

NET VIGILANT: Network Monitor

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Abstract

Packet sniffing or packet capture software is extensively used as tools for protocol analysis and security. In protocol design research, such a tool comes handy in analyzing, debugging and testing of a new protocol implementation. In Security, as is true for any tools, it may be used both as a positive way to detect intrusions or attacks on a system as well as in the malicious way to hack for private and personal data of others. Even though use of upper layer encryption techniques make it difficult to gather data directly, yet these tools are important in learning about existing sessions, collecting encrypted data to launch offline attacks to generate the encryption key and any such attack limited only by ones imagination. Hence, packet sniffer software is one of the most essential tools required to get started to be able to perform any of the above mentioned activities. The goal of our project is to write a packet sniffer "Net Vigilant", capable of sniffing across wired and wireless interfaces and provide additional packet aggregation, filtering and analysis capabilities. The goal of the project is not to provide a novel approach towards sniffing on the network but rather to provide a basic understanding to the challenges involved in writing such a software and also to build up from the knowledge and experience gained to design more advanced security tools.

Keywords

Security tools, Packet Sniffing, Protocol analyzers, Microsoft .NET, Visual Studio, winpcap, libpcap

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[User Manual \(doc\)](#)

[Software Requirement Specifications \(doc\)](#)

[Software Project Management Plan \(doc\)](#)

[Source Code \(zip\)](#)

[Software Installation \(Download\)](#)

