



**I E T F<sup>®</sup>**

# **I2NSF Capability YANG Data Model** **(draft-hares-i2nsf-capability-data-model-06)**

**IETF 101, London**  
**March 21, 2018**

Susan Hares, Jaehoon Paul Jeong, Jinyong (Tim) Kim [Presenter],  
Robert Moskowitz, and Qiushi Lin

# Updates from the Previous Version

- **The Previous Draft:**
  - draft-hares-i2nsf-capability-data-model-05
- This draft defines a YANG Data Model (DM) **corresponding** to the Information Model (IM) for **NSF-Facing Interface** and **Registration Interface**.
  - draft-ietf-i2nsf-capabilities-00
  - draft-ietf-i2nsf-nsf-facing-interface-dm-00
  - draft-hyun-i2nsf-registration-interface-im-04

# List of Changes

- Modification of **Time Zone**
- Addition of **Port Number** to Condition Clause
- Object-Oriented Features (**Ongoing**)

# Modification of Time Zone

- We added not only an **absolute time zone** but also a **periodic time zone** to net-sec-capabilities.

OLD:

```
+++rw i2nsf-net-sec-caps
    +++rw net-sec-capabilities* [nsc-capabilities-name]
        +++rw nsc-capabilities-name    string
        +++rw time-zone
            | +++rw time?    boolean
            | +++rw date?    boolean
```



NEW

:

```
+++rw i2nsf-net-sec-caps
    +++rw net-sec-capabilities* [nsc-capabilities-name]
        +++rw nsc-capabilities-name    string
        +++rw rule-description?        boolean
        +++rw rule-rev?                boolean
        +++rw rule-priority?           boolean
        +++rw time-zone
            | +++rw absolute-time-zone
            | | +++rw time?    boolean
            | | +++rw date?    boolean
            | +++rw periodic-time-zone
            |   +++rw day?     boolean
            |   +++rw month?   boolean
```

# Addition of Port Number to Condition Clause

- We added a **port number** to a **condition clause**.

OLD:

```
| | +--rw packet-security-tcp-condition
| | | +--rw pkt-sec-cond-tcp-seq-num?      boolean
| | | +--rw pkt-sec-cond-tcp-ack-num?      boolean
| | | +--rw pkt-sec-cond-tcp-window-size?  boolean
| | | +--rw pkt-sec-cond-tcp-flags?       boolean
| | +--rw packet-security-udp-condition
| | | +--rw pkt-sec-cond-udp-length?      boolean
```



NEW  
:

```
| | +--rw packet-security-tcp-condition
| | | +--rw pkt-sec-cond-tcp-src-port?      boolean
| | | +--rw pkt-sec-cond-tcp-dest-port?    boolean
| | | +--rw pkt-sec-cond-tcp-seq-num?     boolean
| | | +--rw pkt-sec-cond-tcp-ack-num?     boolean
| | | +--rw pkt-sec-cond-tcp-window-size?  boolean
| | | +--rw pkt-sec-cond-tcp-flags?       boolean
| | +--rw packet-security-udp-condition
| | | +--rw pkt-sec-cond-udp-src-port?     boolean
| | | +--rw pkt-sec-cond-udp-dest-port?    boolean
| | | +--rw pkt-sec-cond-udp-length?      boolean
```

# Next Steps

- We will change the current YANG data model to the YANG data model of **Object-Oriented (OO) Style**.
- We will verify the OO YANG data model by implementing a prototype in the next Hackathon.