



**cira**

Secure IoT  
Registry

# Implementation of **IoT SAFE** using a Registry

RIPE 82 2021-05-20

Presented By

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# FUTURE INTERNET Smart ...

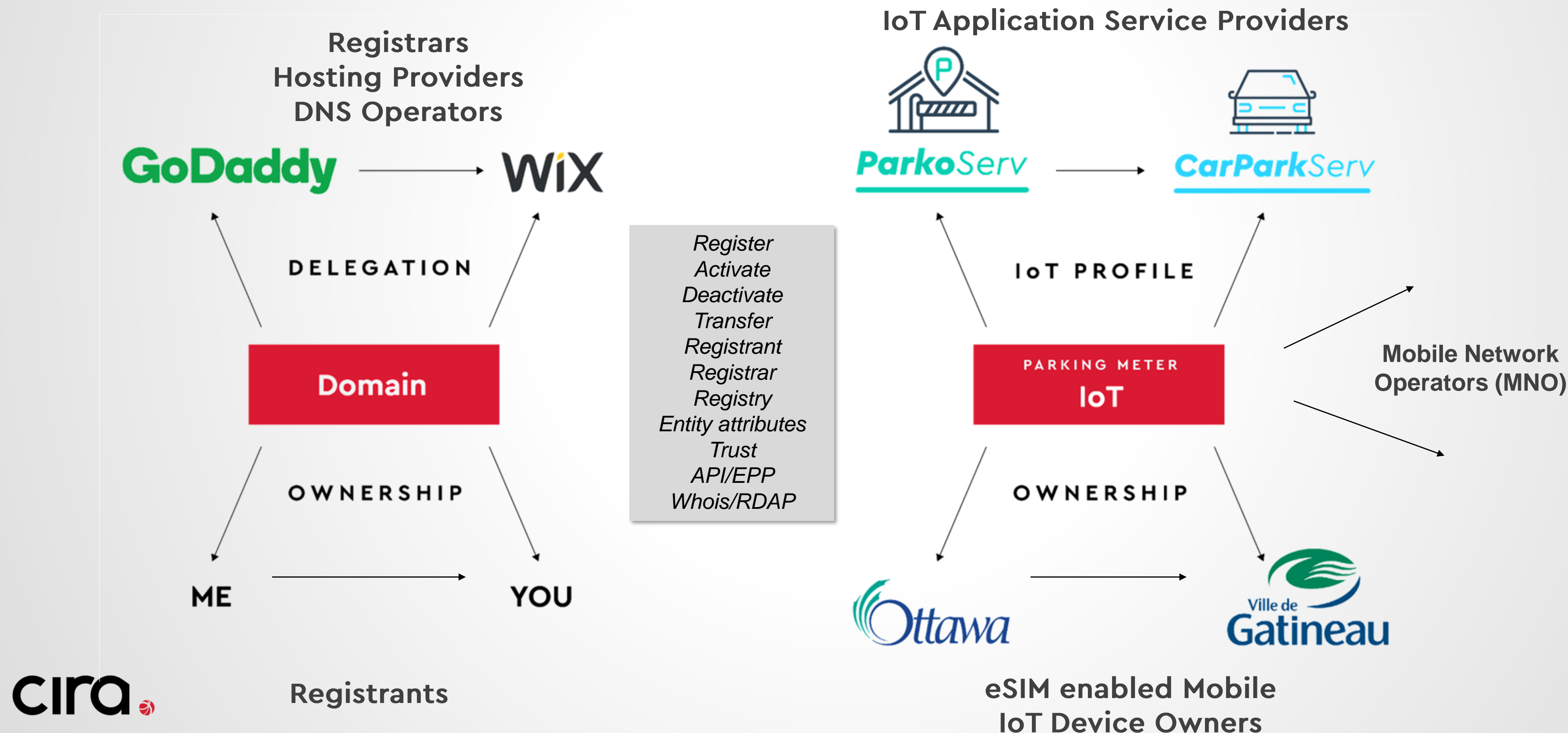





# THE OPPORTUNITY – SIMILARITIES BETWEEN

