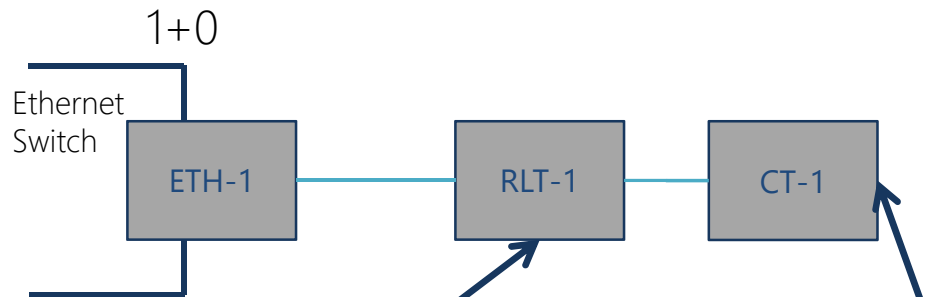In the following slide is it assumed that:

- relevant attributes are in **bold** font
- / separates instances
- , separates element names in a list
- CT-x is created on hardware (card) provisioning
- RLT-x is created by the user (or optionally on a hardware provisioning)
- groups (radio-link-protection-groups, xpic-pairs, ...) are created before the RLT-x
- higher-layer-if of a RLT-x is populated by the device
- configuration involving more devices are not included

siae microelettronica

1+0

Ethernet Switch

ETH-1 —— RLT-1 —— CT-1

```
+--rw radio-link-protection-groups
|  +--rw protection-group* [name]
|    +--rw name
|    +--rw protection-architecture-type?
|    +--rw members*
|    +--rw operation-type?
|    +--rw working-entity
|    +--rw revertive-wait-to-restore
|    +--rw hold-off-timer?
|    +--ro status?
            …
+--rw xpic-pairs {xpic}?
|  +--rw xpic-pair* [name]
|    +--rw name
|    +--rw enabled?   boolean
|    +--rw members*
+--rw mimo-groups {mimo}?
   +--rw mimo-group* [name]
     +--rw name      string
     +--rw enabled?   boolean
     +--rw members*   leafref
```

```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |    +--rw name    RLT-1
  |    +--rw type microwaveRadioLinkTerminal
  |    +--ro higher-layer-if  ETH-1
  |    +--ro lower-layer-if  CT-1
```
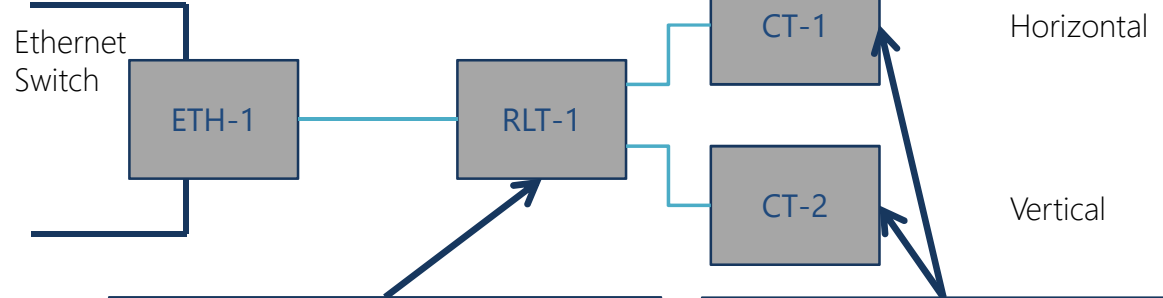
```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |    +--rw name    CT-1
  |    +--rw type microwaveCarrierTermination
  |    +--ro higher-layer-if  RLT-1
```

```
augment /if:interfaces/if:interface:
   +--rw id?                 string
   +--rw mode                      one-plus-zero
   +--rw carrier-terminations*          CT-1
   +--rw rlp-groups* leafref
   +--rw xpic-pairs*
   +--rw mimo-groups* leafref {mimo}?
   +--rw tdm-connections* [tdm-type] {tdm}?
     +--rw tdm-type           identityref
     +--rw tdm-connections    uint16
```

