

NS2

How to make new wireless protocols?

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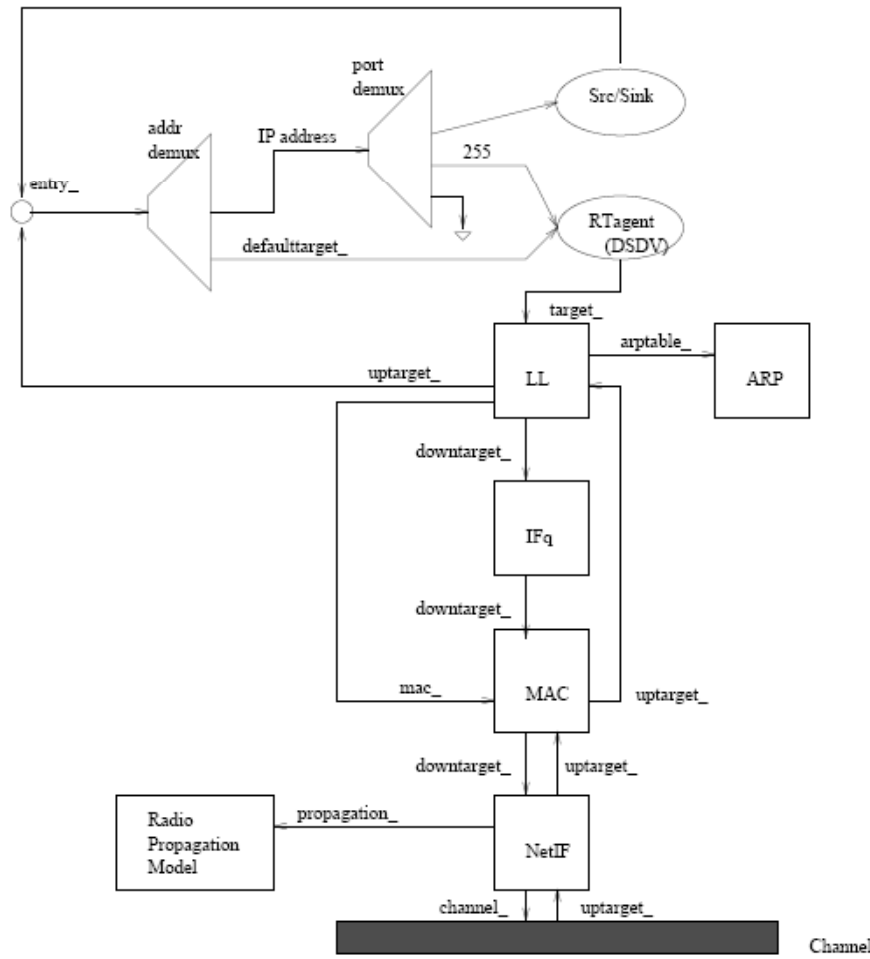
Add a new MAC protocol

- Same as you did before
 - Make newMac.cc and newMac.h
 - It is a good idea to start by copying files mac-802-11.cc and mac-802-11.h from ns-2.30/mac
 - Register newMac protocol into NS
 - Modify packet.h, ns-packet.tcl, ns-default.tcl files of NS
 - Rebuild ns

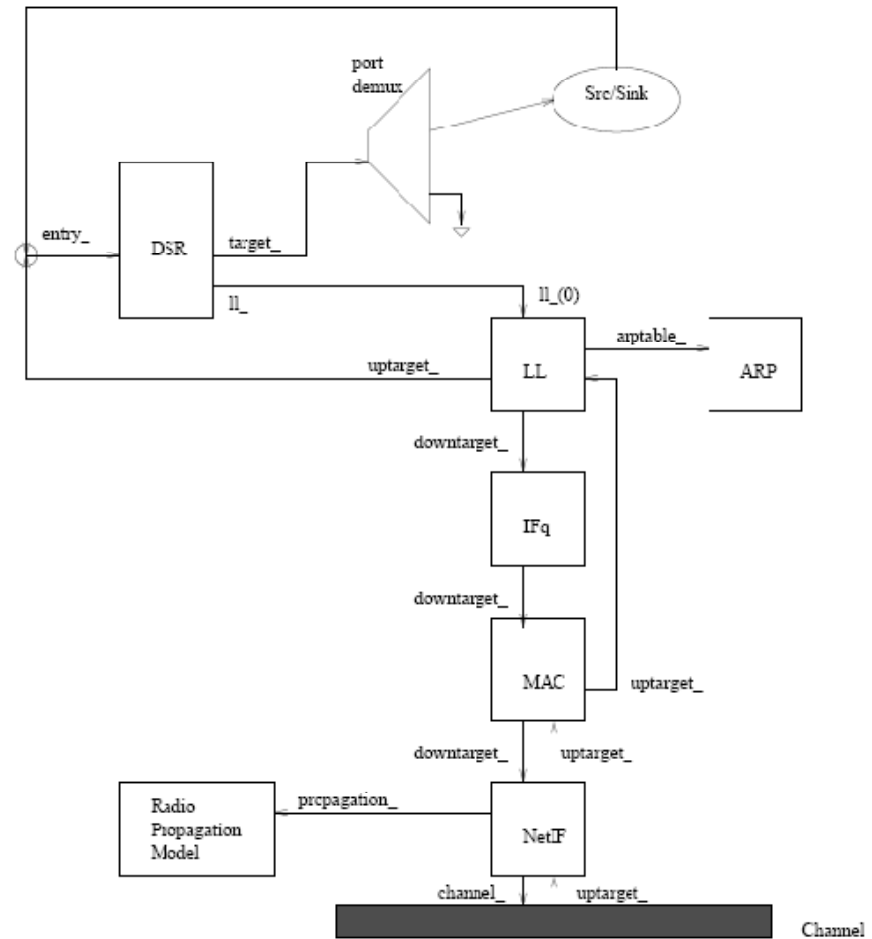
Add a new Ad-hoc Routing Protocol

- Basically the same as you did before
 - Make newDsdv.cc and newDsdv.h
 - It is a good idea to start by copying files dsdv.cc, dsdv.h, rtable.cc, rtable.h from ns-2.30/dsdv
 - Register the new protocol into NS only if a new header is made
 - Modify packet.h, ns-packet.tcl, ns-default.tcl files of NS
 - Make newDsdv.tcl by referring dsdv.tcl in ns-2.30/tcl/mobility
 - Edit ns-2.30/tcl/lib/ns-lib.tcl
 - find the first occurrence of dsdv. Do the same for newDsdv
 - import newDsdv.tcl
 - find the second occurrence of dsdv. Do the same for newDsdv
 - create newDsdv agent
 - find the third occurrence of dsdv.
 - define your create-newDsdv-agent function by programming what to do when create a newDsdv agent
 - Rebuild ns

What if the new protocol requires restructuring of mobile nodes?



for DSDV



for DSR

What if the new protocol requires restructuring of mobile nodes?

- ns-2.30/tcl/lib/ns-mobilenode.tcl has the description on the structure of a mobile node
- Copy the file and edit it as needed

Homework 9

- Make a newDsdv
 - Add or Modify at least one feature of DSDV
 - Clearly explain the added or modified features in your report
 - Implement newDsdv with the added or modified features
- Run the simulation to show the difference between DSDV and newDsdv