## Domain Names & IoT SAFE enabled IoT Devices

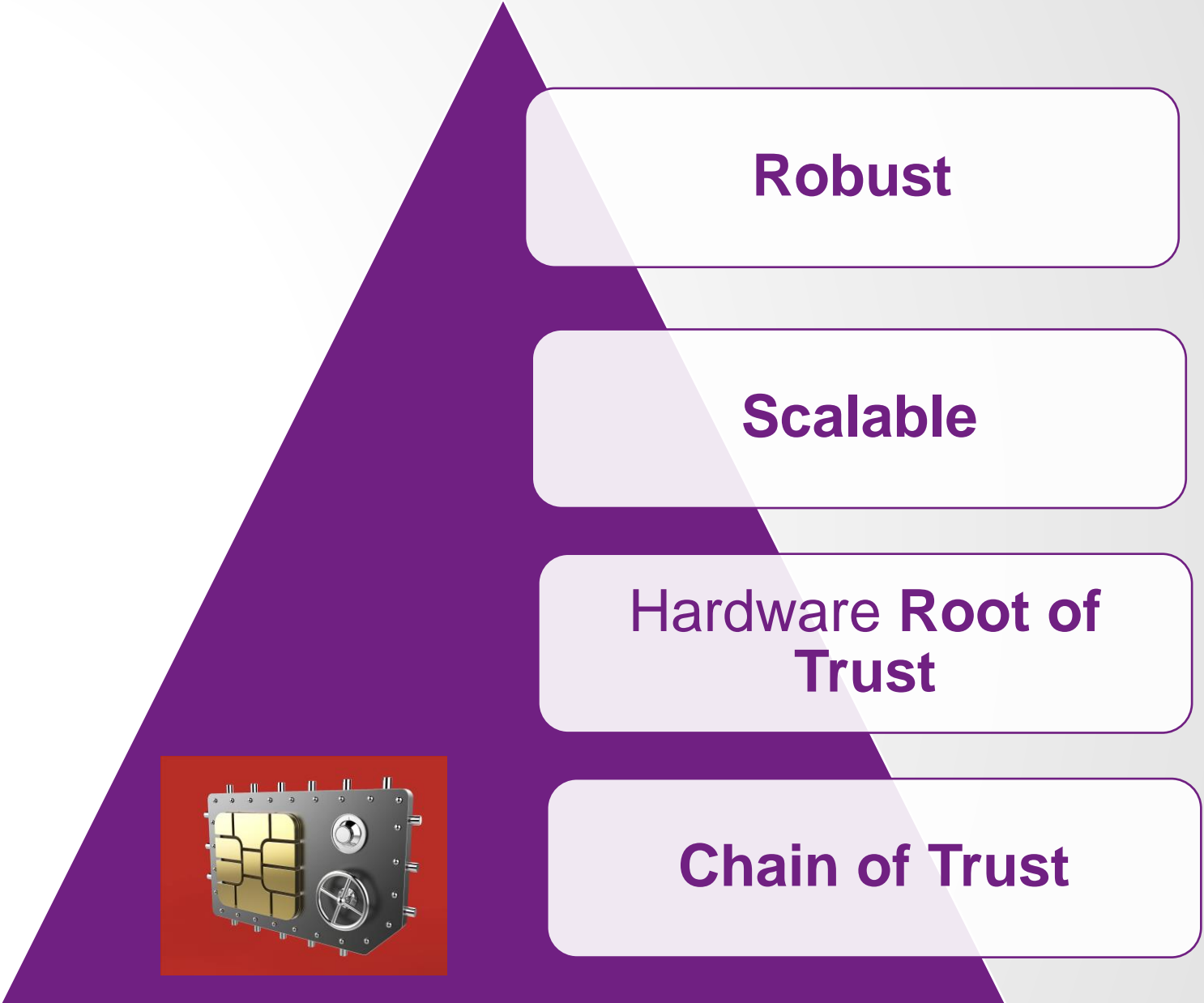
WWW.CIRA.CA



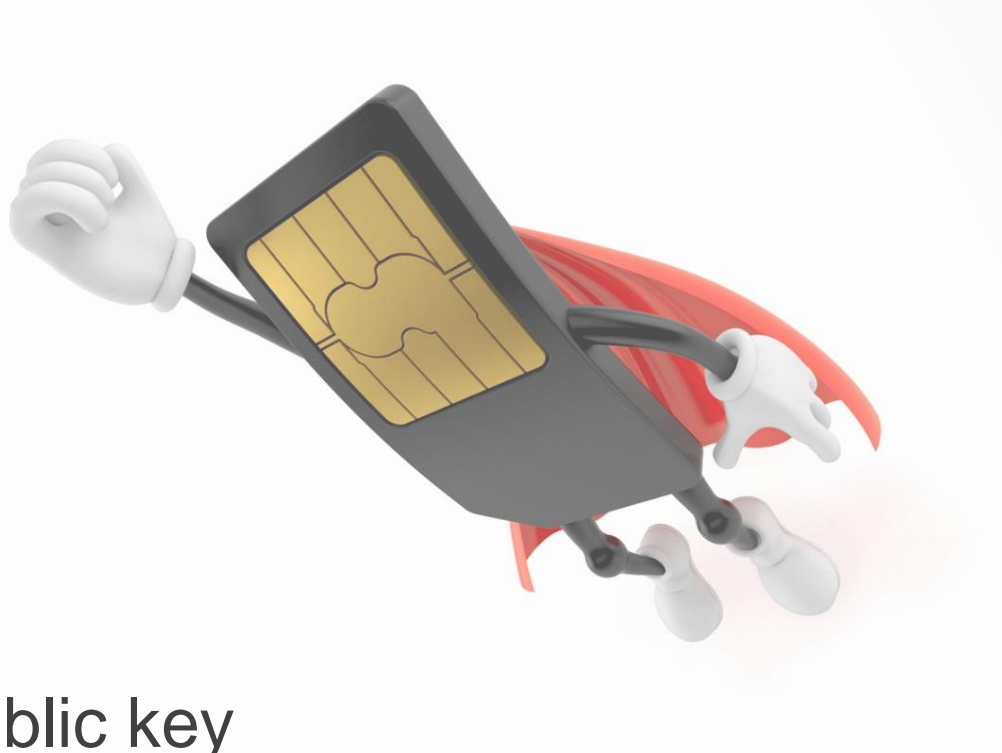


