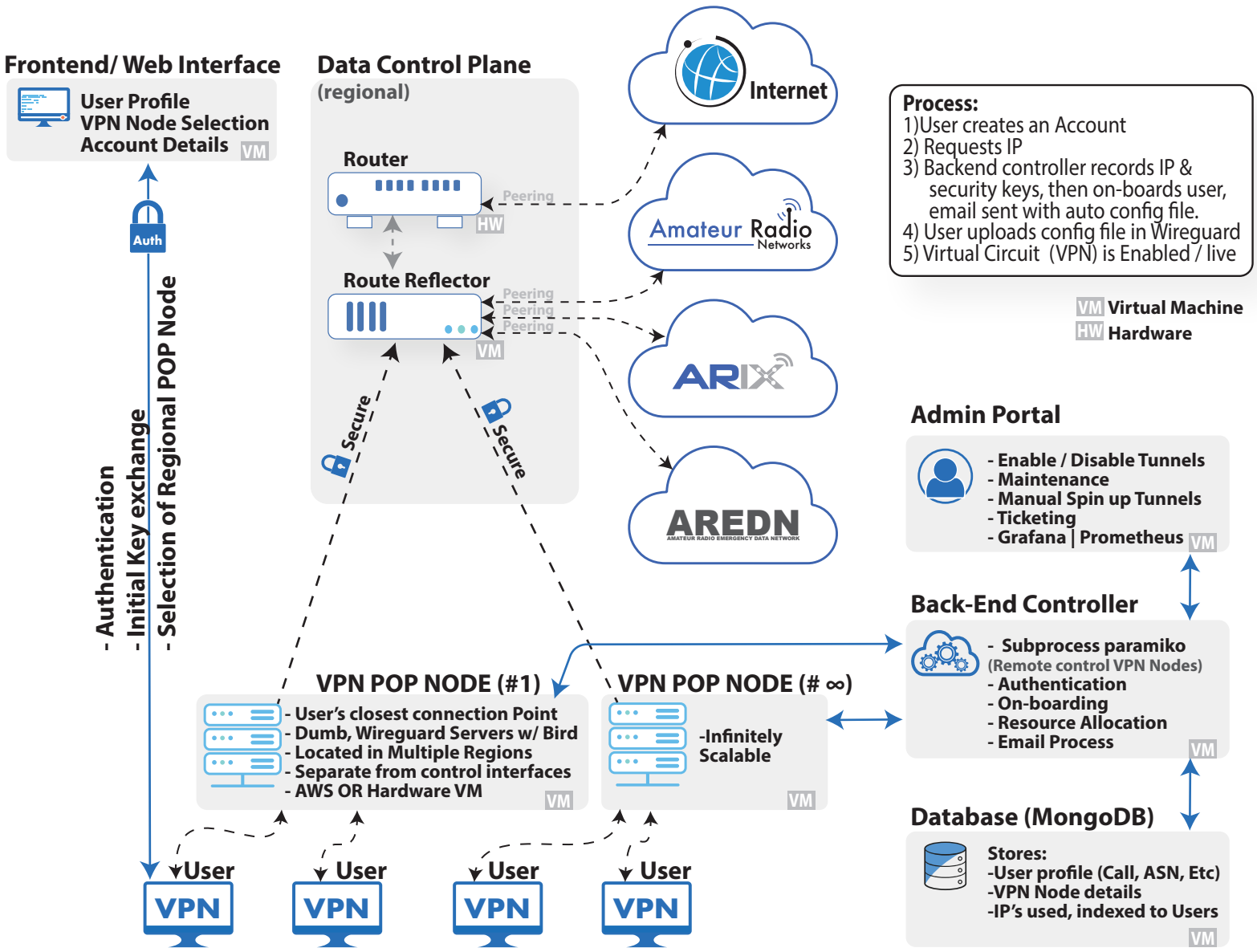
Architecture Overview



MVP (Minimal Viable Product)

- User's Initial Authentication & Key Exchange Performed on Frontend web interface.
- Back-end remotely controls nodes: insert Keys & User IP into wireguard on VPN POP Nodes.
- Subsequent connections to 'same' VPN node doesn't require Web portal, Back-end, or Database.
  Any interruptions of controller nodes, doesn't interfere with user connectivity.
- Single point connection to join all Ham Networks, no technical skills needed.
  User receives Publicly Route-able IP.
  User can join one or all connected networks and will be given IP's from other requested networks
  IP netmaps used to translate IP between different networks (maintains networks IP space isolation).
  User doesn't need to understand how to connect to any of the other networks--- plug and play.
  Users can explore networks only reachable via 44net.cloud.
- Take IP anywhere. (Re-establishes Virtual Link automatically, even behind double NAT networks)
  Use Internet at the same time as accessing ham nets.
  Remotely control IP device's such as Ham Rigs and Raspberry Pi, from anywhere in the world.
  Connection is encrypted from user device all the way back to Pop Nodes in Datacenter
  Since Data is securely sent, its great for using wifi in Airports and Coffee shops.
- Users can announce their own BGP prefix through the Virtual Links.
  DIYers can Experiment with prefix announcement.
- No hardware needed. Wireguard software is auto configured with auto-generated QR-code / File.
  Users can put a toe in, without needing hardware, and gets immediate access to various Hamnets.
- For a more advanced connection, Mikrotik, GL-inet, raspberry pies can be used as routers.

Adam Lewis
Ver. 1.0 (March 26th 2022)