

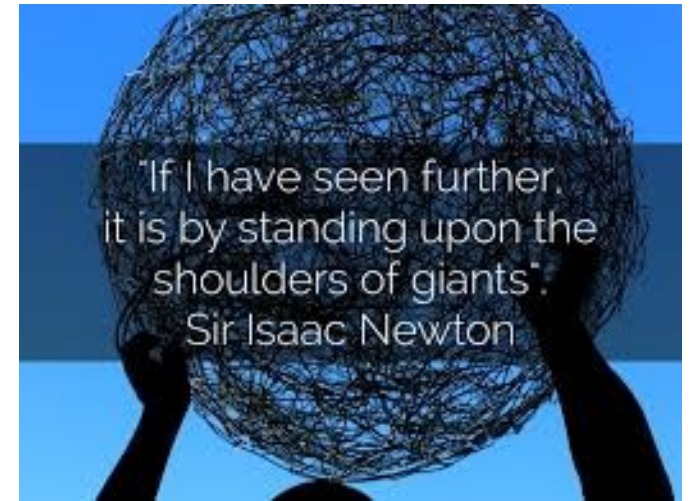
Can SUPA Aid ECA Policy Development in I2RS Yang?

draft-hares-i2rs-bnp-eca-data-model-02.txt

Susan Hares

Why?

