

## DYMO v10 Model

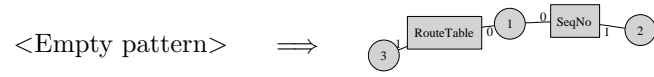
GBT model of the DYMO ad hoc routing protocol draft version 10. Alternative model, in which only the target node may reply to an RREQ.

### Initial graph

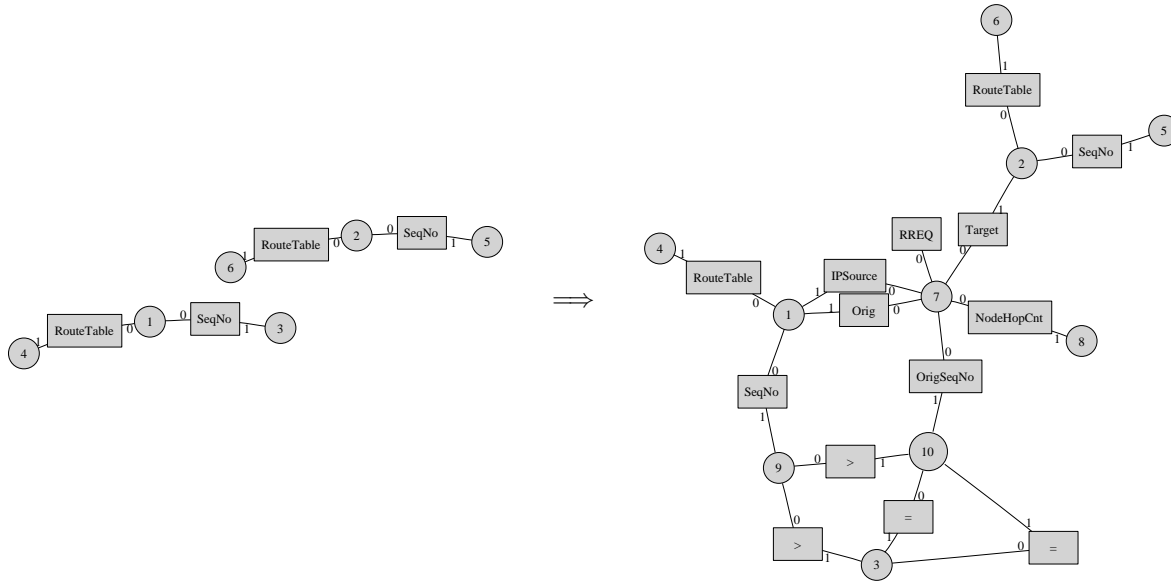
<Empty graph>

## Actions

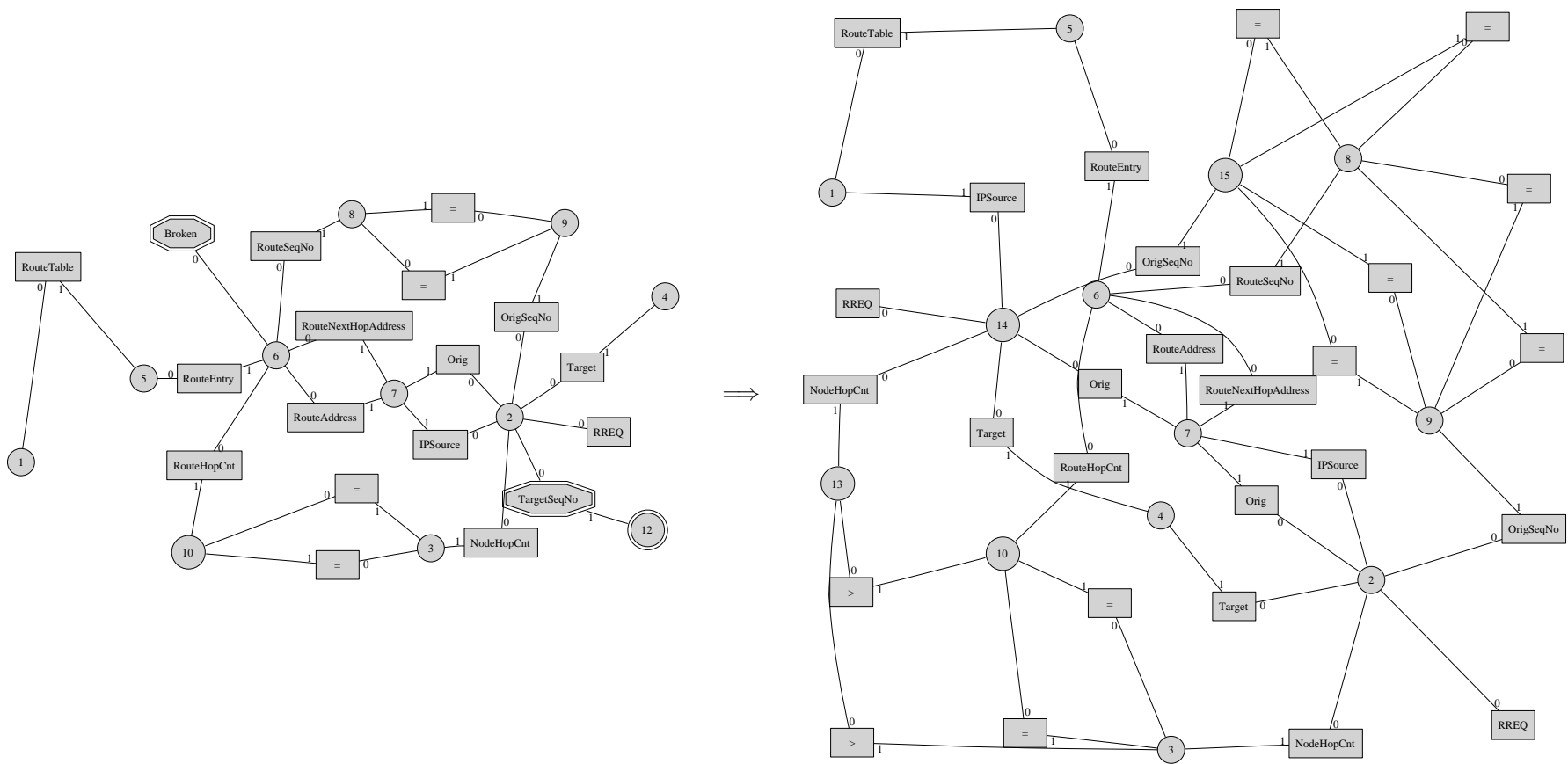
### New node appearing in network



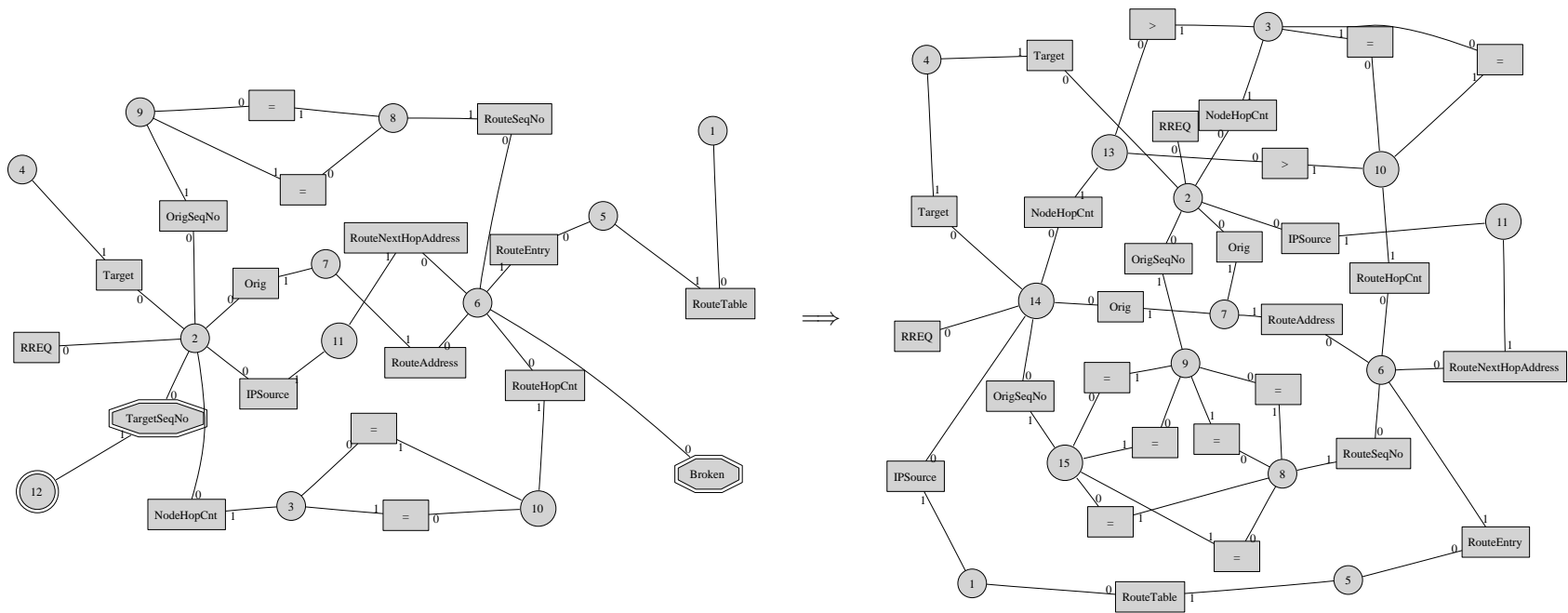
Node generates RREQ - no previous target seqno



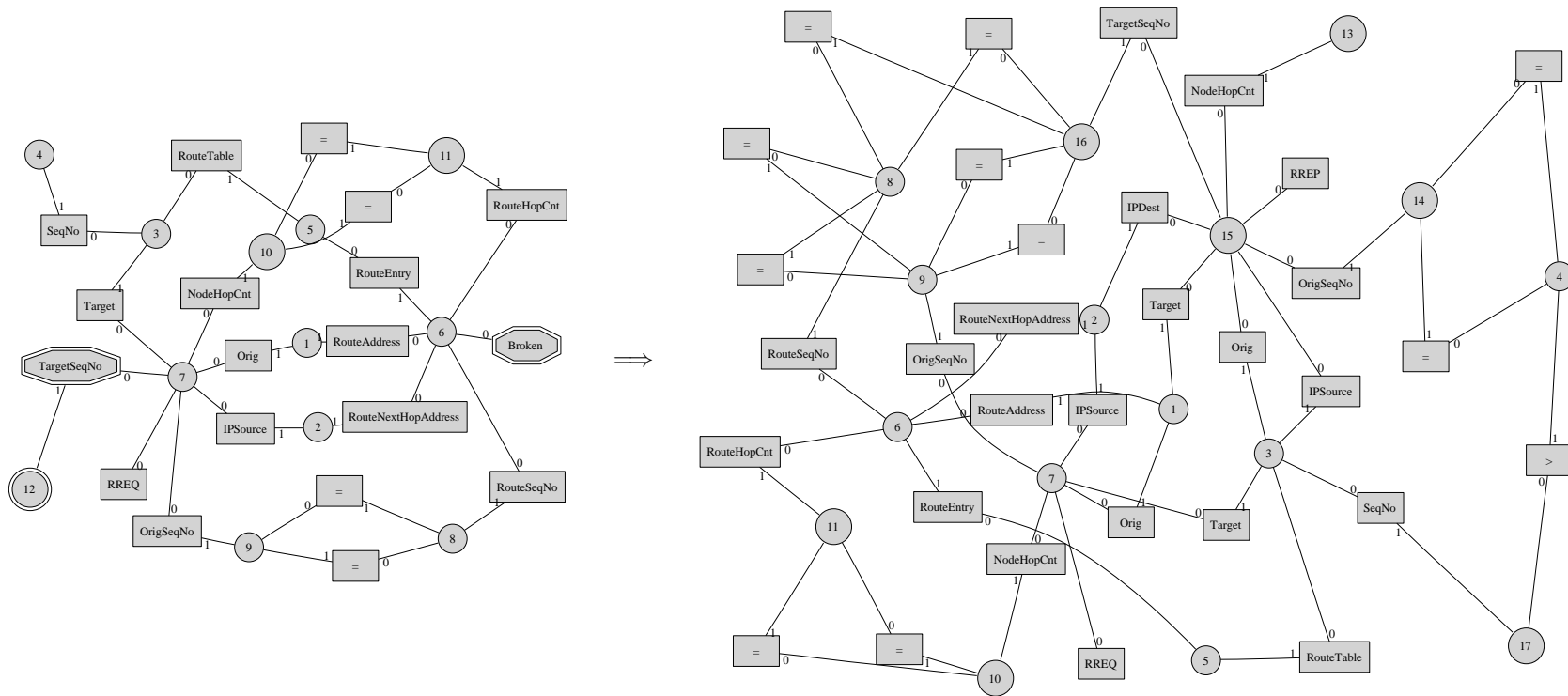
### RREQ reflooded - No target seqno included #1



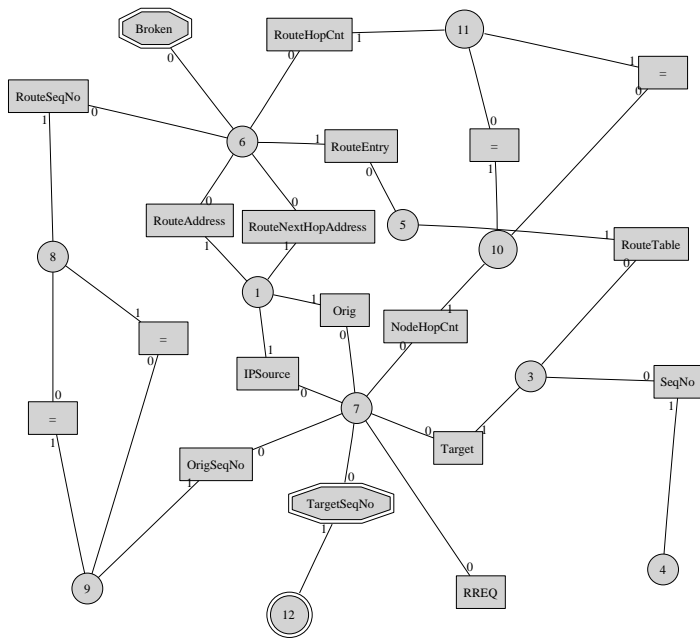
RREQ reflooded - No target seqno included #2



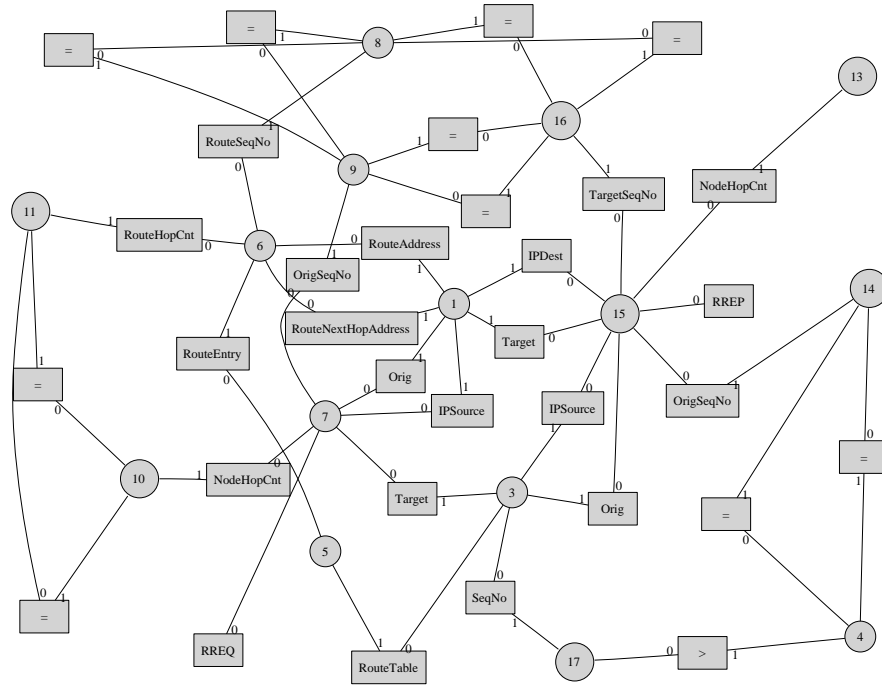
RREQ received by destination, RREP sent - No target seqno included #1