2+0 XPIC

Ethernet Switch

ETH-1 — RLT-1 — CT-1 (Horizontal)

RLT-1 — CT-2 (Vertical)

```
+--rw radio-link-protection-groups
|  +--rw protection-group* [name]
|     +--rw name
|     +--rw protection-architecture-type?
|     +--rw members*
|     +--rw operation-type?
|     +--rw working-entity
|     +--rw revertive-wait-to-restore
|     +--rw hold-off-timer?
|     +--ro status?
              ...
+--rw xpic-pairs {xpic}?
|  +--rw xpic-pair* [name]
|     +--rw name                    XPIC-1
|     +--rw enabled?   boolean
|     +--rw members*                CT-1, CT-2
+--rw mimo-groups {mimo}?
   +--rw mimo-group* [name]
      +--rw name      string
      +--rw enabled?    boolean
      +--rw members*    leafref
```

```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |     +--rw name    RLT-1
  |     +--rw type microwaveRadioLinkTerminal
  |     +--ro higher-layer-if  ETH-1
  |     +--ro lower-layer-if  CT-1, CT-2
```
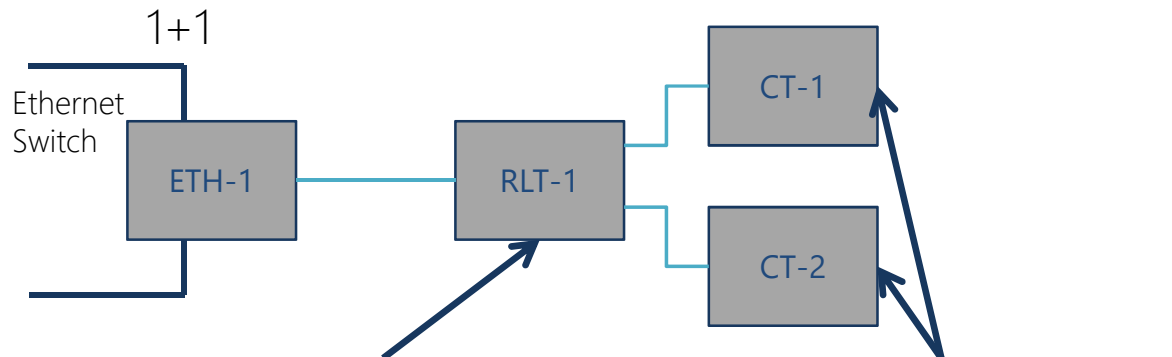
```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |     +--rw name    CT-1 / CT-2
  |     +--rw type microwaveCarrierTermination
  |     +--ro higher-layer-if  RLT-1
```

```
augment /if:interfaces/if:interface:
   +--rw id?                     string
   +--rw mode                    two-plus-zero
   +--rw carrier-terminations*   CT-1,CT-2
   +--rw rlp-groups* leafref
   +--rw xpic-pairs*   XPIC-1
   +--rw mimo-groups* leafref {mimo}?
   +--rw tdm-connections* [tdm-type] {tdm}?
      +--rw tdm-type           identityref
      +--rw tdm-connections    uint16
```

