

Why are there so many different firmware files?

Written by David Rivenburg, AD5OO
Wednesday, 03 February 2010 01:17 -

Actually, there really is only one firmware file, and that is the **.trx** file. After the firmware has been installed on your router, the

.trx

file is the only one you should ever need. All mesh firmware updates are done with this file. All of the different router models (WRT54G and variants) are similar enough that they are all capable of running the same firmware, which is why there only needs to be one

.trx

file.

So then what are all the **.bin** files? Every **.bin** file is just a copy of the **.trx** file except that it has some extra information added to it that the factory firmware in each specific router model expects to see. This is what prevents you from installing WRT54G factory firmware on USR5461, for example. A router running factory firmware will reject a firmware upgrade if it does not see the information in the file that matches the specific model. So, the first time that the mesh firmware is installed on a router, you have to use the

.bin

file that matches the router model you are using.

The other situation where you will need the **.bin** file is when using the tftp method of installing firmware. A firmware install does not actually replace all of the firmware, just most of it. There is a little piece left over that never gets overwritten, and that is the piece that makes the tftp method possible. The tftp firmware still remembers the router model it is running on, so it also requires the model specific **.bin** file.