IPv6 registration

Using AGGREGATED-BY-LIR

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IPv6 Policy

"When an organisation holding an IPv6 address allocation makes IPv6 address assignments, it must register assignment information in a database, accessible by RIRs as appropriate."

? ? ? ? ? ? ? ?

IPv6 Policy

"...It must register these assignments in the appropriate RIR database."

Preventing workload

- Will be a huge number of objects to
  - create
  - update
  - remove
- All pointing to the same contacts
- Or worse: individual person objects
- **Solution: group them !**
- Not that different from IPv4

New status attribute

- ALLOCATED-BY-RIR

- ALLOCATED-BY-LIR

- ASSIGNED

- ASSIGNED PI

- **AGGREGATED-BY-LIR** NEW
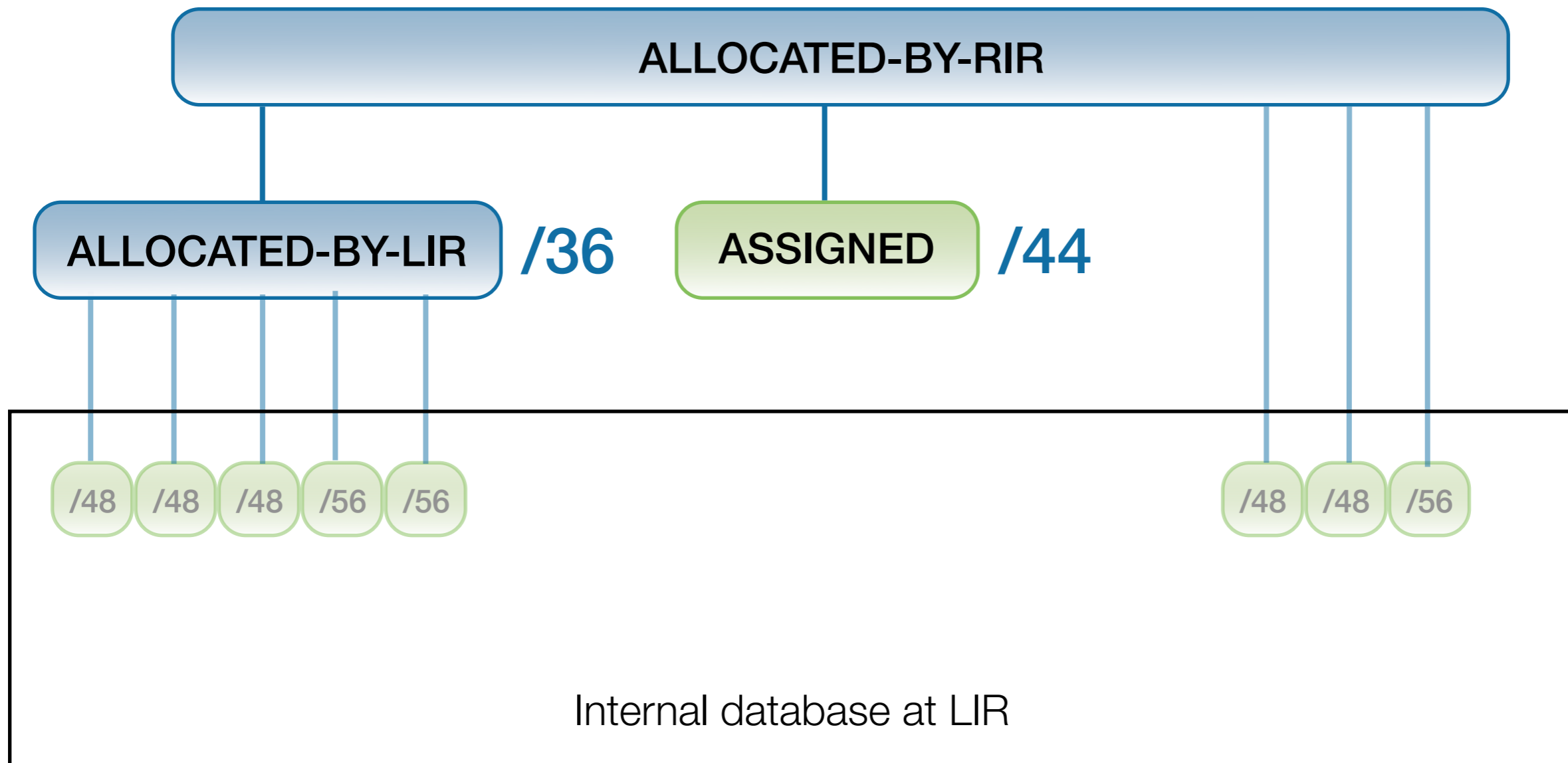
Assignment-size attribute

```
inet6num:          2001:db8::/36
netname:           EXAMPLE
descr:             Aggregation example
...
mnt-by:            BLUELIGHT-MNT
status:            AGGREGATED-BY-LIR

assignment-size:   <size> NEW

source:            RIPE
```
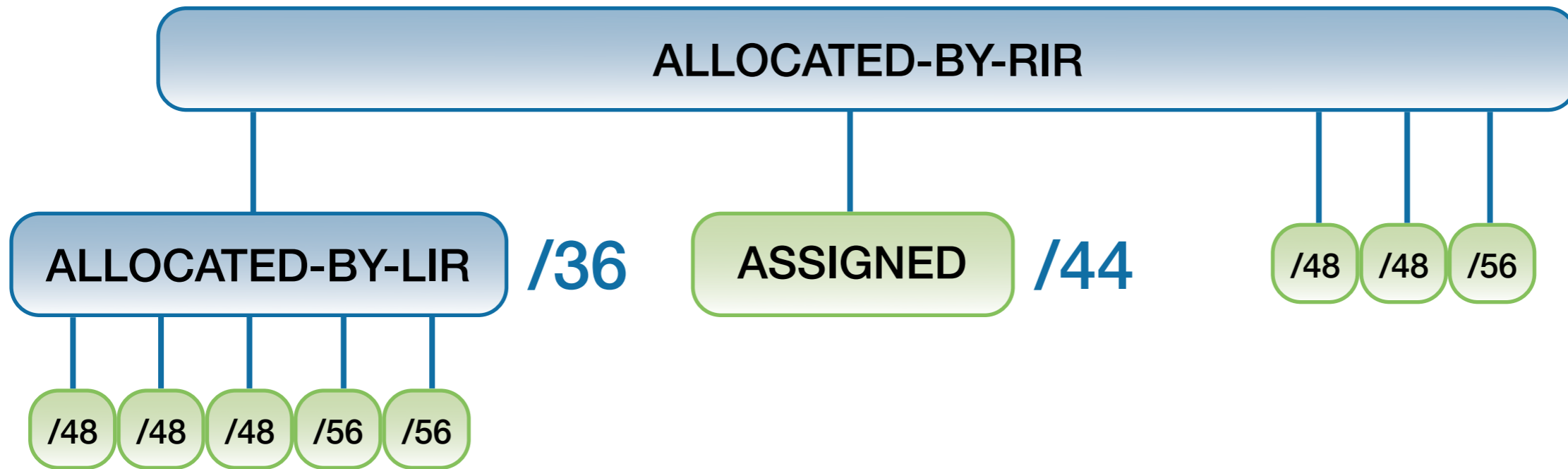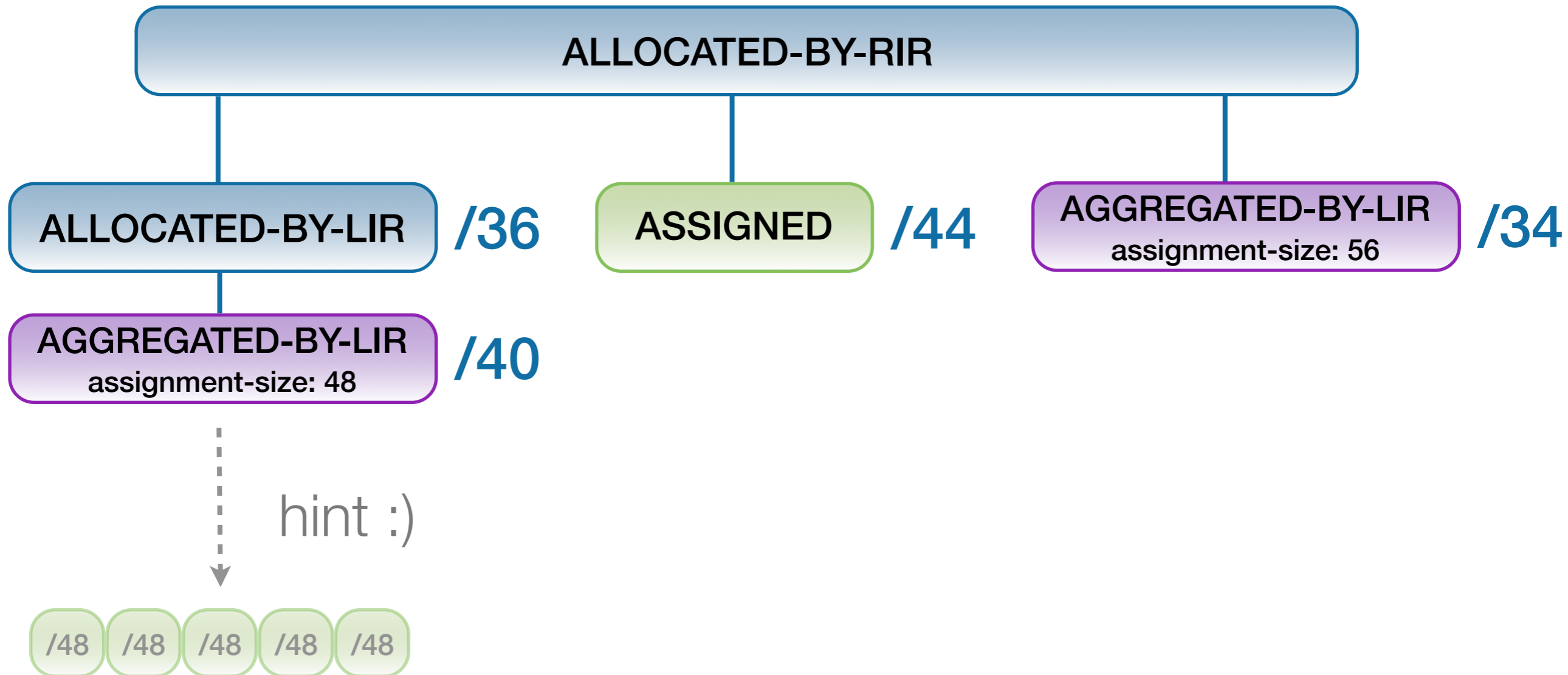
Old situation