 **Standards Body to Enable**  
Device manufacturers  
Service providers

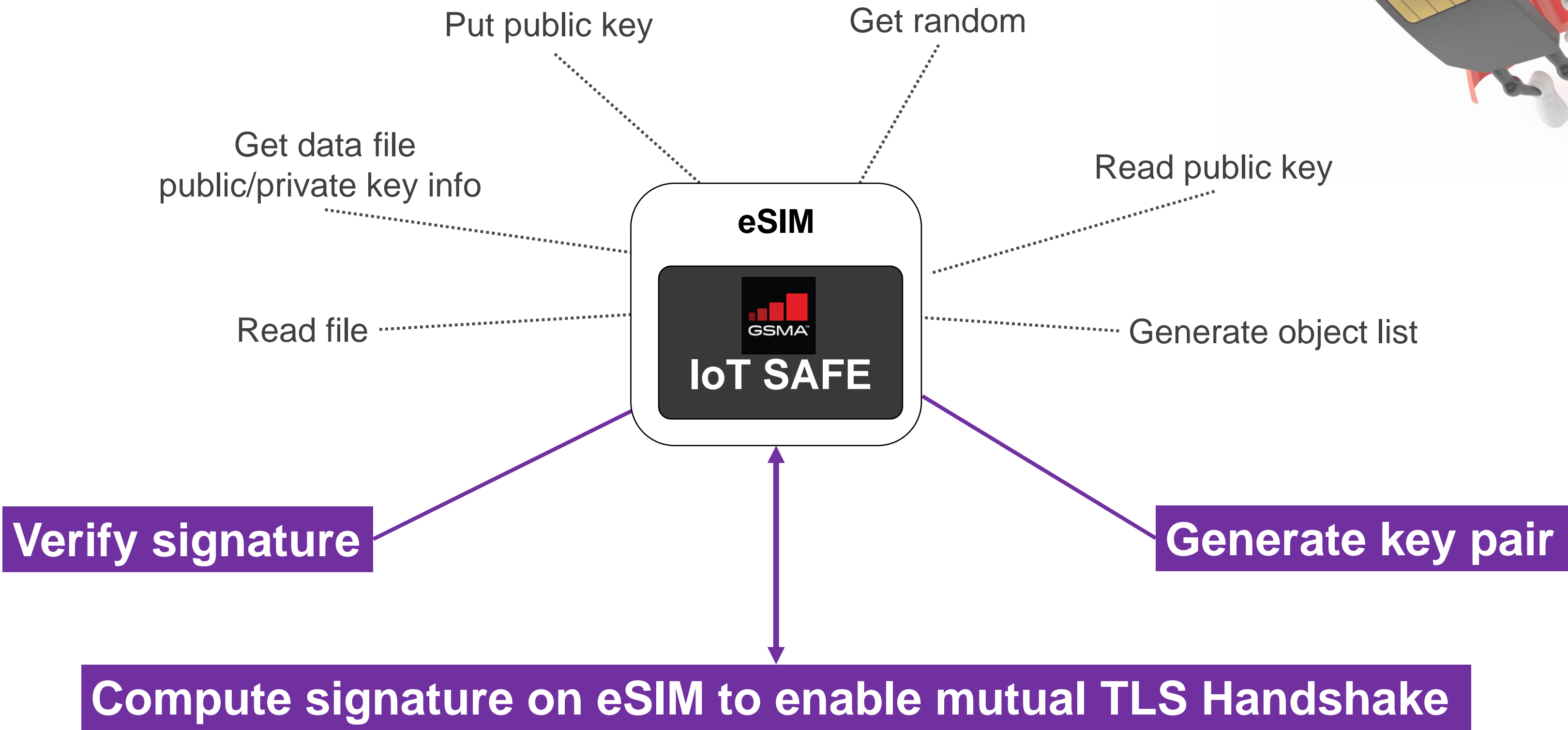
IoT



eSIM ARE LIKE SMARTCARDS, MINI HSM OR TPM

