

ACL models

Example Plugins

- ACL
 - draft-ietf-netmod-acl-model-03
- Routing-policy
 - Draft-shaikh-rtgwg-policy-model-00
- Generic policy
 - (draft-hares-bnp-eca-data-model
- Policy SFC
 - Will be shown at IETF

ACL lists

```
module: ietf-access-control-list
  +--rw access-lists
    +--rw acl* [acl-name]
      +--ro acl-oper-data
      +--rw access-list-entries
        |   +--rw ace* [rule-name]
        |   |   +--rw matches
        |   |   |   +--rw (ace-type)?
        |   |   |   |   +--rw: (ace-ip)
        |   |   |   |   |   ...
        |   |   |   |   +--rw: (ace-eth)
        |   |   |   |   |   ...
        |   |   |   +--rw input-interface
        |   |   |   +--rw absolute time
        |   |   +--rw actions
      +--ro ace-oper-data
      +--rw rule-name
    +--rw acl-name
    +--rw acl-type
```

- Access-lists is group
- Acl – is the rule

Routing Policy

– Event-Condition-Action

```
module: ietf-access-control-list
  +--rw routing-policy
    +--rw policy-definition* [name]
      +--rw name      string
      +--rw statement* [name]
        +--rw name      string
        +--rw conditions!
        |
        +--rw actions!
```

- Group: policy-definition
- Rule - statement

Routing Lists ECA - conditions

```
+--rw routing-policy
  +--rw policy-definition* [name]
    +--rw statement* [name]
      +--rw conditions!
        +--rw call-policy?          -> /routing-policy/...
        +--rw match-prefix-set?    -> /routing-policy/...
        +--rw match-neighbor-set?  -> /routing-policy/...
        +--rw match-tag-set?       -> /routing-policy/...
        +--rw match-set-options?
          pt:match-set-options-type
        +--rw install-protocol-eq?  identityref
        +--rw igp-conditions
```

Routing Lists ECA - actions

```
+--rw routing-policy
  +--rw policy-definition* [name]
    +--rw statement* [name]
      +--rw actions!
        +--rw accept-route?    empty
        +--rw reject-route?   empty
        +--rw igp-actions
          +--rw set-tag?      pt:tag-type
```

BNP ECA – Policy - matches

```
module:bnp-eca-policy
+--bnp-eca-policy
  +--rw rule-group* [group-name]
    +--rw group-name
  +--rw rule* [rule-name]
    +--rw rule-name string
    +--rw order unit16
      +--rw installer
  +--rw rule-match-act
    | +--rw bnp-matches
    | | +--case: interface-match
    | | +--case: L1-header-match
    | | +--case: L2-header-match
    | | +--case: L3-header-match
    | | +--case: L4-header-match
    | | +--case: Service-header-match
    | | +--case: packet-size
    | | +--case: time-of-day
```

BNP ECA Policy Actions

- | **+-rw bnp-action**
- | | **+-rw number-actions**
- | | | +-case interface-actions
- | | | +-case L1-action
- | | | +-case L2-action
- | | | +-case L3-action
- | | | +-case L4-action
- | | | +-case service-action
- | | **+-rw bnp-forward**
- | | | +-rw interface interface-ref
- | | | +-rw next-hop rib-nexthop-ref
- | | | +-rw route-attributes
- | | | +-rw rib-route-attributes-ref
- | | +-rw fb-std-drop
- +-rw rule_status**
- | +-ro rules-status
- | +-ro rule-inactive-reason
- | +-ro rule-installer
- | +-ro refcnt unit16