BGP Graceful Shutdown

draft-ietf-grow-bgp-gshut-01

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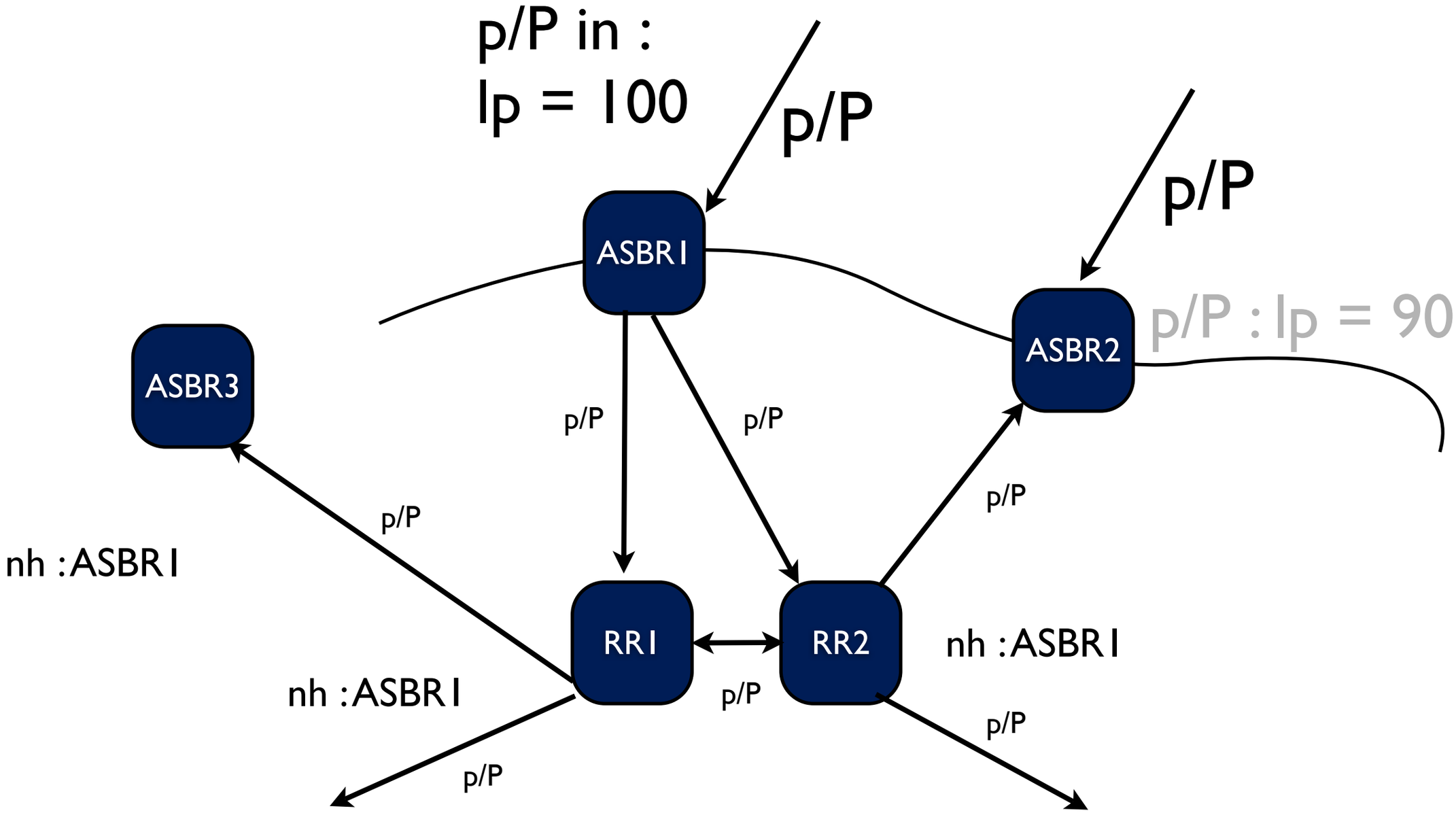
Agenda

- Quick reminder
- The G-shut community value
- G-shut behavior concealment
- Local-pref overriding

BGP G-Shut

- Avoid traffic loss upon manual eBGP session shutdown
  - Due to transient lack of path during convergence
- Operational procedures

Outbound traffic



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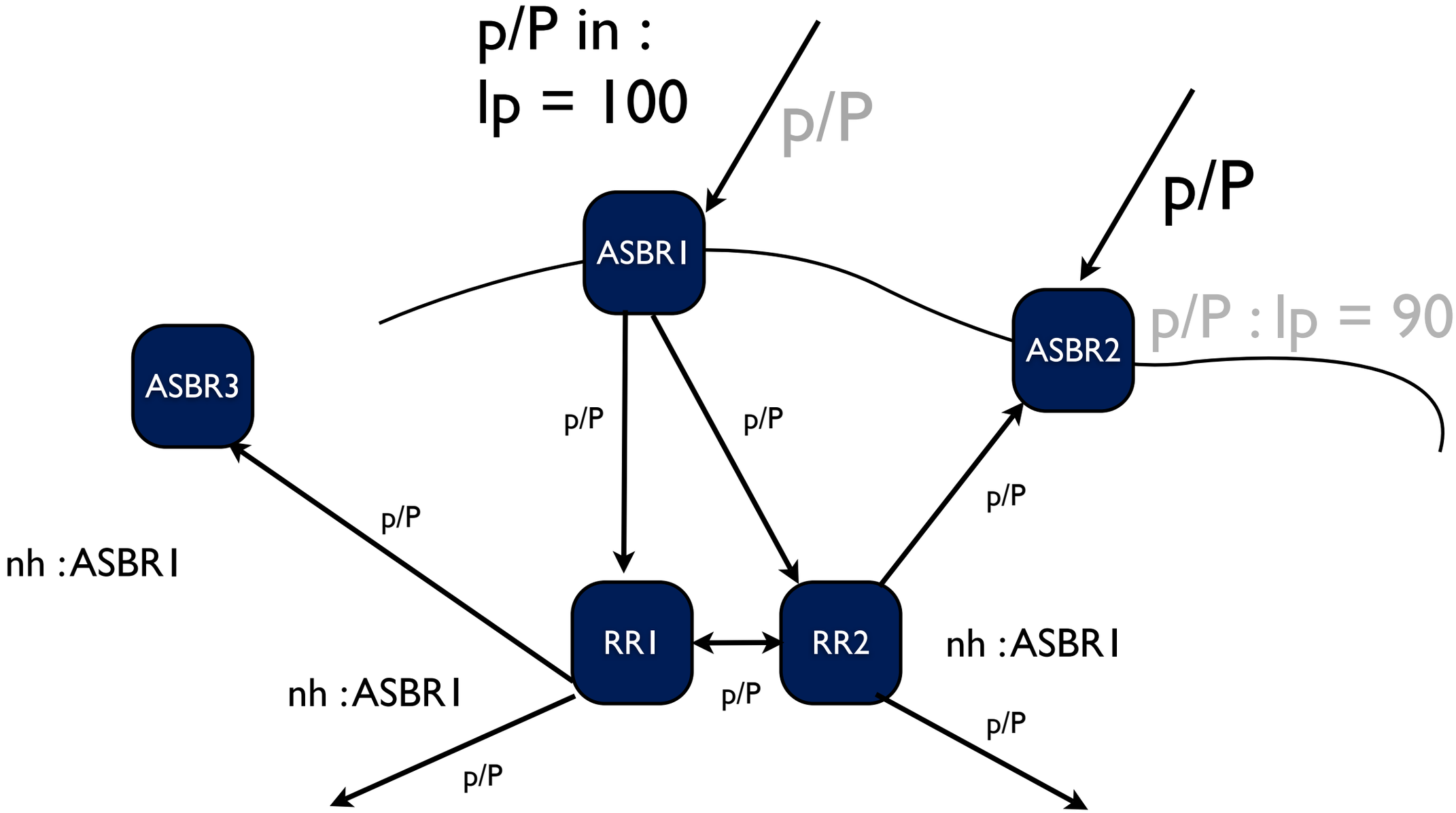