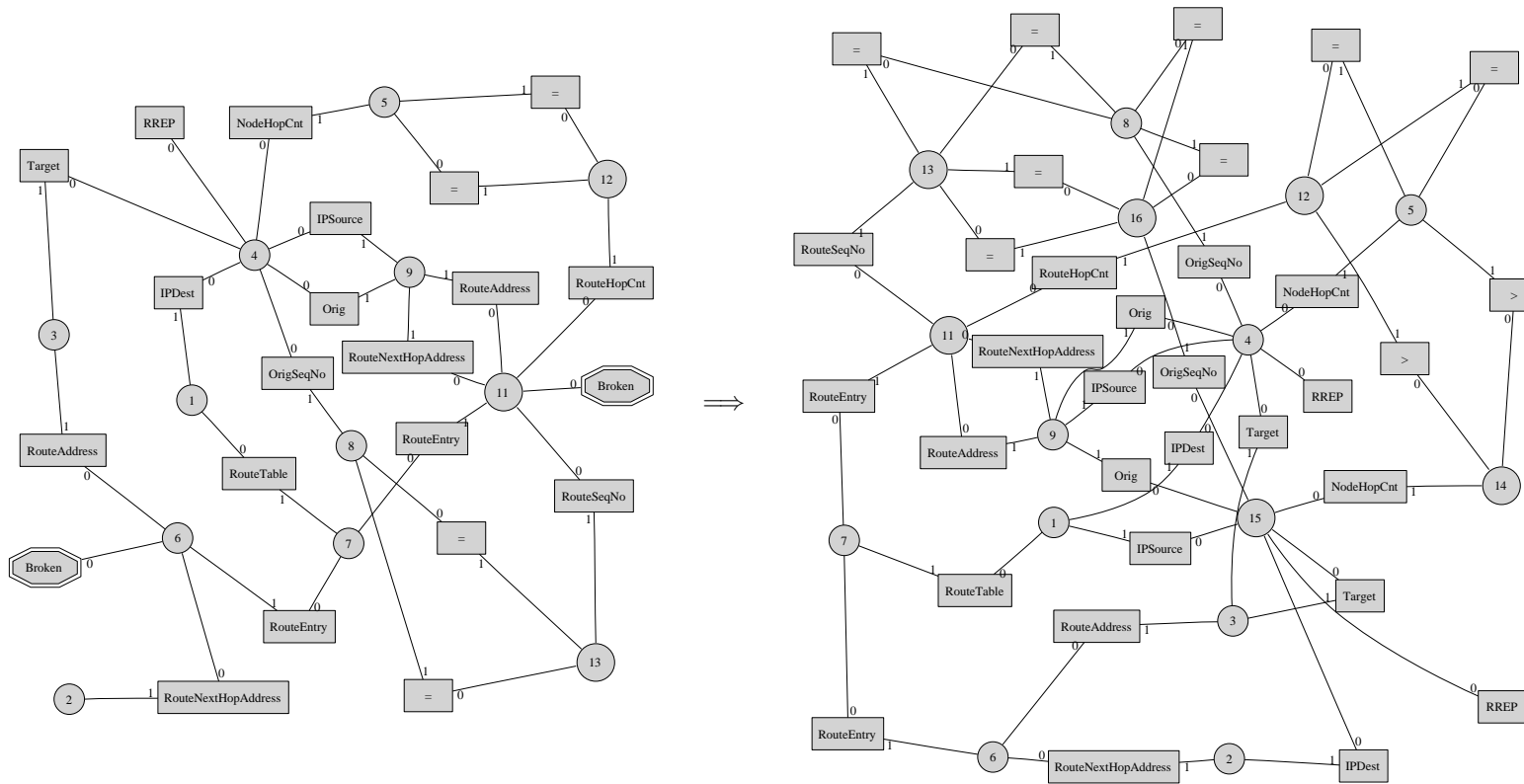
RREQ received by destination, RREP sent - No target seqno included #2



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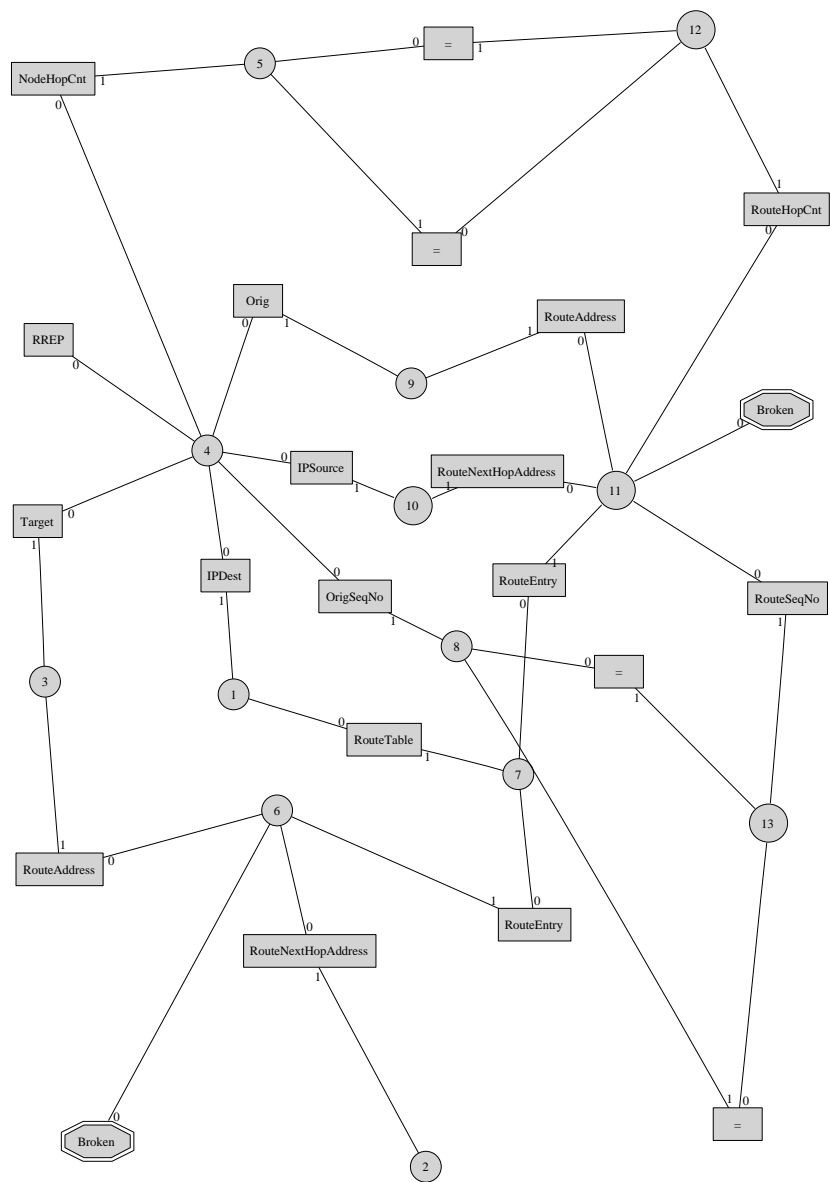


RREP received by intermediate, route available #1

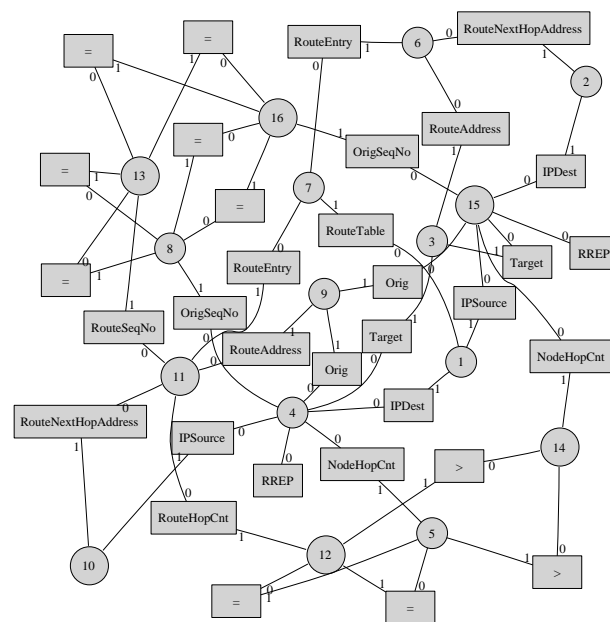




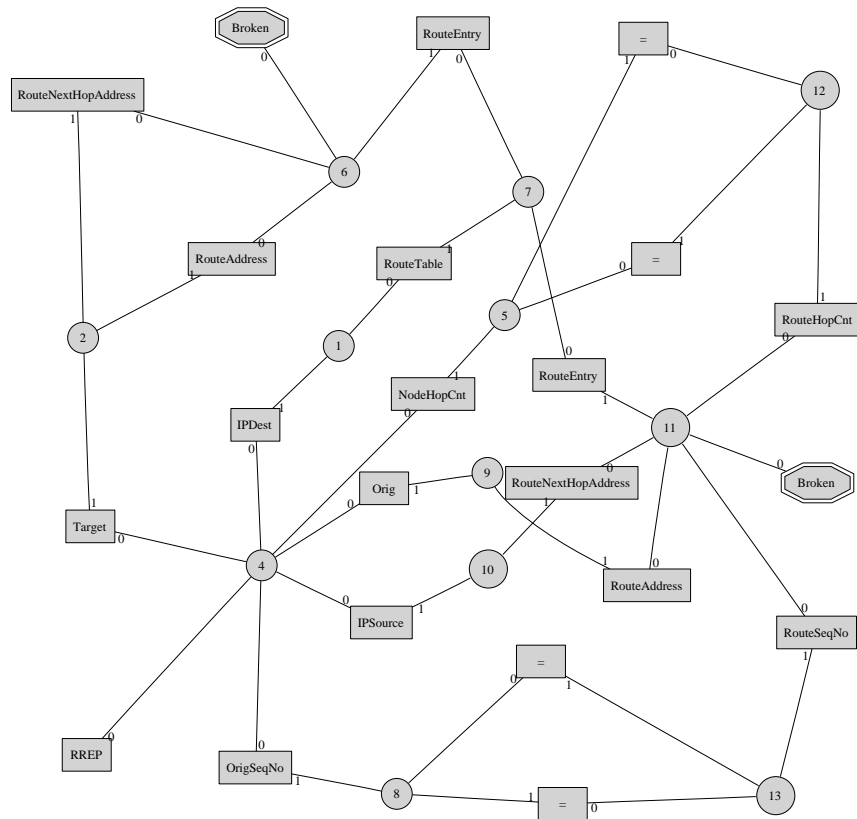
## RREP received by intermediate, route available #2



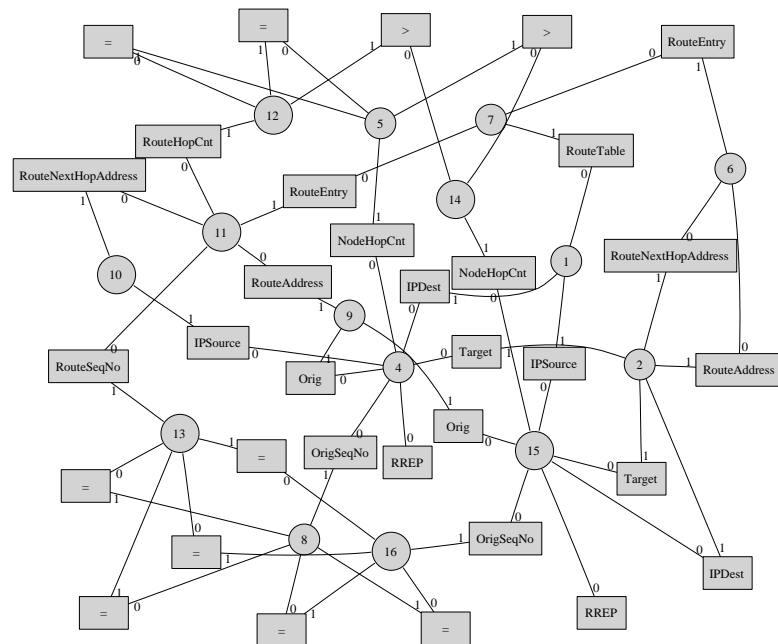
⇒



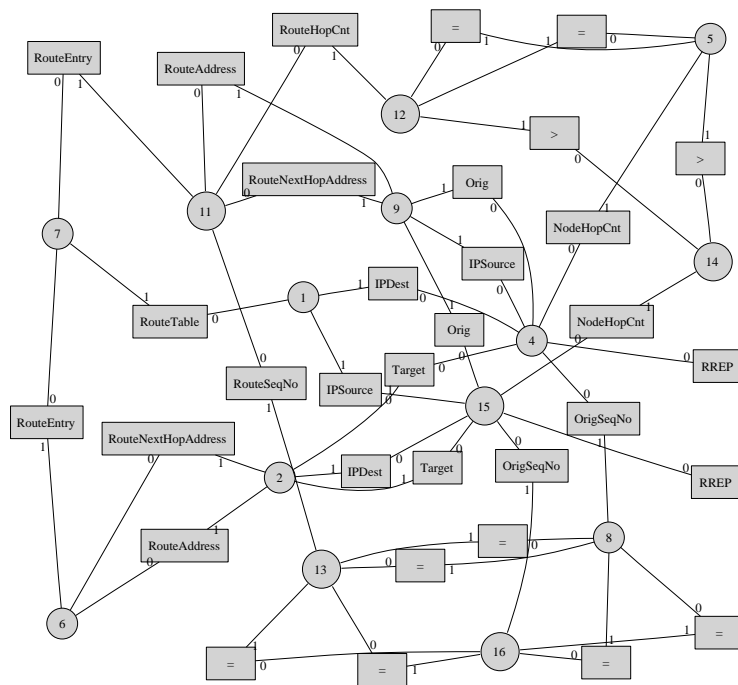
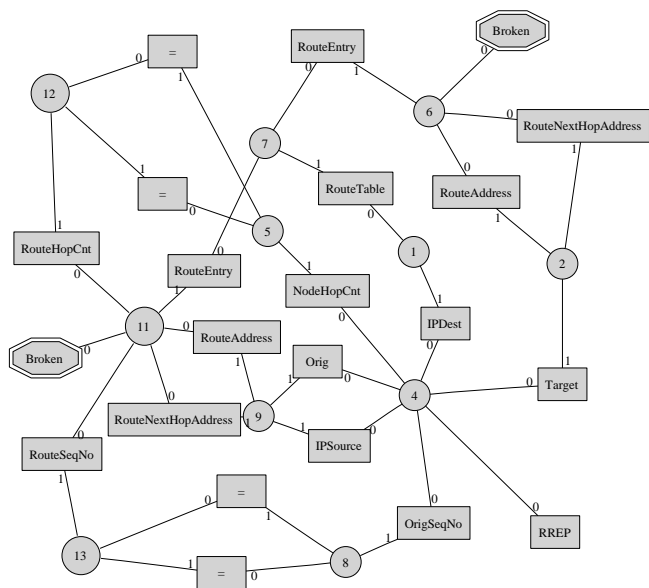
### RREP received by intermediate, route available #3



