

ZeroTAKServer: Setting up an ATAK Network Using ZeroTier to Connect (ZERO Servers Needed)

Version 2.0

With Encryption Instructions

Purpose, Features and Limitations

- Connect a small team of people using internet connectivity to provide basic Situational Awareness, chat and some streaming.
- The Connection is encrypted, and provides user control
- Most server functionality is missing;
 - No large, persistent file sharing
 - No Federation
 - Optional Encryption Instructions
 - This is likely limited to "small" networks (32 users is Straightforward)
- Three options:
 - Use the public account set up for this (*ZeroTier Network ID: **d5e5fb6537bbe50d****)
 - Setup your own virtual private network through ZeroTier
 - [Get the ZeroTier server software](#) from GitHub and install it yourself for full control (*Not discussed*)

NOTES:

- There's ZERO servers here. It's called ZERO TAKServer both because there's ZERO Servers involved and it leverages the ZeroTier VPN service.
- For additional privacy, You could also implement something similar if you have your own custom VPN.

* **Note:** That's a free account, and it may fill up or be all claimed. When that happens that Network ID won't work anymore and you'll need to setup your own account.

Download and Install CivTAK

- You can find CivTAK (Public Release) directly from the Google Play Store, [here](#).
- Download and install CivTAK on a recent Android device
 - ATAK-Civ will autoupdate when new government releases are made
 - ATAK-Civ will not run on old devices (pre-5.2 devices, and 32 bit operating systems)

To configure the Public Server, Skip to Slide 8*

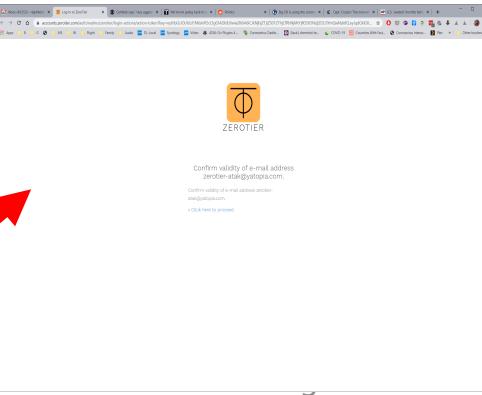
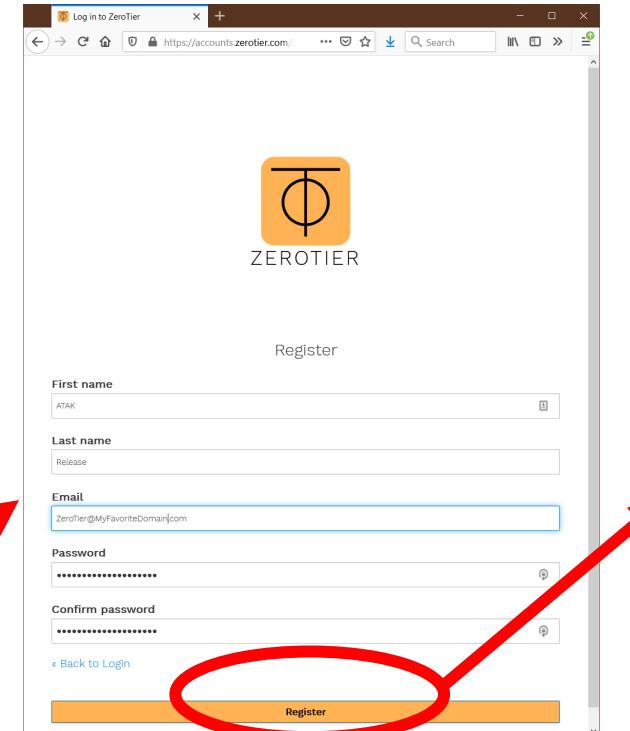
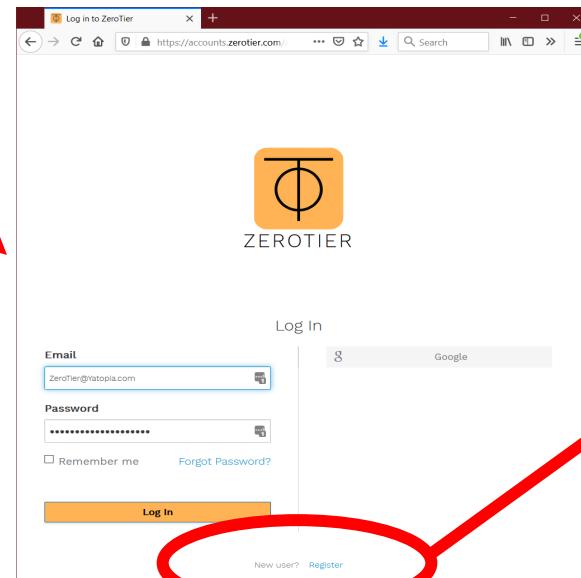
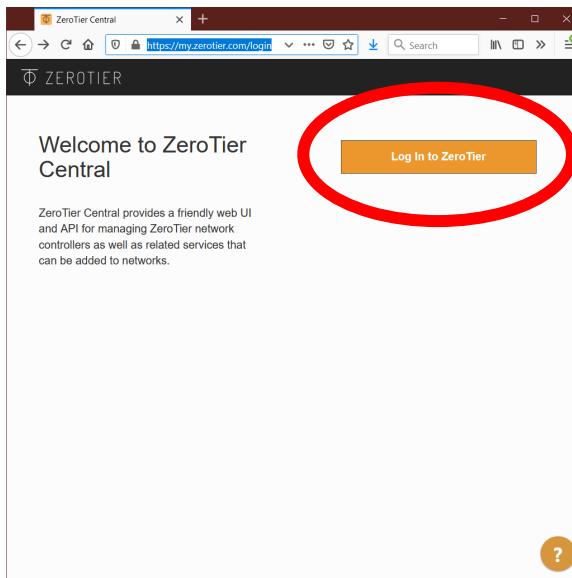
To configure the encryption, go to slide X