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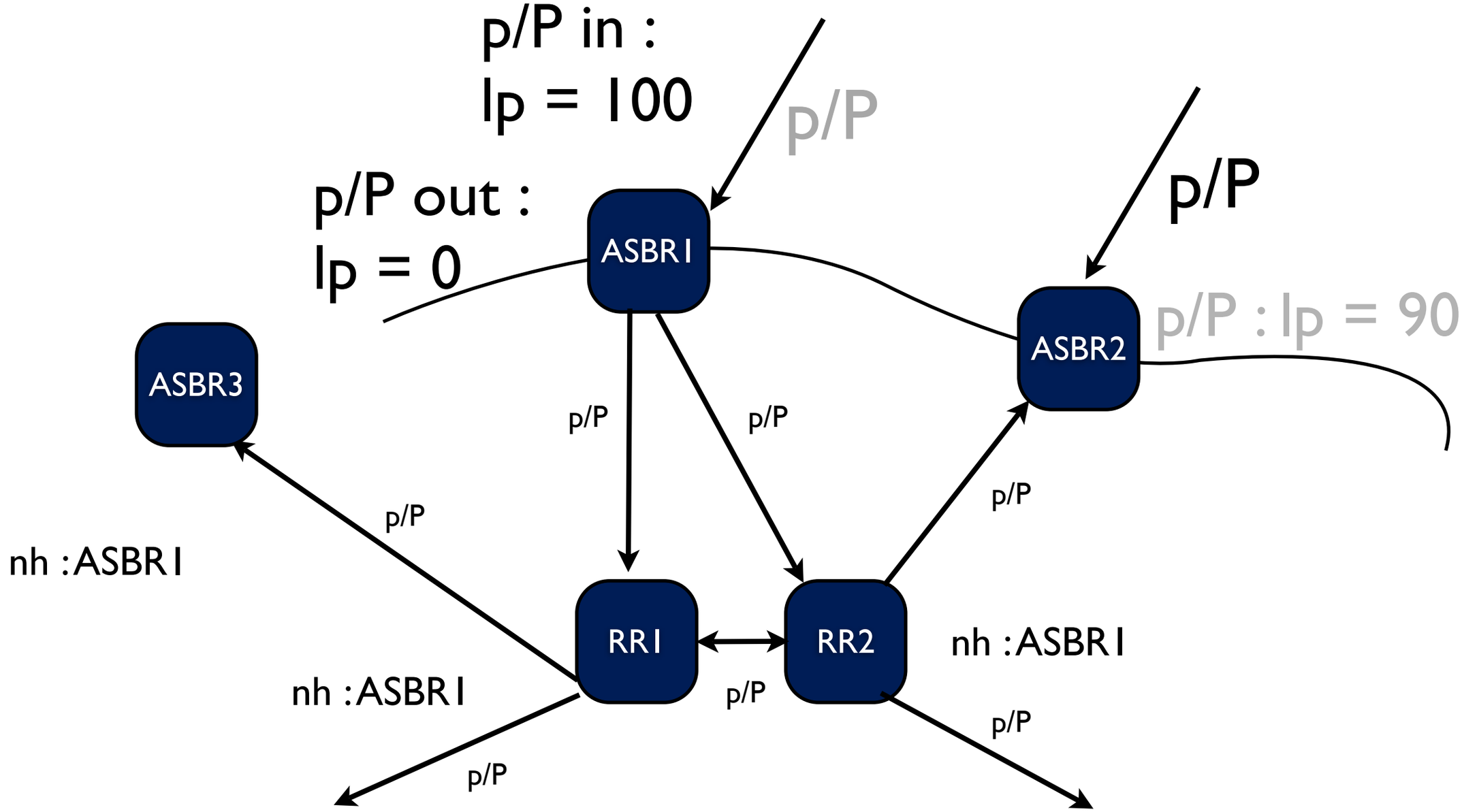

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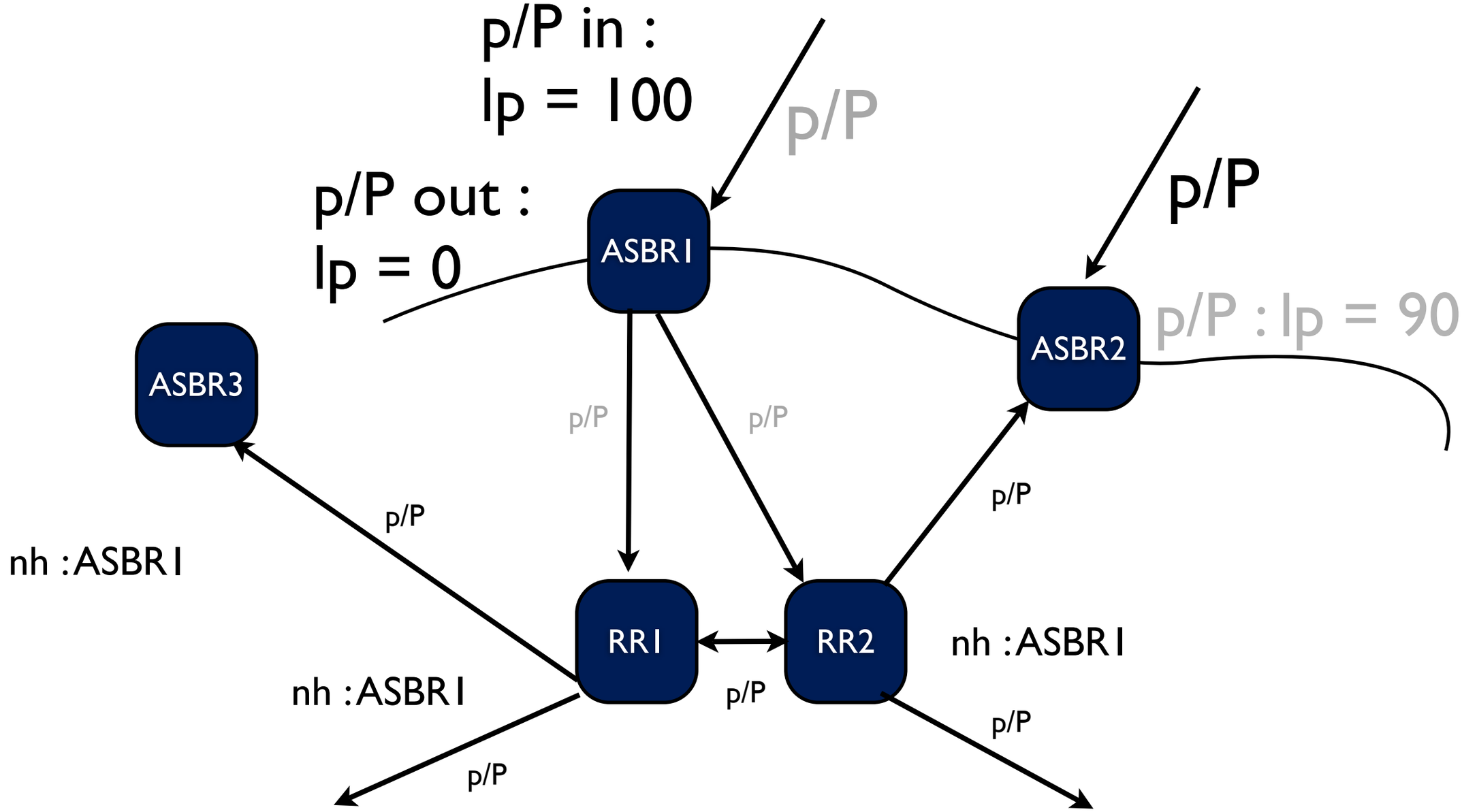