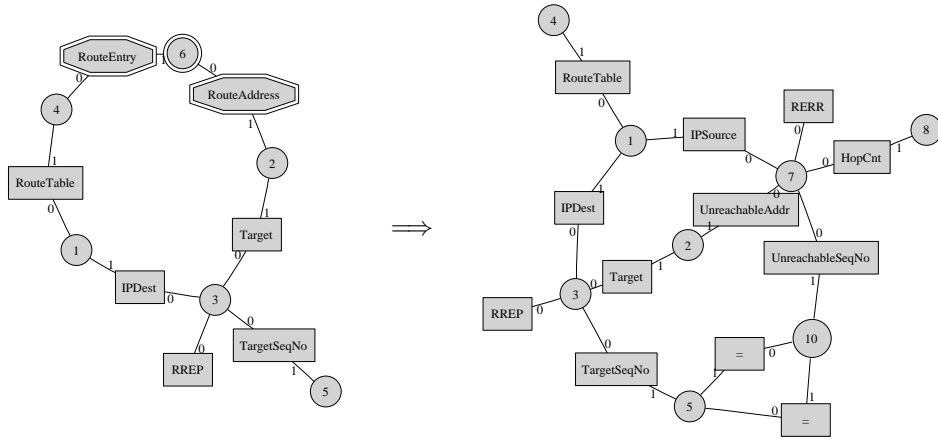
⇒



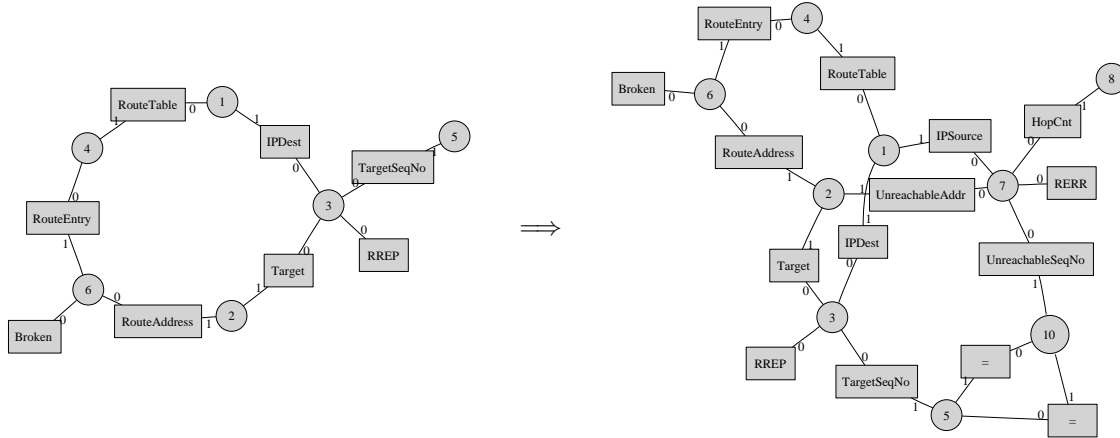
## RREP received by intermediate, route available #4



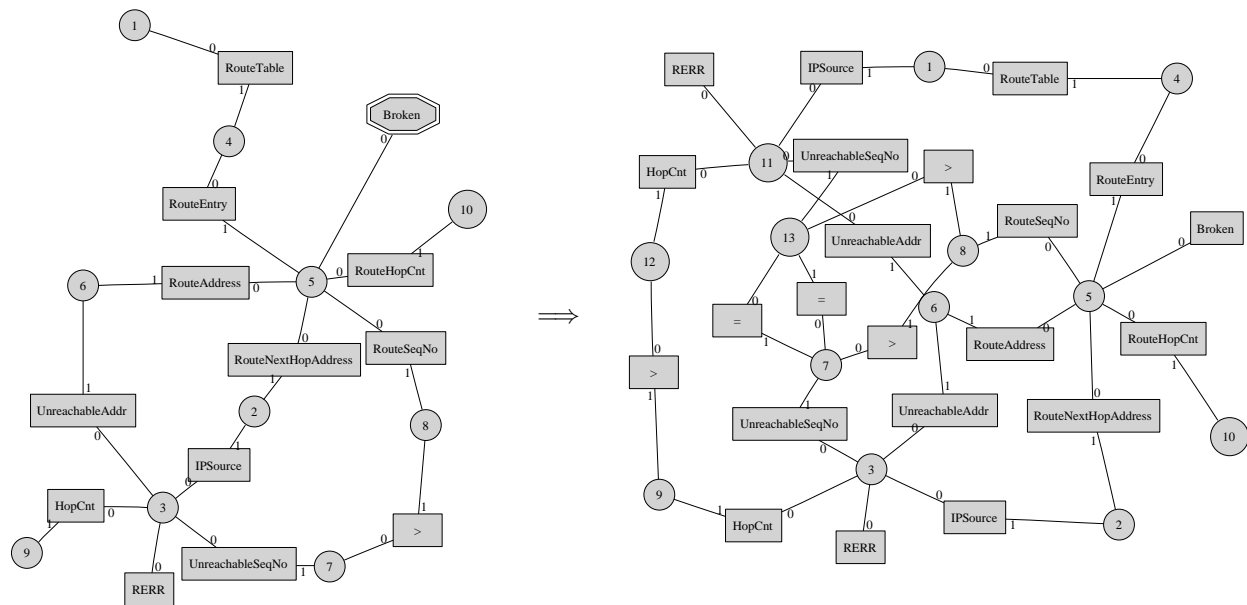
**RREP received by intermediate, no route available, RERR sent**



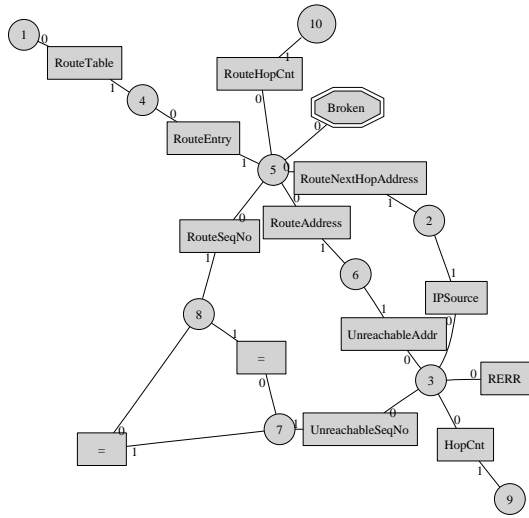
RREP received by intermediate, only invalid route available, RERR sent



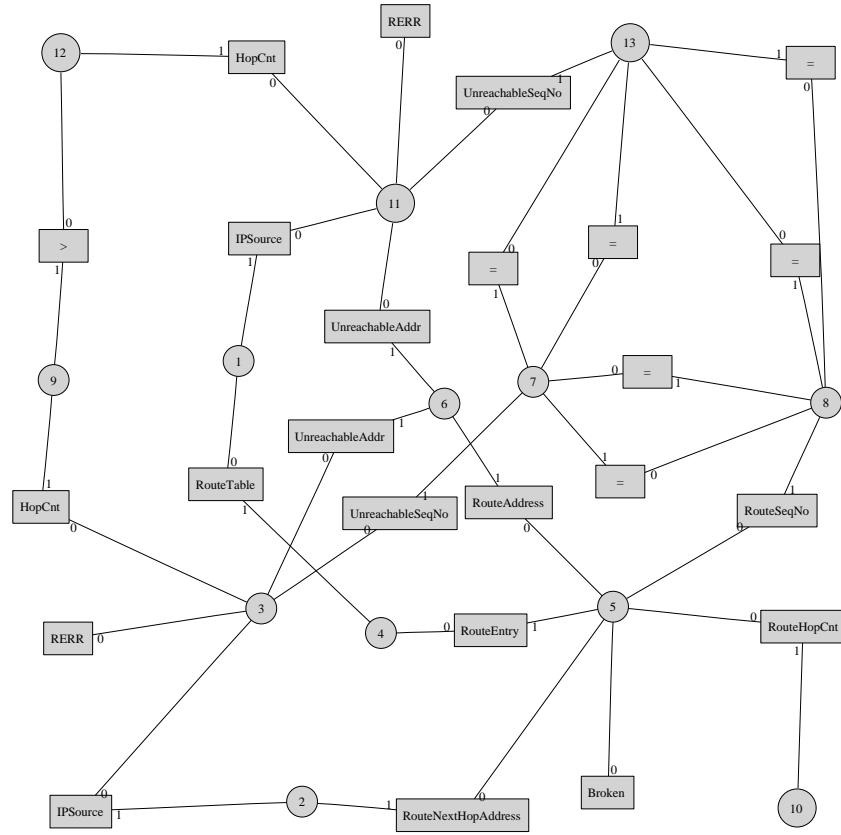
### RERR handling - greater than case



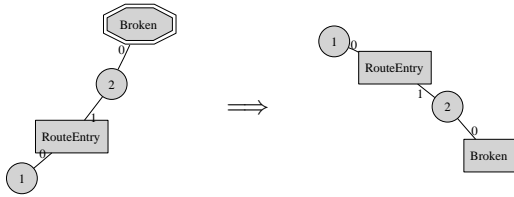
## RERR handling - equals case



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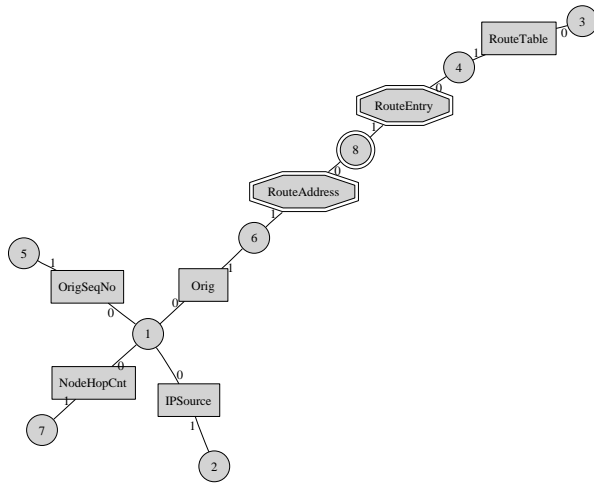


## Route timeout/handling of broken routes

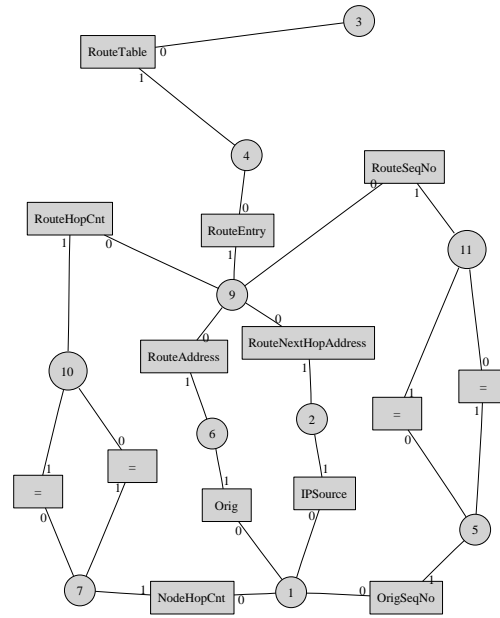




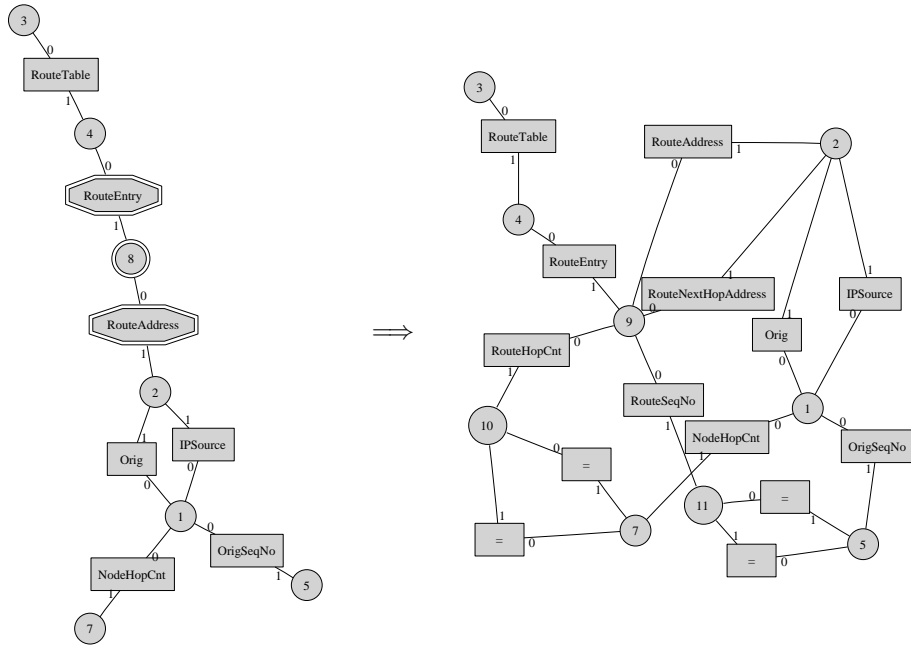
Route table update, no previous entry #1



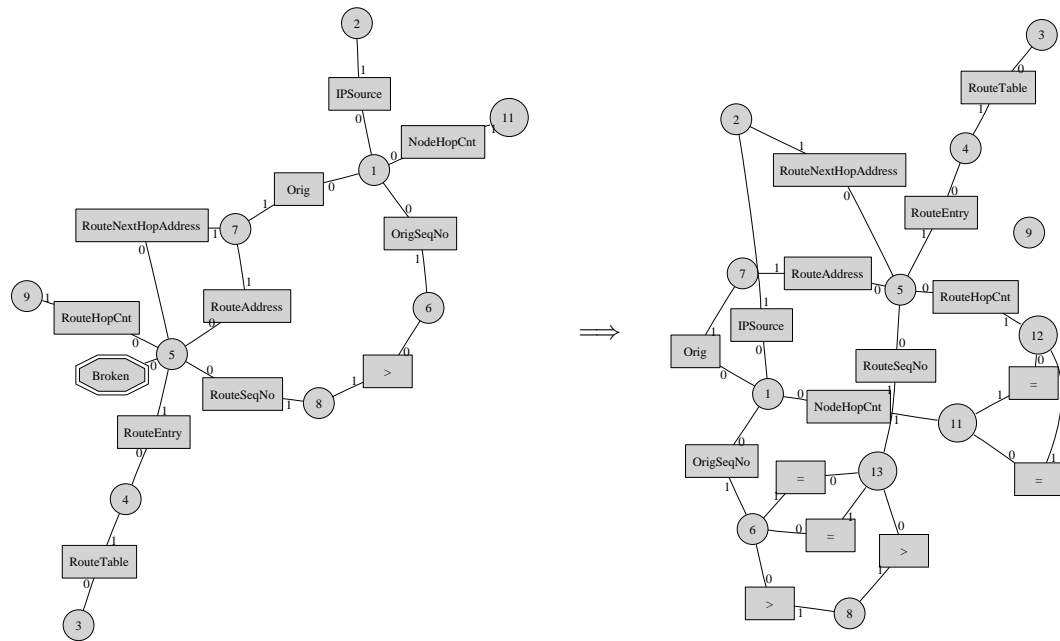
⇒



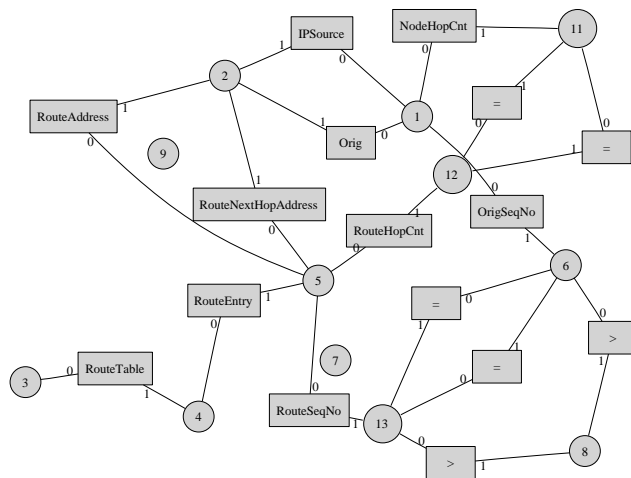
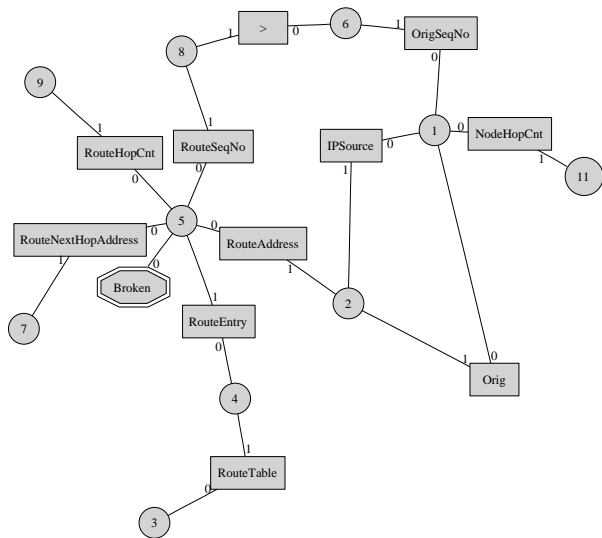
## Route table update, no previous entry #2



