I2NSF Network Security Functions Facing Interface YANG Data Model
(draft-kim-i2nsf-nsf-facing-interface-data-model-00)
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Introduction
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1. This draft defines a YANG data model corresponding to the information model for Interface to Network Security Functions (I2NSF) NSF facing interface.
2. This draft is an updated version from draft-jeong-i2nsf-capability-interface-yang-03.
3. We refer to draft-xia-i2nsf-capability-interface-im06.
4. It describes a data model for network security functions facing interface.

Network Security Control

Content Security Control

Attack Mitigation Control
Updates of New Version
1. Advanced Action
   - In previous version, we can check only one additional advanced NSF when using the choice statement.
   - We revised advanced action, and used container statement instead of choice statement.
   - As a result, we can check multiple NSFs instead of only one.

```bash
---rw (content-security-control-type)?
  +---: (antivirus)
  |   +---rw antivirus?  boolean
  |   +---: (ips)
  |       +---rw ips?  boolean
  +---: (url-filtering)
  |   +---rw url-filtering?  boolean
  +---: (file-blocking)
  |   +---rw file-blocking?  boolean

---rw content-security-control-types
  +---rw antivirus
  |   +---rw antivirus-insp?  boolean
  +---rw ips
  |   +---rw ips-insp?  boolean
  +---rw ids
  |   +---rw ids-insp?  boolean
  +---rw url-filtering
```
2. Additional NSFs
   - With reference to Susan's draft, we added more NSFs, which originally were not included in our draft, in Content Security Control such as IDS, mail filter, file blocking, file isolate, and packet capture.
3. Other NSF Configuration

- The previous version can configure only Network Security Control, but this version has been modified so that other NSFs can be configured. (Note that this version is only written for VoIP-VoLTE.)
Next Steps
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- **Usage of Grouping Feature in YANG**
  - Future data models will be made using grouping feature for easier viewing.

- **Support of the Other NSFs**
  - We will also add more specific data models for other NSFs.
Thank you!
Any question?
Appendix:
Information Model Structure
Overall structure

Information Model Structure

Network Security Control

Content Security Control

cfg content security control type

Attack Mitigation Control

antivirus
ips
ids
url filter rule
data filter
mail filter
file blocking
file isolate
pkt capture
app control
voip volte
Overall structure

Information Model Structure

Network Security Control  Content Security Control  Attack Mitigation Control

cfg attack mitigation control type

ddos attack

ddos attack type

network layer ddos attack  app layer ddos attack

single packet attack

single packet attack type

scan and sniff attack  malformed packet attack  special packet attack