

## Abstract

IPTV (Internet Protocol Television) is a system where digital television is sent using Internet Protocol through an infrastructure with high connection speed. Of course IPTV networks cannot be safe from the high number of threats that can happen, especially external threat (threats from outsiders). There are many methods on handling and increasing the security of an IPTV network, and one a method that can be used is by adding VPN gateway in the network, also using encryption to secure all data and communication on the network.

This final project proposes a secured IPTV system where VPN gateway will be added on the IPTV network created. The VPN will be using SSL for authentication, and SRTP will be used for video encryption on the IPTV server, with the objective to defend the system from threats that may happen. Analysis will be done on 4 different types of attacks, which are: *Eavesdropping*, *Video Hijacking Attack*, *Denial of Service*, and *Web Spoofing Attack*.

From the testing and analysis done, the addition of VPN gateway and SRTP for encryption makes the system able to defend itself from all four types of attack tested. If only SRTP is used, the system can only defend from eavesdropping and Video Hijacking attack, while if only VPN gateway is used, the system can defend from eavesdropping, Denial of Service, and Web Spoofing, but it cannot prevent Video Hijacking.

**Keyword:** IPTV, SRTP, VPN, Security