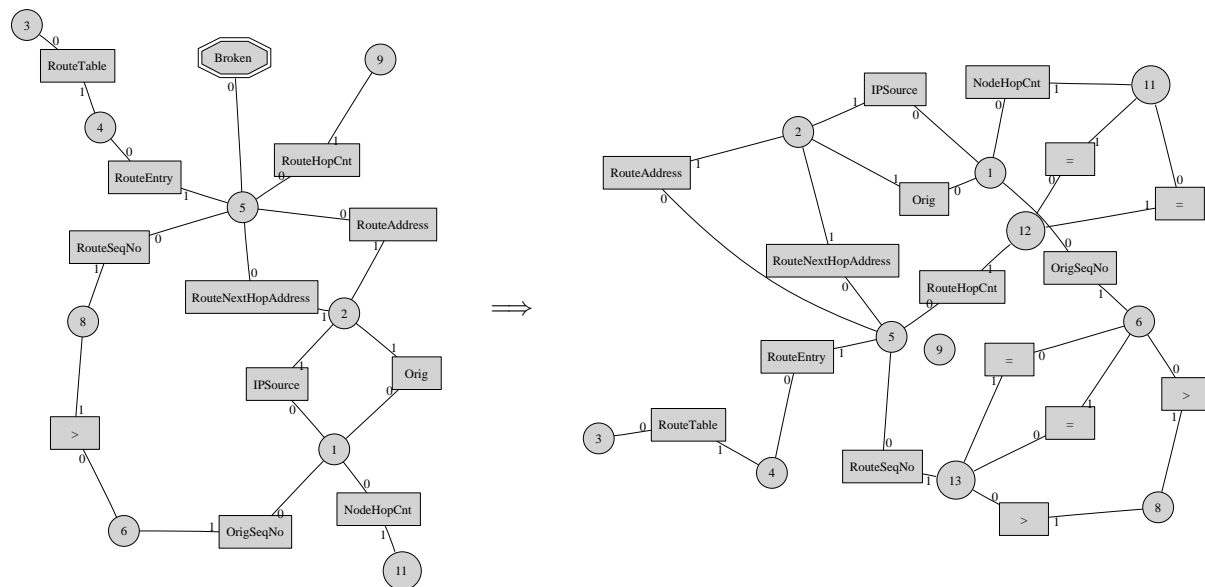
## Route table update, previous entry, first rule #1



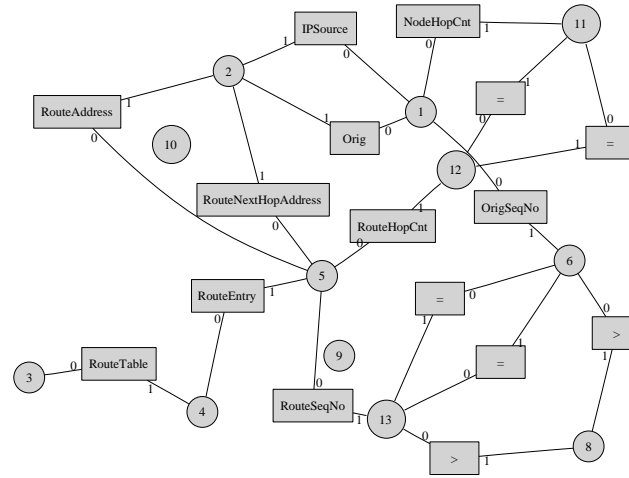
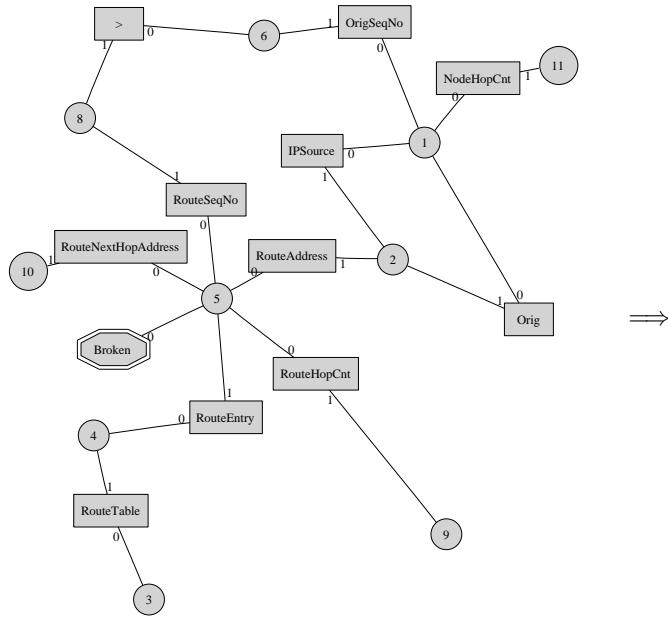
## Route table update, previous entry, first rule #2



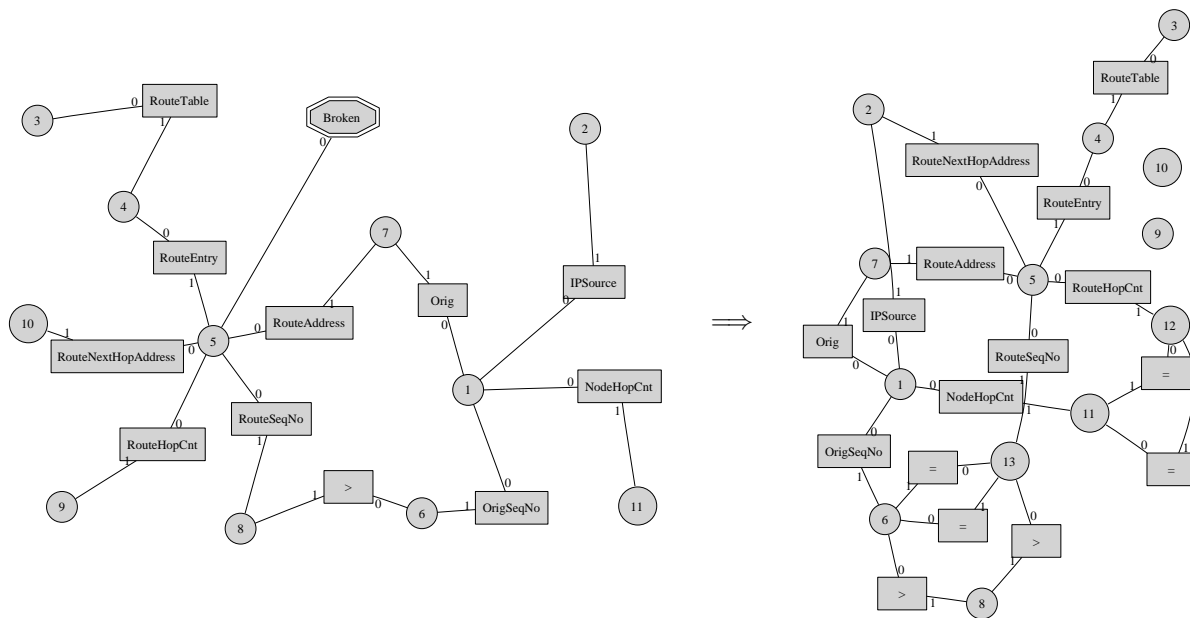
## Route table update, previous entry, first rule #3



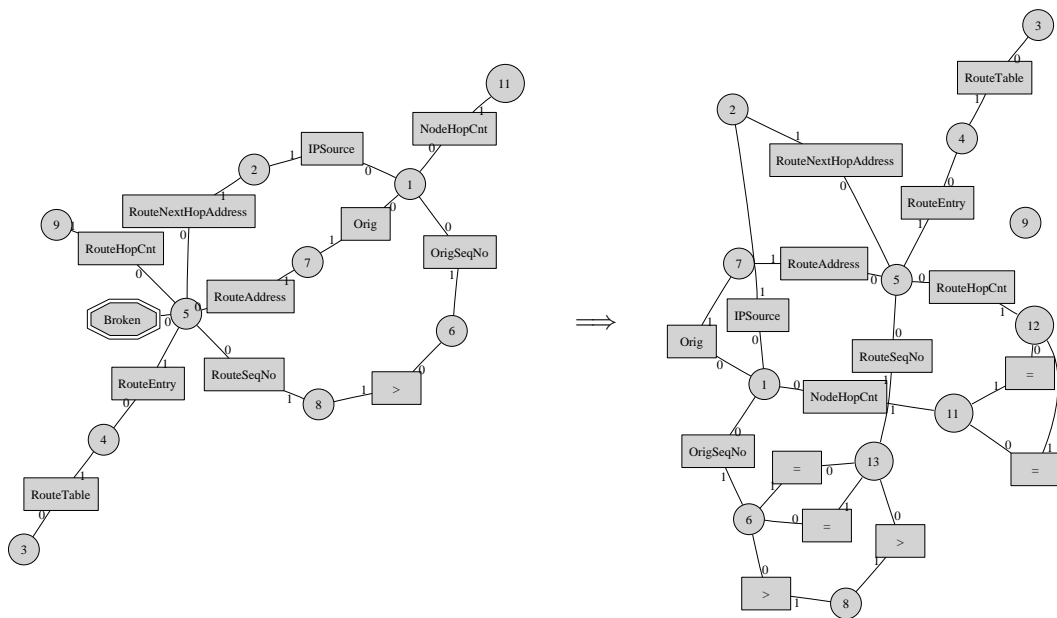
# Route table update, previous entry, first rule #4



# Route table update, previous entry, first rule #5

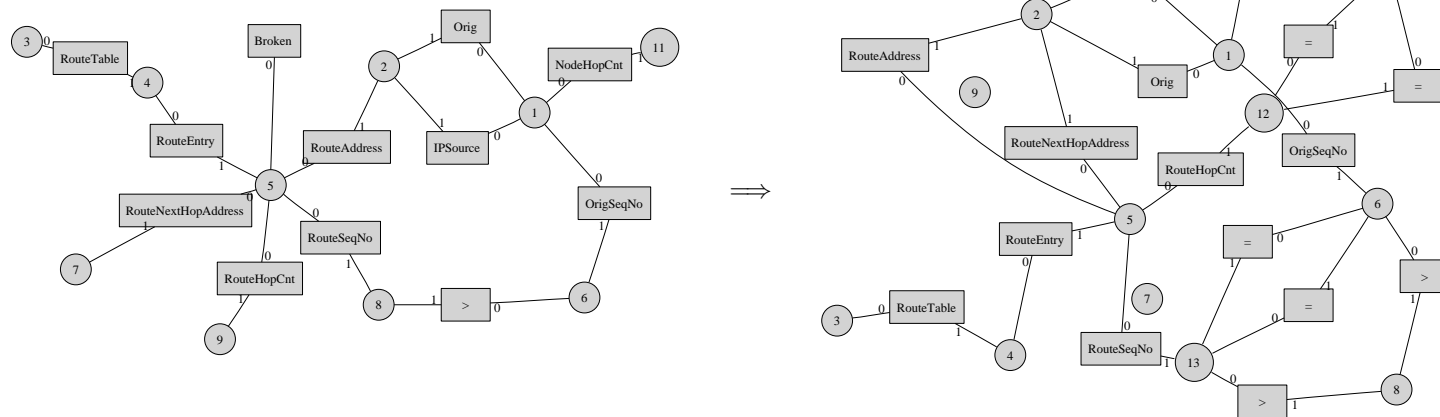


# Route table update, previous entry, first rule #6

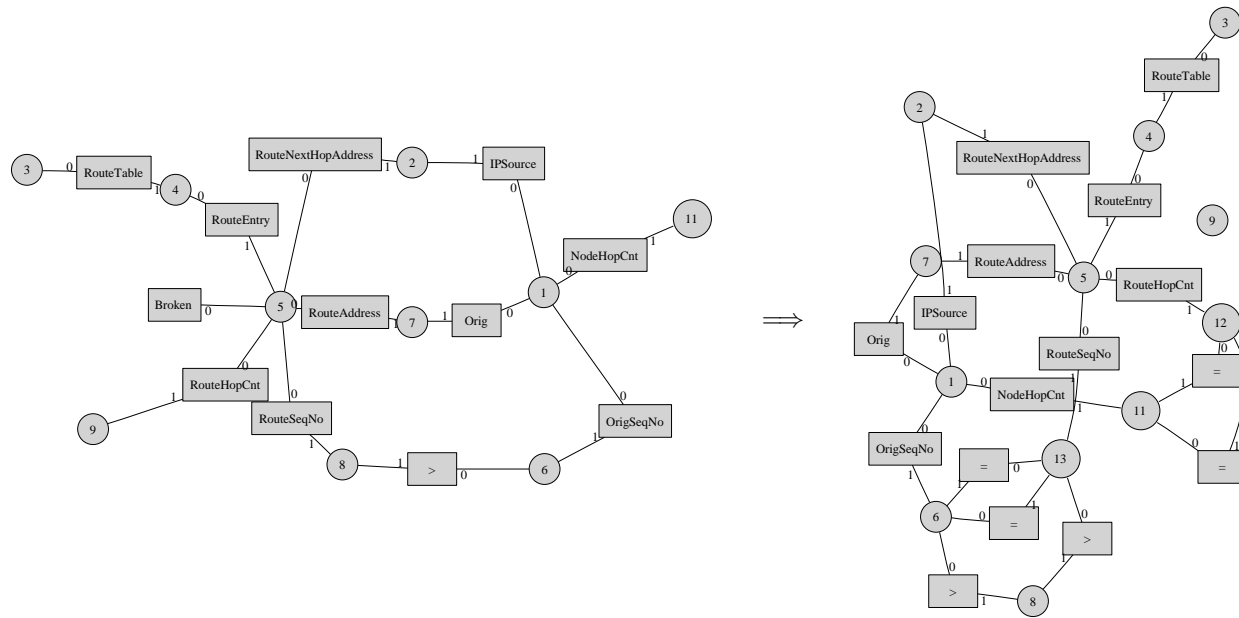




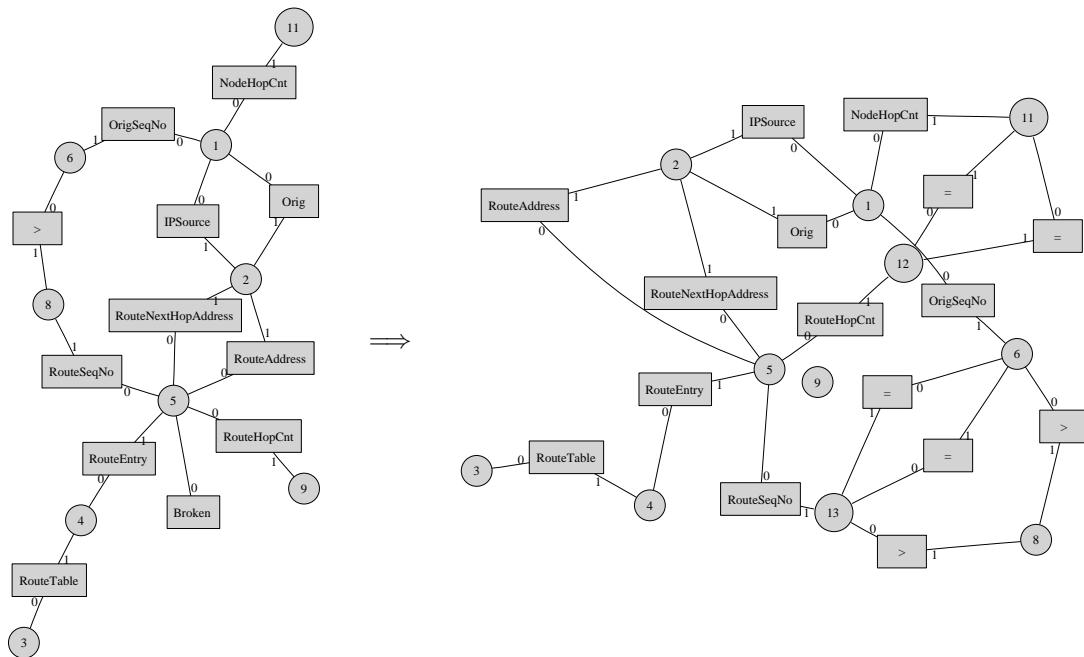
## Route table update, previous entry, first rule (route broken) #1



