Requesting a block

Drafted for ARDC/44-net

You **must** request an amprnet block direct from the Portal. First you must create your account at the Portal (https://portal.ampr.org/). Once you do, you must login.

- **You also must login every 3-6 months even if it's just to check in to keep your block active, you have been warned!**
- **AMPRNet is a closed network that is only accessible to licensed radio amateurs.**

Once logged in, from the **top** home tab, you next select the Networks (https://portal.ampr.org/networks.php)tab on the row below. You will see a listing of blocks pre-allocated to the people who coordinate for those blocks. Find the country you are from and click on the block to the left that's associated with the place you live in. If you're in the United States, than you would first select 44.0.0.0/9, and then search for the state you live in and click on that block assignment to the left.

Once you find the block associated with your QTH, you then click on that block. When it opens you'll see a listing of pre-allocated IP space for that block assigned by that area's coordinator. You will also notice the following: "If the address range you want is not within any of the subnets above, or the region you are located in is not listed above, you may request an allocation from the parent network by clicking here: x.x.x.x/16" This will open up a new screen. This will bring you to the "Request Allocation" page.

Your origin's subnet will automatically be selected as a /16 subnet however you need to enter in the actual subnet below it in which would suit your needs. Don't be **greedy** request what you actually need for service nodes. This would not include any 802.11 routers for use on *HamWan/HamNet* as doing so would make you quite insecure. ISPs don't configure their routers with publicly routable IP space for end users, why would you? To start with, I suggest a /29 or if you feel you have a handful of devices such as a dozen Raspberry Pi units you wish to host Nodes (http://wiki.ampr.org/wiki/URONode) with a /28 may better suit your needs.

Basic space allocation per block request and usable hosts within such as a quick guideline would be:

- /32 - 1 usable host
- /30 - 2 usable hosts
- /29 - 6 usable hosts
- /28 - 14 usable hosts
- /27 - 30 usable hosts

Plan out your topology accordinly before you request your subnet. Many devices may share IPs for the services you might plan to host on them. An example for a full service Node (http://wiki.ampr.org/wiki/URONode) you may have 44.1.2.3.4 and that may bind to such things as:

- SMTP/axMail (http://wiki.ampr.org/wiki/URONode)
- Node (http://wiki.ampr.org/wiki/URONode)
- APRS
- BBS
- IMAP

- POP3
- HTTP/HTTPS
- and more!

All the above services may use a single IP on 1 host as these each may use 1 IP port each on the same IP address. As an example if you had 4 Raspberry Pi units, and 4 PCs you were going to deploy out, that'd be 8 individual devices in which you'd want a /28 subnet for because a /29 would leave you short 2 IPs for the host devices.

In the description field, I suggest you enter your callsign. It makes your subnet easier to locate in the portal.

Type will always be: **End User**

Underneath that will be 3 tick boxes:

- Radio
- Tunnel
- Direct (http://wiki.ampr.org/wiki/Announcing_your_allocation_directly)

Unless you're jumping right into the fire and intend on BGP announcing your subnet, you can ignore the last one otherwise click on the link above to see how to do BGP with the AmprNet. If you'll be routing IP via RF you'll obviously want to tick on *Radio*. If you'll have IP connectivity via your ISP you'll want to also tick on *Tunnel*. Note: Not all ISPs allow for the passing of our tunnel protocol however most do. If you find you can not tunnel, check with your router's manufacturer to insure they allow for passing of IP protocol 4. You may also want to place your main amprnet device's lan IP into your local router's DMZ so that anything coming into your IP will default route into the device you'll designate as your amprnet routing device. (Note: Raspberry Pi units are a great device for this and you can turn them into a Wifi hotspot to route 44/8 via 802.11a/b/g/n)

Lastly you'll want to send a note to your coordinator. You'll find this to be a good way to open communications with your coordinator as well as helping them sort out your needs for a subnet.

Your next step is Here (https://wiki.ampr.org/wiki/Registering_Your_Gateway) to register your AmprNet Gateway.