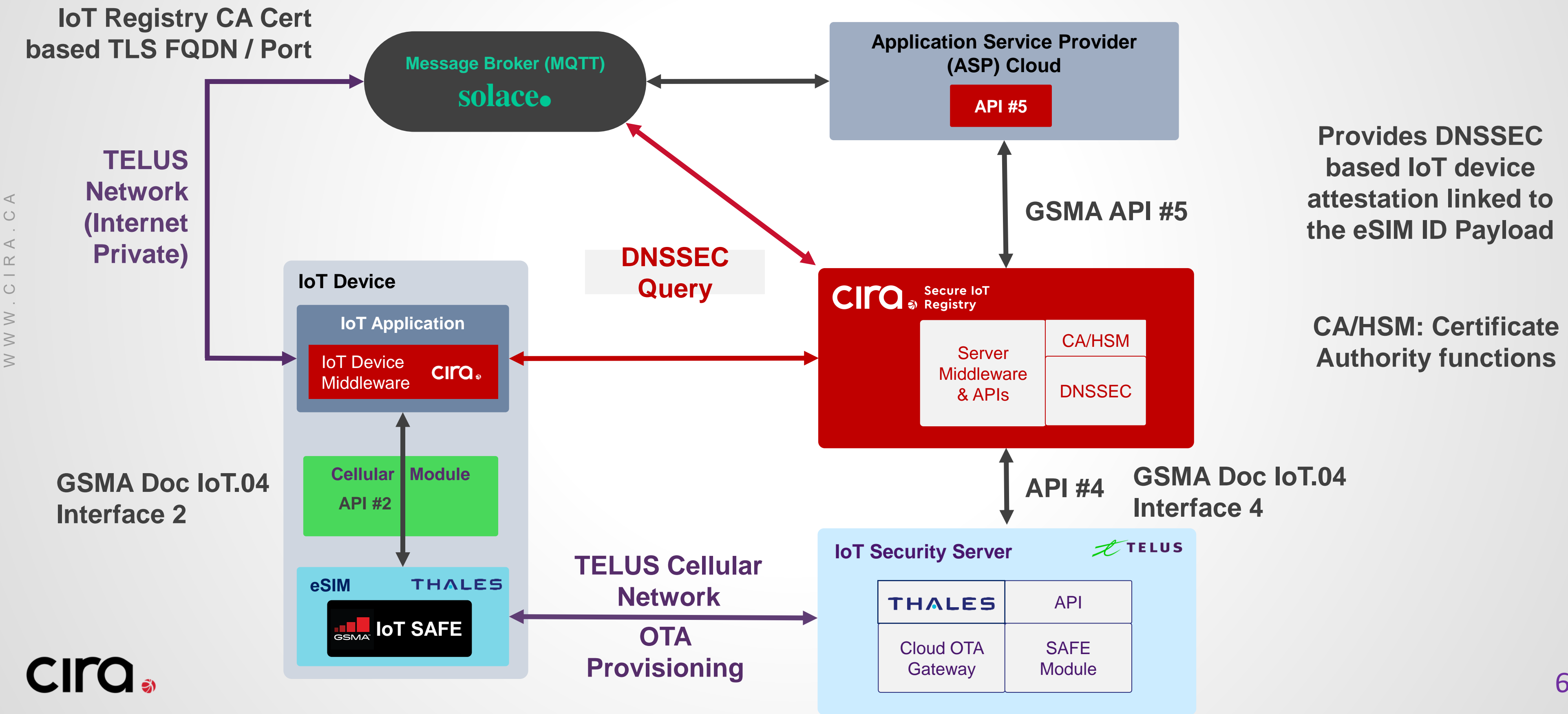


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# ZERO TOUCH REMOTE eSIM PROVISIONING

