[Wireless Node Configuration in Network Simulator 2](http://www.nsnam.com/2012/09/wireless-node-configuration-in-network.html)

The node configuration in ns2 is a special task in which the number of nodes can be configured for a set of parameters. The following table tells about the node configuration parameters as defined in the **ns-lib.tcl**

The readers are requested to refer the **ns-lib.tcl**file for more information.

|  |  |  |
| --- | --- | --- |
| **Option** | **Available Values** | **Elaboration** |
| addressType | Flat/ hierarchical/expanded |  |
| MPLS | ON,OFF | Multi-Protocol Label Switching |
| wiredRouting | ON, OFF |  |
| adhocRouting | DSDV, DSR, AODV,TORA,PUMA diffusion/rate, diffusion/prob, flooding, omnimcast, | adhoc routing protocol |
| llType | LL, LL/Sat | Link Layer |
| macType | Mac/802\_11,  Mac/Csma/Ca, Mac/Sat, Mac/Sat/UnslottedAloha, Mac/Tdma | Medium Access Control |
| ifqType | Queue/DropTail, Queue/DropTail/PriQueue | Interface Queue type |
| ifqLen | 50,.. | Interface Queue length |
| phyType | Phy/wirelessPhy, Phy/Sat | Physical Layer Type |
|  |  |  |
| propType | Propagation/TwoRayGround, Propagation/Shadowing | Propagation Type |
| antType | Antenna/OmniAntenna, | Antenna type |
| Channel | Channel/WirelessChannel, Channel/Sat | Channel to be used |
| mobileIP | ON,OFF | to set the IP for Mobile or not |
| energyModel | EnergyModel | energy model to be enabled or not |
| initialEnergy | <joule> | in terms of joules (Ex: 3.24) |
| txPower |  | Power in terms of Watts (0.32) |
| rxPower |  | Power in terms of Watts (0.1) |
| idlePower |  | Power in terms of Watts (0.02) |
| agentTrace | ON, OFF | Tracing to be on or off |
| routerTrace | ON, OFF | Tracing to be on or off |
| macTrace | ON, OFF | Tracing to be on or off |
| movementTrace | ON, OFF | Tracing to be on or off |
| errProc | UniformErrorProc |  |
| toraDebug | ON, OFF |  |

**An Example**

$ns node-config -addressType hierarchical \  
 -adhocRouting AODV \  
 -llType LL \  
 -macType Mac/802\_11 \  
 -ifqType Queue/DropTail/PriQueue \  
 -ifqLen 50 \  
 -antType Antenna/OmniAntenna \  
 -propType Propagation/TwoRayGround \  
 -phyType Phy/WirelessPhy \  
 -topologyInstance \$topo \  
 -channel Channel/WirelessChannel \  
 -agentTrace ON \  
 -routerTrace ON \  
 -macTrace ON \  
 -movementTrace OFF