

The objective of this platform is to connect your home network to the Internet using an IPv6 tunnel provided by [sixxs](#). A TP-Link MR3020 router is used as the tunnel endpoint:

- The Ethernet interface is connected to you home set-top box.
- The WLAN interface is used to interconnect all home equipments using IPv6.

The following assumptions determine the scenario of this deployment

1. The

Start by configuring the Ethernet and the WLAN interfaces on the MR3020 in two different IP networks.

[/etc/config/network](#)

```
config interface 'loopback'
    option ifname 'lo'
    option proto 'static'
    option ipaddr '127.0.0.1'
    option netmask '255.0.0.0'

config interface 'wan'
    option ifname 'eth0'
    option proto 'static'
    option ipaddr '192.168.1.66'
    option netmask '255.255.255.0'
    option gateway '192.168.1.1'
    option dns '8.8.8.8'

config interface 'wifi'
    option proto 'static'
    option ipaddr '192.168.66.1'
    option netmask '255.255.255.0'
    option ip6addr '2a01:240:fe00:80ab::1/64'
```

[/etc/config/dhcp](#)

```
config dnsmasq
    option domainneeded 1
    option boguspriv 1
    option filterwin2k 0 # enable for dial on demand
    option localise_queries 1
    option rebind_protection 1 # disable if upstream must serve
RFC1918 addresses
    option rebind_localhost 1 # enable for RBL checking and similar
services
    #list rebind_domain example.lan # whitelist RFC1918 responses for
domains
    option local '/lan/'
    option domain 'lan'
    option expandhosts 1
```

```
option nonegcache      0
option authoritative   1
option readethers      1
option leasefile       '/tmp/dhcp.leases'
option resolvfile      '/tmp/resolv.conf.auto'
#list server           '/mycompany.local/1.2.3.4'
#option nonwildcard    1
#list interface        br-lan
#list notinterface     lo
#list bogusnxdomain    '64.94.110.11'

config dhcp wifi
option interface       wifi
option start           100
option limit           150
option leasetime       12h

config dhcp wan
option interface       wan
option ignore          1
```

[/etc/config/wireless](#)

```
config wifi-device     radio0
option type            mac80211
option channel         11
option macaddr         f8:d1:11:bd:62:ce
option hwmode          11ng
option htmode          HT20
list ht_capab          SHORT-GI-20
list ht_capab          SHORT-GI-40
list ht_capab          RX-STBC1
list ht_capab          DSSS_CCK-40

config wifi-iface
option device          radio0
option network         wifi
option mode            ap
option ssid            'PocketBox'
option encryption     'psk2'
option key              '1CAFE2DECA'
```

[/etc/config/firewall](#)

```
config zone
option name            wifi
option input           ACCEPT
option output          ACCEPT
option forward         REJECT
```

```
config zone
  option name      lan
  option network   'lan'
  option input     ACCEPT
  option output    ACCEPT
  option forward   REJECT

config zone
  option name      wan
  option network   'wan'
  option input     REJECT
  option output    ACCEPT
  option forward   REJECT
  option masq      1
  option mtu_fix   1

config forwarding
  option src       lan
  option dest      wan

config forwarding
  option src       wifi
  option dest      wan
```

```
opkg update && opkg install aiccu radvd
```

```
ip -6 addr add 2a01:240:fe00:80ab::1/64 dev wlan0
```

[/etc/sysctl.conf](#)

```
net.ipv6.conf.all.forwarding=1
```

[/etc/config/radvd](#)

```
config interface
  option interface 'wifi'
  option AdvSendAdvert 1
  option AdvManagedFlag 0
  option AdvOtherConfigFlag 0
  list client ''
  option ignore 0

config prefix
  option interface 'wifi'
  # If not specified, a non-link-local prefix of the interface is
  used
  list prefix '2a01:240:fe00:80ab::/64'
```

```
option AdvOnLink      1
option AdvAutonomous  1
option AdvRouterAddr  0
option ignore         0

config route
option interface      'wifi'
list prefix           ''
option ignore         1

config rdns
option interface      'wifi'
# If not specified, the link-local address of the interface is used
list addr             ''
option ignore         1

config dns
option interface      'wifi'
list suffix           ''
option ignore         1
```

Create and edit

[/etc/aiccu.conf](#)

```
# AICCU Configuration

# Login information (defaults: none)
username XXXX-SIXXS
password XXXX

# Protocol and server to use for setting up the tunnel (defaults: none)
#protocol <tic|tsp|l2tp>
#server <server to use>

# Interface names to use (default: aiccu)
# ipv6_interface is the name of the interface that will be used as a
# tunnel interface.
# On *BSD the ipv6_interface should be set to gifX (eg gif0) for
# proto-41 tunnels
# or tunX (eg tun0) for AYIYA tunnels.
ipv6_interface tun0

# The tunnel_id to use (default: none)
# (only required when there are multiple tunnels in the list)
tunnel_id T23724

# Be verbose? (default: false)
verbose true
```

```
# Daemonize? (default: true)
# Set to false if you want to see any output
# When true output goes to syslog
#
# WARNING: never run AICCU from DaemonTools or a similar automated
# 'restart' tool/script. When AICCU does not start, it has a reason
# not to start which it gives on either the stdout or in the (sys)log
# file. The TIC server *will* automatically disable accounts which
# are detected to run in this mode.
#
daemonize true

# Automatic Login and Tunnel activation?
automatic true

# Require TLS?
# When set to true, if TLS is not supported on the server
# the TIC transaction will fail.
# When set to false, it will try a starttls, when that is
# not supported it will continue.
# In any case if AICCU is build with TLS support it will
# try to do a 'starttls' to the TIC server to see if that
# is supported.
requiretls false

# PID File
#pidfile /var/run/aiccu.pid

# Add a default route (default: true)
#defaultroute true

# Script to run after setting up the interfaces (default: none)
#setupscript /usr/local/etc/aiccu-subnets.sh

# Make heartbeats (default true)
# In general you don't want to turn this off
# Of course only applies to AYIYA and heartbeat tunnels not to static
ones
#makebeats true

# Don't configure anything (default: false)
#noconfigure true

# Behind NAT (default: false)
# Notify the user that a NAT-kind network is detected
behindnat true

# Local IPv4 Override (default: none)
# Overrides the IPv4 parameter received from TIC
# This allows one to configure a NAT into "DMZ" mode and then
# forwarding the proto-41 packets to an internal host.
```

```
#  
# This is only needed for static proto-41 tunnels!  
# AYIYA and heartbeat tunnels don't require this.  
#local_ipv4_override
```

```
aiccu start  
/etc/init.d/radvd start  
/etc/init.d/radvd enable
```

From:
<http://wiki.lahoud.fr/> - **wikiroute**

Permanent link:
http://wiki.lahoud.fr/doku.php?id=ipv6_tunnel_at_home&rev=1428163984

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