

CBOR/JSON binding of IODEF

draft-ietf-mile-jsoniodef-06.txt

<https://github.com/milewg/draft-ietf-mile-jsoniodef>

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Current status of the draft

1. In IETF 102@Montreal, we discussed 04 version of the draft, which adopted CDDL instead of JSON schema for defining the data model.
2. In this meeting, we have 06 version, which refined the data model so that we can (hopefully) initiate WGLC for this draft.
3. Major changes after 04 version are summarized in this talk.
4. Some errata of RFC7970 were found on the way to develop this draft, and these are presented in this talk as well

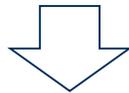
Summary of Changes

1. CDDL data model was thoroughly revised
2. Some errors of JSON schema was corrected
3. Example IODEF documents are available in JSON and CBOR
4. Title of the draft was (slightly) changed
5. Some errors or unclarity of RFC7970 were spotted

Revised schema on the Confidence class

Current schema

```
<xs:element name="Confidence">
  <xs:complexType>
    <xs:attribute name="rating" type="confidence-rating-type" use="required"/>
    <xs:attribute name="ext-rating" type="xs:string" use="optional"/>
  </xs:complexType>
</xs:element>
```



Proposed change

```
<xs:element name="Confidence">
  <xs:complexType>
    <xs:simpleContent>
      <xs:extension base="xs:float">
        <xs:attribute name="rating" type="confidence-rating-type" use="required"/>
        <xs:attribute name="ext-rating" type="xs:string" use="optional"/>
      </xs:extension>
    </xs:simpleContent>
  </xs:complexType>
</xs:element>
```

Confidence
REAL
ENUM rating STRING ext-rating

This element was missing !

Revised schema on the Node class

Current schema

```
<xs:element name="Node">
  <xs:complexType>
    <xs:sequence>
      <xs:choice maxOccurs="unbounded">
        <xs:element ref="iodef:DomainData"
          minOccurs="0" maxOccurs="unbounded"/>
        <xs:element ref="iodef:Address"
          minOccurs="0" maxOccurs="unbounded"/>
      </xs:choice>
      ...
    </xs:sequence>
  </xs:complexType>
</xs:element>
```

Proposed change

```
<xs:element name="Node">
  <xs:complexType>
    <xs:sequence>
      <xs:choice maxOccurs="unbounded">
        <xs:element ref="iodef:DomainData"
          maxOccurs="unbounded"/>
        <xs:element ref="iodef:Address"
          maxOccurs="unbounded"/>
      </xs:choice>
      ...
    </xs:sequence>
  </xs:complexType>
</xs:element>
```



```
+-----+
| Node   |
+-----+
|         |<!--{0..*}--> [ DomainData ]
|         |<!--{0..*}--> [ Address     ]
|         |<!--{0..1}--> [ PostalAddress ]
|         |<!--{0..*}--> [ Location    ]
|         |<!--{0..*}--> [ Counter     ]
+-----+
```

The aggregate classes of the Node class are:

DomainData

Zero or more. The domain (DNS) information associated with this node. If an Address is not provided, at least one DomainData MUST be specified. See Section 3.19.

Address

Zero or more. The hardware, network, or application address of the node. If a DomainData is not provided, at least one Address MUST be specified. See Section 3.18.1.

Moving forward

- The IODEF data model were thoroughly discussed when building RFC7970
- We have refined the draft based on the 04 version and have got 06 version
- Running code is available: the prototype converter between the IODEF JSON and XML is ready

Are we ready for the WGLC?