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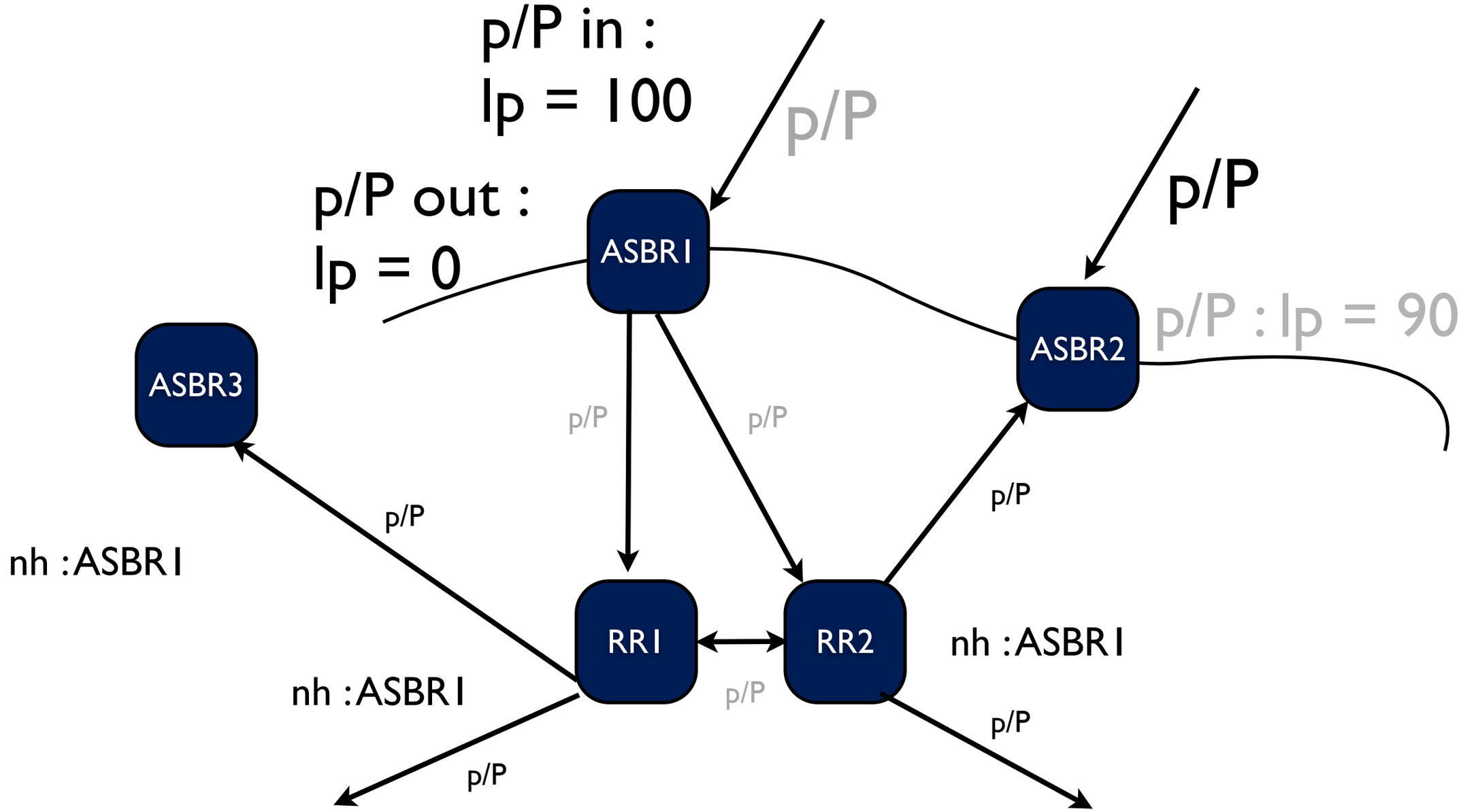

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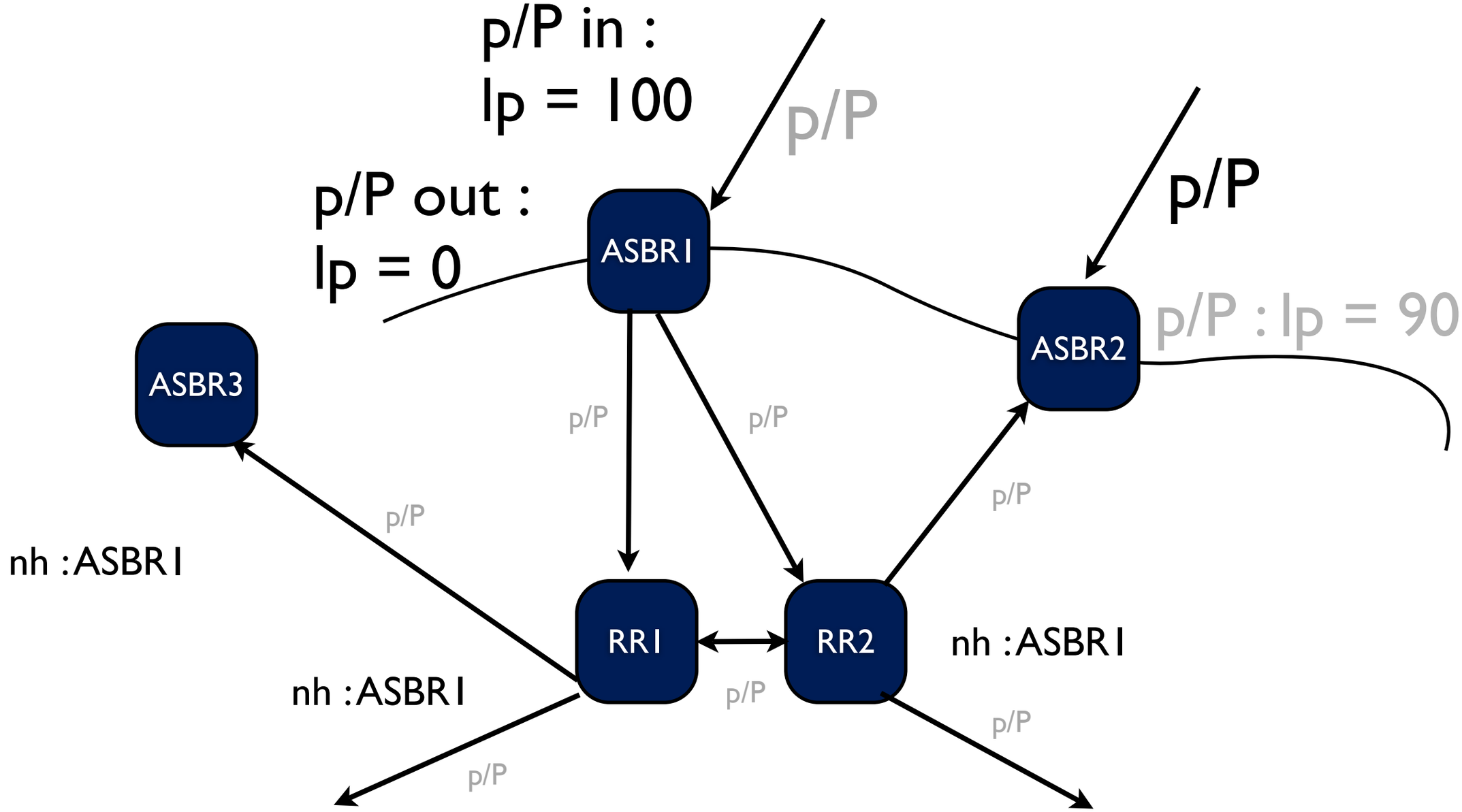