To Setup Your Own Private ZeroTAK Server, go to the next page

*The Public ZeroTAK Server my not be available. If not, just move to the next page and set up your own. It will only take 5 minutes.

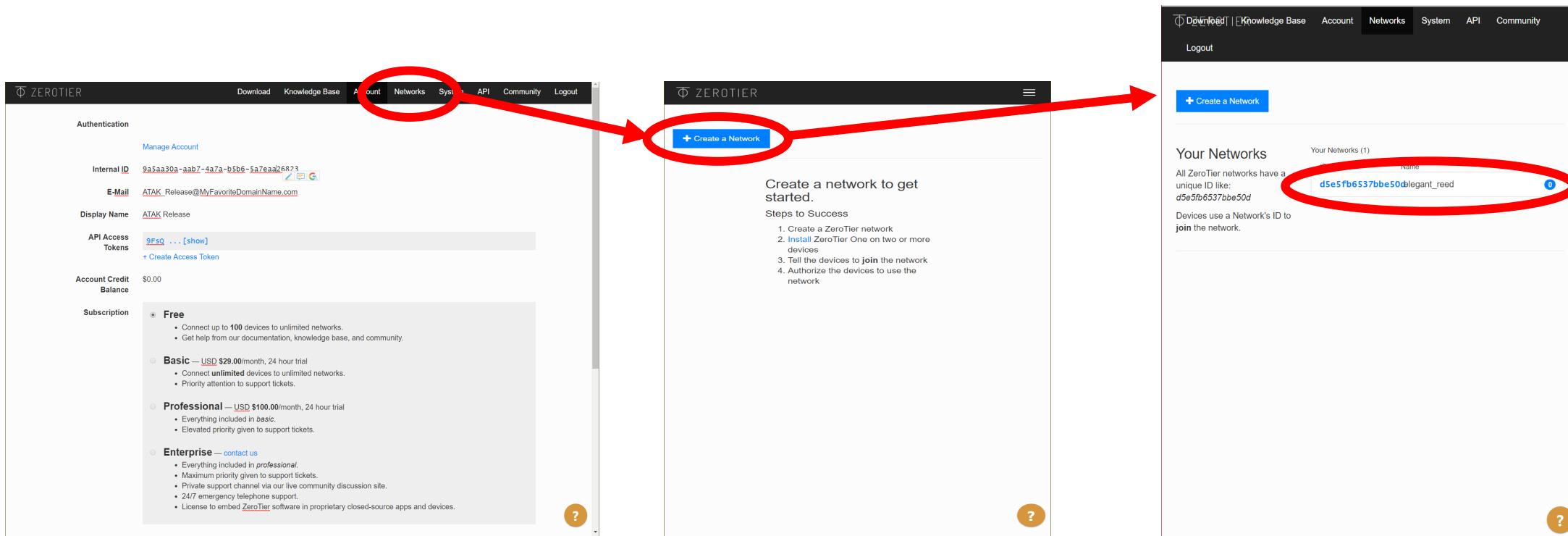
ZeroTier Setup –Your own Network

- Go to the ZeroTier web site and register for an account [here](#):
 - <https://my.zerotier.com/login>
- Follow the instructions to setup and verify your new account



