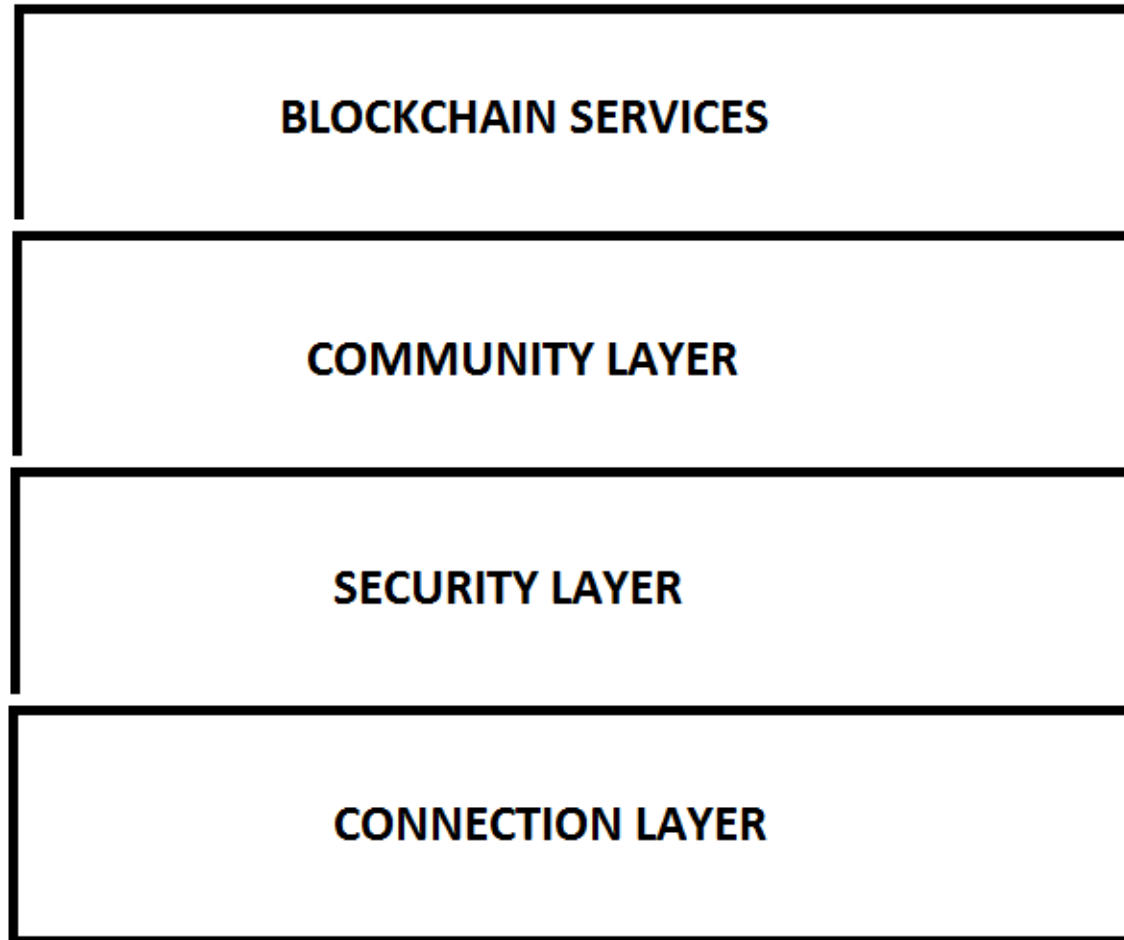




# NVIS – INVISIBLE INTERNET

A network of VPNs  
Architecture and Business Model

# ARCHITECTURE



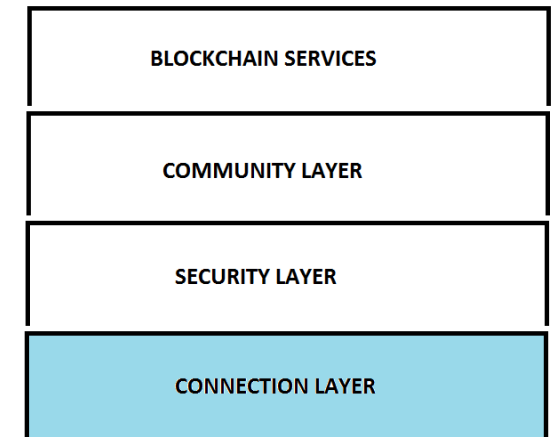
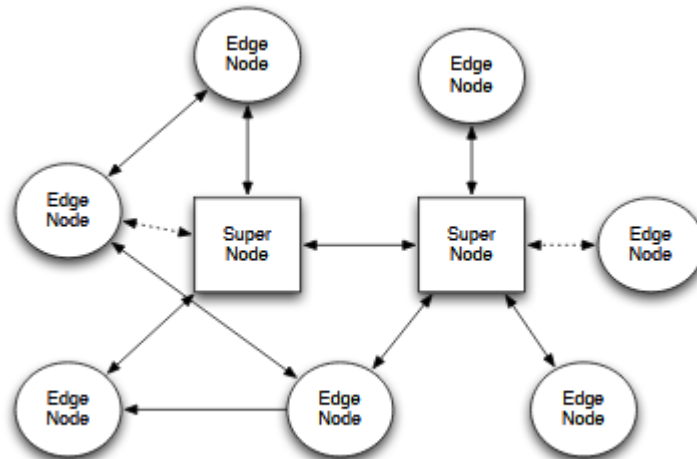
# CONNECTION LAYER

Prototype uses Supernode ala Richard Andrews\*\* P2P model

- MAC Registration to Peer Table
- MAC Peer Table Distribution (will eliminate supernodes in NVIS production, so EVERY node maintains its own dynamic MAC peer table)

Unique “IP over MACv6” address leased to Edges via **Provisioning A.I.**

Layer 2 Peer-to-Peer Communication directly between nodes



# SECURITY LAYER

Security Context on Internet infrastructure makes an invisible overlay network