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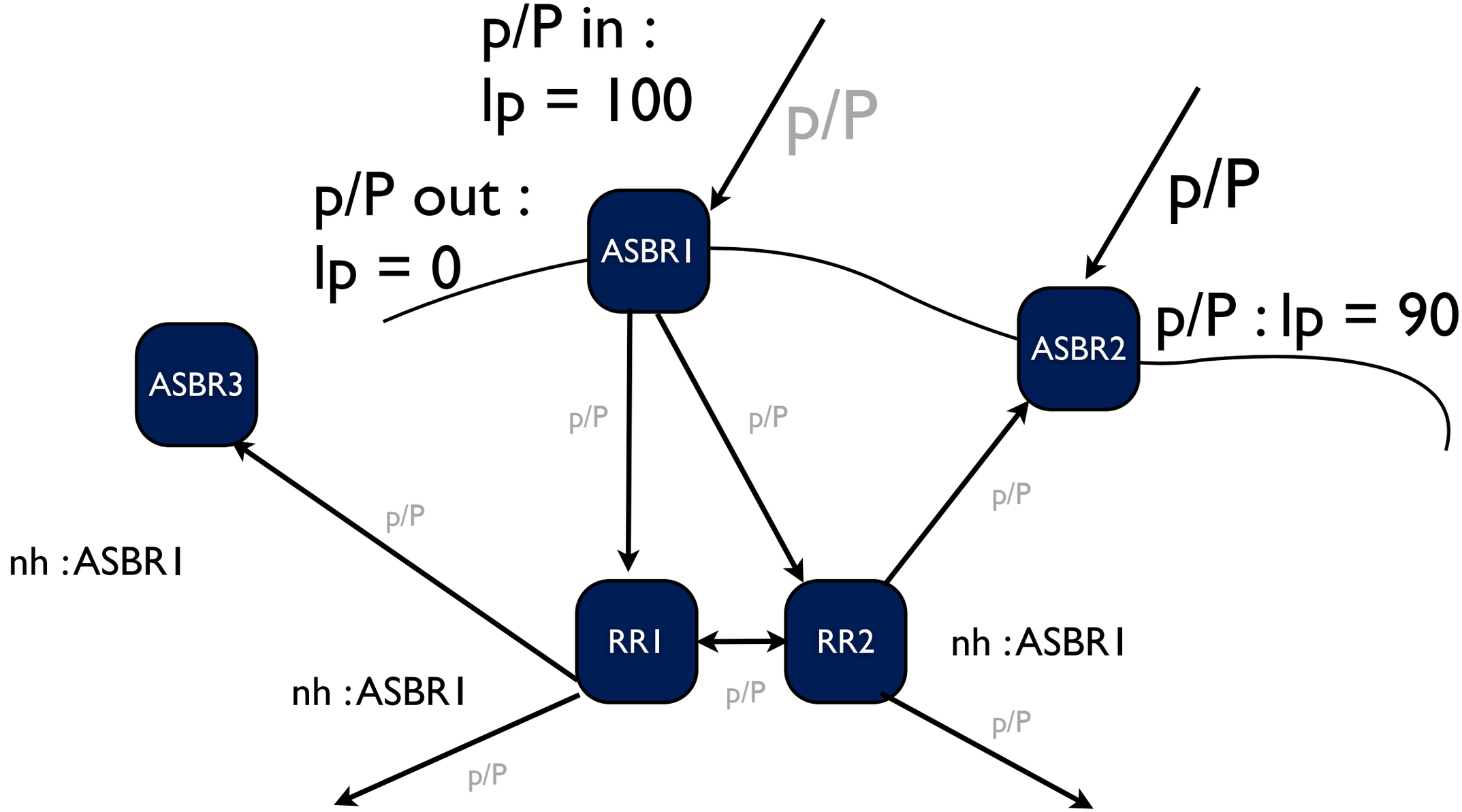

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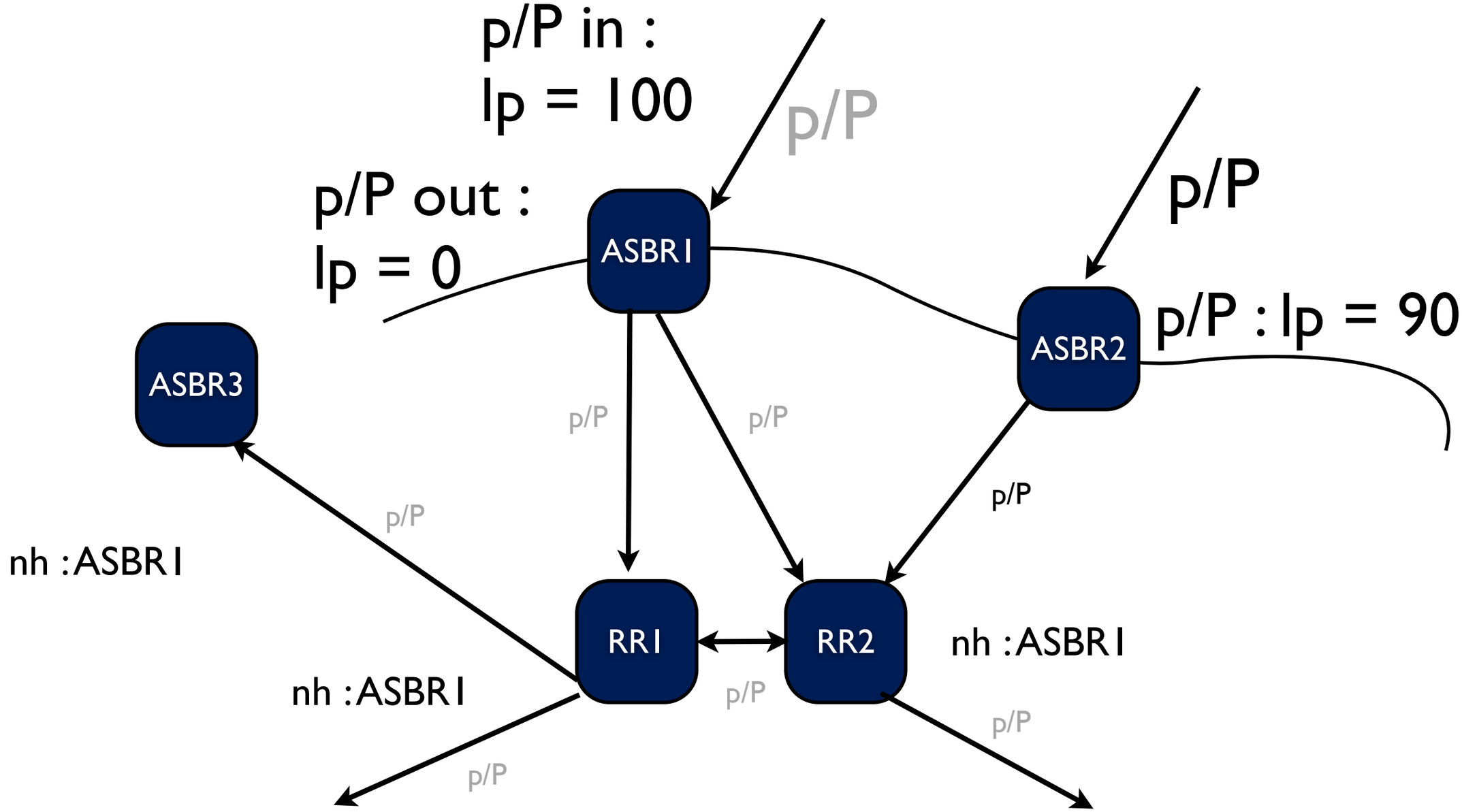