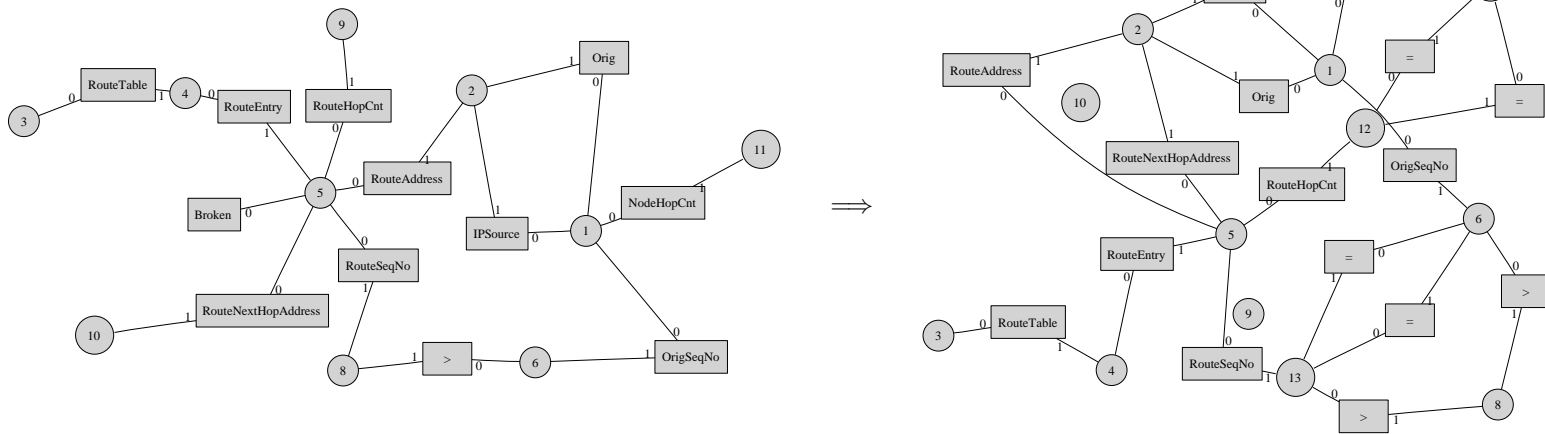
## Route table update, previous entry, first rule (route broken) #2



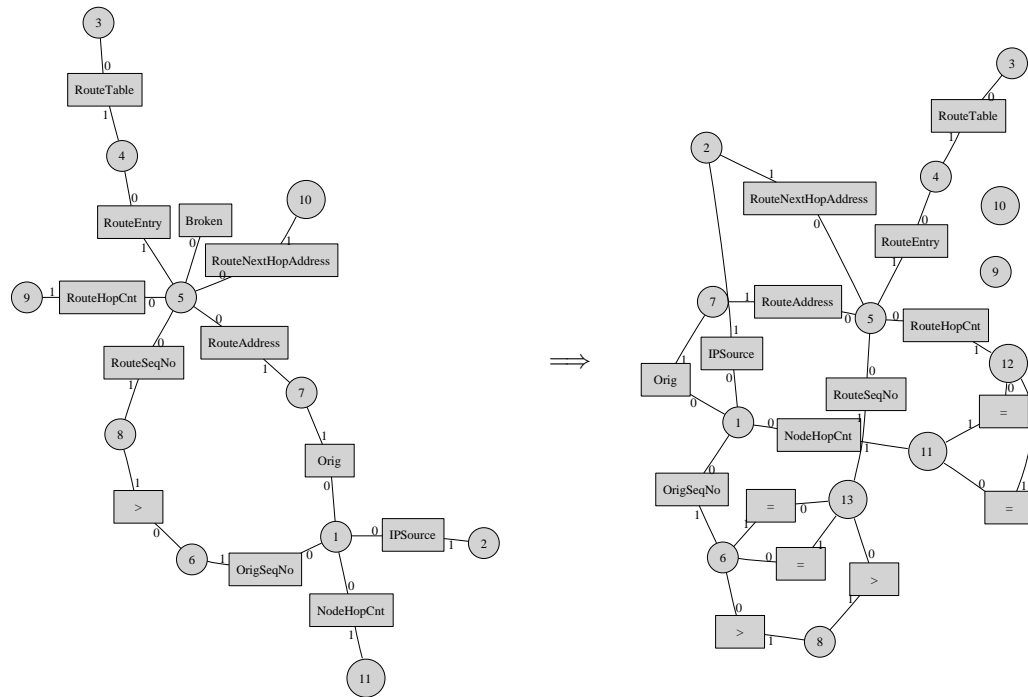
## Route table update, previous entry, first rule (route broken) #3



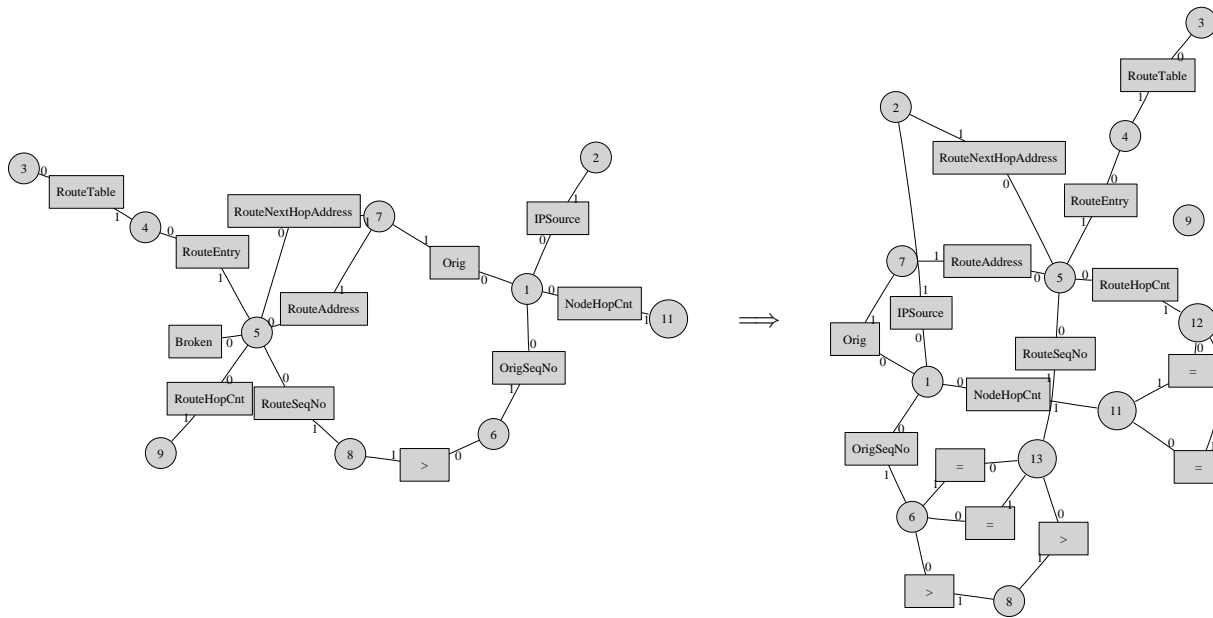
## Route table update, previous entry, first rule (route broken) #4



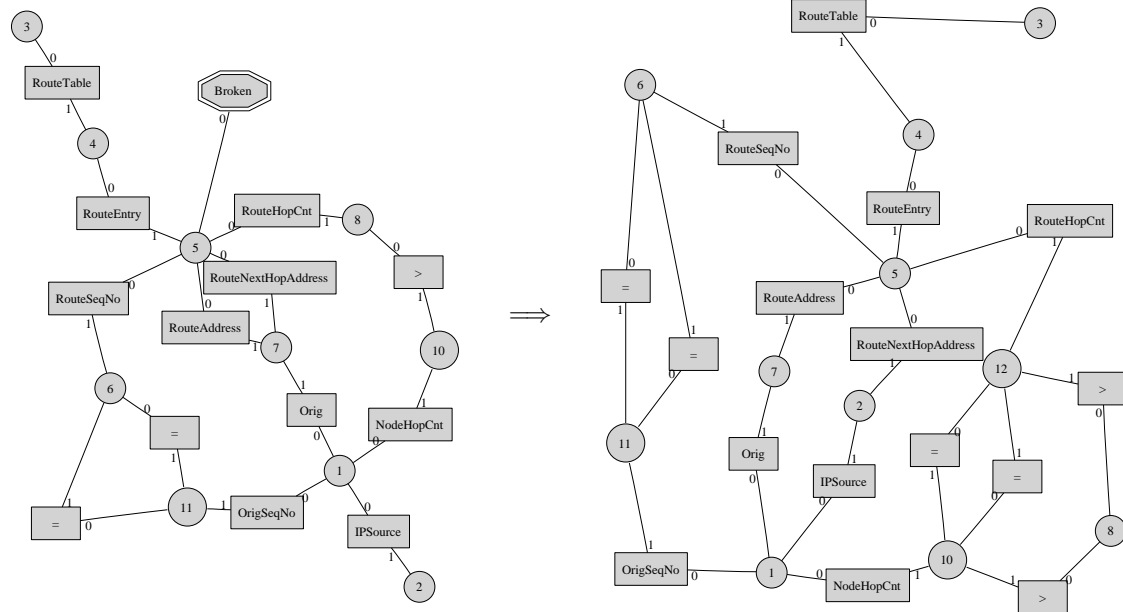
## Route table update, previous entry, first rule (route broken) #5



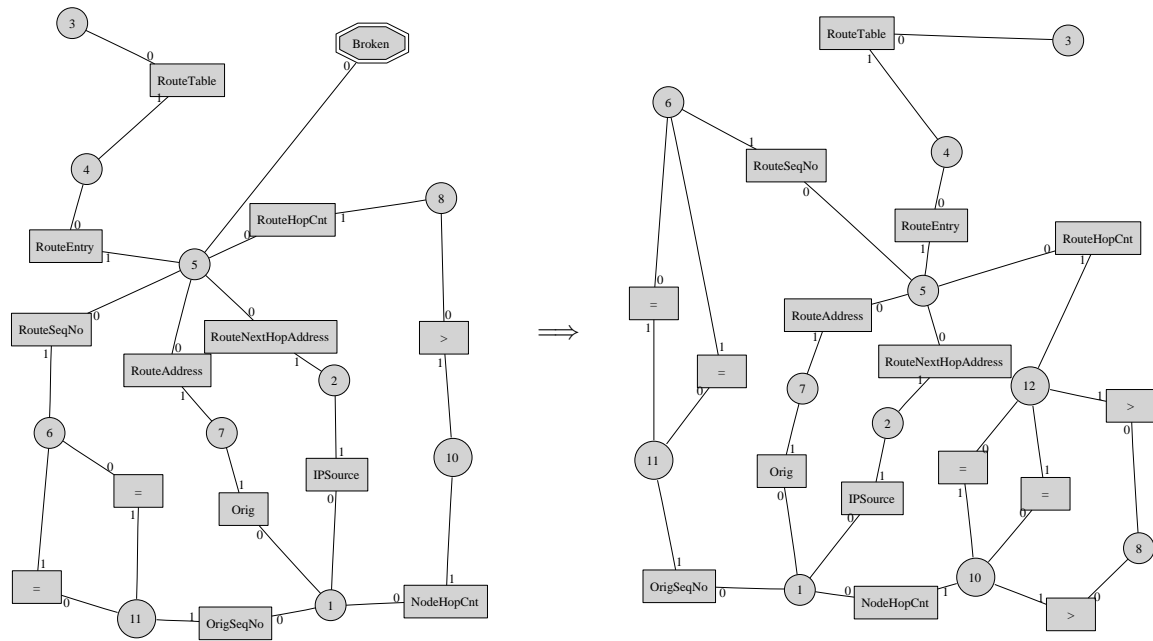
## Route table update, previous entry, first rule (route broken) #6



# Route table update, previous entry, second rule #1

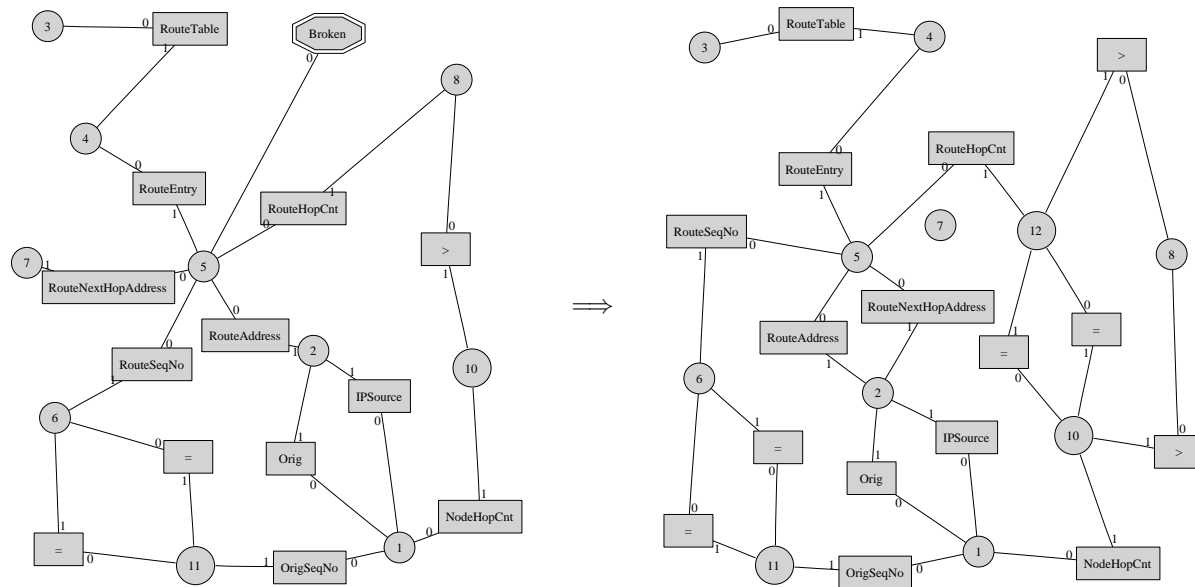


## Route table update, previous entry, second rule #2

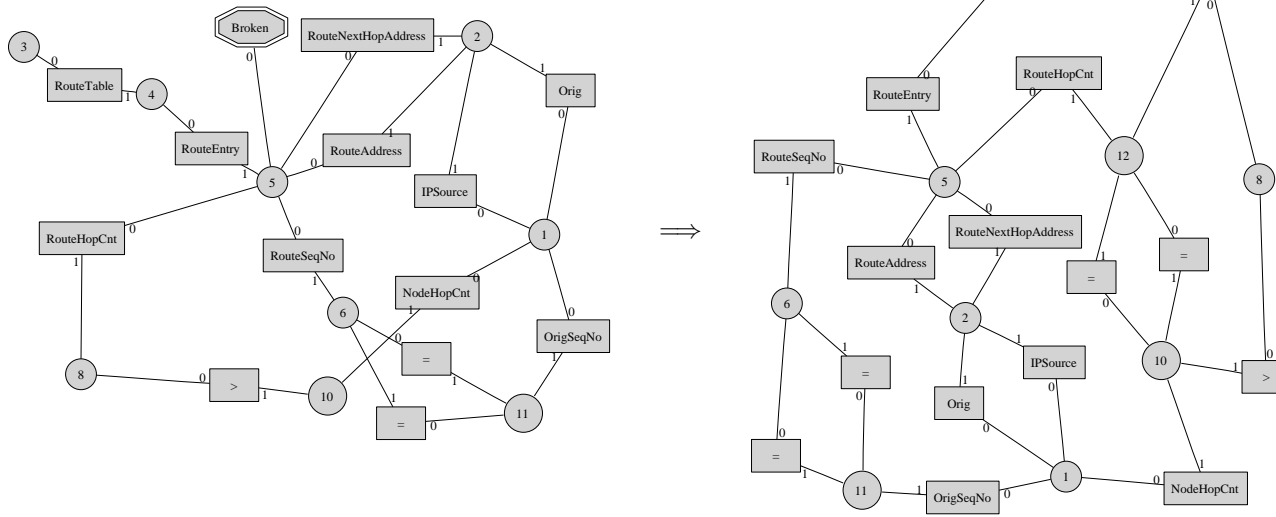




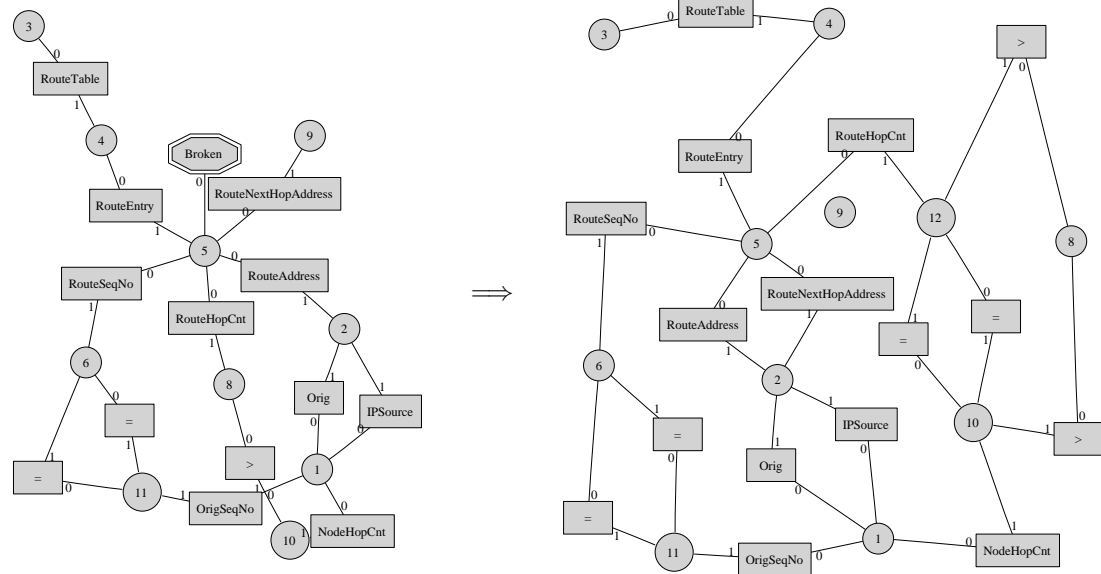
### Route table update, previous entry, second rule #3



