Introduction

The aim of this document is to describe the availables api's endpoints and help the user to complete a successful scan using it.

OSSKB URL

The public server to execute the SCANOSS's API can be found at: https://osskb.org/api.
If you are a private user, the API would be found in your server IP address. The default host port is 4443.
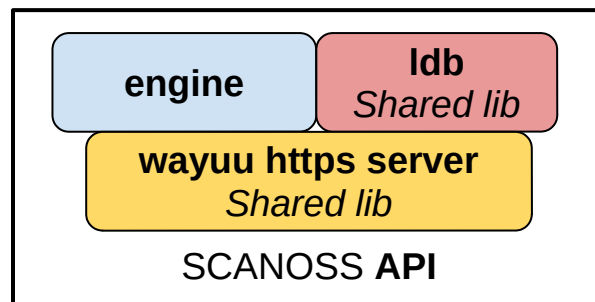

Figure 1: SCANOSS modules schema

SCANOSS architecture

Figure 1 represents the SCANOSS architecture. Basically, the API consists in a series of endpoints which exposes the engine functionalities through the wayuu server.
The ldb has different tables with all the information used by the engine to generate the response to a given request. The ldb tables are filled through the mining process.
To execute the engine locally the ldb share library is needed as well the ldb tables. There are several SCANOSS clients which request the API without this necessity.

More details could be found in the "SCANOSS installation guide".

SCANOSS API endpoints

Definitions

With the goal of using the APIs we need to define some concepts.

MD5: 128-bit hash value calculated for a given file. The engine uses it to provide results for full

file matches.

CRC32: 32-bit hash value. A set of this hashed will be calculated by the winnowing algorithm during the fingerprinting process. Those are used by the engine to get the snippet matches.

WFP file: the Winnowing fingerprinting process result. Contains a set of MD5 and CRC32 hashes calculated for the file (or files) to be scanned.
You can do your own implementation of the winning algorithm or use some of our implementations. For example the python or c clients availables in the scanoss github.

One source file fingerprint example
file=d962717e83de695f4a25cd828ea63d13,412,pasted.wfp 4=369450fc 5=bf7226a9 7=b04dd861 8=9727e3cd 10=2152ba16

Three source files fingerprint example
file=2fedb8dfef3bb65286b0e0e5afa56ea4,667,test_stackoverflow.wfp 3=2a9dbcaf 9=d1c9de28 13=91496137 19=082cfd5d 21=f567c2e6,2835adb4 22=05b73c27 23=48c27640 27=3a38b58 file=7df692099cc46f2b5fef124e76fe6be8,1007,test_nomatch.py 4=23547753 9=f4e9631b 10=e6a4193f,60fcdd7c 14=0bdf8242,32484e73,ed8c0dbd 15=4fa5c578,b674059b 16=4cb166b1 18=d5afbe3c 19=be16d85f 20=a2a005f5

```
22=5dde35eb,b7bebe72
25=d82cab83
27=44bffafd,684ea28
file=02b4b48ed8882e39746220474463462a,81070,kbtest/files/test_file_vyatta.file
7=f69805a1,c6c7c371
9=1d10e9e6
10=3131ee54
17=5d513fab,9e04bc63
18=7cc72401,973589e0
21=914efd68
24=27176a5b,5e001529
28=19c72bc3
32=a845ca05
33=9f3800e4
34=a9d79c2b,d3a071ef
37=978a66ce,5bf25e9b,ec6d250a
40=5d34dd05
43=be3455c2,24f5e880
50=ca07df34
```

API description

In the present section we are going to describe the availables APIs and how to use them.

- POST /api/scan/direct: This is the main endpoint. Returns the results for a given wfp file. The response is in the SCANOSS json plain format.

cURL request example	
*curl -vvvv -X POST "https://osskb.org/api/scan/direct" -H "accept: */*" -H "Content-Type: multipart/form-data" -F "file=@scan.wfp" -P4443*	
scan.wfp content	SCANOSS json response

file=d962717e83de695f4a25cd828ea63d13,412,pasted.wfp
4=369450fc
	{
	  "pasted.wfp": [
	    {
	      "id": "snippet",