1+1

Ethernet Switch — ETH-1 — RLT-1 — CT-1, CT-2

```
+--rw radio-link-protection-groups
|   +--rw protection-group* [name]
|   |   +--rw name        PRO-1
|   |   +--rw protection-architecture-type one-plus-one-type
|   |   +--rw members*   CT-1, CT,2
|   |   +--rw operation-type?
|   |   +--rw working-entity
|   |   +--rw revertive-wait-to-restore
|   |   +--rw hold-off-timer?
|   |   +--ro status?
|                    ...
+--rw xpic-pairs {xpic}?
|   +--rw xpic-pair* [name]
|   |   +--rw name
|   |   +--rw enabled?   boolean
|   |   +--rw members*
+--rw mimo-groups {mimo}?
    +--rw mimo-group* [name]
        +--rw name      string
        +--rw enabled?   boolean
        +--rw members*   leafref
```

```
module: ietf-interfaces
  +--rw interfaces
  |   +--rw interface* [name]
  |       +--rw name    RLT-1
  |       +--rw type microwaveRadioLinkTerminal
  |       +--ro higher-layer-if  ETH-1
  |       +--ro lower-layer-if  CT-1, CT-2
```

```
module: ietf-interfaces
  +--rw interfaces
  |   +--rw interface* [name]
  |       +--rw name    CT-1 / CT-2
  |       +--rw type microwaveCarrierTermination
  |       +--ro higher-layer-if  RLT-1
```

```
augment /if:interfaces/if:interface:
    +--rw id?                  string
    +--rw mode                 one-plus-one
    +--rw carrier-terminations*    CT-1,CT-2
    +--rw rlp-groups*              PRO-1
    +--rw xpic-pairs*
    +--rw mimo-groups* leafref {mimo}?
    +--rw tdm-connections* [tdm-type] {tdm}?
      +--rw tdm-type          identityref
      +--rw tdm-connections     uint16
```

```
+--rw radio-link-protection-groups
  |  +--rw protection-group* [name]
  |     +--rw name
  |     +--rw protection-architecture-type?
  |     +--rw members*
  |     +--rw operation-type?
  |     +--rw working-entity
  |     +--rw revertive-wait-to-restore
  |     +--rw hold-off-timer?
  |     +--ro status?
  |                        ...
+--rw xpic-pairs {xpic}?
  |  +--rw xpic-pair* [name]
  |     +--rw name
  |     +--rw enabled?   boolean
  |     +--rw members*
+--rw mimo-groups {mimo}?
     +--rw mimo-group* [name]
        +--rw name       string
        +--rw enabled?   boolean
        +--rw members*   leafref
```

4+0

Ethernet Switch

ETH-1

ETH-2

RLT-1

RLT-2

CT-1

CT-2

CT-3

CT-4

```
augment /if:interfaces/if:interface:
     +--rw id?                    string
     +--rw mode                            two-plus-zero
     +--rw carrier-terminations*  CT-1,CT-2 / CT-3, CT-4
     +--rw rlp-groups* leafref
     +--rw xpic-pairs*
     +--rw mimo-groups* leafref {mimo}?
     +--rw tdm-connections* [tdm-type] {tdm}?
        +--rw tdm-type          identityref
        +--rw tdm-connections    uint16
```

```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |     +--rw name    RLT-1 / RLT-2
  |     +--rw type microwaveRadioLinkTerminal
  |     +--ro higher-layer-if  ETH-1
  |     +--ro lower-layer-if  CT-1, CT-2 / CT-3, CT-4
```
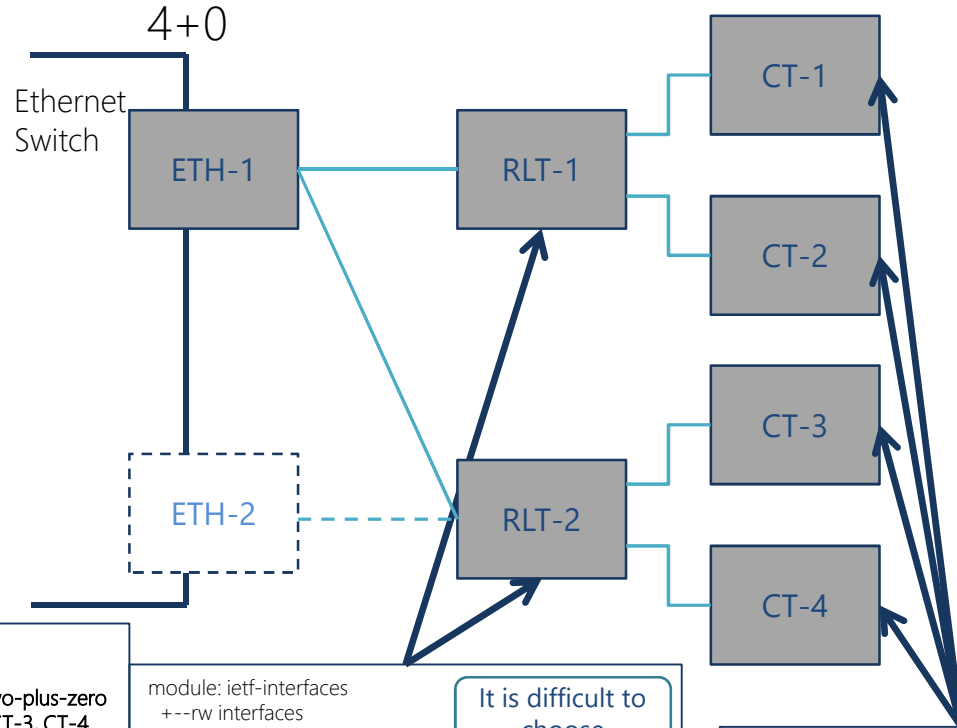
It is difficult to choose

```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |     +--rw name    CT-1, CT-2, CT-3, CT-4
  |     +--rw type microwaveCarrierTermination
  |     +--ro higher-layer-if  RLT-1
```