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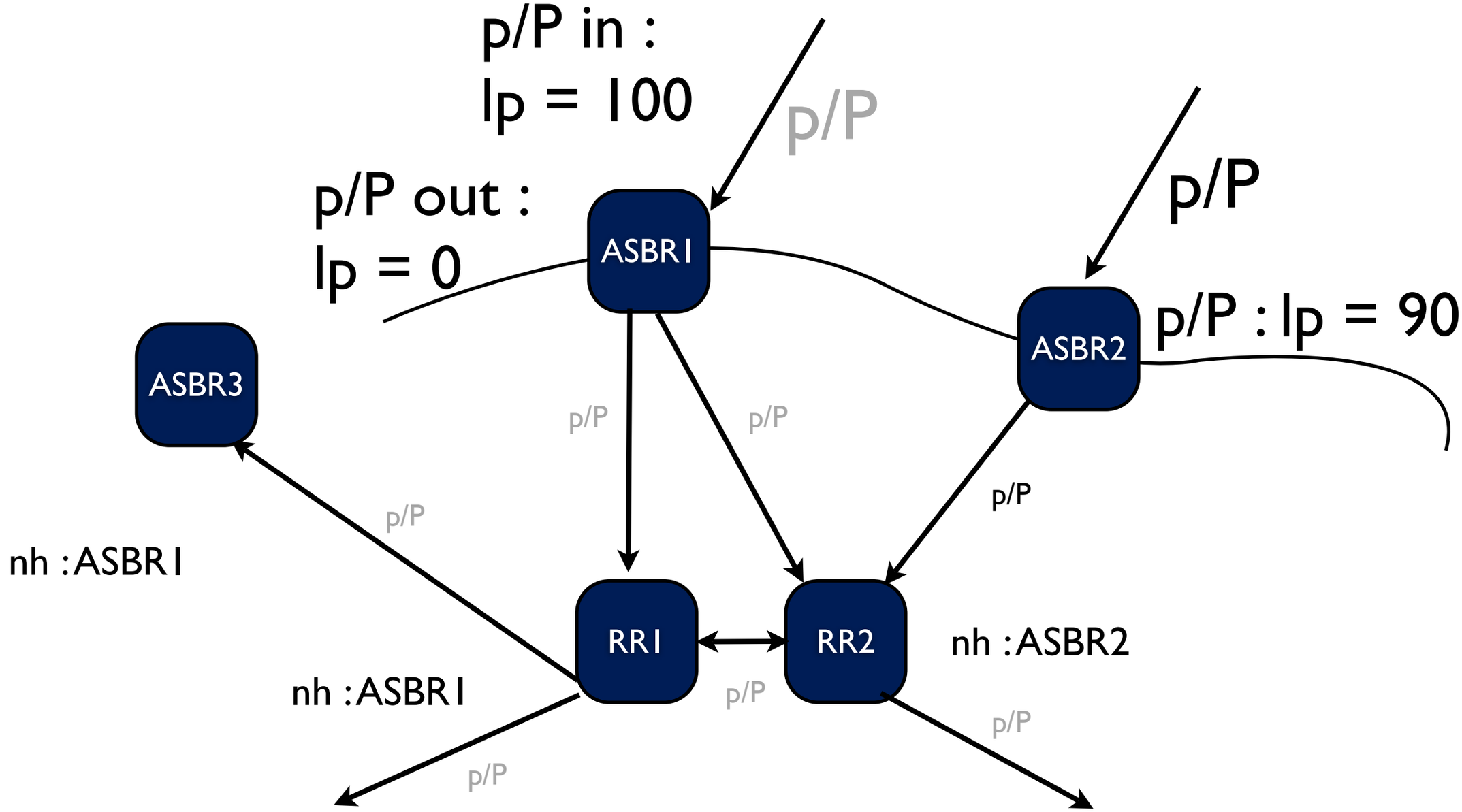

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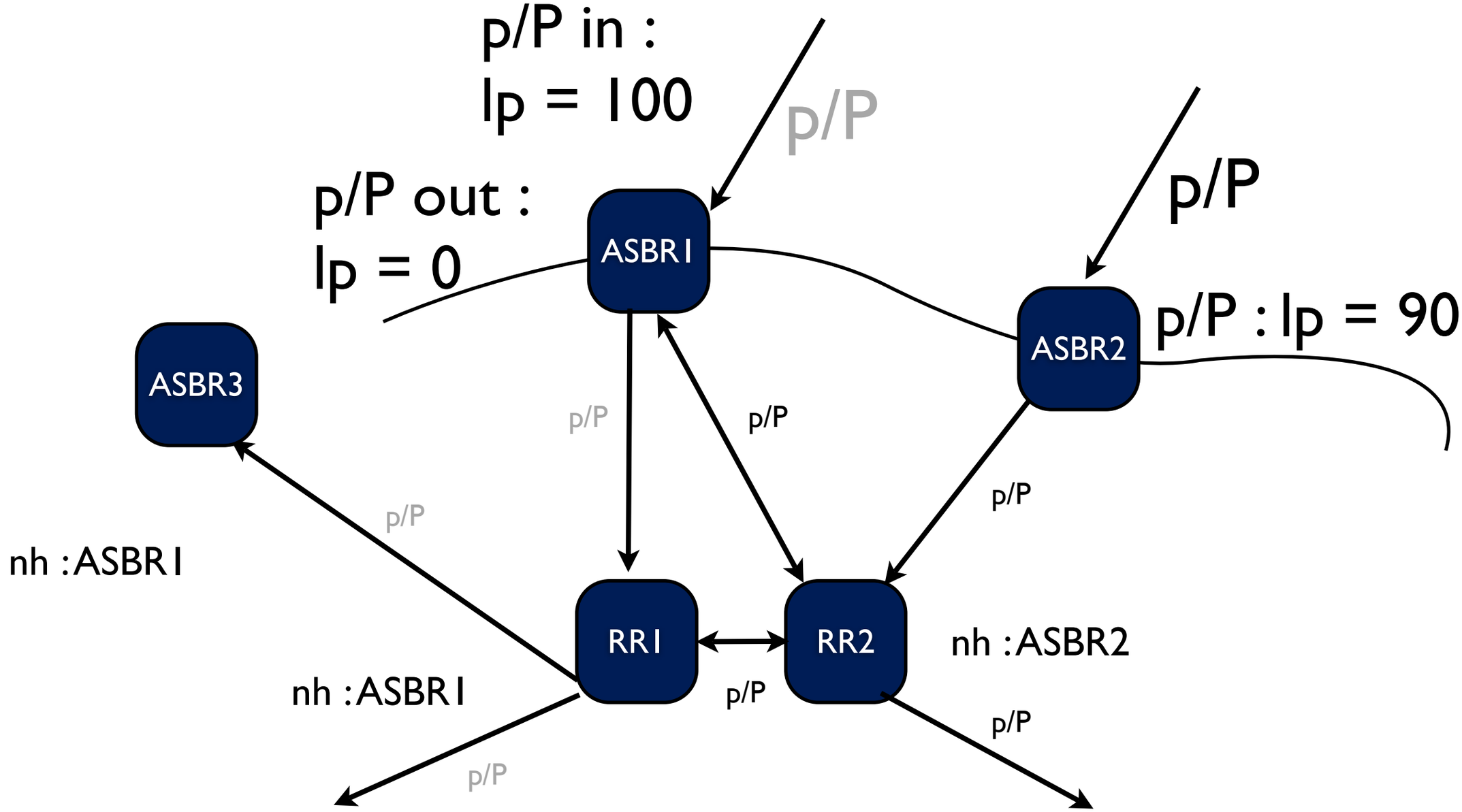

