



وزارة التعليم العالي والبحث العلمي, العراق
جامعة بابل
كلية تكنولوجيا المعلومات
قسم شبكات المعلومات
الدراسة: (الصباحي)



تحليل البكت في الشبكة

Network packet analysis

مشروع التخرج هو متطلبات الحصول على درجة البكالوريوس في تخصص شبكات المعلومات في تكنولوجيا المعلومات

A Graduate Project Submitted to the department of Information Networks of the College of Information Technology, University of Babylon, in Partial Fulfillment of the Requirements for the Bachelor's degree in the Information Networks of Information Technology

الطالب

حسن علي عزيز عبدالله الجبوري

بإشراف

م.م. غفران عبد الامير

2024

Abstract

The aim of this research is to develop a system for tracking data packets in communications networks using Deep Packet Inspection (DPI) technology. The goal of the research is to analyze data traffic and determine the source and destination of packets across the network, with the ability to block a specific set of unwanted IP addresses and apply advanced security measures. The research approach is: Developing a DPI system: It includes developing a system that uses DPI techniques to monitor data traffic, including This includes encrypting and decrypting IP addresses to determine the source and destination of packets. Providing IP protection and blocking: A mechanism is implemented to block a group of IP addresses based on specific criteria, by applying classification and blocking of packets received from these Protect packet data and prevent security threats during the tracking and analysis process. These goals will be achieved by applying the mentioned methods in the Python development environment using the Crypto and Scapy libraries to generate the RSA key, encrypt and decrypt the data, and analyze the movement of packets in the network.