SUPA Expertise
may help I2RS
See further and
make fewer
mistakes

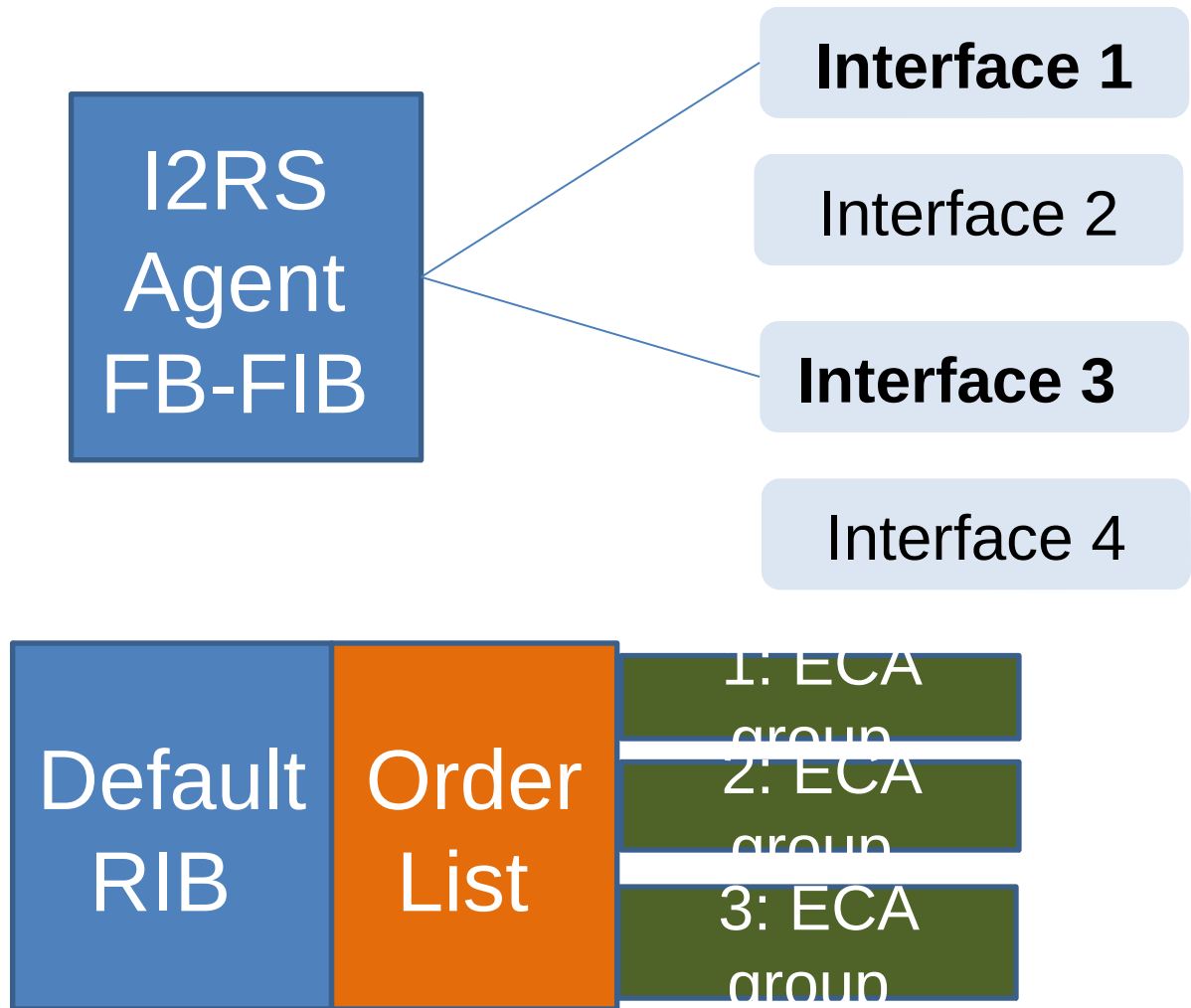


Focus of Presentation

- Context of the ECA In I2RS Filter-Based RIBs
- Comparison
- Questions to consider:
 - Can SUPA guide Yang modules being created in the other WGs?
 - How does SUPA Work downward?

Context of ECA

I2RS Filter-Based RIB



fb-rib-types module

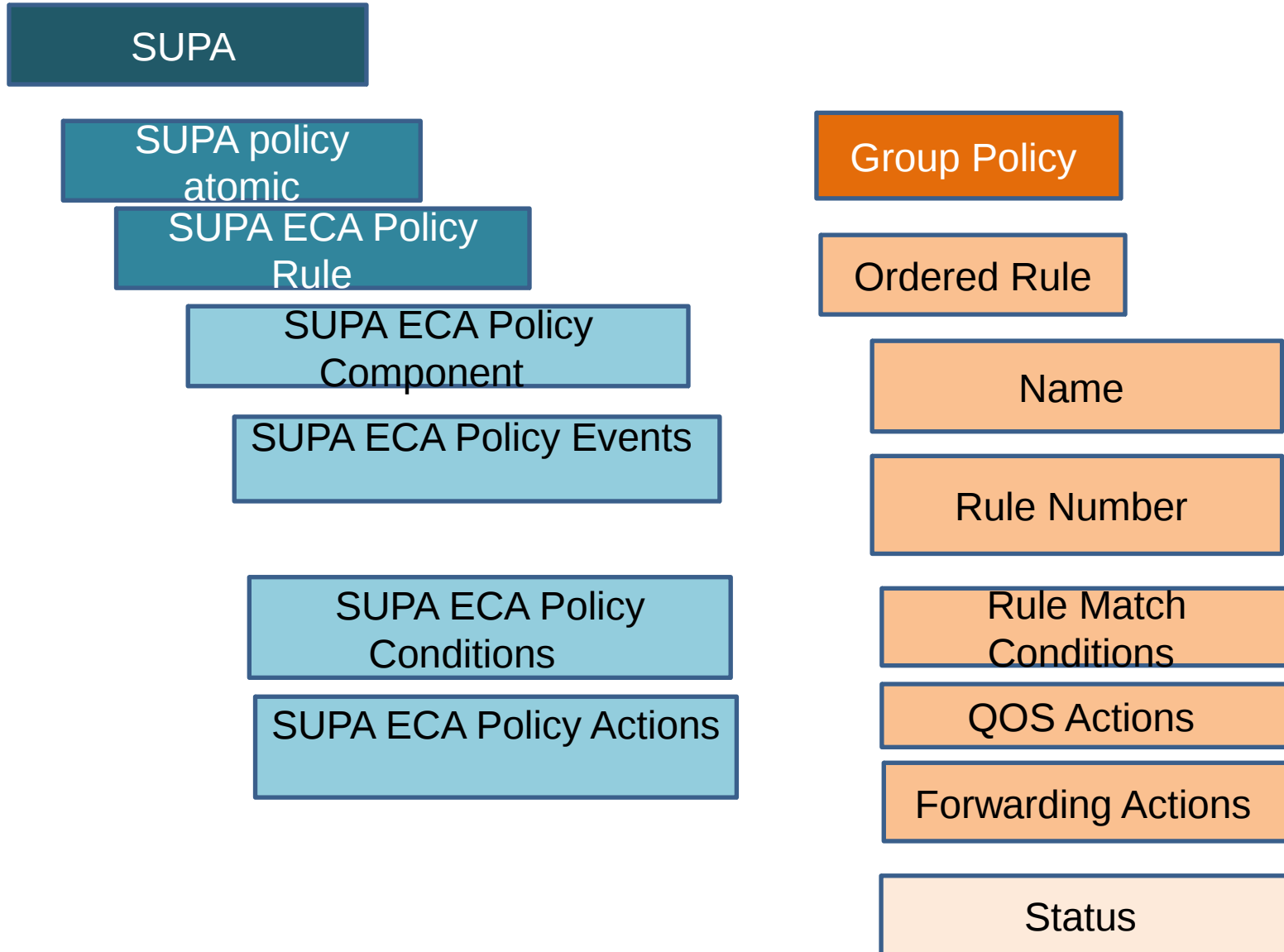
```
+--rw fb-ribs
```

```
+--rw type identityref //Replace with ephemeral
```

```
+--rw fb-rib* [rib-name]
  +--rw rib-name string
  +--rw rib-afi rt:address-family
  +--rw fb-rib-intf* [name]
    | +--rw name string
    | +--rw intf if:interface-ref;
    | +--rw default-fb-rib
    | ...
    | | +--rw instance-using*
    | | +--rw fb-rib-group [name]
    | | ...
```

```
| +--rw fb-rib-group* [group-name]
| |   +--rw group-name string
| |   +--rw order-number uint64
| |   +--rw filter-type identityref // acl, eca
| |   . . .
| |   +--rw eca-group* bnp-eca:rule-group:name
```