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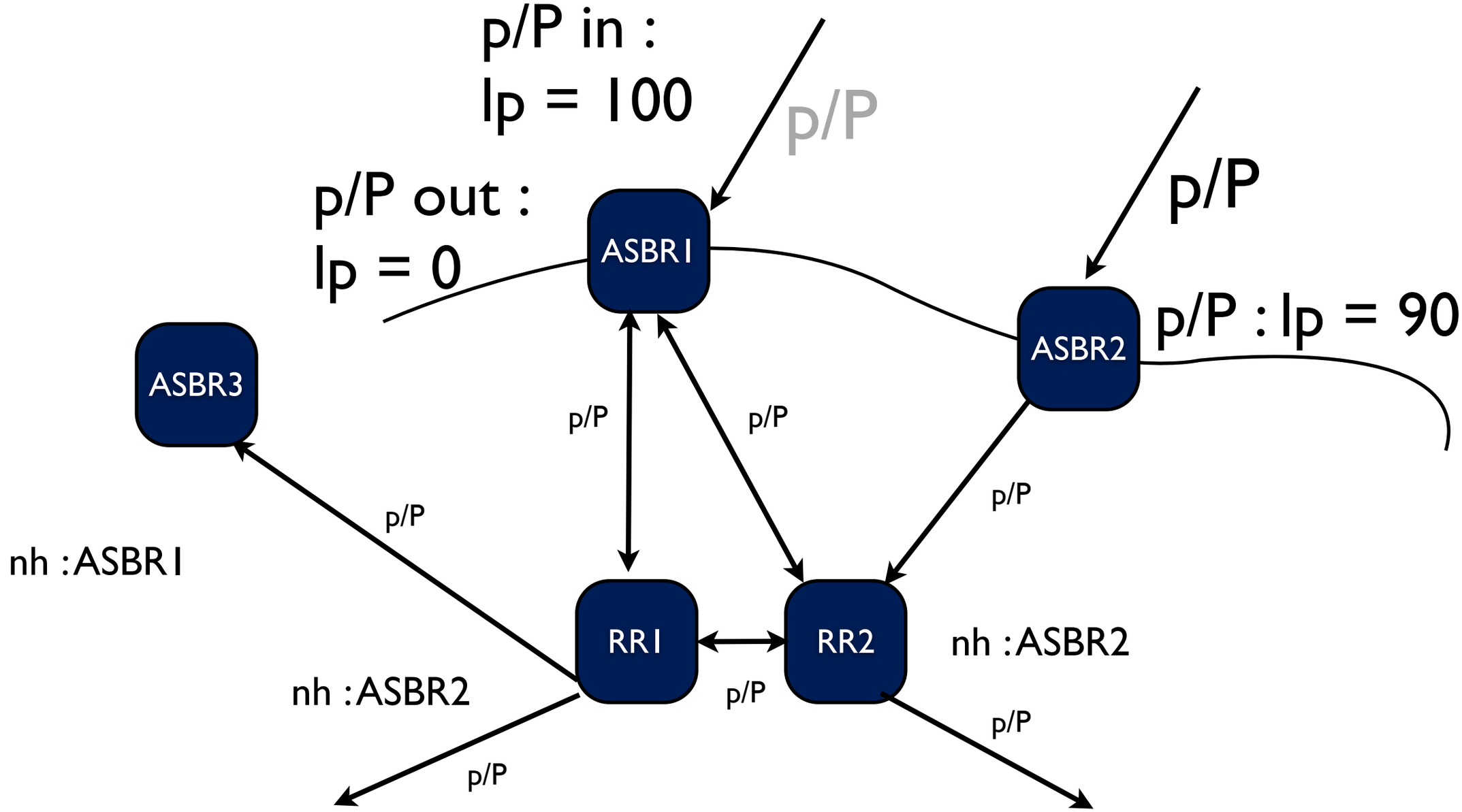

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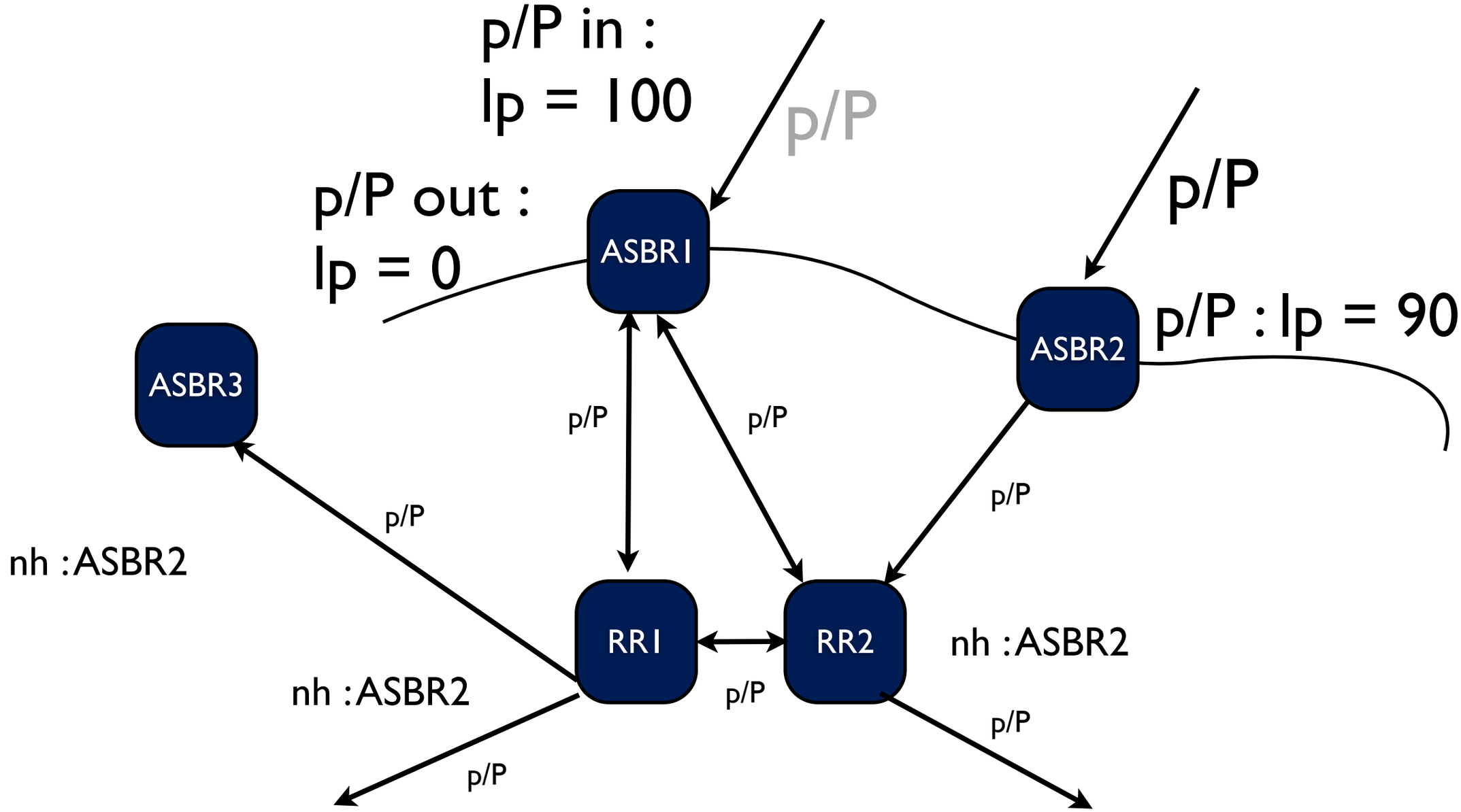