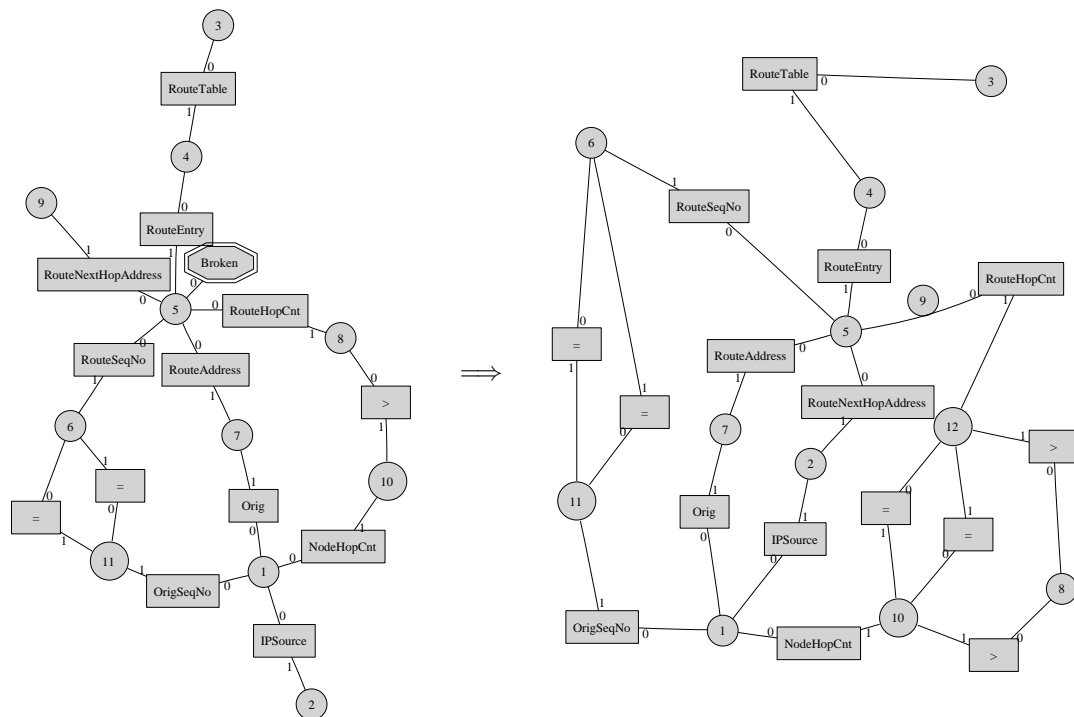
# Route table update, previous entry, second rule #4



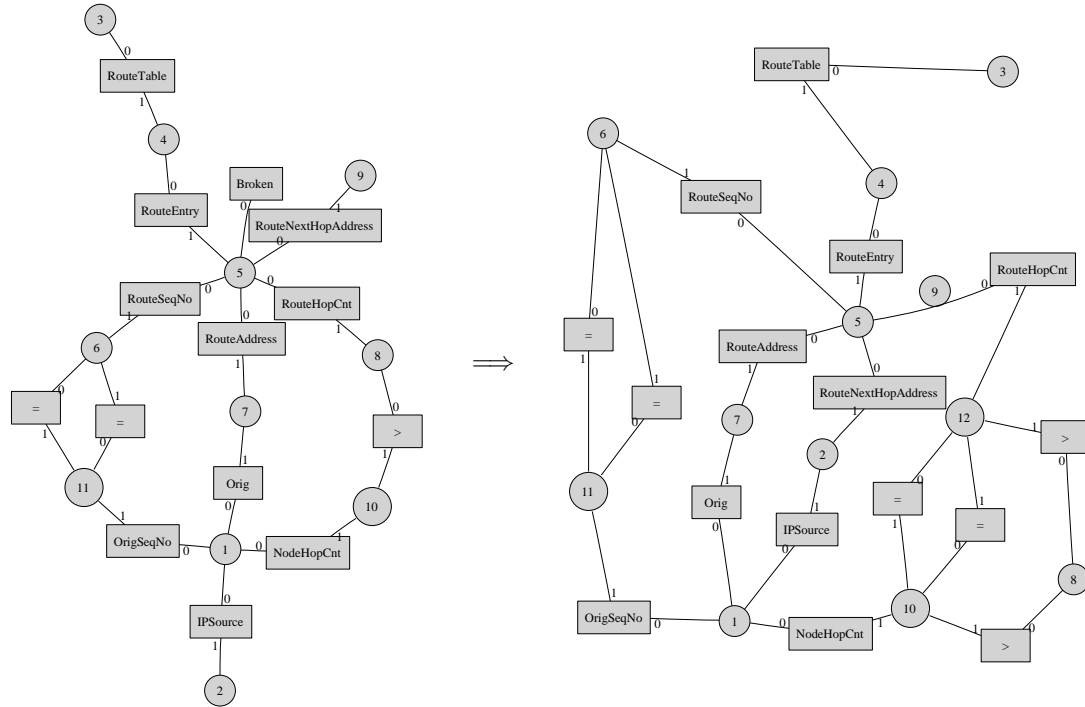
## Route table update, previous entry, second rule #5



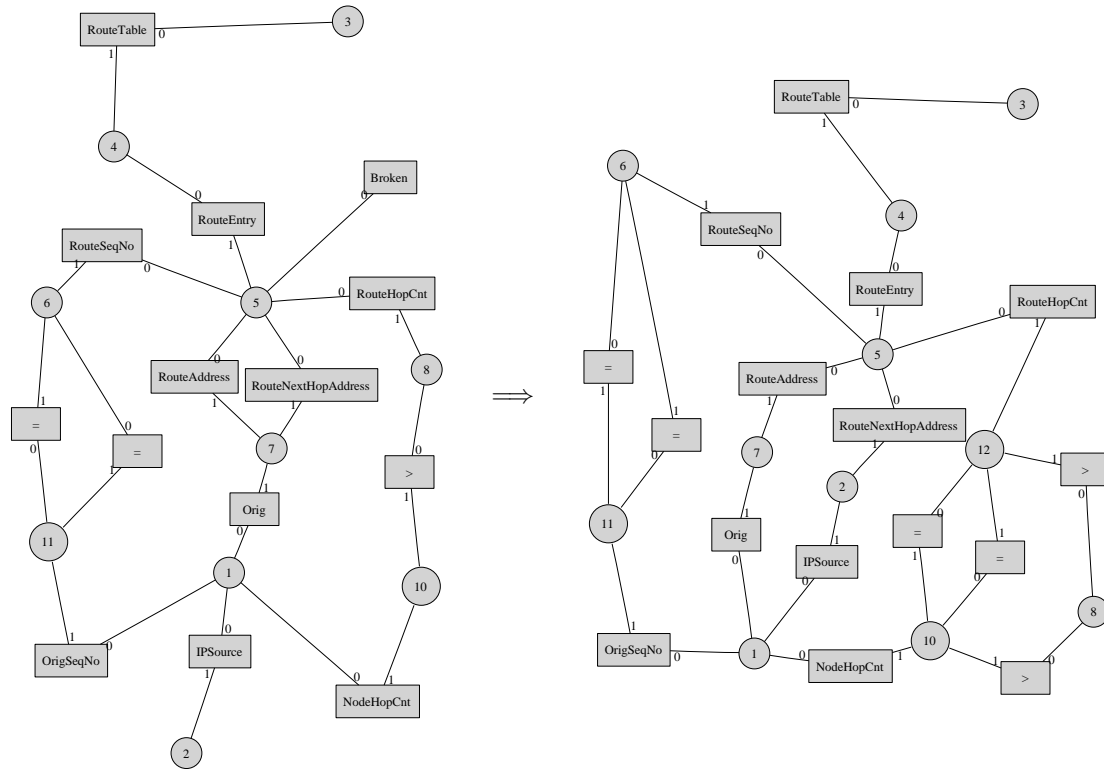
## Route table update, previous entry, second rule #6



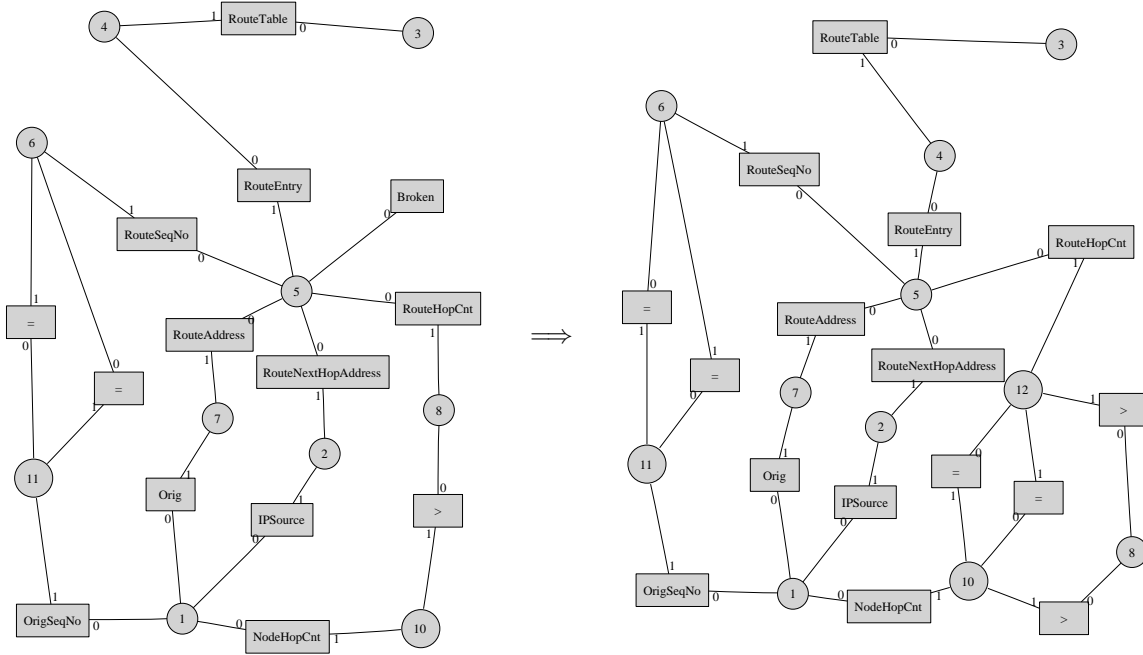
# Route table update, previous entry, second rule (route broken) #1



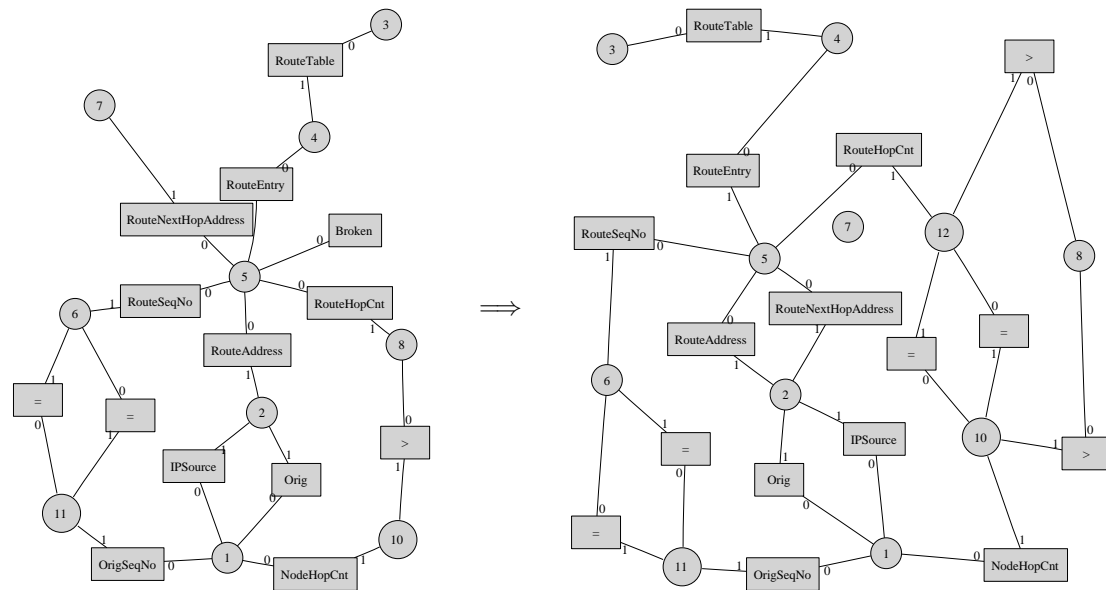
## Route table update, previous entry, second rule (route broken) #2



