

Paige Peterson - Communications, MaidSafe BattleMesh V8, Maribor, 07 August 2015

Massive array of internet disks, secure access for everyone

The SAFE Network is an alternative Internet infrastructure and development platform for decentralising storage and communication while making privacy and security priority.

serverless

crypto secured

personal, private or public data

autonomous

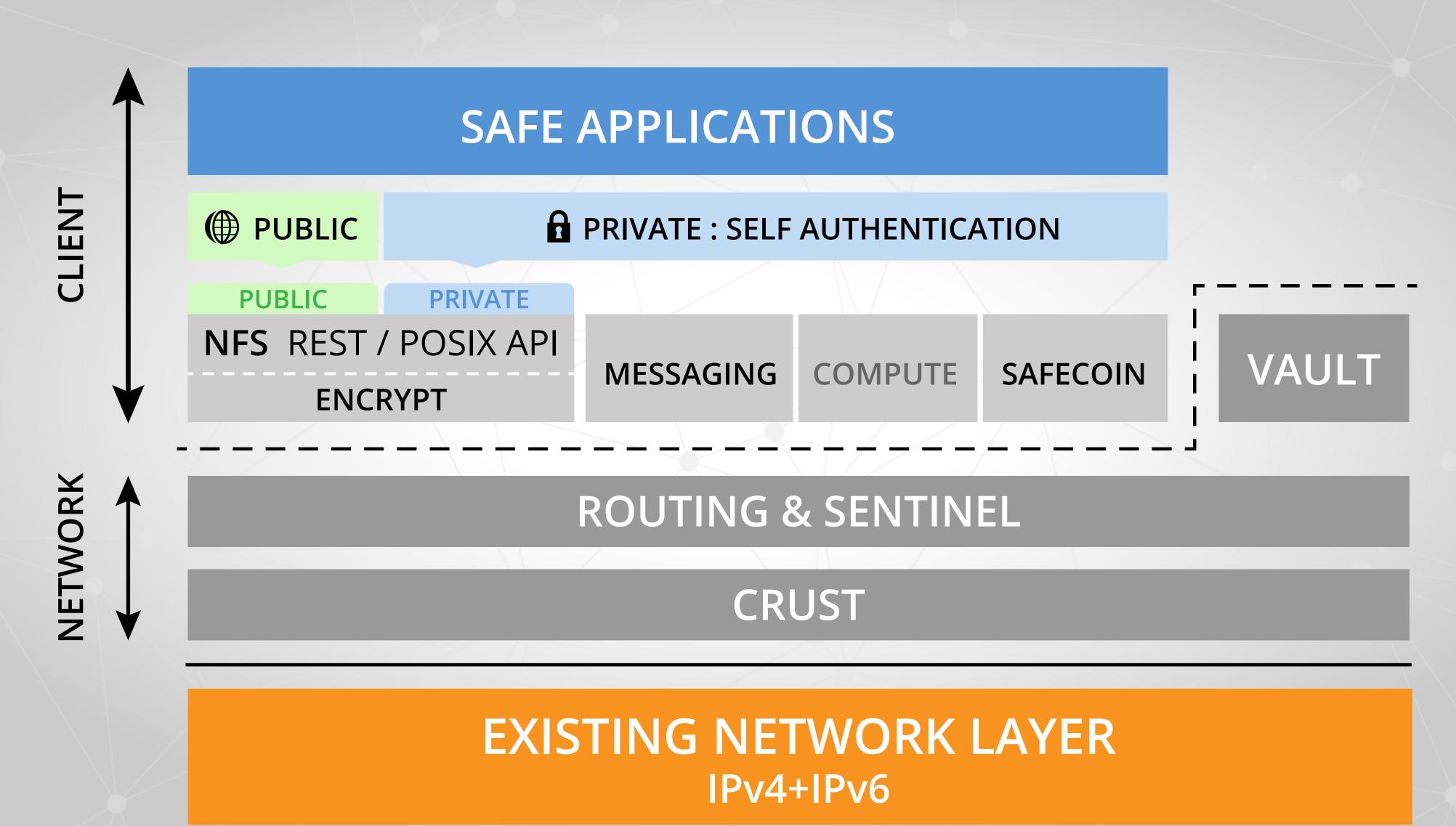
token mechanisation

Natural to align with mesh networking

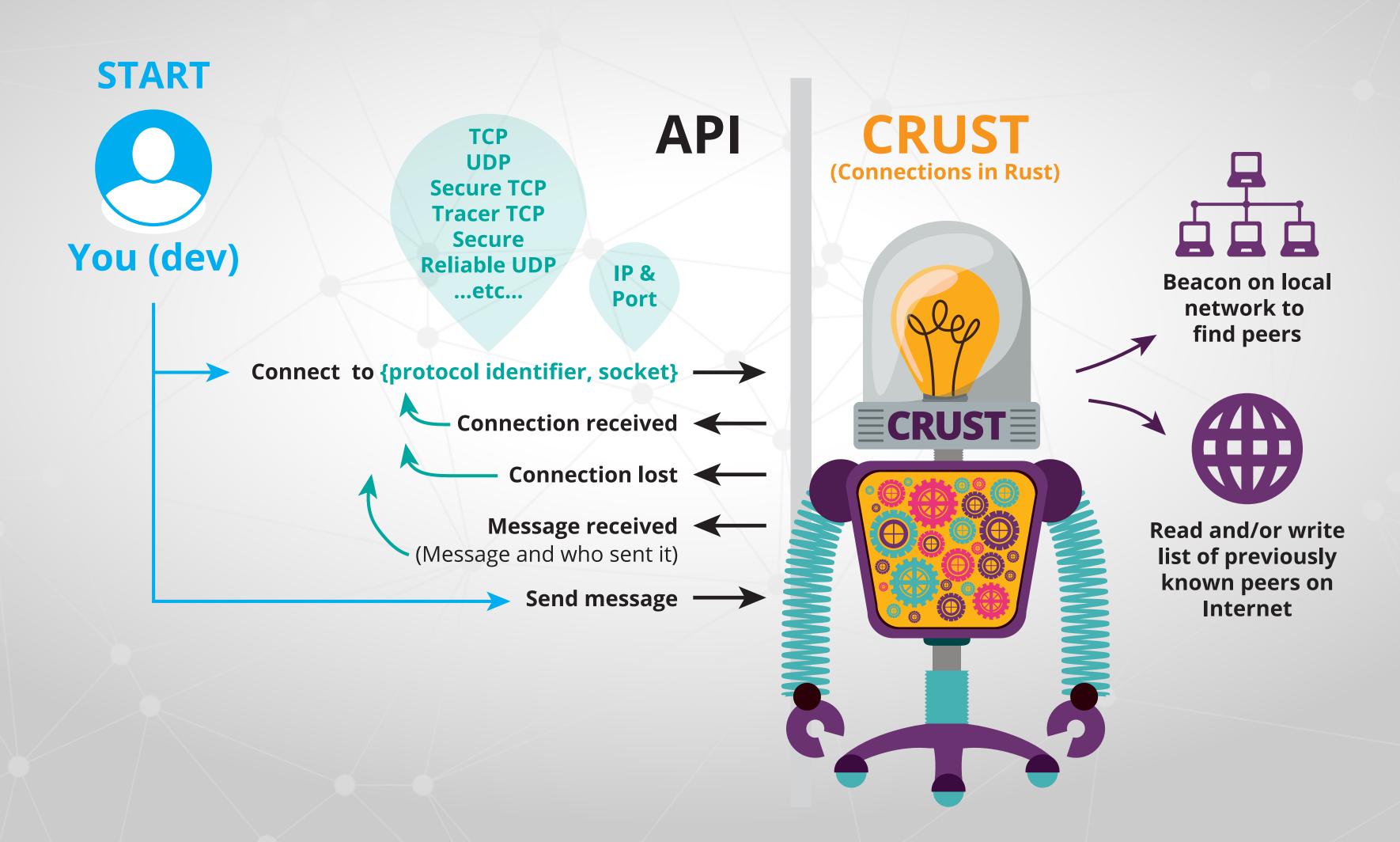
Access to the network

Security layer

Creating a censorless Internet (Implements global, non-location based addresses)



### PEER 2 PEER NETWORKING MADE EASY



Routing + Sentinel

Modified Kademlia DHT (with public key infrastructure)