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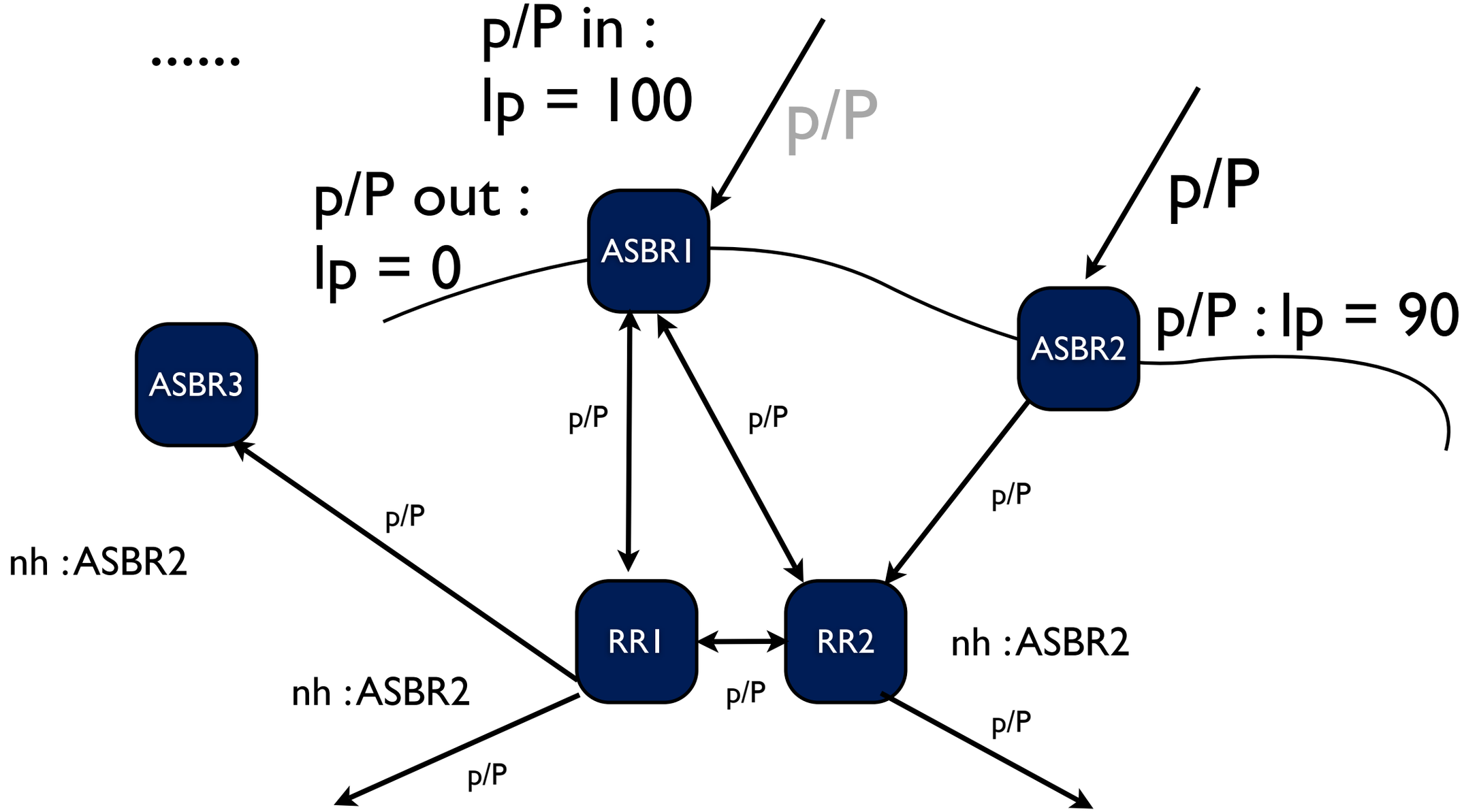

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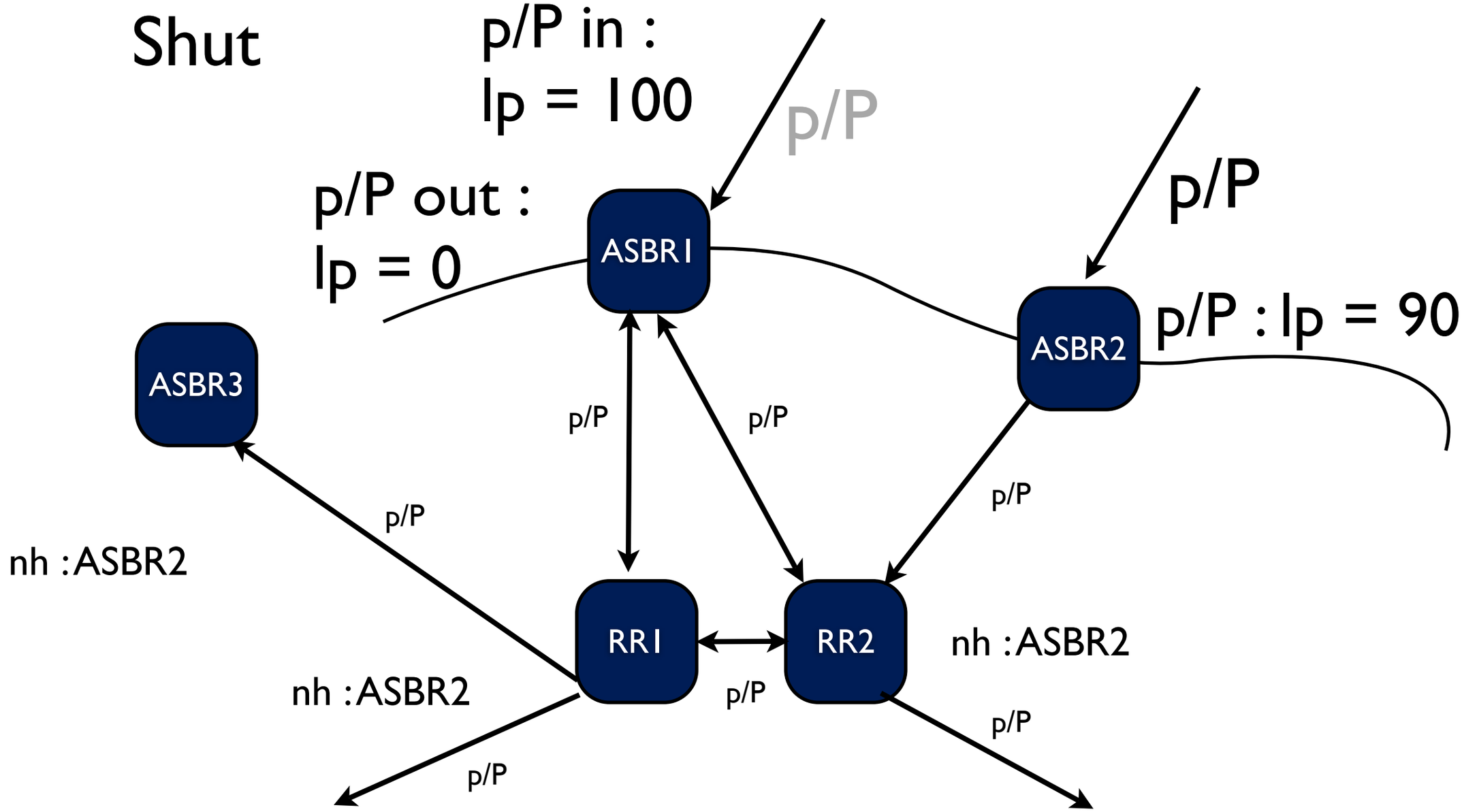
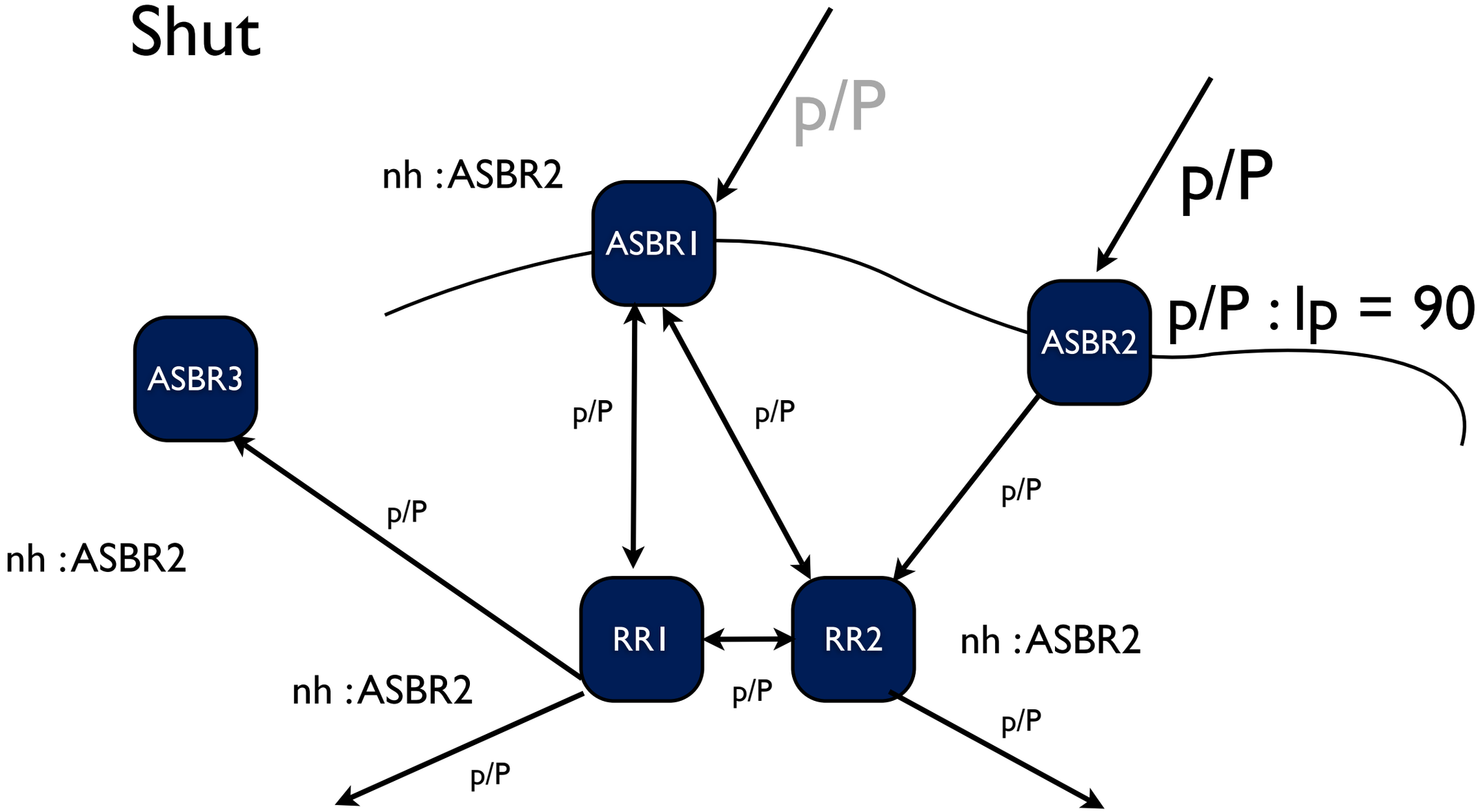