4+0 (RFC8561bis)

```
+--rw radio-link-protection-groups
|  +--rw protection-group* [name]
|     +--rw name
|     +--rw protection-architecture-type?
|     +--rw members*
|     +--rw operation-type?
|     +--rw working-entity
|     +--rw revertive-wait-to-restore
|     +--rw hold-off-timer?
|     +--ro status?
|                    ...
+--rw xpic-pairs {xpic}?
|  +--rw xpic-pair* [name]
|     +--rw name
|     +--rw enabled?   boolean
|     +--rw members*
+--rw mimo-groups {mimo}?
   +--rw mimo-group* [name]
      +--rw name      string
      +--rw enabled?   boolean
      +--rw members*   leafref
```

Ethernet
Switch

ETH-1

RLT-1

CT-1

CT-2

CT-3

CT-4

Choice does
not contain
any case
statement, is
it correct?

```
augment /if:interfaces/if:interface:
   +--rw id?                string
   +--rw (mode-option)
   |  | x--:(mode)
   |  | x--rw mode        identityref
   |  +--:(rlt-mode)
   |     +--rw rlt-mode
   |        +--rw num-bonded-carriers     2
   |        +--rw num-protecting-carriers  2
   +--rw carrier-terminations
   +--rw rlp-groups*
   +--rw xpic-pairs*
               ...
```

```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |     +--rw name    RLT-1
  |     +--rw type microwaveRadioLinkTerminal
  |     +--ro higher-layer-if ETH-1
  |     +--ro lower-layer-if  CT-1, CT-2, CT-3, CT-4
```

```
module: ietf-interfaces
  +--rw interfaces
  |  +--rw interface* [name]
  |     +--rw name    CT-1, CT-2, CT-3, CT-4
  |     +--rw type microwaveCarrierTermination
  |     +--ro higher-layer-if  RLT-1
```

7

2+2 XPIC

```
+--rw radio-link-protection-groups
|  +--rw protection-group* [name]
|     +--rw name          PRO-1 / PRO-2
|     +--rw protection-architecture-type one-plus-one-type
|     +--rw members*     CT-1, CT-3 / CT-2, CT-4
|     +--rw operation-type?
|     +--rw working-entity
|     +--rw revertive-wait-to-restore
|     +--rw hold-off-timer?
|     +--ro status?
|              …
+--rw xpic-pairs {xpic}?
|  +--rw xpic-pair* [name]
|     +--rw name               XPIC-1 / XPIC-2
|     +--rw enabled?   boolean
|     +--rw members*           CT-1,CT-2 / CT-3, CT-4
+--rw mimo-groups {mimo}?
   +--rw mimo-group* [name]
      +--rw name       string
      +--rw enabled?   boolean
      +--rw members*   leafref
```

