Consumer Facing Interface Data Model

(draft-ietf-i2nsf-consumer-facing-interface-dm-00)

IETF 101, London

March 21, 2018

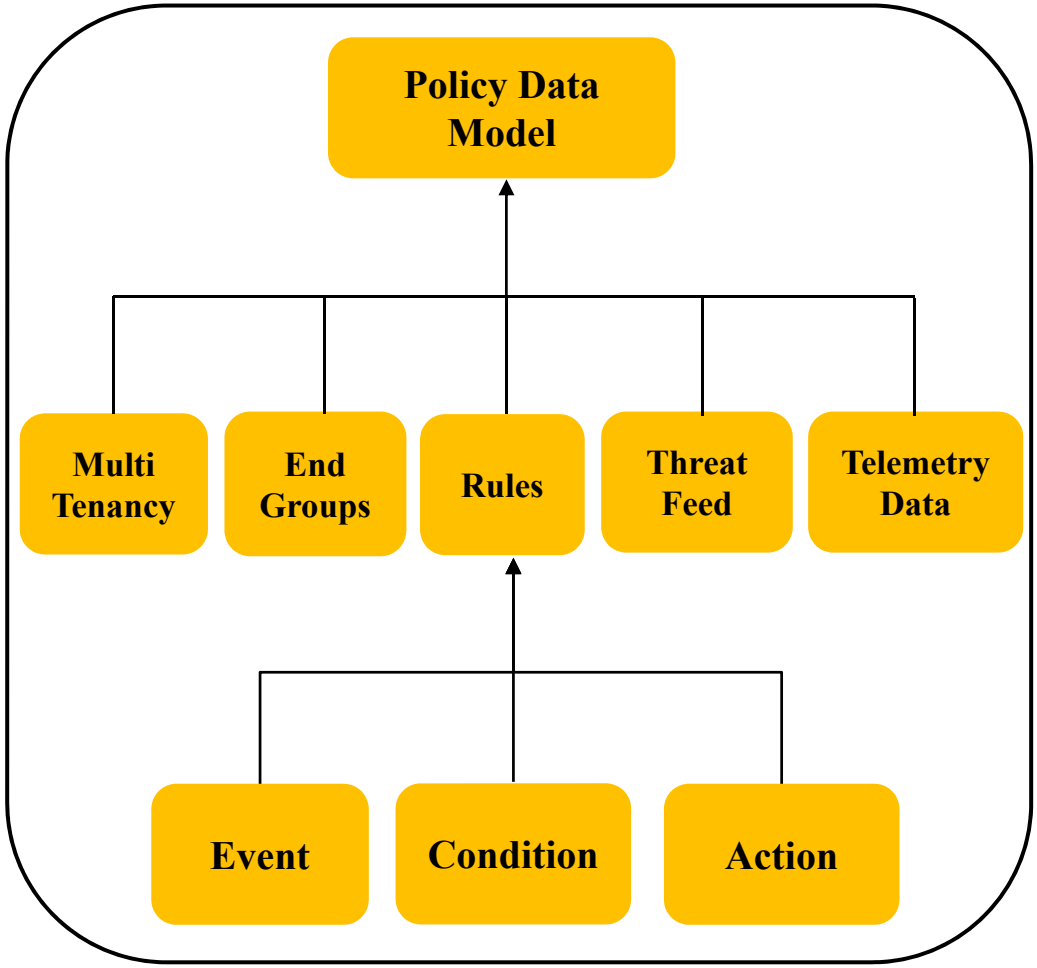
Jaehoon (Paul) Jeong [Presenter], Eunsoo Kim, Tae-Jin Ahn,

Rakesh Kumar, and Susan hares

Updates from the Previous Version

- The following changes are made from draft-jeong-i2nsf-consumer-facing-interface-dm-05:
  - The YANG data model has been modified so that a policy-domain object can have multiple tenants.
  - The overall organization of the YANG data model and its data types have also been reviewed and corrected.
  - The reviewed data tree model and YANG fully adopted Event-Condition-Action (ECA) scheme.
  - Overall editorial errors have been corrected.

Overview



- The main objective of this document is to fully transform the information model into a YANG data model.
- This data model can be used for delivering control via the Consumer-Facing Interface.

- The information model is organized based on the "Event-Condition-Action" (ECA) policy model

Major Changes

- The YANG data model has been modified so that a policy-domain object can have multiple tenants.

Multi Tenancy

Minor Changes

```
+--rw end-group
   +--rw meta-data-source* [meta-data-source-id]
   |  ...
   +--rw user-group* [user-group-id]
   |  ...
   +--rw device-group* [device-group-id]
   |  ...
   +--rw application-group* [application-group-id]
   |  ...
   +--rw location-group* [location-group-id]
      ...
```

```
+--rw end-group
   +--rw meta-data-source* [meta-data-source-id]
   |  +--rw meta-data-source-id          uint16
   |  +--rw name                         string
   |  +--rw date                         yang:date-and-time
   |  +--rw tag-type?                    boolean
   |  +--rw tag-server-information?      inet:ipv4-address
   |  +--rw tag-application-protocol?    string
   |  +--rw tag-server-credential?       string
   +--rw user-group* [user-group-id]
   |  +--rw user-group-id                uint16
   |  +--rw name?                        string
   |  +--rw date?                        yang:date-and-time
   |  +--rw group-type?                  enumeration
   |  +--rw meta-data-server?            inet:ipv4-address
   |  +--rw group-member?                string
   |  +--rw risk-level?                  uint16
   +--rw device-group* [device-group-id]
   |  +--rw device-group-id              uint16
   |  +--rw name?                        string
   |  +--rw date?                        yang:date-and-time
   |  +--rw group-type?                  enumeration
   |  +--rw meta-data-server?            inet:ipv4-address
   |  +--rw group-member?                string
   |  +--rw risk-level?                  uint16
   +--rw application-group* [application-group-id]
   |  +--rw application-group-id         uint16
   |  +--rw name?                        string
   |  +--rw date?                        yang:date-and-time
   |  +--rw group-type?                  enumeration
   |  +--rw meta-data-server?            inet:ipv4-address
   |  +--rw group-member?                string
   |  +--rw risk-level?                  uint16
   +--rw location-group* [location-group-id]
```

The overall organization of the YANG data model and its **data types** have also been reviewed and corrected.

Next Steps

- We will discuss with the IM & DM teams for
  - in-depth analysis on the information model,
  - the generalization of the data model for more use cases such as DDoS attack, and
  - the inclusion of threat information expressions by referring to the data model of STIX (Structured Threat Information Expression).