### Route table update, previous entry, second rule (route broken) #3

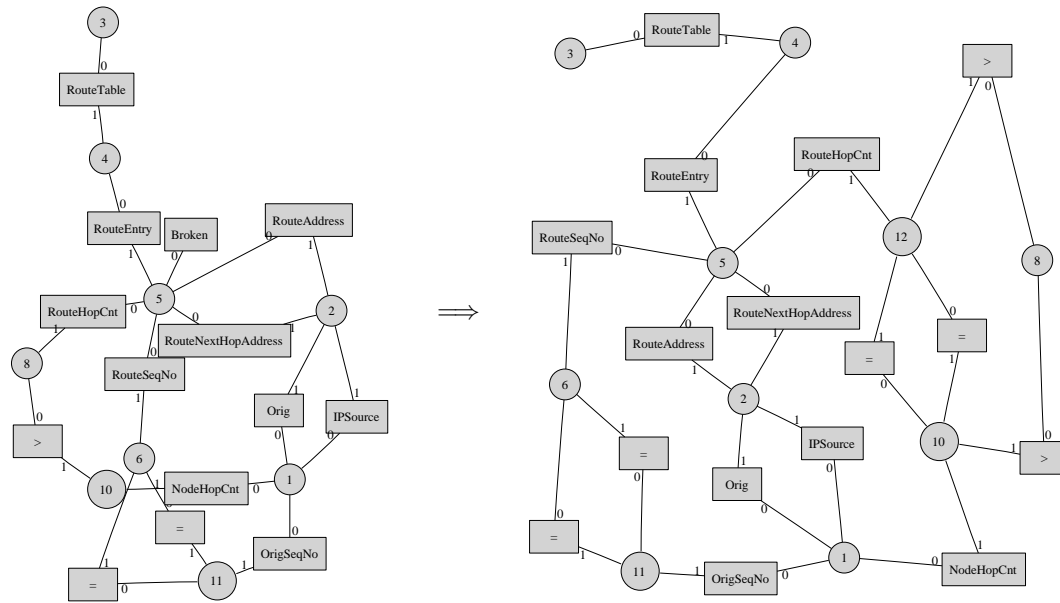


## Route table update, previous entry, second rule (route broken) #4

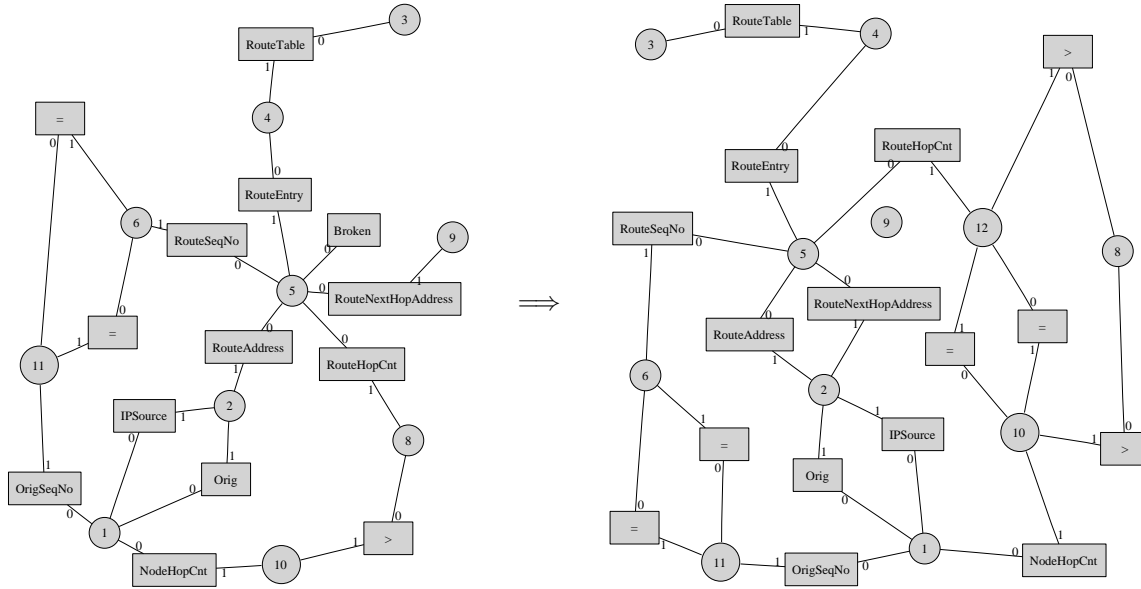




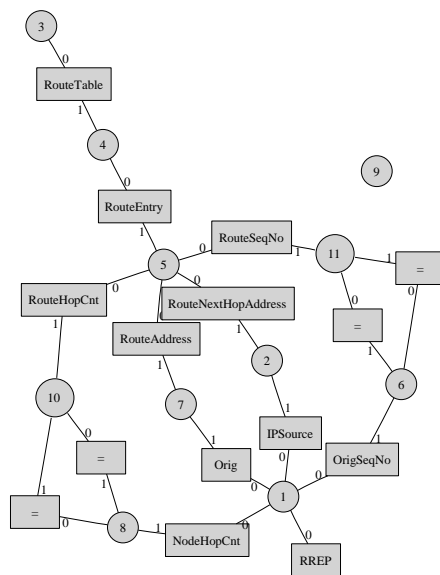
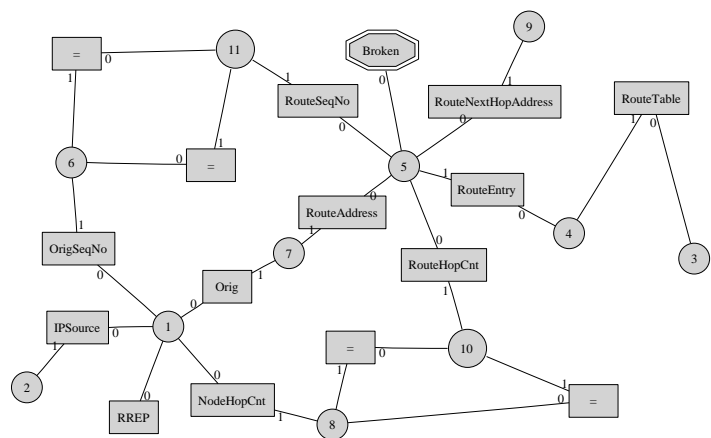
## Route table update, previous entry, second rule (route broken) #5



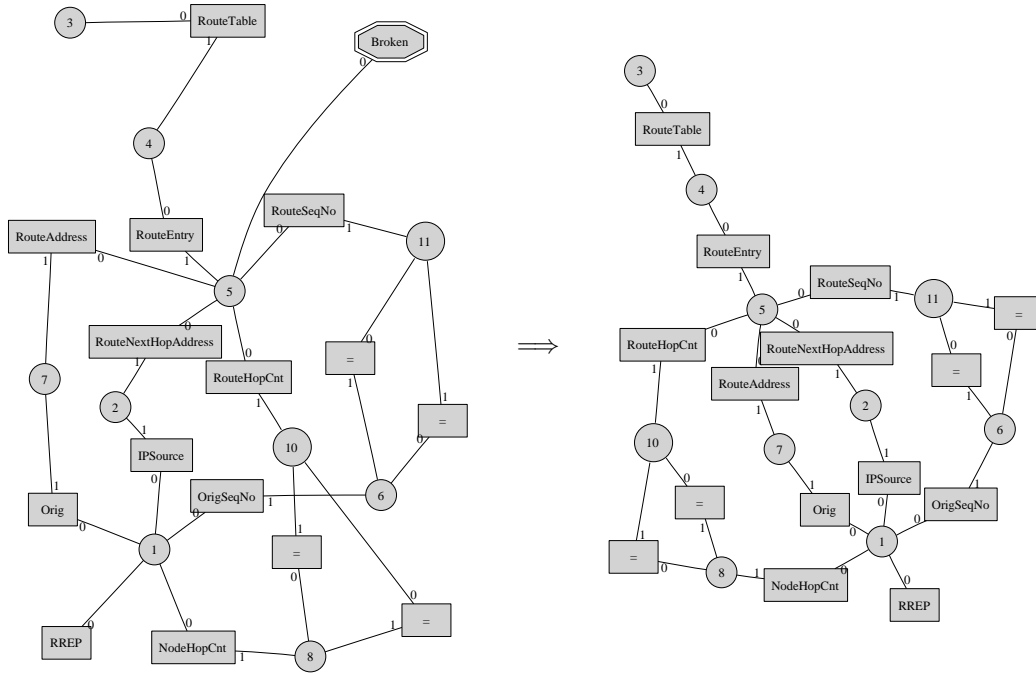
# Route table update, previous entry, second rule (route broken) #6



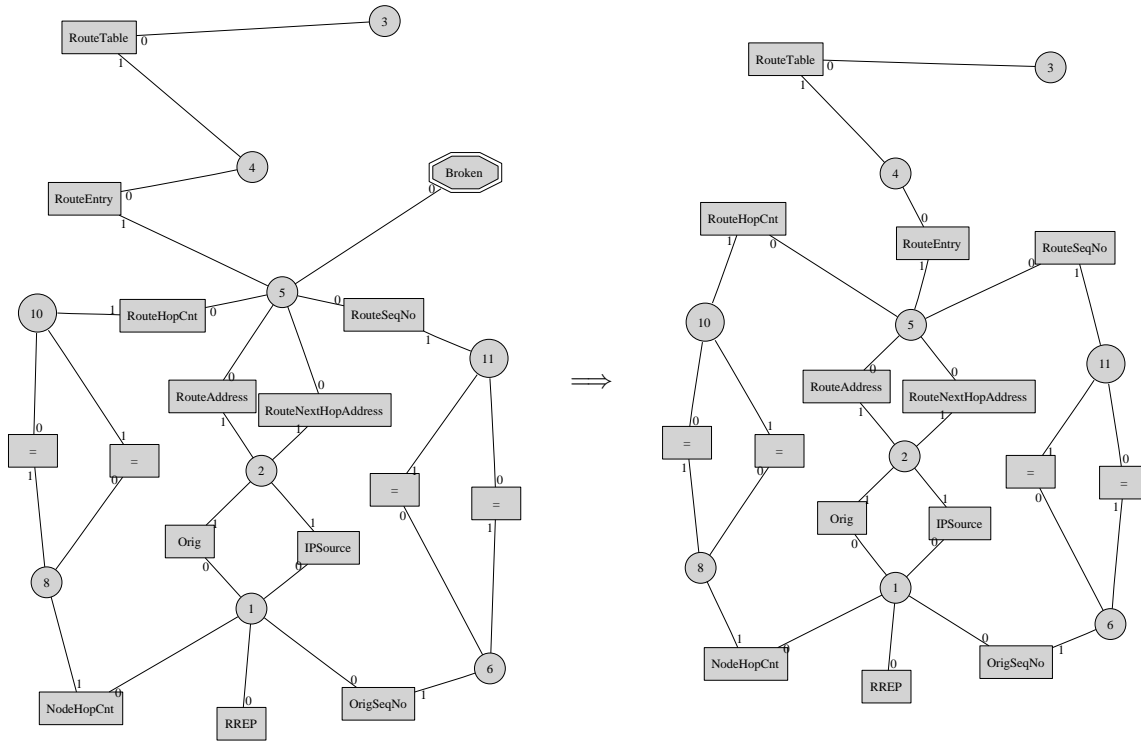
## Route table update, previous entry, third rule #1



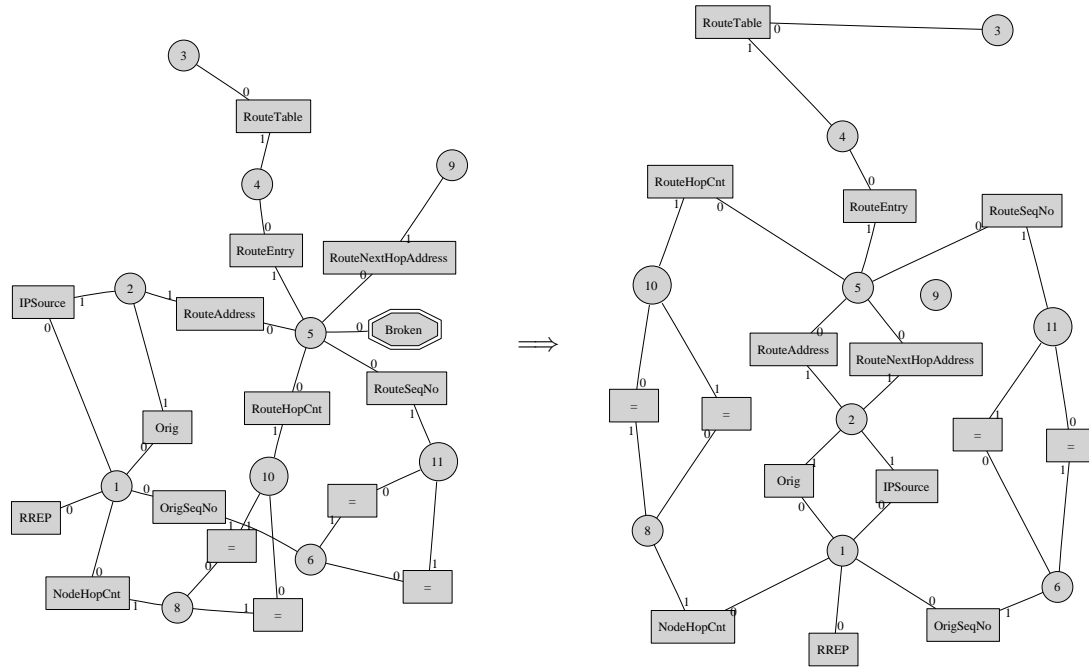
## Route table update, previous entry, third rule #2



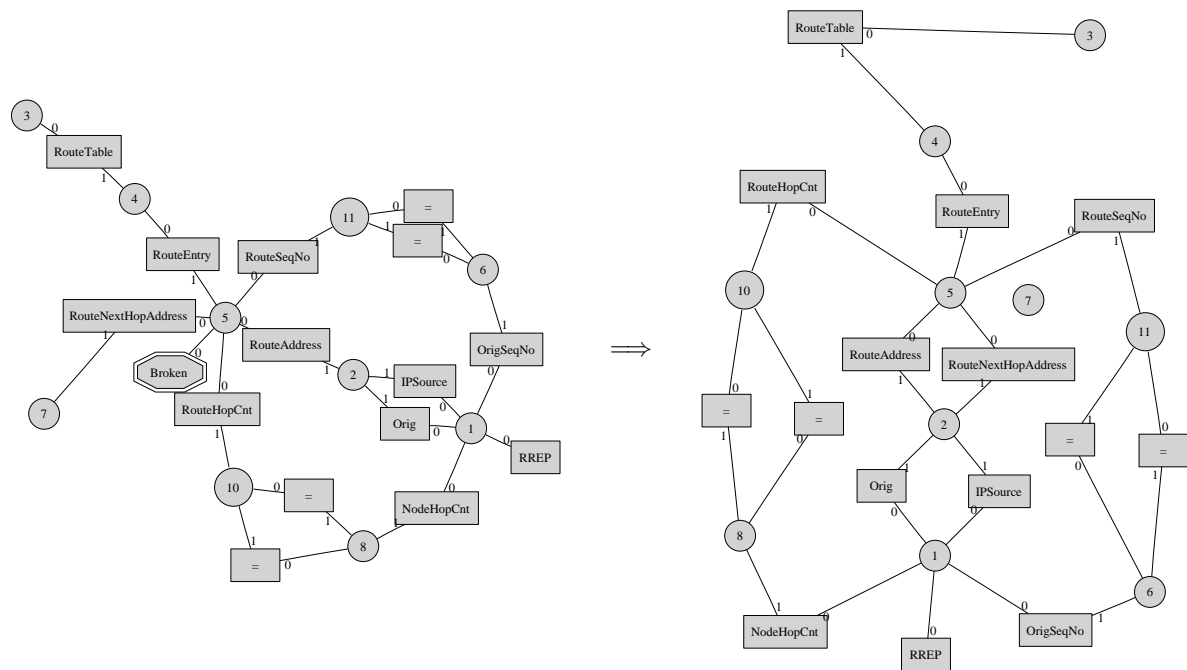
### Route table update, previous entry, third rule #3



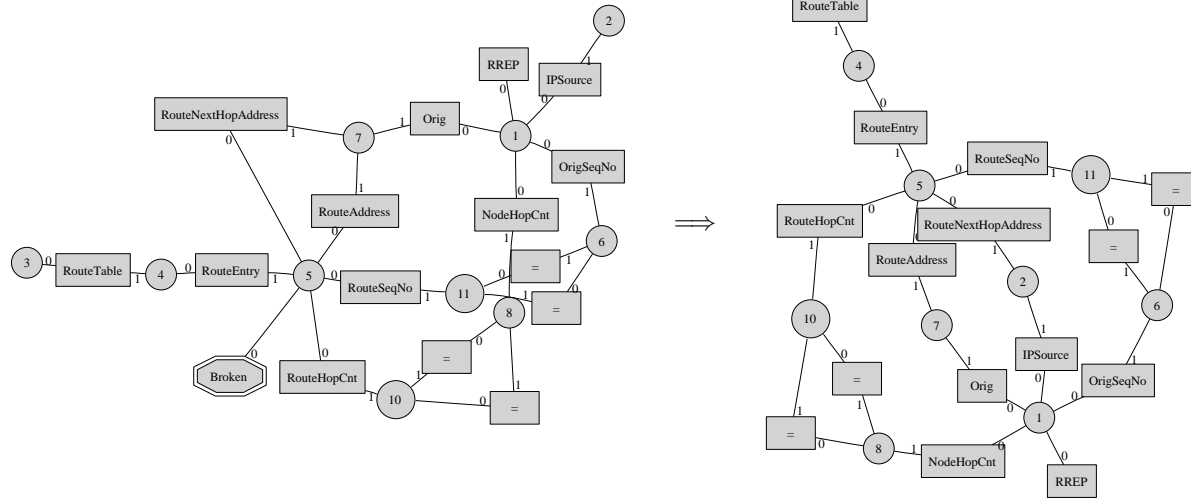
# Route table update, previous entry, third rule #4