DHT PKI determines namespace and XOR distance for node authority

Language of the network

-persona/roles

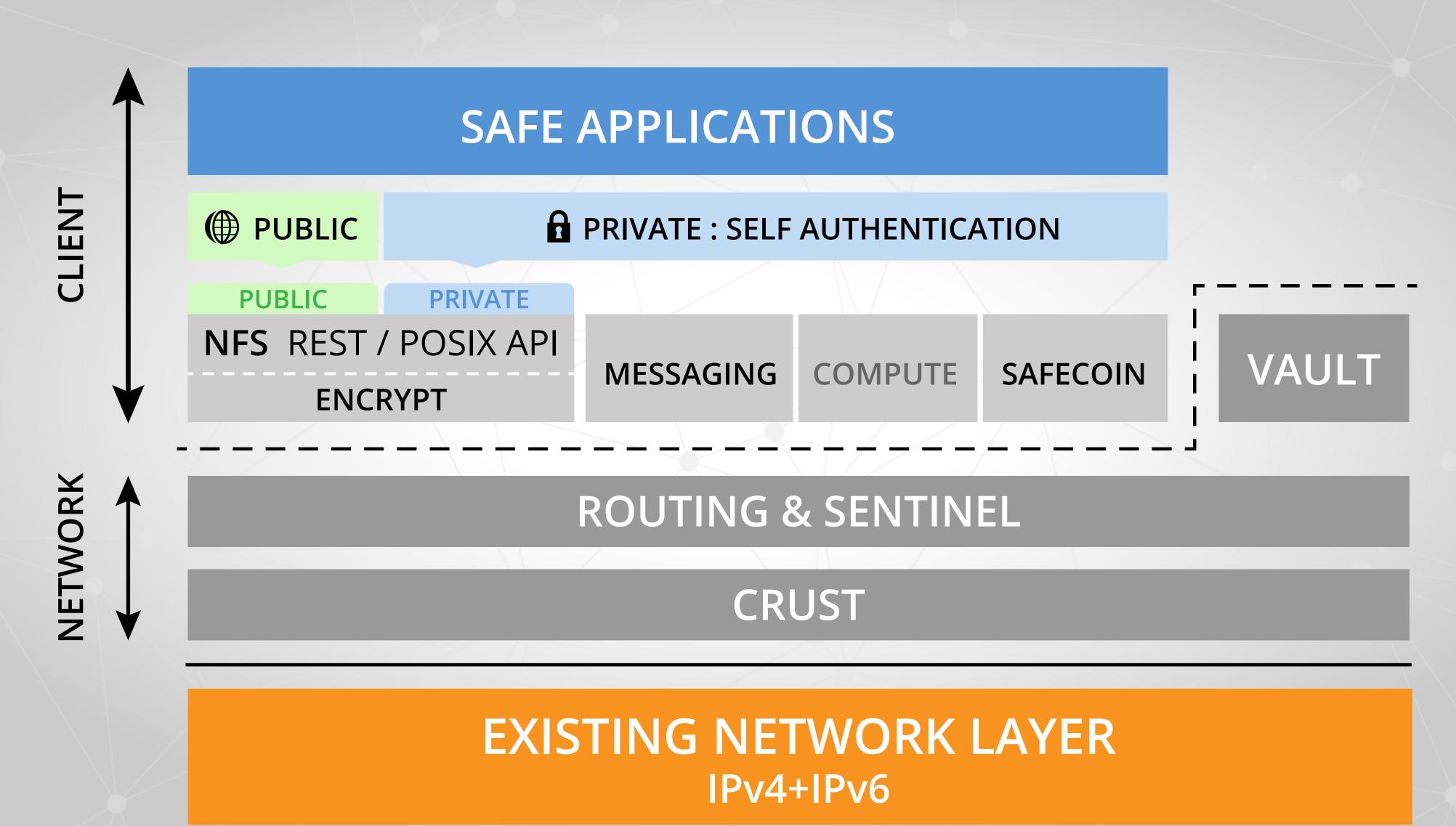
-messages (data type id, persona id)