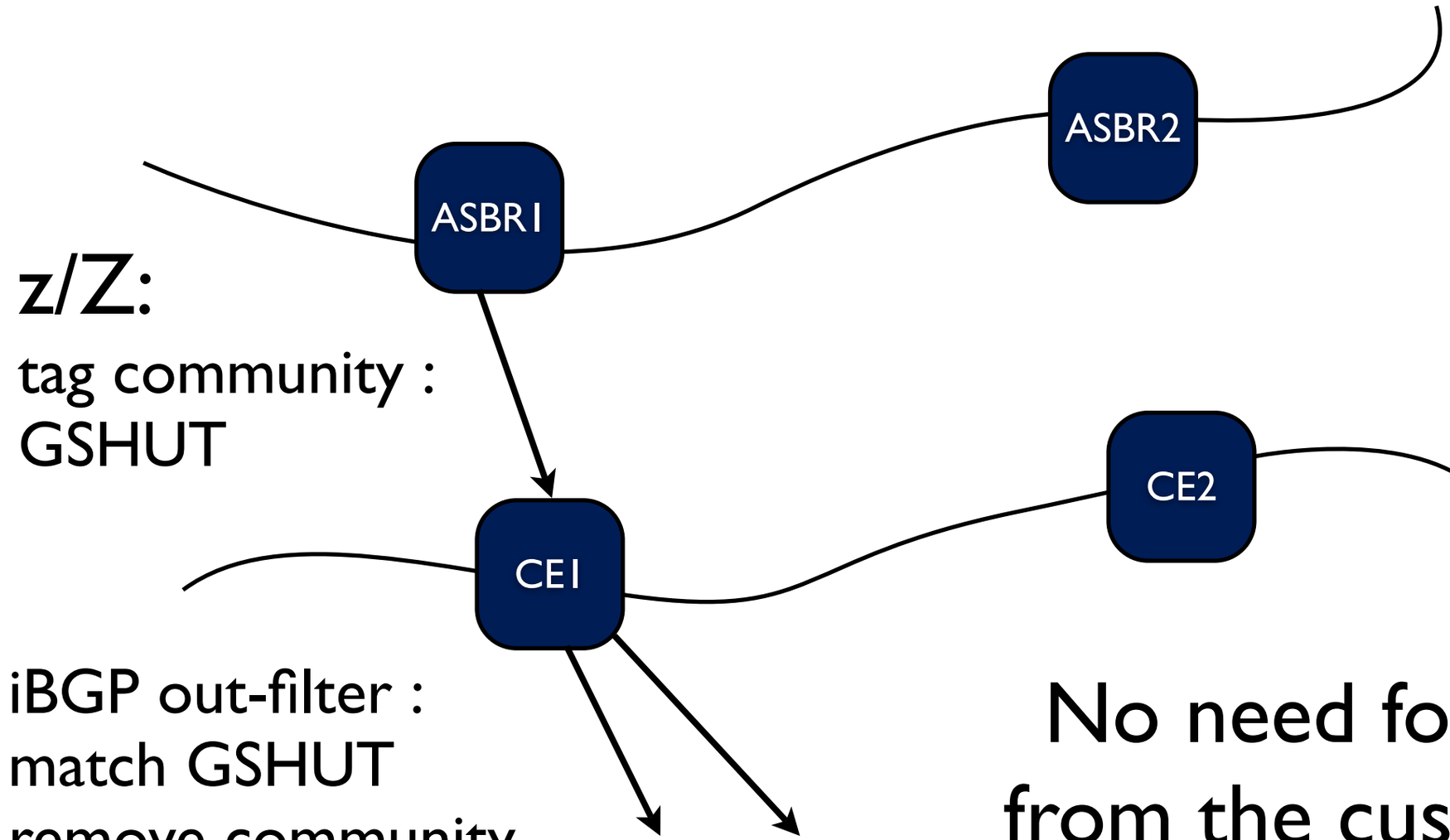
Outbound traffic

Shut



Inbound traffic

Trigger outbound g-shut at the other side of the peering link



z/Z:

tag community :
GSHUT

iBGP out-filter :
match GSHUT
remove community
set local pref 0

No need for action from the customer at maintenance time

0xFFFF0000

- One g-shut community per neighbor AS is a pain
  - neighbor-specific config
  - help from vendors less practical
- 0xFFFF0000 value has been reserved for this
  - see http://www.iana.org/assignments/bgp-well-known-communities/

G-shut concealment

- Avoid the g-shut community to be propagated through the whole Internet upon maintenance of a link
- Convergence is kept local to the AS
- Prevents misuses of the community

G-shut concealment

- match FFFF0000
  remove community
  set local pref 0
  on reception from eBGP neighbors that do not support gshut or to whom the service is not provided

- match FFFF0000
  remove community
  set local pref 0
  on iBGP out-filters

Extended community ?

- "If the GSHUT community is an extended community, it SHOULD be chosen non-transitive. In that case, some clarification is required about the handling of such communities"
- draft-decraene-idr-rfc4360-clarification-00

What would we get ?

- No need to re-implement community non-transitivity of by configuration on ASBRs
- No default behavior of 4360 can lead to misuses of the solution

Local pref overriding

- If some speakers override LP on iBGP sessions
- Use of an AS specific community over the iBGP sessions