ISLAND

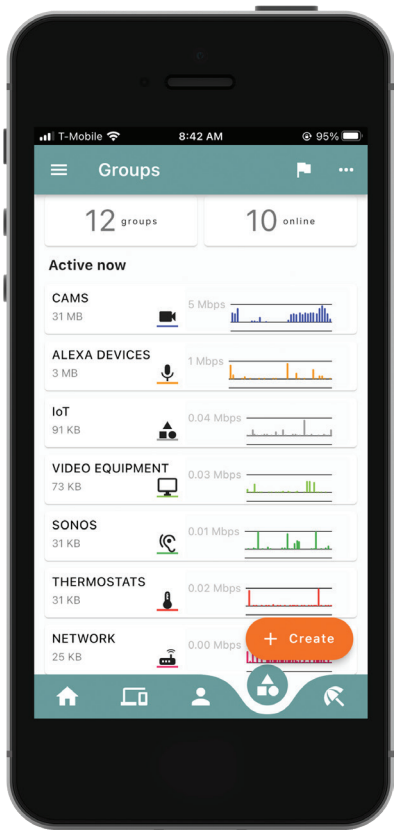
Discovering Island Treasure

Like pristine shells half-buried in the sand, the Island router is full of treasure—little gems in the software that subtly make life easier. Here we identify a few that streamline the process for install, VLAN, and VPN setup. While these gems greatly benefit less technical installers, even techies appreciate simplicity.

Installation Gems

A SELF-CONFIGURING DREAM MACHINE

For all types of installation, Island strives to offer as fully an automatic set-up as possible. No need to worry about plugging a cable into the wrong port; Island's four hardware ports are not assigned specific purposes. There is no set port to connect a WAN (Internet) versus a LAN (local network). Plug anything into any port, and Island figures it out.



A SMOOTH ROUTER-REPLACEMENT HAND-OFF

When replacing an existing router, Island's self-configuring mission reaches even further. With other router installs, the "new" router takes on a new IP address and subsequently assigns new IP addresses to all connected devices, which can result in tedious reconfiguration and disruptions as some devices may need to reboot. Island's unique approach makes router replacement smooth and simple. However, it requires following a specific sequence of install steps. First, Island is plugged into the LAN while the "old" router is still operational; importantly, this step enables Island to observe and learn the existing network topology. Then, as soon as the old router is disconnected from the modem and Island is plugged into the modem, Island takes on the old router's IP address and configuration, allowing connected devices to retain their previous IP addresses as well. Like an Olympic relay team expertly passing the baton, this hand-off occurs quickly and transparently, saving time and hassle for the installer.

GOT VLANS? NO EFFORT NEEDED

Many existing home and business networks have been set up with virtual local area networks (VLANs), such as separate guest and private VLANs. Setting up VLANs enables an otherwise large network to be segmented into smaller, independent networks to save on equipment, manage smaller groups of like devices, and for security. Normally, replacing the router would require underlying VLANs to be reconfigured manually. Instead, Island automatically and transparently discovers and configures existing VLANs. Another gem: creating a new VLAN is simple as well, with an auto-configuration option that minimizes setup.

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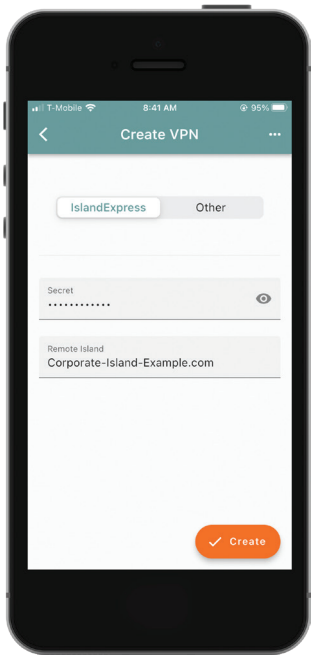
VPN Gems



ISLAND INCLUDES THE WIREGUARD VPN PROTOCOL

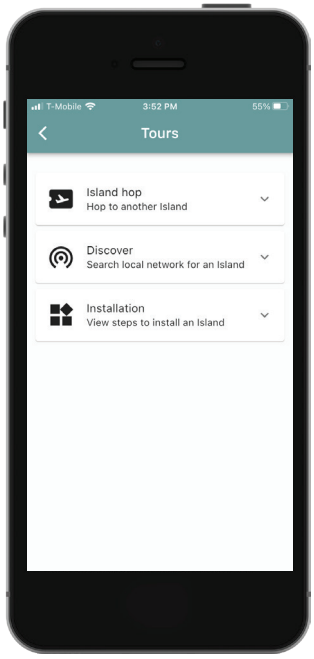
The WireGuard VPN protocol provides for fast, simple, modern, and secure VPN tunnels; however, WireGuard itself provides no means to make configuration easy. To remedy the complexity, the Island team has written valuable software extensions to simplify Island-to-Island setup in these three usual areas of difficulty:

PUBLIC KEY USE: Public keys are long and difficult to enter; Island substitutes this initial exchange with an easy-to-articulate secret (password) exchange.

IP ADDRESS ASSIGNMENT: When dynamic addressing is being used, Island automatically manages assigning addresses to the VPN peer. Bottom line: nothing to do here, no IP-address lookup needed.

ROUTE MANAGEMENT: With Island-to-Island VPN, route management is a non-issue and occurs automatically.

Remote-access Gems



OFF-THE-CLOUD ACCESS FOR TOTAL PRIVACY

Remote access across the Internet to a device, such as a thermostat, typically requires either cloud-based management or the ability to discover the device, both of which create fundamental security challenges. Island provides a method for the app to discover and communicate with an Island across the public Internet, while keeping the existence of the Island totally obscured. By using a combination of public-key cryptography and one-way hashing, only authorized devices are allowed to communicate. In this way, remotely accessing your Island or any Island for which you have PIN credentials remains entirely out of the cloud, secure, and private.

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