CRITICAL INFORMATION INFRASTRUCTURE SECURITY – NETWORK INTRUSION DETECTION SYSTEMS

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Critical Information Infrastructure security will always be difficult to ensure, just because of the features that make it irreplaceable for other critical infrastructures normal operation. It is decentralized, interconnected, interdependent, controlled by multiple actors (mainly private) and incorporating diverse types of technologies. It is almost axiomatic that the disruption of the Critical Information Infrastructure affects systems located much farther away, and the cyber problems have direct consequences on the real world. Indeed, the Internet can be used as a multiplier in order to amplify the effects of an attack on some critical infrastructures. Security challenges increase with the technological progress. One of the last lines of defense which comes to complete the overall security scheme of the Critical Information Infrastructure is represented by the Network Intrusion Detection Systems.

Keywords: *Critical Information Infrastructure Security; Intrusion Detection Systems; SCADA; NIDS.*

Introduction

The modern society has become increasingly dependent on the availability, reliability, safety and security of many technological infrastructures. Information systems are a necessity for humanity because of the important social and economic benefits offered, and the serious consequences arising from their failure. Critical infrastructures consist of those physical and information technologies, networks, services and supplies which, if damaged or destroyed, could have a serious impact on the health, safety and security or economic well-being of citizens or the effective functioning of governments. [1] In our opinion, for society to survive, the following critical infrastructures must operate, at least to a minimum: water, electricity and fuel supply; transport and communication system; food supply and waste management; financial and insurance

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