Ethernet Switch

ETH-1

ETH-2

RLT-1

RLT-2

CT-1 — Horizontal

CT-2 — Vertical

CT-3 — Horizontal

CT-4 — Vertical

```
augment /if:interfaces/if:interface:
   +--rw id?                string
   +--rw mode    two-plus-zero
   +--rw carrier-terminations*   CT-1, CT-2 / CT-3, CT-4
   +--rw rlp-groups* PRO-1, PRO-2
   +--rw xpic-pairs* XPIC-1 / XPIC-2
   +--rw mimo-groups* leafref {mimo}?
   +--rw tdm-connections* [tdm-type] {tdm}?
      +--rw tdm-type         identityref
      +--rw tdm-connections    uint16
```

```
module: ietf-interfaces
   +--rw interfaces
   |  +--rw interface* [name]
   |     +--rw name     RLT-1 / RLT-2
   |     +--rw type microwaveRadioLinkTerminal
   |     +--ro higher-layer-if  ETH-1
   |     +--ro lower-layer-if CT-1, CT-2 / CT-3, CT-4
```
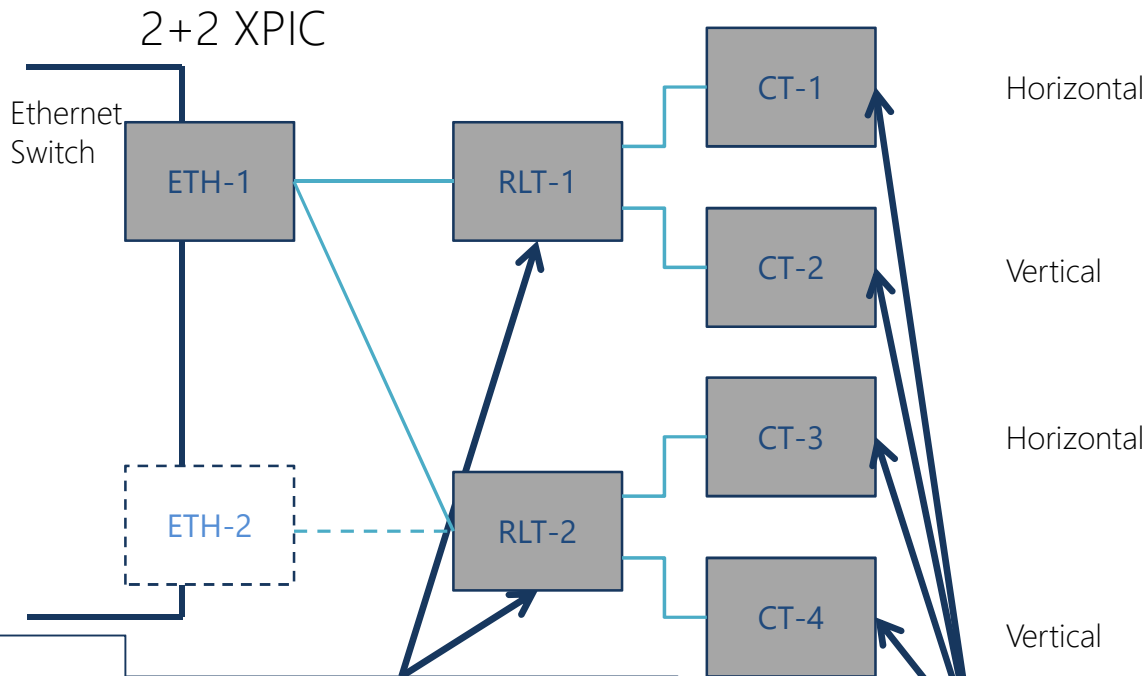
It is difficult to choose
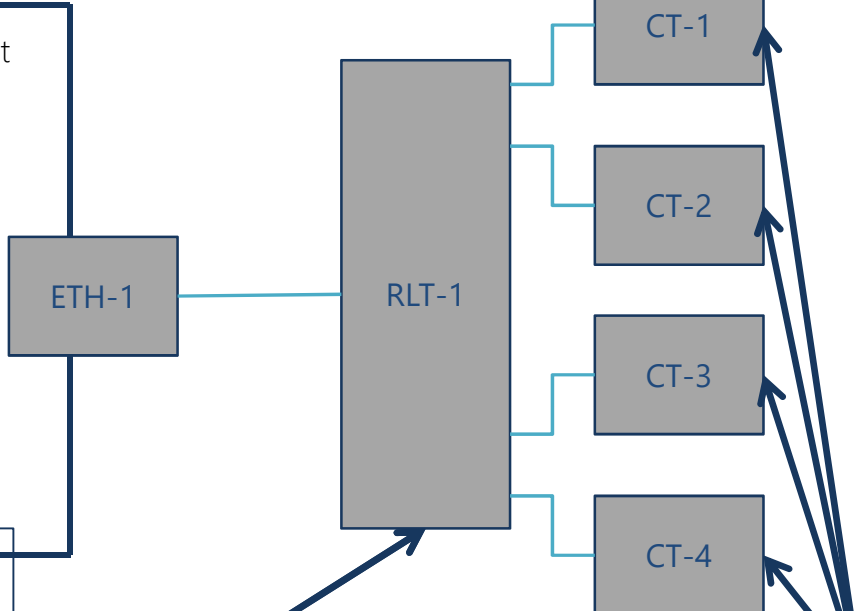
```
module: ietf-interfaces
   +--rw interfaces
   |  +--rw interface* [name]
   |     +--rw name     CT-1 / CT-2 / CT-3 / CT-4
   |     +--rw type microwaveCarrierTermination
   |     +--ro higher-layer-if  RLT-1, RLT-1, RLT-1, RLT-1
```