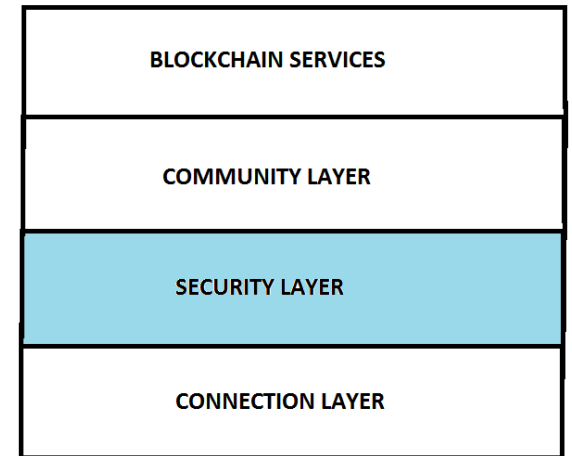
Encrypted w. Bruce Schneier's\*\* Two-Fish 128-bit encryption

- Fast, unbroken
- Non-proprietary, royalty-free

Planned 2019:

- Extend shared key model with **Smart Contract Access Control**
- Propagate firewall rules from supernode to edge nodes for internal security
- Based on Tom Eastep's\*\* Shorewall (<https://en.wikipedia.org/wiki/Shorewall>)
- 256-bit keys (faster than Rijndael)
- Add AES option alternative to Two-Fish

\*\* Andrews, Schneier and Eastep Advisors to TLC



# COMMUNITY LAYER — BLOCKCHAIN GROUPS

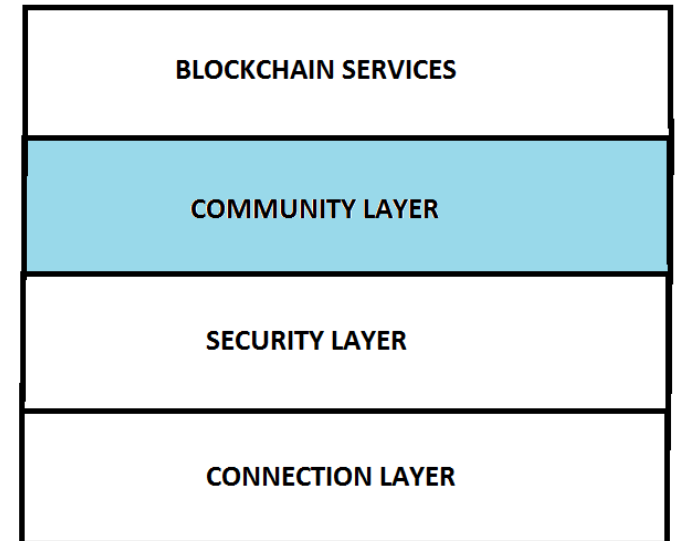
Community Namespaces

Managed Security Context for “ad hoc” networks

Avoids address collisions

Planned 2019:

- Community / Blockchain Specific APIs



# BLOCKCHAIN SERVICES

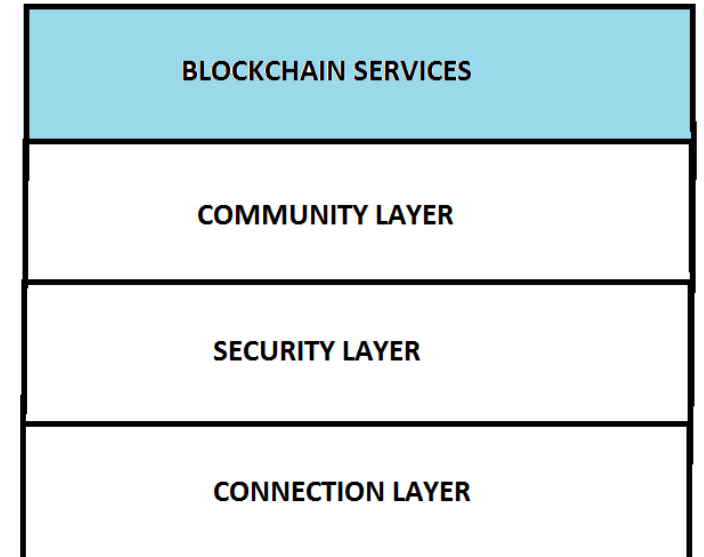
Private Blockchain entirely cloaked within NVIS network

