Statistics

INTRODUCTION

A statistical data set is composed after every container validation.

One way to collect and process these data sets is to extract this data set as a JSON object from the Syslog stream produced by Siva and forward it to a provider-specific central log processing solution (like ELK, Splunk, etc).

THE DATA SET

For every container, the following data set will be logged by Siva for generic business statistics needs.

	Data	Cardinality	Description
1.	Validation duration	1	The time it takes to process an incoming request - measured in milliseconds
2.	Container type	1	Container type (text value that identifies the signature type of the incoming document: ASiC-E, XAdES, PAdES or ASiC-E (BatchSignature))
3.	Siva User ID	1	String (Text data that contains the SiVa user identifier for reports (from the HTTP x-authenticated-user header) or "N/A")
4.	Total signatures count	1	The value of the "signaturesCount" element in the validation report
5.	Valid signatures count	1	The value of the "validSignaturesCount" element in the validation report
6.	Signature validation indication(s)	1...*	Values of elements signatures/indication and signatures/subindication from the validation report. <indication[/ subindication]>
7.	Signature country	1...*	Country code extracted from the signer cert. The ISO-3166-1 alpha-2 country code that is associated with signature (the signing certificate). Or constant string "XX" if the country cannot be determined.
8.	Signature format	1...*	Values of element signatures/signatureFormat from the validation report. <signatureFormat>

DATA COLLECTION

FROM SYSLOG STREAM

One way to collect statistical dataset's from Siva is to process Syslog data streams that web service nodes produce (among other technical monitoring data). For example, one could use Logstash to forward relevant statistical information from Syslog log files to a log index cluster like ElasticSearch to be visualized later by reporting tools like Kibana.

Statistical data set is sent over Syslog protocol in the message field as a JSON object with following properties:

Property	Description	Type
stats		
.type	Containery type	String (one of the following constants "ASiC-E TS", "ASiC-E TM", "XAdES", "PAdES", "ASiC-E (BatchSignature)")
.usrId	Siva User ID	String (Text data that contains the SiVa user identifier for reports (from the HTTP x-authenticated-user header) or "N/A")
.dur	Validation duration	Number
.sigCt	Total signatures count	Number
.vSigCt	Valid signatures count	Number
.sigRslt [1…n]		
.i	Indication	String
.si	Subindication	String
.cc	Country code	String
.sf	Signature format	String

Example JSON message:

```
{
    "stats": {
        "type": "PAdES",
        "usrId": "sample user1",
        "dur": 4021,
        "sigCt": 2,
        "vSigCt": 1,
        "sigRslt": [
            {"i":"TOTAL-PASSED", "cc":"EE", "sf":"PAdES BASELINE LT"},
            {"i":"INDETERMINATE", "si":"NO CERTIFICATE CHAIN FOUND", "cc":"EE", "sf":"PAdES BASELINE LT"}
        ]
    }
}
```