Registering all assignments

Using AGGREGATED-BY-LIR

Different sizes

Only 2 levels allowed

ALLOCATED-BY-RIR

ALLOCATED-BY-LIR **/36**

ASSIGNED **/44**

/48 /48 /56

AGGREGATED-BY-LIR
assignment-size: 48 **/40**

/48

AGGREGATED-BY-LIR
assignment-size: 56 **/48**

AGGREGATED-BY-LIR
assignment-size: 64 **/56**

Still allowed to create assignment objects
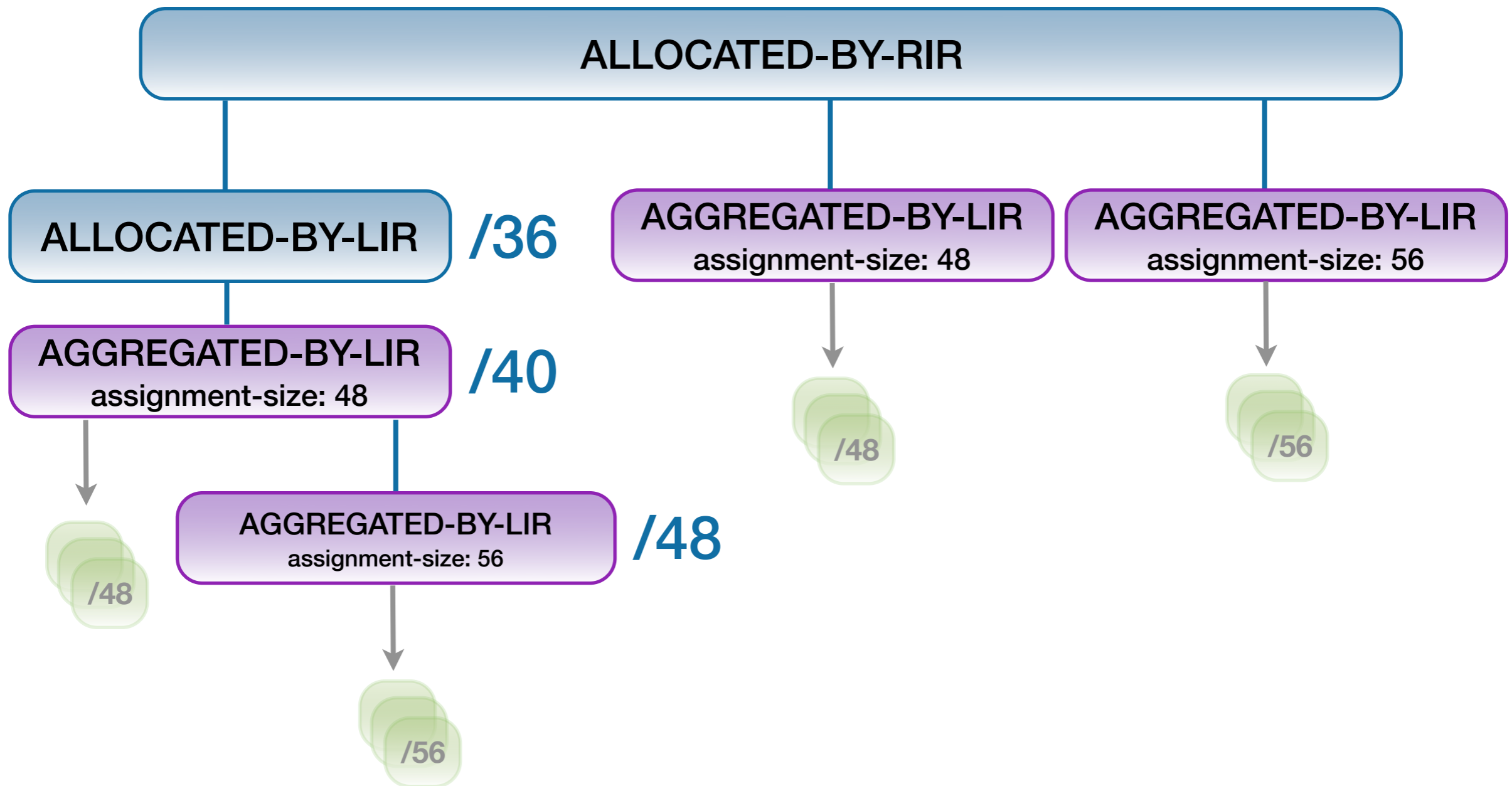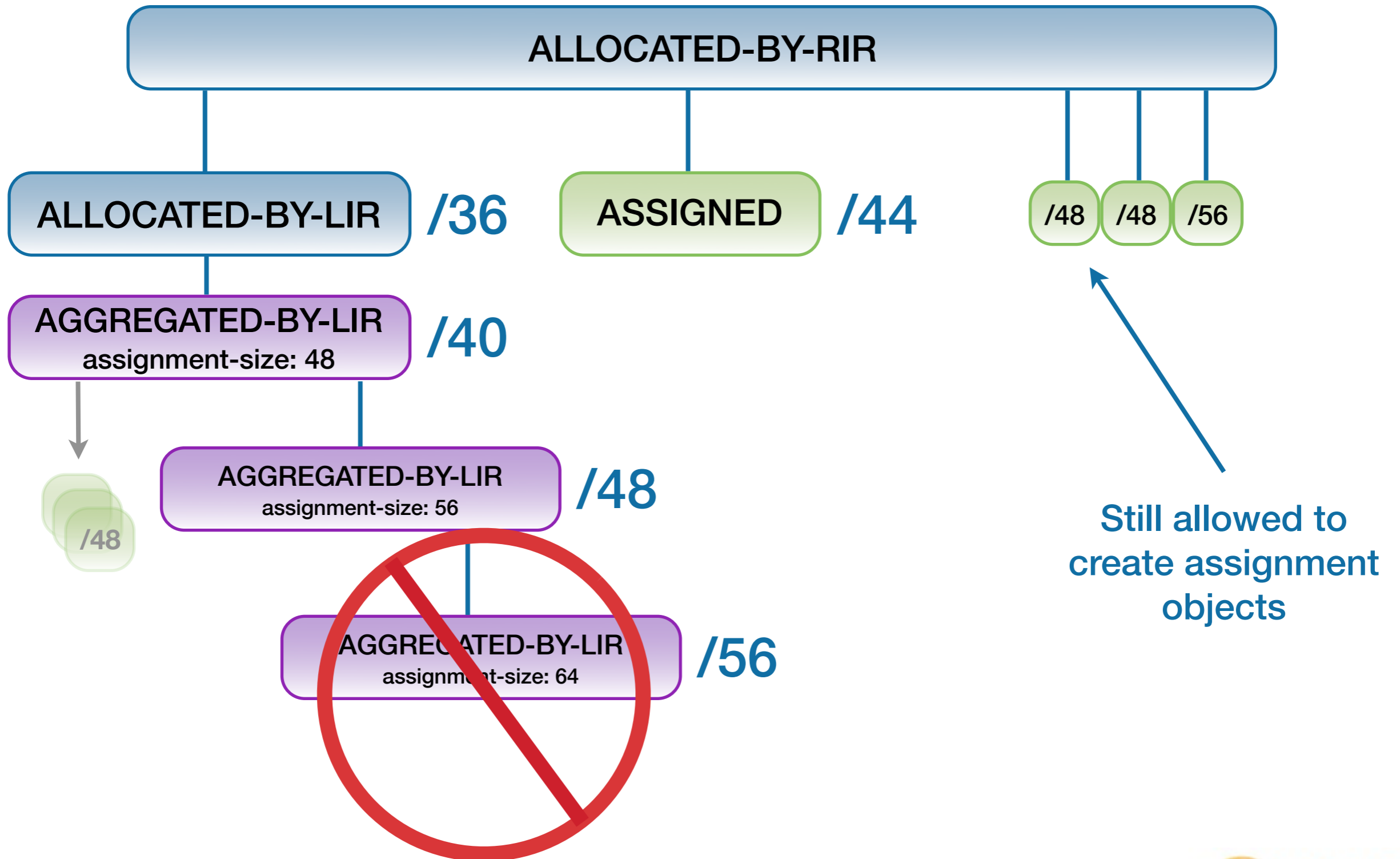
Rules