Public-Private Gateways

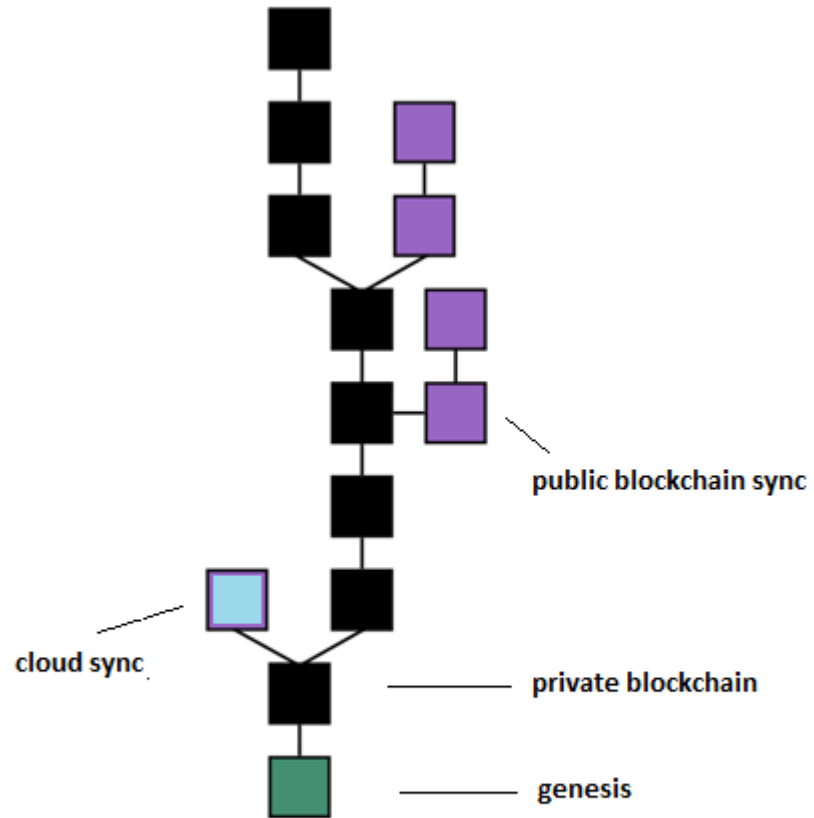
Cloud Sync / Backup

- Amazon Cloud Drive
- Google Drive

Smart Contracts for complex access control rules



# BLOCKCHAIN GENESIS TO GATEWAYS



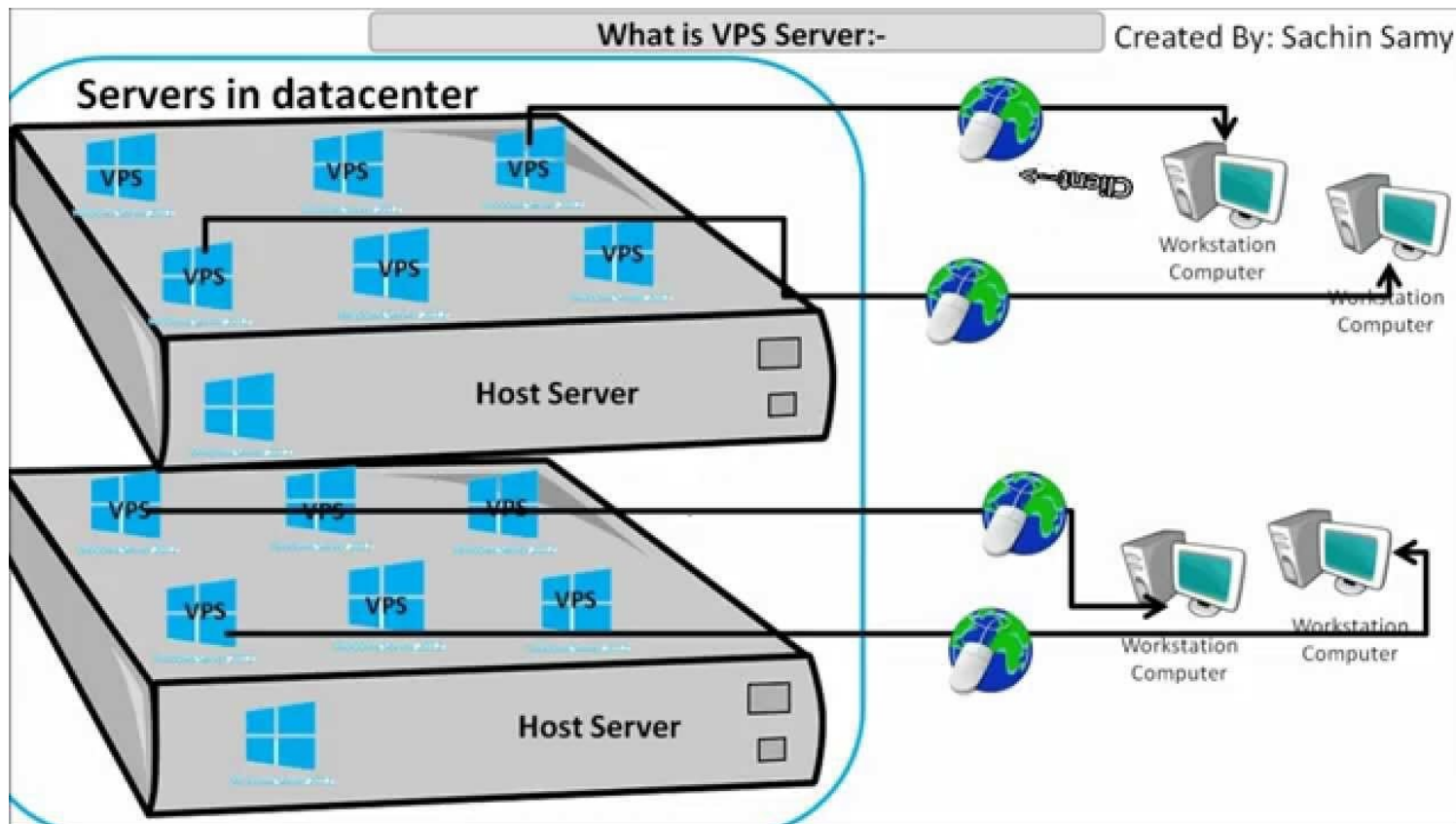
# BUSINESS MODEL

Content is king!

- ❑ Revenue from VPS hosting subscription for NVIS Content Providers
- ❑ Advertising Revenue from hosting control portal and search engine
- ❑ Monetized apps or subscription for NVIS Consumers
- ❑ NVIS becomes a platform and a venue ala YouTube



# OPERATIONS LEVEL: VPS WEBHOSTING



# OPERATIONS SERVICES FRAMEWORK

Content Providers managed via web hosting

- InMotion white label VPS reselling
- Cpanel standard user management
- Wordpress and other web creation tools
- WHMCS billing for web hosting and domain name sales and accounting

YouTube Security Model

- User controlled content settings Public, Private or Unlisted
- Proven way to have private video streaming, can be used for web privacy

Content will have security but NOT secrecy, allowing NVIS enforcement of Terms of Service to prevent illegal/illicit use -- NVIS will be “the good guys”, distinguished from other VPNs. Otherwise, NVIS would be another TOR, used for dark web activities.

# STATUS

Master Nodes in Miami, Seattle, Tokyo, Toronto, Paris, Singapore, Amsterdam (many others tested from China, Russia, Saudi Arabia, etc.) most are VPS + web servers

Ethereum Private Blockchain nodes (+10, target 100)

NVIS apps for **Android, Linux, Windows, OSX**

Smartphone Wallet Ethereum as User ID