Setting up your Network Server(1 of 2)

- Click "Networks", then "Create Network" then click the blue numbers
 - NOTE: The number shown below - **d5e5fb6537bbe50d** *is the actual ZeroTAKServer Public network ID you can use to try CivTAK without setting up your own Network Server.*



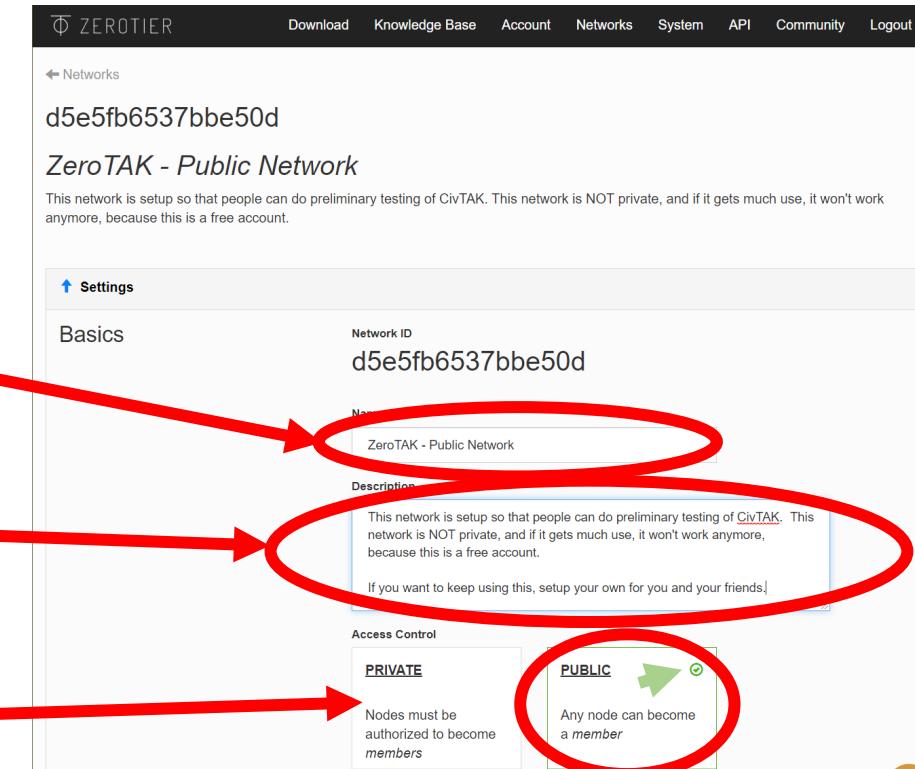
Setting up Your Network Server (2 of 2)

- Rename your network if you wish
- Add a description if you wish
- Choose whether you want a public or private network.
 - With public networks, anyone with the Network ID
 - With private networks each node must be authorized.
- There are many more options for advanced setup but you don't need them

Change your Network Name

Provide a description if you want

Decide whether you want a public or Private Network – You Probably want Private, but this one is public so anyone can try it