## Route table update, previous entry, third rule #5

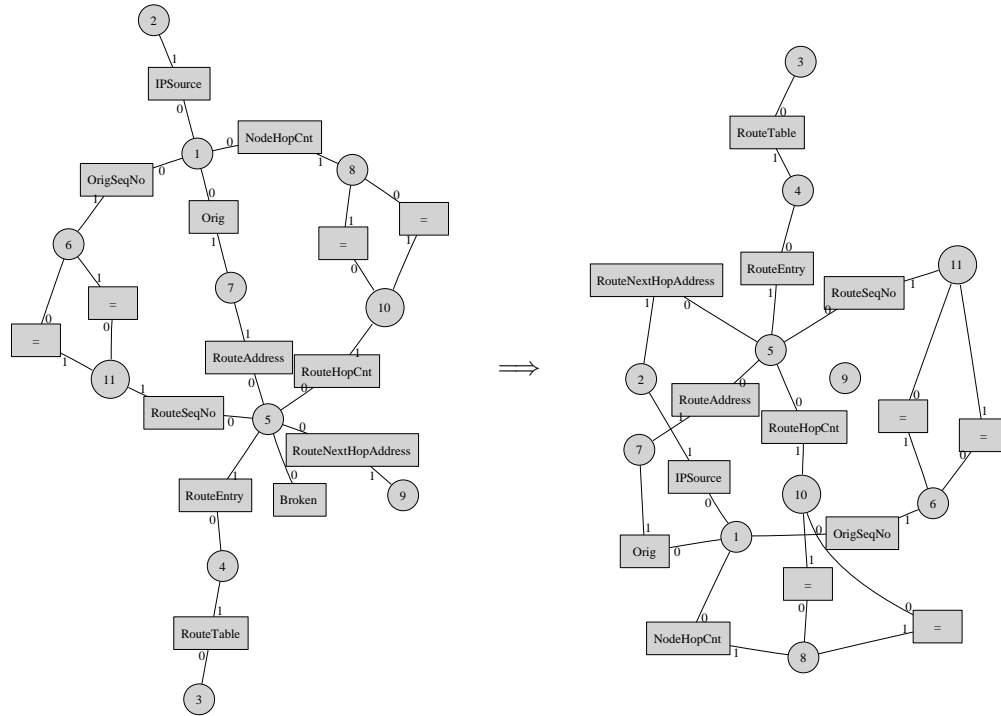


# Route table update, previous entry, third rule #6

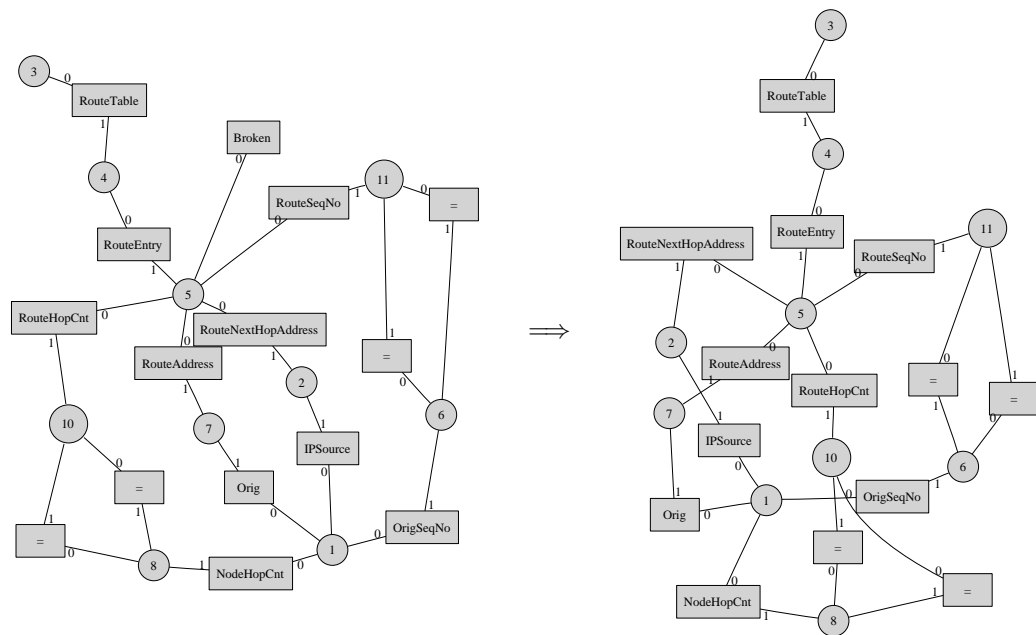




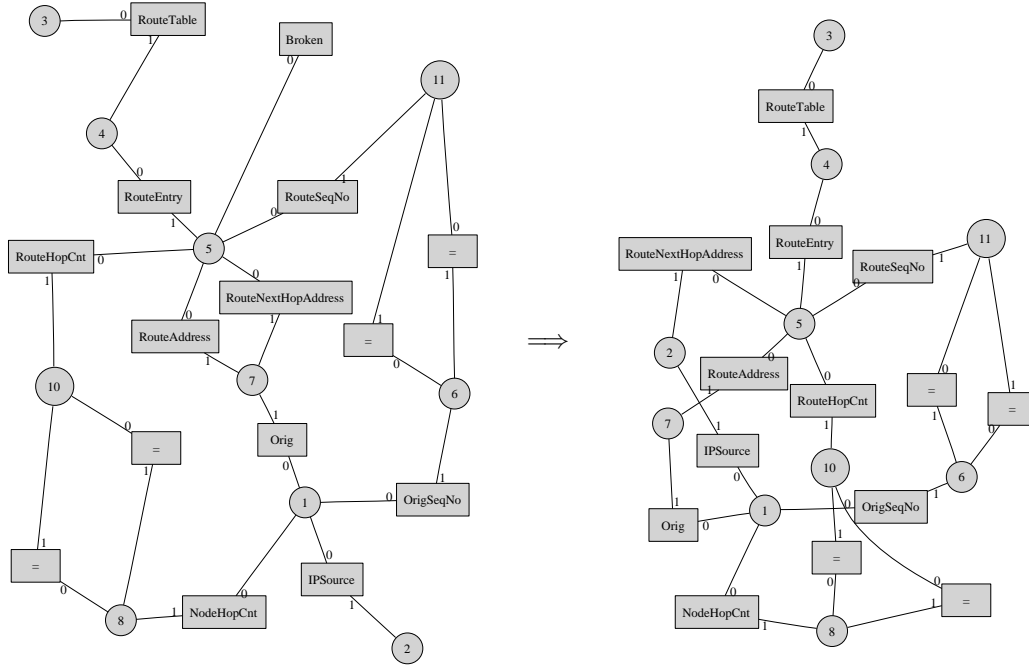
# Route table update, previous entry, fourth rule #1



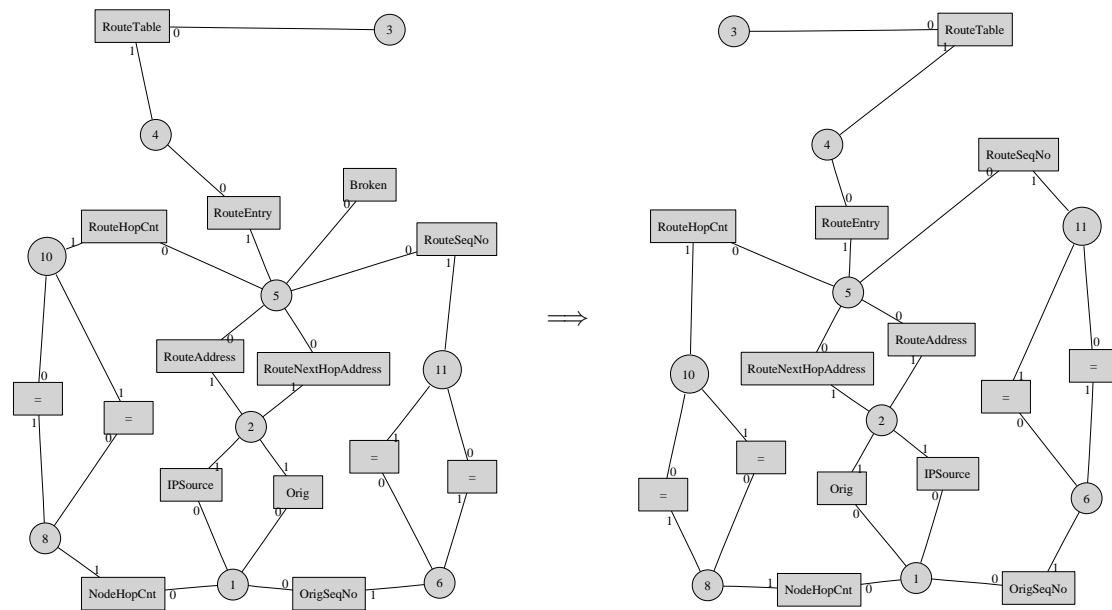
## Route table update, previous entry, fourth rule #2



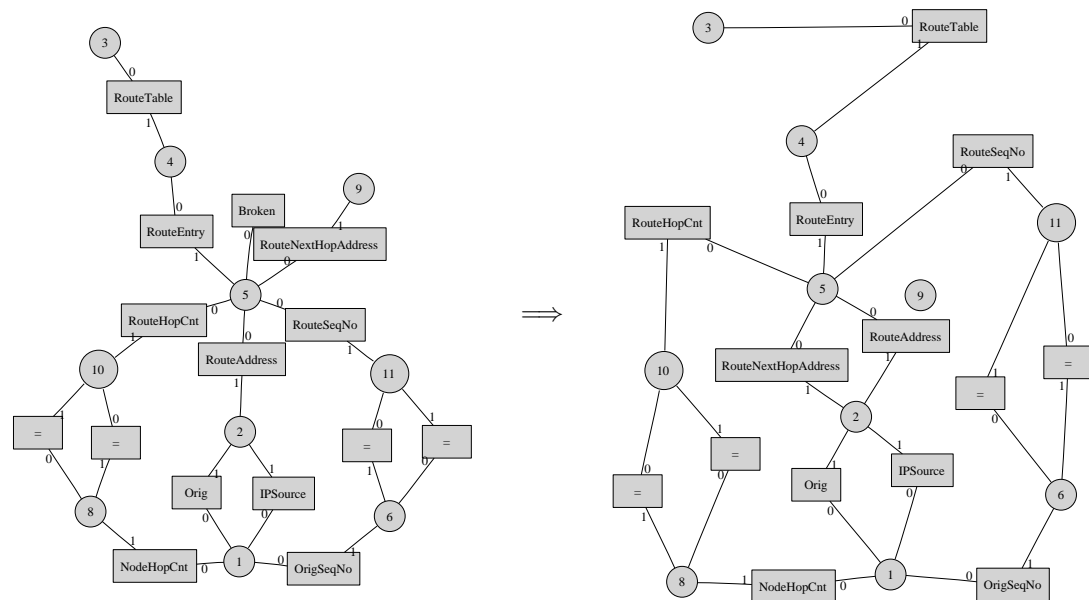
### Route table update, previous entry, fourth rule #3



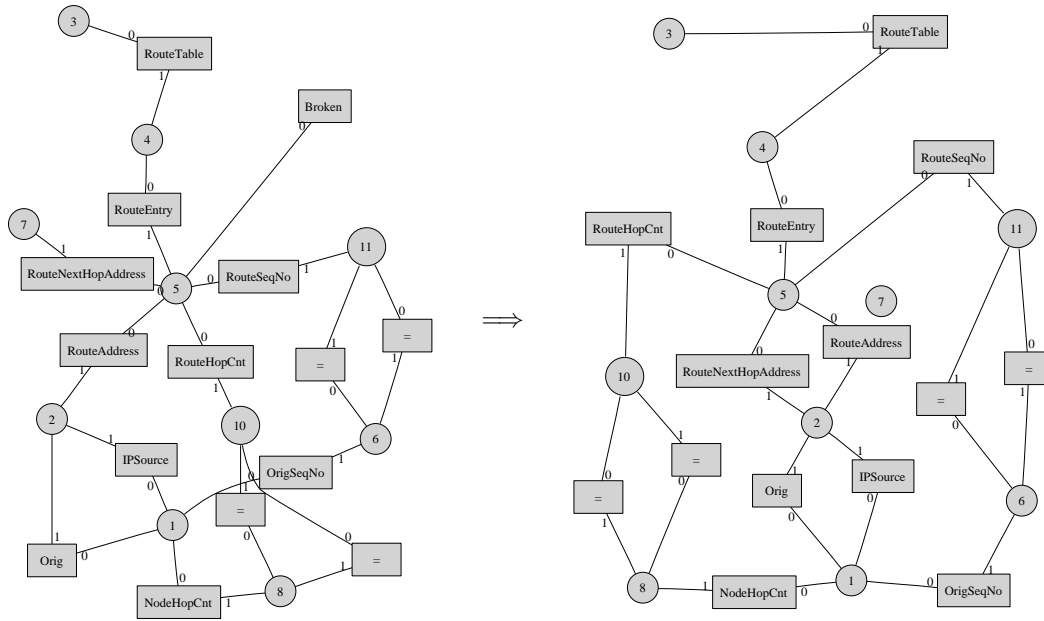
## Route table update, previous entry, fourth rule #4



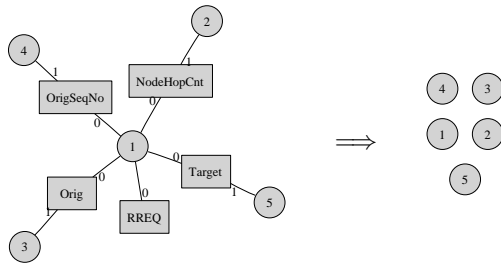
## Route table update, previous entry, fourth rule #5



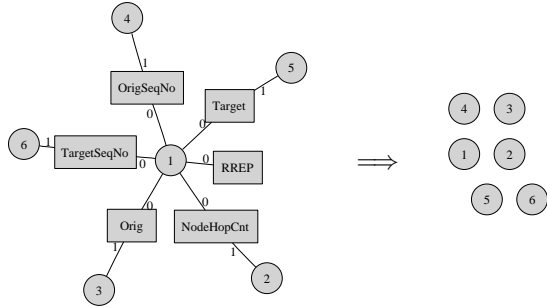
# Route table update, previous entry, fourth rule #6



### RREQ dropping rule

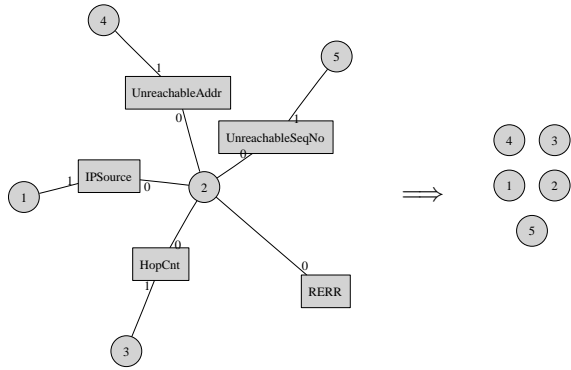


## RREP dropping rule



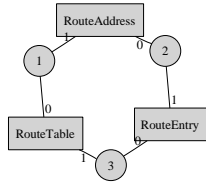


## RERR dropping rule

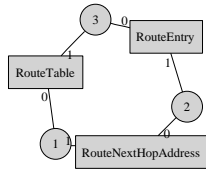


## Undesirable patterns

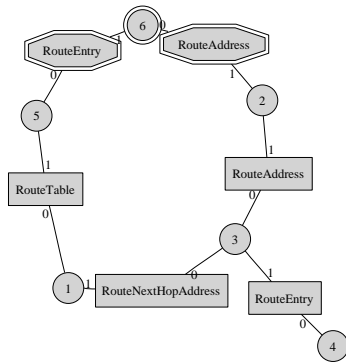
Bad pattern 1:



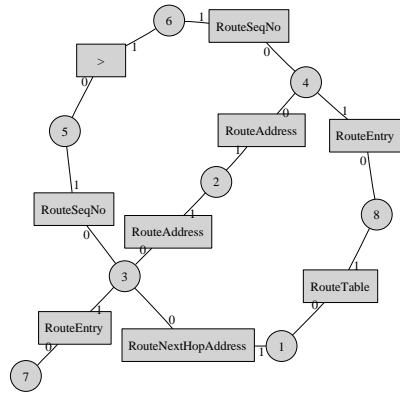
Bad pattern 2:



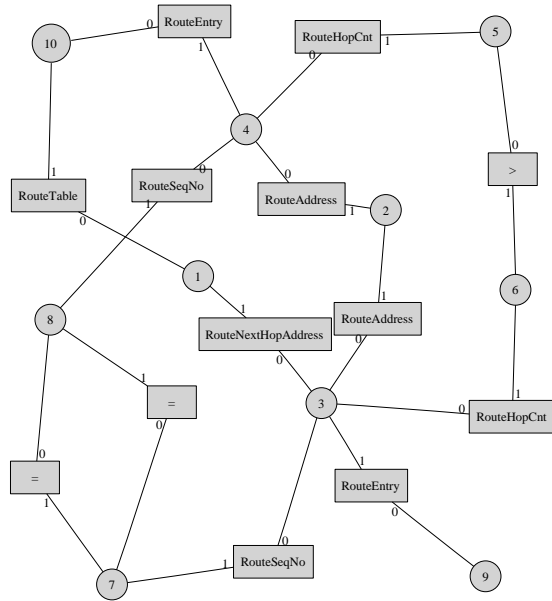
Bad pattern 3:



Bad pattern 4:



Bad pattern 5:



Bad pattern 6:

