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Clean File Metadata Exchange Overview

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CLEAN FILE METADATA EXCHANGE: OVERVIEW

Thomas Wegele
Avira Operations GmbH & Co.

and

Mark Kennedy
Symantec

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CLEAN FILE METADATA EXCHANGE: OVERVIEW

1. INTRODUCTION

This document provides an overview of the Clean File Metadata Exchange (CMX) system developed by the Avira Operations GmbH & Co. KG under the umbrella of IEEE. It also describes the processes related **to the operation and participation of the CMX.**

The CMX system is now offered as part of the IEEE Anti-Malware Support Services (AMSS): http://standards.ieee.org/develop/indconn/icsg/amss.html.

2. OVERVIEW

2.1 Background

The IEEE Malware Working Group works to solve some of the malware-related issues facing the industry today. The initial focus has been to establish more intelligent ways of sharing malware samples and the information associated with them in a way that makes the computer security industry more effective. This has resulted in the development of IEEE Malware Metadata XML Data Exchange Format (MMDEF). For details, see Clause 6.

CMX aims to provide timely information about clean files in the form of metadata. Initially, the metadata should be provided for three types of Windows files: executable files (PE), CAB files, and MSI files. The metadata extraction should be performed after the final version of the product is created and all digital signing is complete. This should be the procedure for all software that is released to the public.

Nightly builds and limited betas are not the best candidates because they will not reside on many machines. Public beta versions shall be included.

2.2 Purpose

This document describes the operation of the CMX collaboratively created under the umbrella of IEEE ICSG – the bodies, the processes, and the legal requirements related to participation, operation, and the usage of the system and its background.

3. COMMITTEES

3.1 Operations Committee

Operation of the IEEE CMX system is overseen by the Management Committee. This committee will handle issues of revocation of access (in the case of violation of the license agreement), approval of new subscribers, and any other type of dispute that may arise from the use of this system. The Management Committee is comprised of a chair, a vice chair, and several other members.

