

OLSR draft v11 USER GUIDE

This document is a user guide to the implementation supplied of OLSR developed from version 11 of the draft.

1.- Requirements.

In order to run “*olsr.exe*” you need:

- Get an account with network administration rights (for enabling routing and forwarding, and changing host routing tables).
- Get the name from your main OLSR network device and any additional OLSR network interface (it is solved on a later section).
- Get and install WinPCap (from <http://winpcap.polito.it>; we need it for getting the names from our network devices).

2.- Command Line.

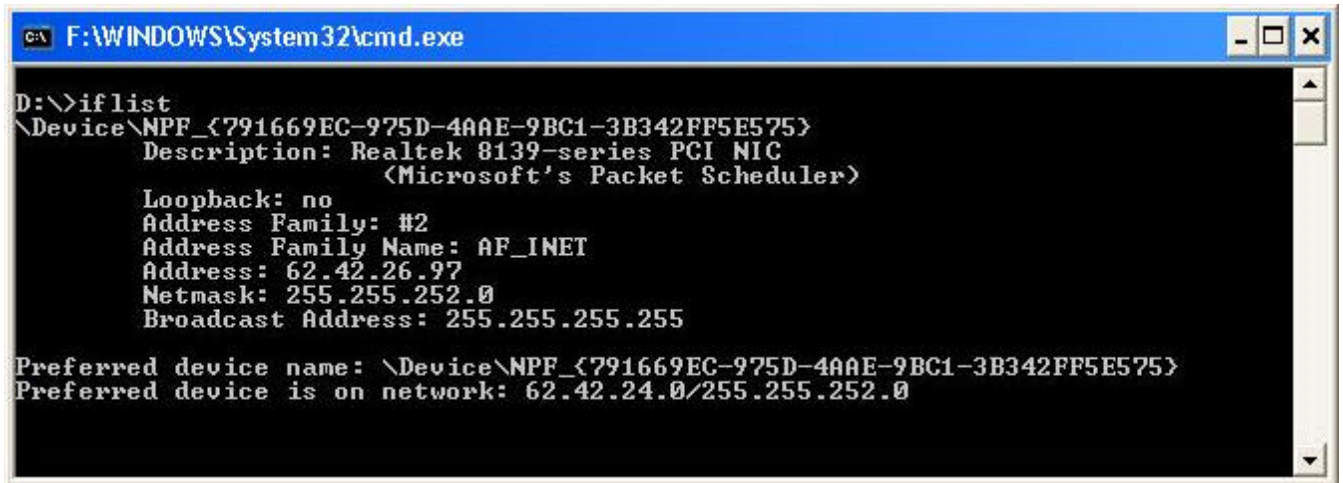
“*olsr.exe*” is a command line executable with no user interface (we don’t need it at all) with the following command line format:

```
“olsr -d <main_iface_name> [-i <iface_name>]* [-g]
    [-n <network> <netmask>]* [-t <default | high | full>] [-h]”
```

- “*olsr*”: is the executable name. (Required).
- “*-d <main_iface_name>*”: sets “*<main_iface_name>*” to act as our main OLSR network interface. (Required).
- “*-i <iface_name>*”: set “*<iface_name>*” as an additional OLSR network interface. (Optional, we can use it multiple times).
- “*-g*”: an alias for “*-n 255.255.255.255 255.255.255.255*” which advertise that our main OLSR network interface has Internet access. (Optional).
- “*-n <network> <netmask>*”: advertise that our main OLSR network interface has network access to the network “*<network>*” with netmask “*netmask*”, where both “*<network>*” and “*<netmask>*” are written on default IPv4 dot format (that is X.X.X.X where 0<=X<=255). In addition “*<network>*” can be the correct network address or it can be a correct host address from that network (it is corrected by olsr “auto-magically”). (Optional, we can use it multiple times).
- “*-t <default | high | full>*”: sets the amount of information we advertise to the network relating to how many symmetrical neighbours we have. By default it is set to “*default*”, which ensures that every node can trace a route to us. If set to “*high*” or “*full*”, then additional information is advertised to the network so all other nodes can set redundant routes to us. This is useful if we are on an OLSR network where we get and lose neighbours fast enough for making packets for us on the network to be lost due to neighbour lose. (Optional, set to “*default*” if not given).
- “*-h*”: Prints the command line on the standard output.

3.- How to Get an Interface Name.

As stated previously, we need to install WinPCap, and then we can use the executable “*iflist.exe*” which gives us information about each network device installed on our host. For example, if you execute “*iflist*”, you will get something similar to this:



```
C:\ F:\WINDOWS\System32\cmd.exe
D:\>iflist
\Device\NPF_{791669EC-975D-4AAE-9BC1-3B342FF5E575}
  Description: Realtek 8139-series PCI NIC
                <Microsoft's Packet Scheduler>
  Loopback: no
  Address Family: #2
  Address Family Name: AF_INET
  Address: 62.42.26.97
  Netmask: 255.255.252.0
  Broadcast Address: 255.255.255.255

Preferred device name: \Device\NPF_{791669EC-975D-4AAE-9BC1-3B342FF5E575}
Preferred device is on network: 62.42.24.0/255.255.252.0
```

If you have more than one network interface, then you will get more similar data, each group of data for each network interface you have installed.

Once you have this information, getting the network interface name is really easy, on our example, we look at our first line for each network interface listed, that is “\Device\NPF_{791669EC-975D-4AAE-9BC1-3B342FF5E575}” in our case, then our device name is the part of the name between brackets (brackets included), that is “{791669EC-975D-4AAE-9BC1-3B342FF5E575}”, and that is the name we should use for “<main_iface_name>” if that network interface is our main OLSR network interface, or the name for “<iface_name>” if it is an additional network interface that we are going to use on our OLSR network.

4.- Additional Explanation.

You should remember that if you advertise access to a network (Internet or not) or host, you should set the needed information for making that network or host to access the nodes which you grant access to that network or host. How to do it is beyond OLSR so you should do it yourself.

And that’s all the information you need for running your host on an OLSR network. If you have any question or need further information just email me at jobarmar@ono.com