



CROSS NETWORK SECURE SERVICE NETWORKING

GEORGES ANKENMANN – JEFF BAILEY – FAHMIDA HAQUE

WHAT WE WANT TO DO?

-
- Suggest ways to implement simple cross network secure service networking for IoT and legacy products
 - Have a way to encrypt traffic at a service level without changing the service itself

WHY WE WANT TO DO IT?

-
- Commercial offerings exist for certain applications (Consul, k8 service networking, Nebula, Google IAP)
 - Missing "drop in security" for some IoT products
 - Missing "drop in security" for legacy applications
 - Remove the need for site to site VPNs
 - Remove the need for client to site VPNs
 - Remove the need to open ports
 - Less management
 - Service based tunnels
 - Not too many papers exists on this topic

HOW WE WANT TO DO IT?

-
- Docker
 - Python
 - Shadowsocks/Stunnel
 - MQTT/REST API/HTTP
 - Wireshark to verify encryption