2+2 XPIC (RFC8561bis)

```
+--rw radio-link-protection-groups
|  +--rw protection-group* [name]
|     +--rw name            PRO-1 / PRO-2
|     +--rw protection-architecture-type one-plus-one-type
|     +--rw members*   CT-1, CT-3 / CT-2, CT-4
|     +--rw operation-type?
|     +--rw working-entity
|     +--rw revertive-wait-to-restore
|     +--rw hold-off-timer?
|     +--ro status?
|              …
+--rw xpic-pairs {xpic}?
|  +--rw xpic-pair* [name]
|     +--rw name            XPIC-1 / XPIC-2
|     +--rw enabled?   boolean
|     +--rw members*        CT-1, CT-2 / CT-3, CT-4
+--rw mimo-groups {mimo}?
   +--rw mimo-group* [name]
      +--rw name       string
      +--rw enabled?    boolean
      +--rw members*    leafref
```

Ethernet Switch

ETH-1

RLT-1

CT-1 — Horizontal

CT-2 — Vertical

CT-3 — Horizontal

CT-4 — Vertical

Choice does not contain any case statement, is it correct?

```
augment /if:interfaces/if:interface:
   +--rw id?               string
   +--rw (mode-option)
      |  x--:(mode)
      |  | x--rw mode          identityref
      |  +--:(rlt-mode)
      |     +--rw rlt-mode
      |        +--rw num-bonded-carriers     2
      |        +--rw num-protecting-carriers  2
   +--rw carrier-terminations*   CT-1, CT-2 ,CT-3, CT-4
   +--rw rlp-groups* PRO-1, PRO-2
   +--rw xpic-pairs* XPIC-1 , XPIC-2
              …
```

```
module: ietf-interfaces
   +--rw interfaces
   |  +--rw interface* [name]
   |     +--rw name     RLT-1
   |     +--rw type microwaveRadioLinkTerminal
   |     +--ro higher-layer-if  ETH-1
   |     +--ro lower-layer-if  CT-1, CT-2 , CT-3, CT-4
```

```
module: ietf-interfaces
   +--rw interfaces
   |  +--rw interface* [name]
   |     +--rw name     CT-1 / CT-2 / CT-3 / CT-4
   |     +--rw type microwaveCarrierTermination
   |     +--ro higher-layer-if  RLT-1, RLT-1, RLT-1, RLT-1
```