## Building on the existing eSIM → MNO trust model

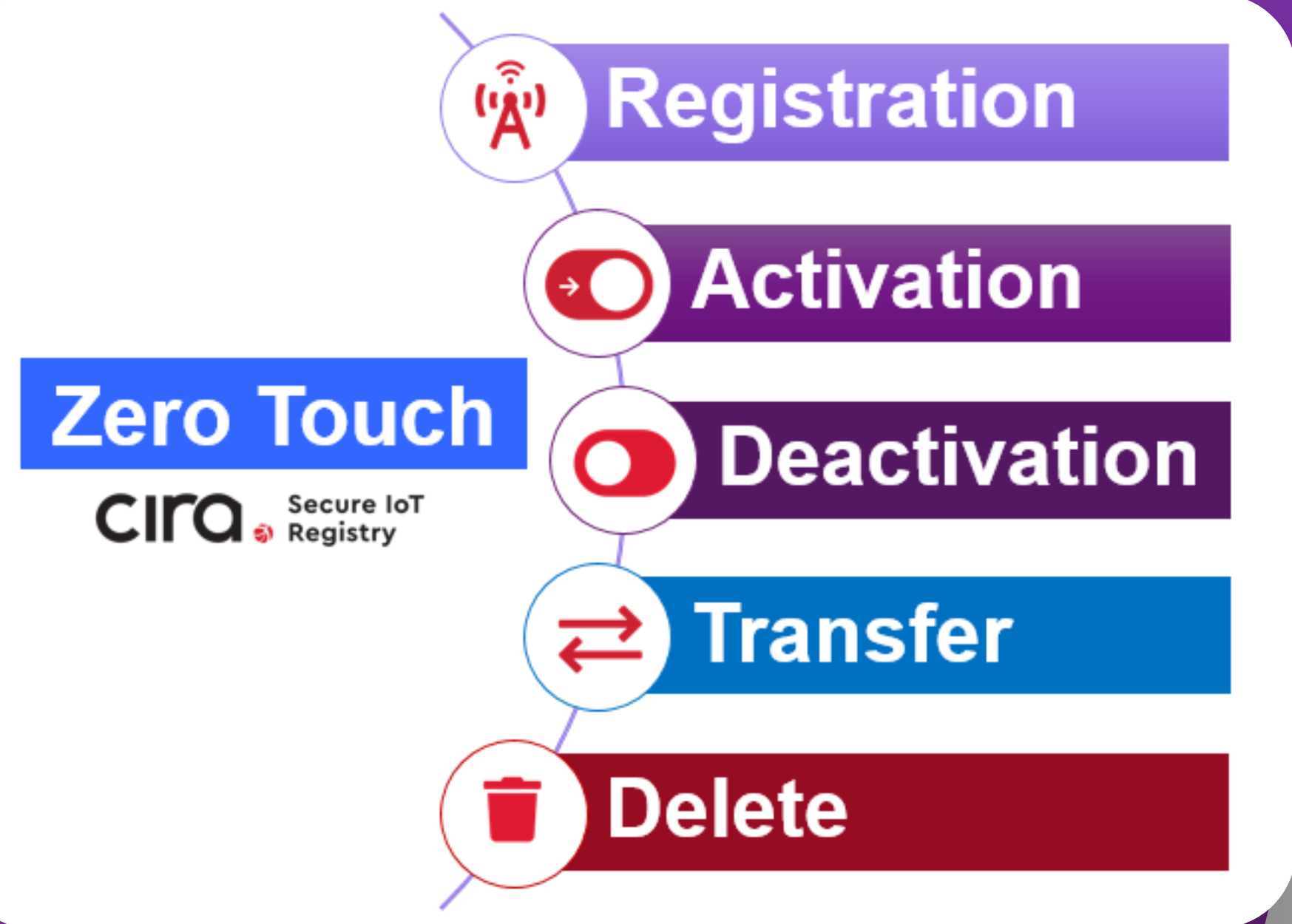




## CIRA SECURE IoT REGISTRY

### Zero Touch

- Connects to correct MNO
- Pushes configuration / security certificates to the devices
- Provisioning/De-provisioning devices
- Changing MNO/service provider for devices
- Disconnecting from MNO

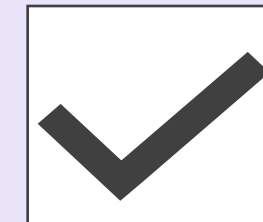




How can we have more opensource code that supports DANE/DANISH DNSSEC validation on mutual TLS connections?



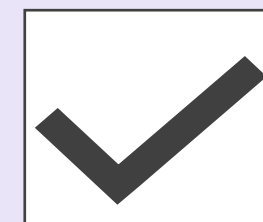
Should every ccTLD operate their own IoT Registry?



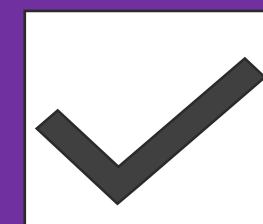
How should inter-registry registration activity be trusted?



Is the trust in operating a ccTLD leverageable to operate an IoT Registry?



How do we differentiate the IoT Registry from current hard coded locked-in major cloud provider solutions ;-)





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Thank You

<https://github.com/CIRALabs/CIRA-Secure-IoT-Registry>