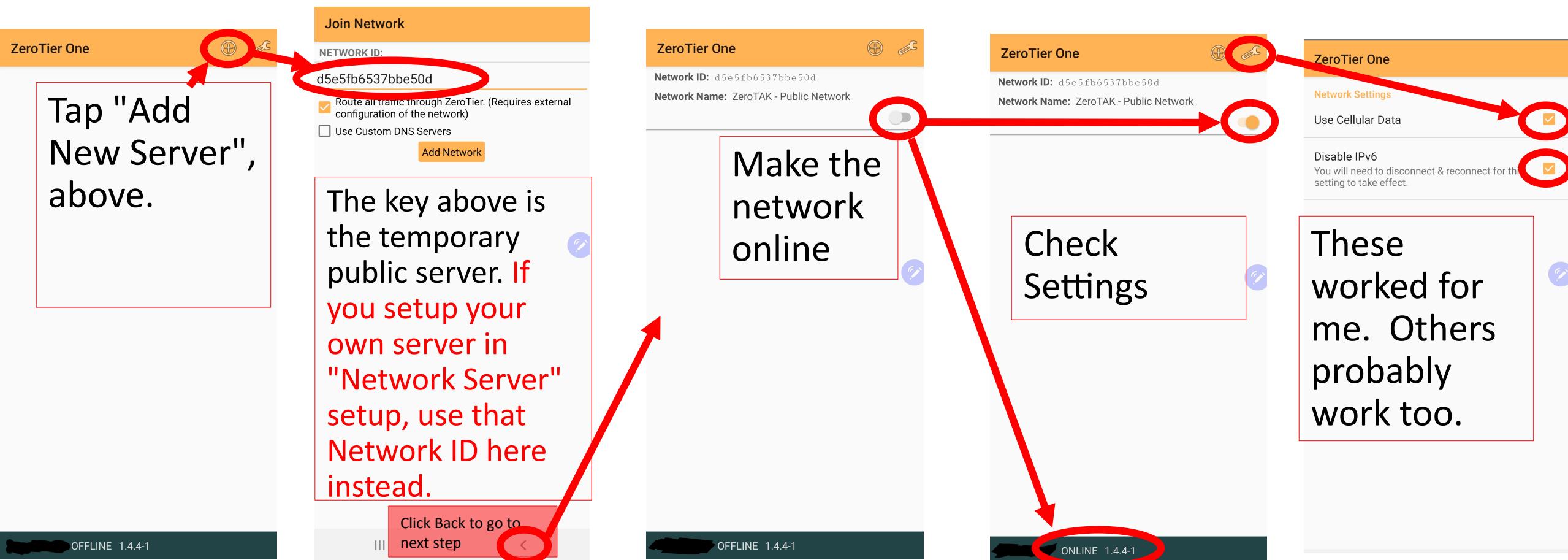


Setting up ZeroTier App on Your Phone

- Download a Government
- Follow the steps from left to right
- Public Server Network ID: **d5e5fb6537bbe50d**

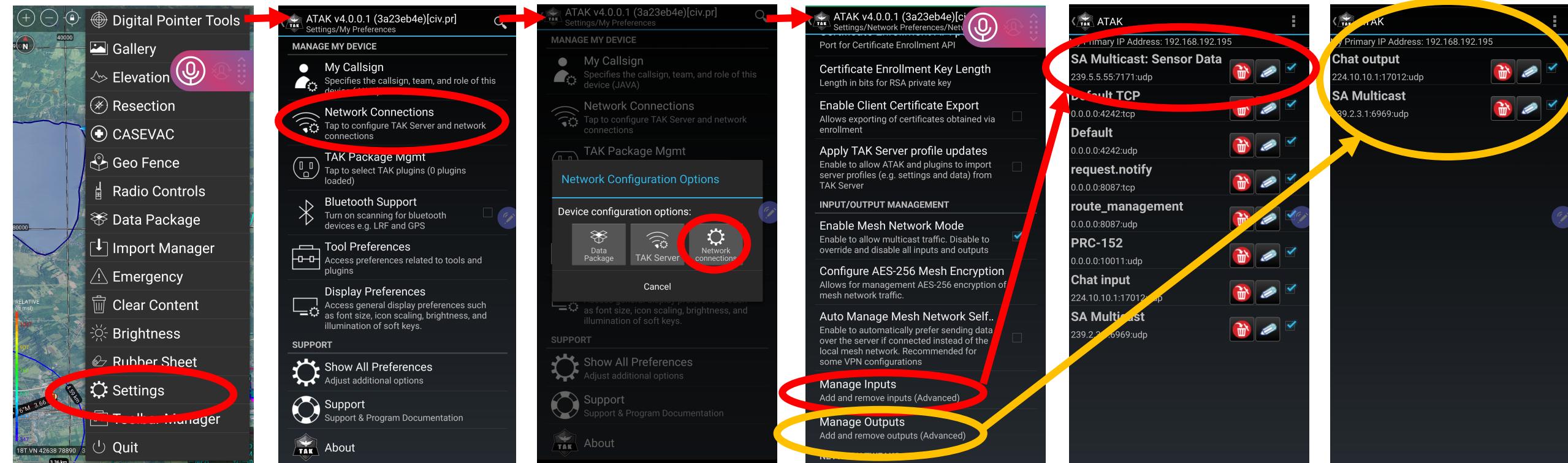
* *(copy this – It's a pain to type in)*

* *Public Server Not guaranteed to be available*



Check The CivTAK Network Connections

- Click the three dots in the upper right of the CivTAK menu bar, and follow the screenshots below left to right

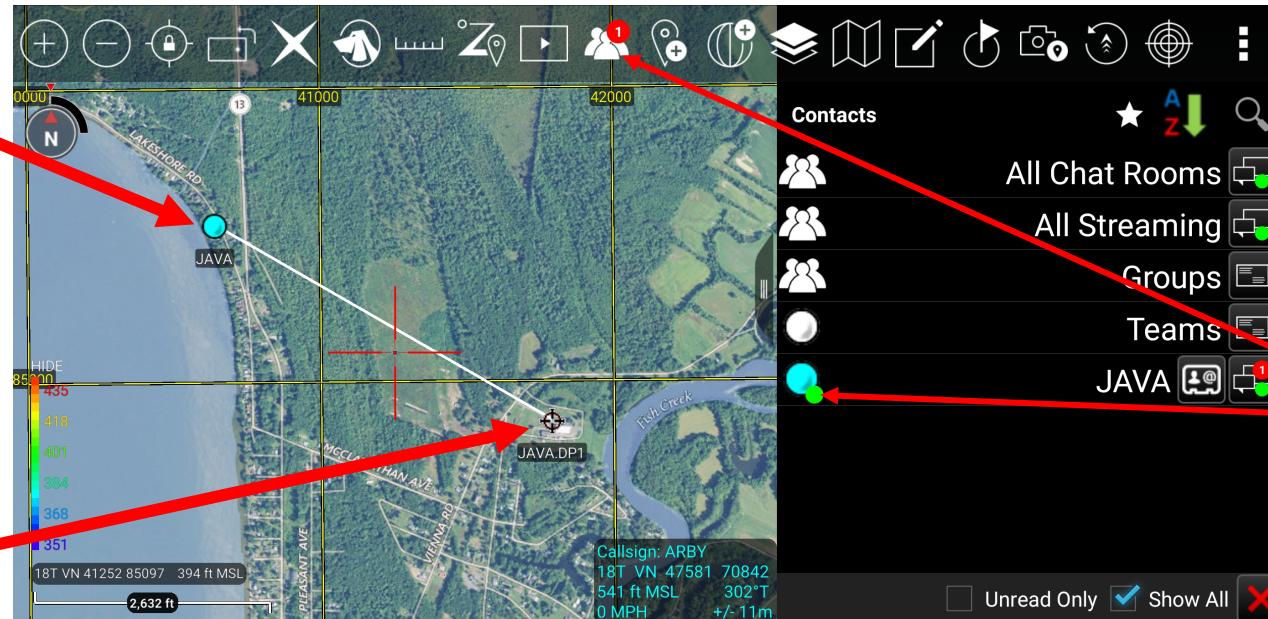


Testing –How Do You Know It Works?

- Here's how you can tell it works
 - Configure two phones with the same Network ID and configure CivTAK with the configurations shown.
 - Have one phone on WiFi and one on cellular only (or both on cellular only)
 - You should see both phones on the map (disable location and move one to make it easy to check)
 - Check Chat and Digital Pointer as well. They should both show up over the network

Circle is a network position (a "/" in the middle means it is a mocked location). Note: You need to have location on to get the actual location.

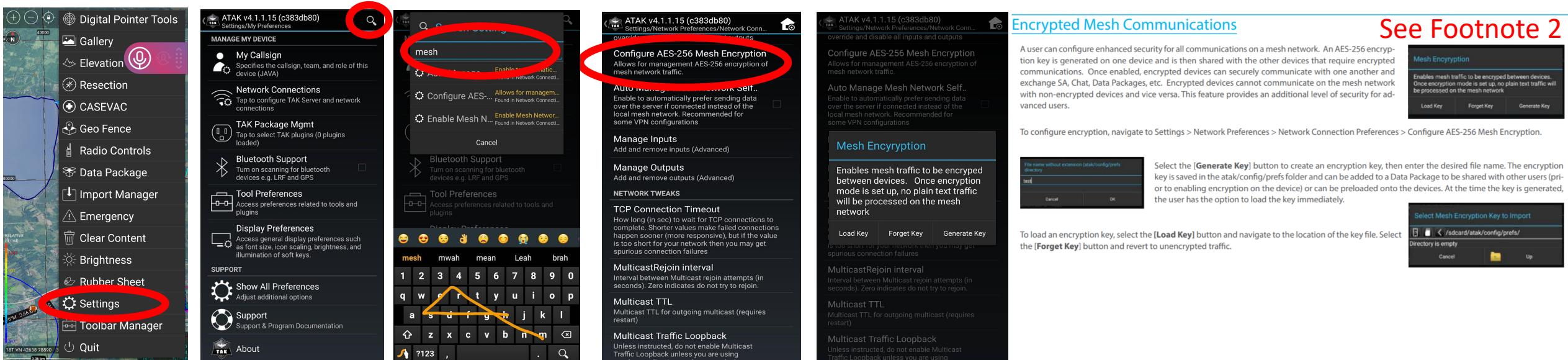
Digital Pointer pushed over the network to me (real time updates)



