SECURITY STRATEGY (CSS) OF ZIMBABWE**

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ABSTRACT

Technology is ever evolving and this trend leads to several security concerns as the risks increase in line with the developments in the technological sphere. Several countries across the world have realized the need to protect their cyberspace and have designed and implemented country specific Cyber Security Strategies (CSSs). From evidence revealed through this study, Zimbabwe haven't developed its own CSS which leaves the country at risk to cyber-attack. It was in this interest that this research focused on developing and implementing the CSS of Zimbabwe. Typical CSS are two tiered comprising the cybercrime strategy in form of cyber laws and the other tier containing cyber infrastructure development, implementation and maintenance strategy. This study aimed at discovering the enhancers of cyber security strategy implementation, barriers to its implementation, duties of the cyber management team which would ultimately lead to the design and implementation framework for the CSS strategy of Zimbabwe. Computer Emergency Readiness/Response Team (CERT) was found to be a popular feature amongst several countries' CSSs, so Zimbabwe is encouraged to have its own national CERT (zimCERT) and promote the establishment of organizational CERTs. This study will at least provide policy makers with information they need in the implementation of the CSS. The framework proposed can be evaluated, modified and help in guiding implementation of a proper CSS for Zimbabwe. Cyber-attacks and cybercrimes have increased in statistics over recent years, therefore it was found imperative in this study for every country to proactively defend and protect its cyberspace. Zimbabwe hasn't witnessed major national cyber-attacks but the recent attack on one of the national institutions of higher learning in the country has raised questions on how secure the country is. That is a good wake-up call and the country is fortunate that it wasn't as detrimental as the 27 April 2007 Estonian attack and the succeeding Georgia and Kyrgyzstan attacks. On the international front, it has been found that countries are obliged to cooperate in fighting cybercrime. Since the Edward Snowden US-Russia standoff, there has been an increased rampage of cyber-attacks and the most recent one is the WannaCry ransomware that has caused havoc in this domain. It is in this light that the country should quicken the design and implementation of its CSS.

Key words: CSS, CERT, cybercrime, zimCERT, cybercrime legislation