- **assignment-size** must be greater than the length of the containing block

- When creating a more specific, the block must be equal to the parent's **assignment-size**

- Once created you cannot change the value of the **assignment-size**

RIPE
NCC

Real life example

```
inet6num:          2001:980:3000::/36
netname:           NL-XS4ALL-BROADBANDPOOL-3
descr:             XS4ALL BROADBAND POOL #3
country:           NL
admin-c:           XS42-RIPE
tech-c:            XS42-RIPE
mnt-by:            XS4ALL-MNT
status:            AGGREGATED-BY-LIR

assignment-size:   48

remarks:           Please send email to "abuse@xs4all.nl" for
                   complaints regarding portscans, DoS
                   attacks and spam.
source:            RIPE # Filtered
```

Real life example - child object

```
inet6num:          2001:888::/36
netname:           NL-XS4ALL-POPS
descr:             XS4ALL POPS suballocations
country:           NL
tech-c:            XS42-RIPE
admin-c:           XS42-RIPE
mnt-by:            XS4ALL-MNT
status:            AGGREGATED-BY-LIR
assignment-size:   48
source:            RIPE # Filtered

inet6num:          2001:888::/48
netname:           NL-XS4ALL-ASD-POP
descr:             XS4ALL POP Amsterdam
country:           NL
admin-c:           XS42-RIPE
tech-c:            XS42-RIPE
mnt-by:            XS4ALL-MNT
status:            AGGREGATED-BY-LIR
assignment-size:   64
source:            RIPE # Filtered
```

When is it used?

- Upon audits the HD-ratio needs to be calculated
- You need to show the number of assignments in each block
- Usually this equals the number of customers

- If you have broadband assignments in IPv4 this probably looks familiar to you

Other uses ?

- Blacklists

- ...

Questions?