

# Tomato USB with Comcast Native IPv6

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In order to use Tomato USB firmware with Comcast's native IPv6 implementation, a few changes will be required. There is currently a bug in the IPv6-capable builds from Toastman and Shibby that adds an erroneous default route for IPv6.

## Step 1) Enable IPv6

In order to use IPv6 with Comcast's network, you need to enable the correct mode. Go to Basics -> IPv6 in the left panel. Then, select DHCPv6 with Prefix Delegation as the IPv6 Service Type. Make sure Enable Router Advertisements and Accept RA from WAN are both checked. Click Save.

IPv6 Configuration

IPv6 Service Type	DHCPv6 with Prefix Delegation ▼
Prefix Length	64
Static DNS	<input type="text"/> <input type="text"/> <input type="text"/>
Enable Router Advertisements	<input checked="" type="checkbox"/>
Accept RA from	<input checked="" type="checkbox"/> WAN <input type="checkbox"/> LAN

## Step 2) Add custom script workaround

The workaround for the IPv6 default route bug involves adding a custom script into the WAN Up section. More information is available at <http://www.dslreports.com/forum/r27239063-TomatoUSB-and-Comcast-IPv6-bugs-found> if you would like to read the details. Thank you to koitsu from DSLReports for this fix.

Go to Administration -> Scripts from the left menu. Select the WAN Up tab. Copy and paste the following directly into the text box:

```
#
# Workaround for TomatoUSB bug where a spurious default IPv6 route is
# added for no justified reason, resulting in packets getting forwarded
# effectively to /dev/null.
#
# 1. Temporarily disable accepting IPv6 RAs on the WAN interface. This
# will stop the kernel from automatically adding a default IPv6 route
# when such an RA is received via the WAN.
# 2. Delete ALL default IPv6 routes. In effect this deletes the spurious
# IPv6 default route, as well as any default IPv6 routes received via RA.
# Sadly the "ip" command does not give you a way to differentiate between
# the two, since the one we truly want to delete lacks "proto kernel".
# 3. Restore honouring IPv6 RAs via the WAN. Within 60-120 seconds (often
# within seconds on Comcast) a default IPv6 route should be added by the
# kernel. You can use "ip -6 route show default dev `nvram get wan_iface`"
# to verify; you should have only one route ("default via fe80::xxx ...").
#
# http://www.dslreports.com/forum/r27234575-TomatoUSB-and-Comcast-IPv6-bugs-found
#
echo 0 > /proc/sys/net/ipv6/conf/`nvram get wan_iface`/accept_ra
ip -6 route flush default dev `nvram get wan_iface`
echo 2 > /proc/sys/net/ipv6/conf/`nvram get wan_iface`/accept_ra
```

Click Save. Go to Restart on the left panel and restart the device.