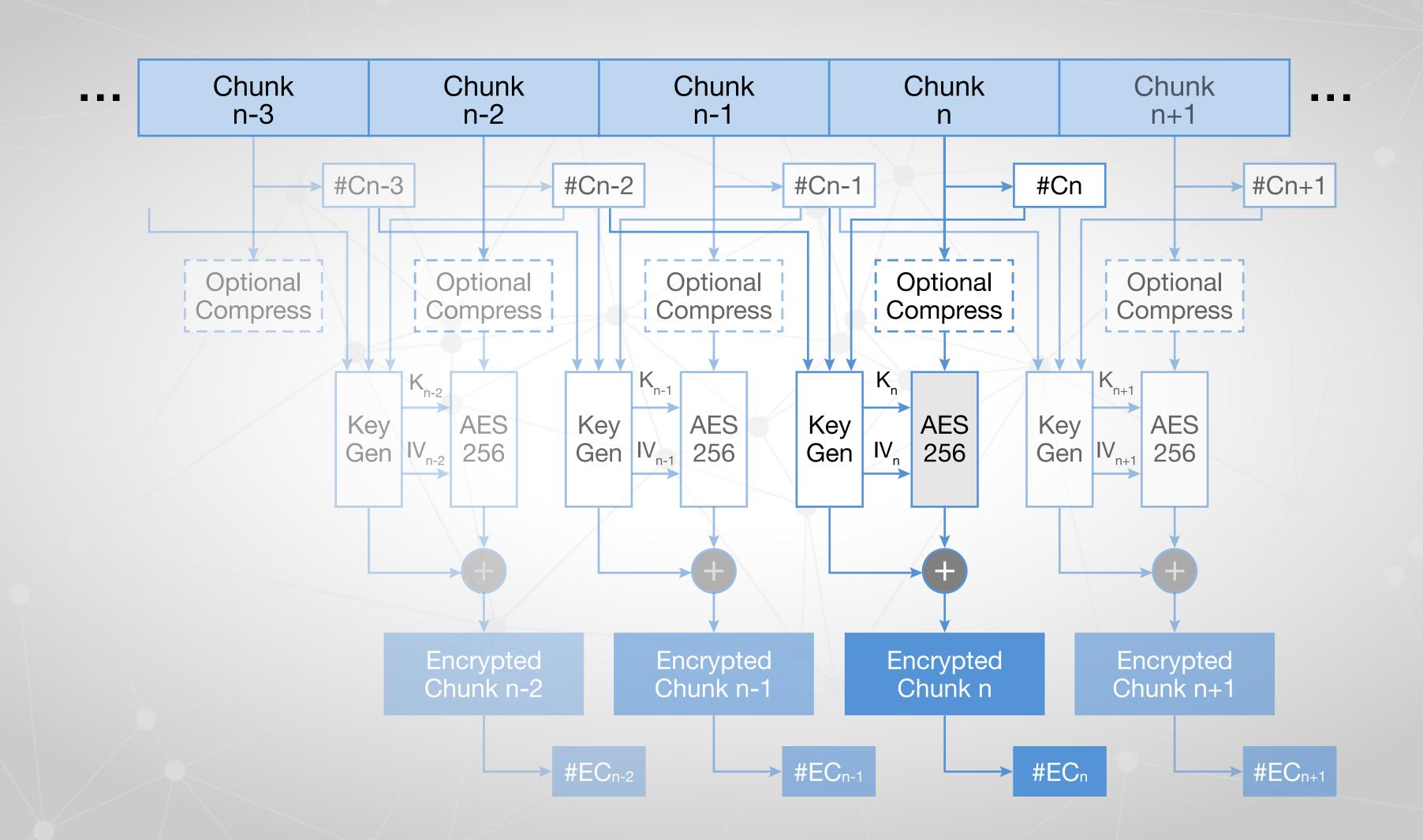
-group consensus (quorum)

#### Put

Client -> ClientManager<->NeaManager->NodeManager->ManagedNode

- · Client sends message to his own address on the network
- ClientManagers receive this and check it is a client he has available storage
- They send to the DataManagers which check the from Authority is a ClientManager group and look to see if data is already stored. If so then Finish, else...
- DataManagers send to a PmidManager group.
- PmidManagers check from authority was DataManagers and they store in a node close to the address of the group.
- PmidNode receives this Put and checks the from authority was his PmidManager group.
- Pmid Node stores data. Finish.





### Technical overviews

CRUST
<a href="https://www.youtube.com/watch?v=Zdt\_8c1bWDk">https://www.youtube.com/watch?v=Zdt\_8c1bWDk</a>

Routing <a href="https://www.youtube.com/watch?v=ao70DM7Ndd8">https://www.youtube.com/watch?v=ao70DM7Ndd8</a>

Sentinel <a href="https://www.youtube.com/watch?v=VwV1yar6PMw">https://www.youtube.com/watch?v=VwV1yar6PMw</a>

Vault <a href="https://www.youtube.com/watch?v=sKl8i4P66IA">https://www.youtube.com/watch?v=sKl8i4P66IA</a>

Founded in 2006 by David Irvine

Lots of R+D, refactoring

Crowdfunded

C++ to Rust (More refactoring)

Code bounty system

RFC

open source, open development (GPLv3)

github.com/maidsafe

maidsafe.atlassian.net

crates.io/search?q=maidsafe

forum.safenetwork.io

maidsafe.net

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