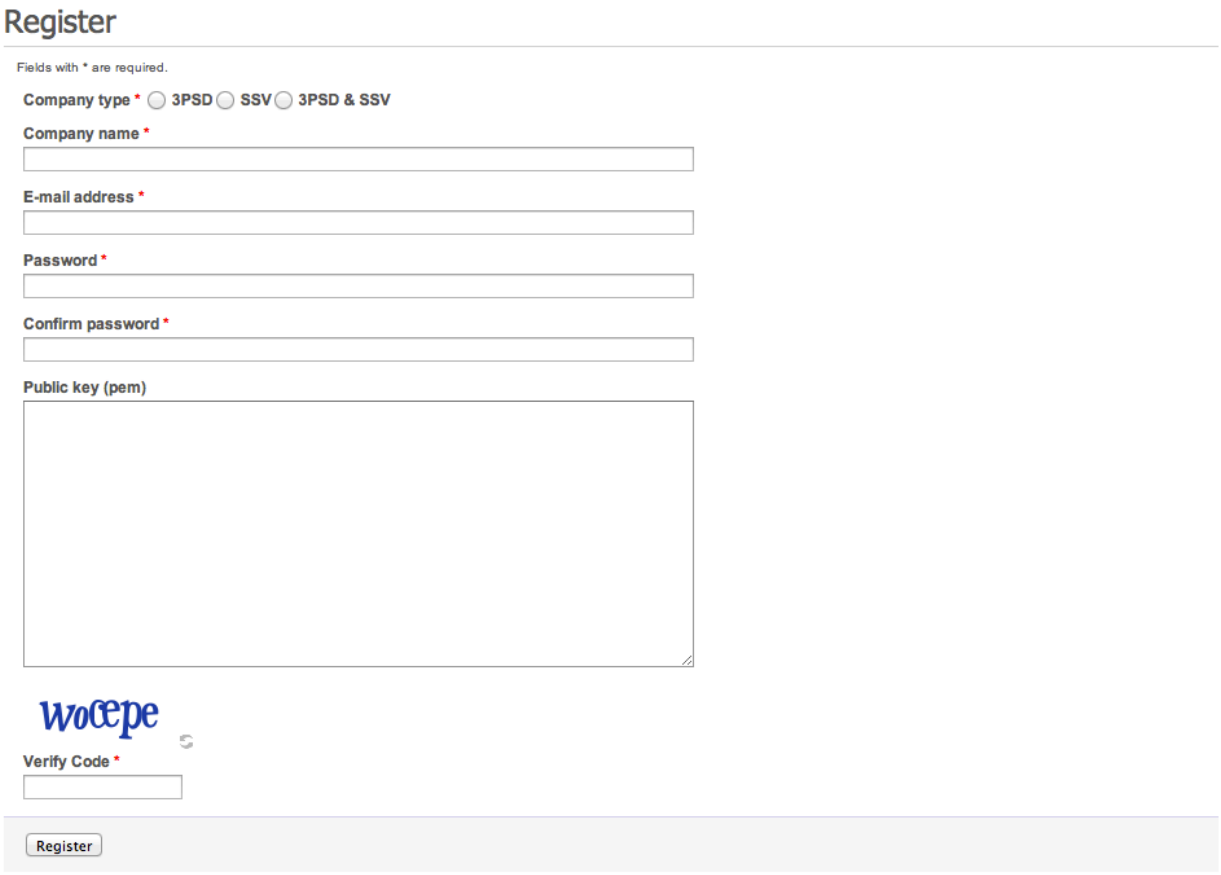
3.2 Executive Committee

The Executive Committee will review all appeals. The decision of the Executive Committee is final.

4. PROCESSES

4.1 Joining the CMX system—Registration process

All companies that are interested in participating in the IEEE CMX system can register an account at https://ieee-cmx.avira.com/site/register. During the registration process, the following page is displayed:



All fields are required in order to finish the registration process.

Company type	3PSD – 3rd party software developers SSV – Security Software Vendors 3PSD & SSV – Combination of 3rd party software developers and security software vendors
Company name	The name of the company
E-mail address	The Email address for the administrative account of the company
Password	The password for the administrative account of the company
Public key (pem)	The public key used for code signing
Verification code	The verification code in order to finish the registration process

After the registration is finished, an email to confirm the request will be sent and the account will be approved by the IEEE CMX Management Committee.

4.2 Using the CMX system

The CMX system hosts a 'Download' section that contains a user manual, a manual for the API, and a Python client. The Python client is based on MMDEF [6] and can create the metadata and submit it automatically. Vendor-specific implementations of the API are possible using all programming languages that support HTTPS.

4.3 Access to the IEEE CMX system

Access to the IEEE CMX system is as follows:

- The Management Committee will oversee requests from parties to join the program and will perform vetting (validating that the public key meets the requirements).
- The Management Committee will also handle removal. Should circumstances arise where the legitimacy of a user is called into question, this committee will make the decision to revoke that participation.
- The Executive Committee will handle all appeals. The Executive Committee's decision is final.

4.4 Expulsion from the IEEE CMX system

The expulsion procedure is as follows:

- The process can be initiated by any two members of the group (so any member must enlist support from at least one other to launch the inquiry) as a request to expel an existing member. Specific reasons (e.g., violating the license agreements, leaking confidential IEEE information) must be documented and supported by adequate evidence.
- The Management Committee will produce a decision in a reasonable timeframe.
- The Management Committee should notify the concerned party of the move to expel with reasons, including but not limited to, the supporting evidence.
- The Executive Committee will handle all appeals. The Executive Committee's decision is final.

NOTE—Not paying the license fee (beyond the grace period) will result in automatic loss of legal right to use the system and won't require an expulsion process to be initiated and completed.

5. ADMINISTRATIVE SUPPORT BY IEEE

5.1 Costs

IEEE CMX is a not-for-profit operation, however, the IEEE CMX system is not free to use as there are maintenance costs. Therefore, all users must adhere to the IEEE CMX license agreement.

Costs for use of the system are outlined on the AMSS Subscriber License.

6. REFERENCES

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http://standards.ieee.org/develop/indconn/icsg/mmdef.html

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[3] V. Weafer, I.Muttik 'Sample Meta-Data Exchange XML Format by IEEE'. Microsoft MSRA Summit, 2009 (http://standards.ieee.org/develop/indconn/icsg/icsgpres.pdf)