



Consumer Facing Interface Data Model

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

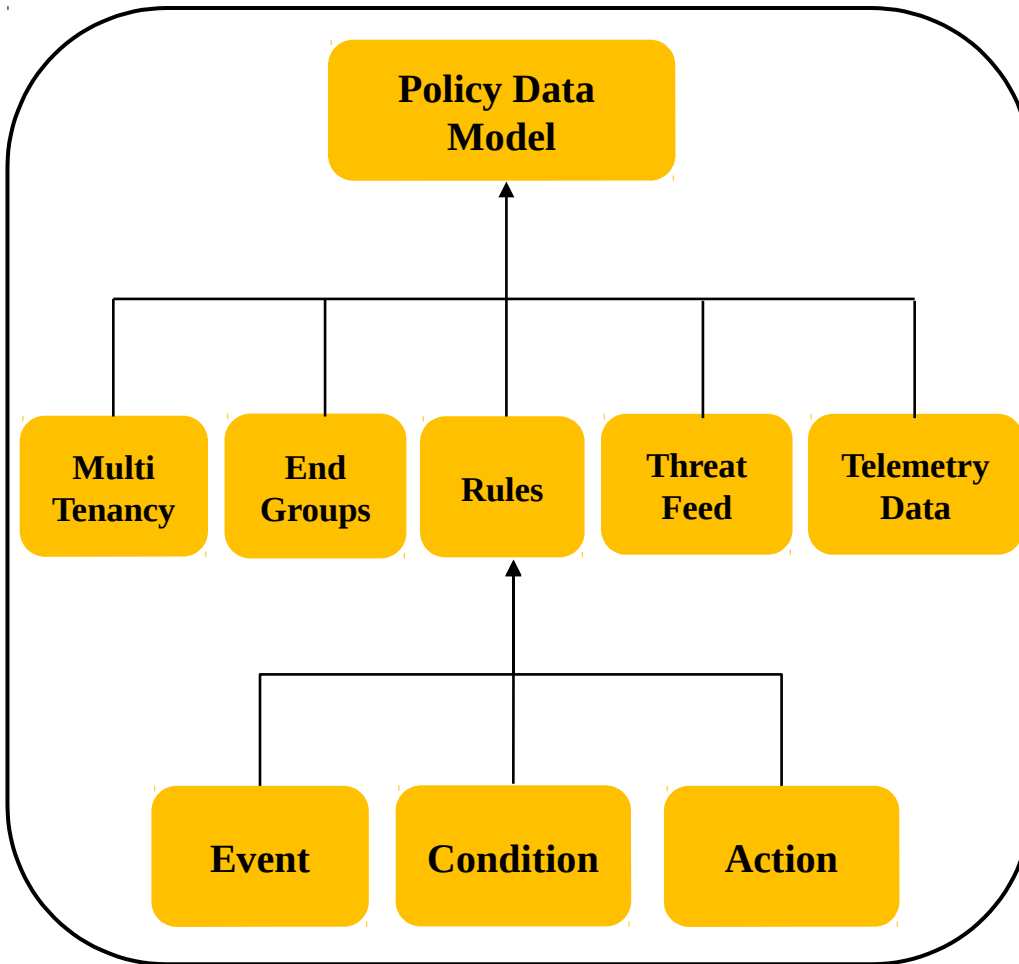
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Updates from the Previous Version

- 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

```

+--rw multi-tenancy
+--rw policy-domain* [policy-domain-id]
|   +--rw policy-domain-id      uint16
|   +--rw name                  string
|   +--rw address?              string
|   +--rw contact               string
|   +--rw date                  yang:date-and-time
|   +--rw policy-tenant* [policy-tenant-id]
|   |   +--rw policy-tenant-id  uint16
|   |   +--rw name              string
|   |   +--rw date              yang:date-and-time
|   |   +--rw domain?           -> /multi-tenancy
|   |   |   /policy-domain
|   |   |   /policy-domain-id
|   +--rw authentication-method? -> /multi-tenancy
|   |   /policy-mgmt-auth-method
|   |   /policy-mgmt-auth-method-id
+--rw policy-role* [policy-role-id]
|   +--rw policy-role-id      uint16
|   +--rw name                string
|   +--rw date                yang:date-and-time
|   +--rw access-profile      string
+--rw policy-user* [policy-user-id]
|   +--rw policy-user-id      uint16
|   +--rw name                string
|   +--rw date                yang:date-and-time
|   +--rw password            string
|   +--rw email               string
|   +--rw scope-type?         string
|   +--rw scope-reference?    string
|   +--rw role                string
+--rw policy-mgmt-auth-method* [policy-mgmt-auth-method-id]
|   +--rw policy-mgmt-auth-method-id  uint16
|   +--rw name                        string
|   +--rw date                        yang:date-and-time
|   +--rw authentication-method       enumeration
|   +--rw mutual-authentication       boolean
|   +--rw token-server                inet:ipv4-address
|   +--rw certificate-server          inet:ipv4-address
|   +--rw single-sign-on-server       inet:ipv4-address

```

```

+--rw policy-domain* [policy-domain-id]
|   +--rw policy-domain-id      uint16
|   +--rw name                  string
|   +--rw address?              string
|   +--rw contact               string
|   +--rw date                  yang:date-and-time
|   +--rw policy-tenant* [policy-tenant-id]
|   |   +--rw policy-tenant-id  uint16
|   |   +--rw name              string
|   |   +--rw date              yang:date-and-time
|   |   +--rw domain?           -> /multi-tenancy
|   |   |   /policy-domain
|   |   |   /policy-domain-id

```

```

+--rw policy-tenant* [policy-tenant-id]
|   +--rw policy-tenant-id      uint16
|   +--rw name                  string
|   +--rw date                  yang:date-and-time
|   +--rw domain?               -> /multi-tenancy
|   |   /policy-domain
|   |   /policy-domain-id
+--rw authentication-method? -> /multi-tenancy
|   /policy-mgmt-auth-method
|   /policy-mgmt-auth-method-id

```

```

+--rw policy-mgmt-auth-method* [policy-mgmt-auth-method-id]
|   +--rw policy-mgmt-auth-method-id  uint16
|   +--rw name                        string
|   +--rw date                        yang:date-and-time
|   +--rw authentication-method       enumeration
|   +--rw mutual-authentication       boolean
|   +--rw token-server                inet:ipv4-address
|   +--rw certificate-server          inet:ipv4-address
|   +--rw single-sign-on-server       inet:ipv4-address

```

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 and
- the generalization of the data model for more use cases, such as DDoS.