IODEF JSON-XML Converter, Continued

Mio Suzuki <mio@nict.go.jp>

IETF103 Bangkok
Converter Overview

• Aiming to convert from JSON IODEF document to XML IODEF document, and vice versa
• Running code for latest JSON IODEF draft (draft-ietf-mile-jsoniodef-05)
• Currently implementing new converter including IETF Hackathon days in Bangkok
  • We cannot solve errors on previously implemented converter based on python-jsonschema-objects
  • We have almost implemented new converter using go-xsd makepkg tool
New Converter Design

- XML IODEF Schema
- Original XML IODEF Doc
- Original JSON IODEF Doc
- xsd-makepkg (provided by go-xsd)
- encoding/xml package Unmarshal()
- encoding/json package Unmarshal()
- Generated XML wrapper package (including go struct for saving intermediate state)
- encoding/xml package Marshal()
- encoding/json package Marshal()
- Converted XML IODEF Doc
- Converted JSON IODEF Doc

Go Converter Code
Demo

• Convert XML examples to JSON ones
Current Status and Future Plan

• Successfully converted all examples in draft-ietf-mile-jsoniodf-05 bi-directionally
  • 4.1 Minimal Example, 4.2 Indicators from a Campaign
• Also converted all examples in RFC 8274 (IODEF Guidance)
  • B.1 Malware Delivery URL, B.2 DDoS, B.3 Spear Phishing
  • B.4 Malware, B.5 IoT Malware
• Will be published in GitHub public repository near future
• Planning to implement conversion to CBOR