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# Analyzing Windows Telemetry component

Tesis de Licenciatura en Ciencias de la Computación

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**Abstract (english version)**

**Abstract (spanish version)**

**Greetings**

**Motivation**

**Table of content**

**Introduction**

Explain that this study was carried out in a particular version of windows (1607) 64 bits Enterprise, which lacked of different things (for instance: documentation for different events)

**Basic concepts**

Reverse Engineering

Key concepts about what RE means, from a general perspective, how it should tackled which tools are usually there. 64 bits, calling convention ..

Debugging

Explanation of the concept of debugging, what is the different with doing static RE. Some words specifically for KERNEL debugging.

**Tools**

IDA pro

Introduction to IDA pro. Explanation of what it is and how it works.

WinDBG

Introduction to WINDBG pro. Explanation of what it is and how it works.

YARA ?

XPERF?

**Windows components**

Event Tracing for Windows

Complete explainiation of how it works due to its importance for the rest of the analysis. Different components: session, providers, consumers ,etc .

Telemetry

Full description of the different features / characteristic which are involved in this analysis. Explanation of how the worflow of the data is followed.

## Previous Work

Some lines about previous works in this topic. Most of them focused on just analysis from traffic / documentation.

## Analysis

Specifying the goals we want to achieve and how to get them.

## Understanding how Telemetry makes use of ETW

How ETW works internally: Functions that are being called,

When and how providers are registered

How writes are carried out

Relation between ETW session and ETW providers

Identifying the buffers

Provider GUID vs Group Provider GUID

Checking correctness of logged events

Automatization of event logging

## Service isolation

## Triggers

searching for new triggers

YARA

## Difference among configuration levels of telemetry

Analysis of sent data over the channel to Microsoft backend services

## Results

## Conclusions