SUPA ECA vs Hares proposal



Supa-policy-Atomic

+--rw supa-policy-atomic

```
| +--rw supa-ECA-policy-rule
|   +--rw policy-rule-deploy-status? enumeration
|   +--rw policy-rule-exec-status? enumeration
|   +--rw supa-ECA-component
|     +--rw supa-policy-events
|       | +--rw has-policy-events? boolean
|       +--rw supa-policy-conditions
|         | +--rw has-policy-conditions? boolean
|         | +--rw conjunctive-type? enumeration
|         +--rw supa-policy-actions
|           +--rw action-execution? enumeration
```

+--rw supa-policy-statement

+--rw event-list

```
| +--rw event-name
|   +--rw (eventType)?
|     +--:(entity)
|       | +--rw entity? empty
|     +--:(script)
|       +--rw supa-script-type? scriptType
|       +--rw supa-script-content
```

+--rw condition-list

+--rw action-list

Is this
Yang
Module
library
info?

ECA Policy Statement

...

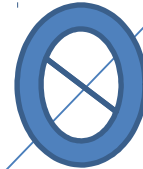
+--rw supa-policy-atomic

- | +--rw supa-ECA-policy-rule
 - | +--rw policy-rule-deploy-status? enumeration
 - | +--rw policy-rule-exec-status? enumeration
 - | +--rw supa-ECA-component
 - | +--rw supa-policy-events
 - | | +--rw has-policy-events? boolean
 - | +--rw supa-policy-conditions
 - | | +--rw has-policy-conditions? boolean
 - | | +--rw conjunctive-type? enumeration
 - | +--rw supa-policy-actions
 - | +--rw action-execution? enumeration

+--rw supa-policy-statement

- +--rw event-list
 - | +--rw event-name
 - | +--rw (eventType)?
 - | +--:(entity)
 - | | +--rw entity? empty
 - | +--:(script)
 - | +--rw supa-script-type? scriptType
 - | +--rw supa-script-content
- +--rw condition-list
- +--rw action-list

```
module:bnp-eca-policy
+--bnp-eca-policy
+--rw rule-group* [group-name]
+--rw group-name
+--rw rule* [rule-name]
+--rw rule-name string
```



? Not for
this level?

+--rw installer

+--rw rule-match-act

...

```
+--rw supa-policy-atomic
| +--rw supa-ECA-policy-rule
|   +--rw policy-rule-deploy-status? enumeration
|   +--rw policy-rule-exec-status?  enumeration
|   +--rw supa-ECA-component
|     +--rw supa-policy-events
|     | +--rw has-policy-events? boolean
|     +--rw supa-policy-conditions
|     | +--rw has-policy-conditions? boolean
|     | +--rw conjunctive-type?    enumeration
|     +--rw supa-policy-actions
|     +--rw action-execution? enumeration
+--rw supa-policy-statement
  +--rw event-list
  | +--rw event-name
  |   +--rw (eventType)?
  |     +--:(entity)
  |     | +--rw entity?          empty
  |     +--:(script)
  |     +--rw supa-script-type?  scriptType
  |     +--rw supa-script-content
  +--rw condition-list
  +--rw action-list
```

```
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
```

```

...
+--rw supa-policy-atomic
+--rw supa-policy-statement
  +--rw event-list
  | +--rw event-name
  |   +--rw (eventType)?
  |     +--:(entity)
  |       | +--rw entity? empty
  |       +--:(script)
  |         +--rw supa-script-type?
  |           scriptType
  |         +--rw supa-script-content
+--rw condition-list
+--rw action-list

```

```

module:bnp-eca-policy
+--bnp-eca-policy
  +--rw rule-group* [group-name]
  +--rw group-name
  +--rw rule* [rule-name]
  | ....
  | +--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

```



Thank you for your heLP!