New chat coming in over the network

Adding Encryption

- You can optionally add encryption. It will keep your data from ZeroTier. If you are using cellular or your private wifi, this is overkill, but here's how to do it.
- You can read this in the manual, page 29 (for version 4.1)¹



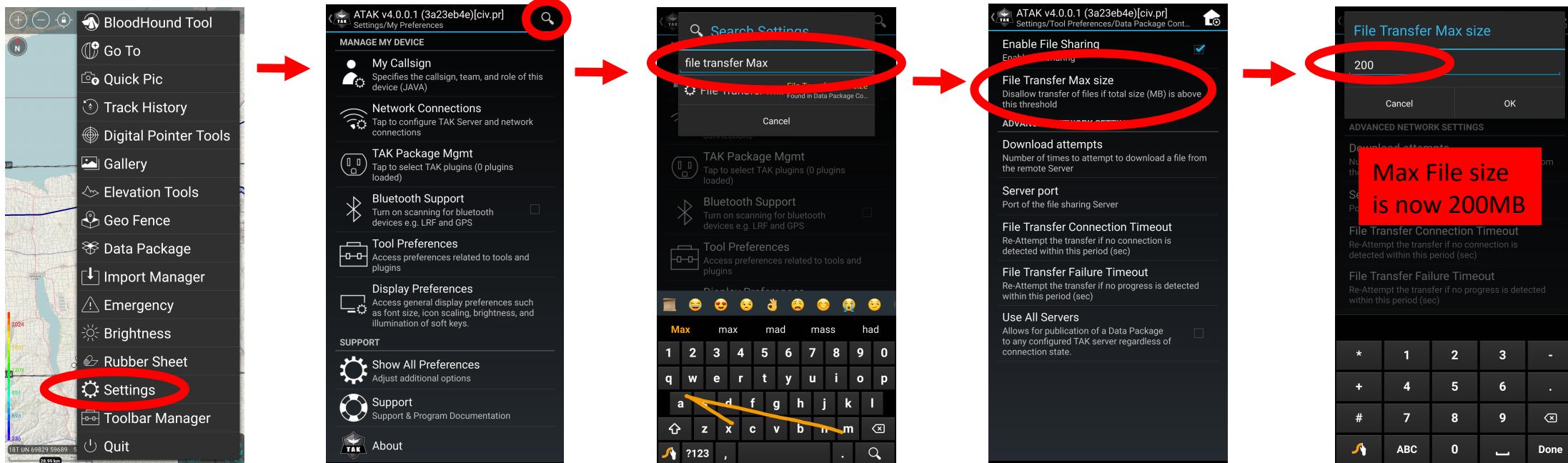
Once you've generated key on one phone/device, you need to copy it to the other devices to the atak/config/prefs folder.
NOTE: Devices with encryption loaded with different keys can't communicate with each other or with unencrypted devices.

1. You can find instructions on how to find the manual on slide XX

2. This is from the manual, "Encrypted Mesh Communications", page 29, except it refers to "Mesh traffic". This works with any local IP network. Combined with [ZeroTier](#), this provides encryption over cellular.

Final Thought – File Sharing Size

- One of the features that TAK Servers typically handle efficiently is file management and distribution.
- You can still send files peer to peer, but its limited in file size to 20 MB by default.
- You can change that by following the instructions:



Read The Fine Manual (RTFM)

- You can find the manual by going to: Settings -> Support ->

There are many capabilities in the Manual You might not know about