5=bf7226a9
7=b04dd861
8=9727e3cd
10=2152ba16

        "status": "pending",
        "lines": "1-10",
        "oss_lines": "175-184",
        "matched": "90%",
        "purl": [
        "pkg:github/unoconv/unoconv"
        ],
        "vendor": "unoconv",
        "component": "unoconv",
        "version": "0.8.2",
        "latest": "0.8.2",
        "url": "https://github.com/unoconv/unoconv",
        "release_date": "",
        "file": "unoconv-0.8.2/unoconv",
        "url_hash": "b53576ddfc63b441ef55998f2f97db8e",
        "file_hash": "0f55e083dcc72a11334eb1a77137e2c4",
        "file_url":
"https://osskb.org/api/file_contents/0f55e083dcc72a11334eb1a7
7137e2c4",
        "dependencies": [],
        "licenses": [
        {
        "name": "GPL-2.0-only",
        "obligations": "https://www.osadl.org/fileadmin/checklists/
unreflicenses/GPL-2.0-only.txt",
        "copyleft": "yes",
        "patent_hints": "yes",
        "incompatible_with": "Apache-1.0, Apache-1.1, Apache-2.0,
BSD-4-Clause, BSD-4-Clause-UC, FTL, IJG, OpenSSL, Python-2.0,
zlib-acknowledgement, XFree86-1.1",
        "source": "component_declared"
        }
        ],
        "copyrights": [
        {
        "name": "Copyright 2007-2010 Dag Wieers
<dag@wieers.com>",
        "source": "file_header"
        }
        ],
        "vulnerabilities": [
        {
        "ID": "GHSA-27p5-7cw6-m45h",
        "CVE": "CVE-2019-17400",
        "severity": "MODERATE",
        "reported": "2019-11-01",
        "introduced": "",
        "patched": "<0.9.0",
        "summary": "Mishandled untrusted pathnames could lead to
SSRF and local file inclusion",
        "source": "github_advisories"

```
          }
        ],
        "quality": [
          {
          "score": "2/5",
          "source": "best_practices"
          }
        ],
        "cryptography": [],
        "server": {
        "hostname": "p9",
        "version": "4.2.4",
        "flags": "0",
        "elapsed": "0.006641s"
          }
        }
    ]
}
```

- GET api//file_contents/{md5}: returns the file contents for a given md5.

cURL request example
curl -vvvv -X GET "https://osskb.org/api/file_contents/864aa0b97465959b5287b2ef6de4011c" -H "accept: text/plain" -H "X-Session: afb77f7855b1bb4eb1a58e2f546aff64" -P4443
File contents response fragment
| ```
#ifndef __SCANNER_H
#define __SCANNER_H

#include <stdio.h>
#include <stdbool.h>
#include <stdint.h>

#define VERSION "1.3.1"
#define MAX_HEADER_LEN 1024 * 1024 * 1024 * 10
#define MAX_FILE_SIZE (1024 * 1024 * 4)
#define MIN_FILE_SIZE 256

#define SCAN_STATUS_MAX_SIZE 512

#define SCANNER_FORMAT_PLAIN "plain"
#define SCANNER_FORMAT_CYCLONEDX "cyclonedx"
#define SCANNER_FORMAT_SPDX "spdx"
#define SCANNER_FORMAT_SPDX_XML "spdx_xml"
``` |

```
enum
{
        API_REQ_GET,
        API_REQ_POST
};

...
```

- GET api/license/obligations/{license_name}: returns the obligations for a given license.

cURL request example
curl -vvvv -X GET "https://osskb.org/api/license/obligations/Apache-2.0"
Licence obligations response

{
  "Apache-2.0": [
        {
        "obligations": "https://www.osadl.org/fileadmin/checklists/unreflicenses/Apache-2.0.txt",
        "copyleft": "no",
        "patent_hints": "yes",
        }
  ]
}

- POST api/sbom/attribution: returns the attribution notices for a given SBOM.

cURL request example
curl -X POST -F "file=@test.json" https://osskb.org/api/sbom/attribution Contents of test.json: {"vendor":"scanoss", "component":"api"}
Attribution notices response
[scanoss/api] GNU GENERAL PUBLIC LICENSE Version 2, June 1991 Copyright (C) 1989, 1991 Free Software Foundation, Inc., 51 Franklin Street, Fifth Floor, Boston, MA 02110-1301 USA Everyone is permitted to copy and distribute verbatim copies of this license document, but changing it is not allowed.

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