

Update on the
Universal Name System (UNS)
and
Universal Certificate Authority (UCA)

**Creating a global
least-trust information space**

Public benefit startup, venture-backed, early stage, dual use



Least trust ?

Least attack surface

Least knowledge

Least authority

Least privilege

A least-trust information space starts with

Confidential Computing

Verified Information Space

Verified Cryptography

Verified Processes

Verified Chips



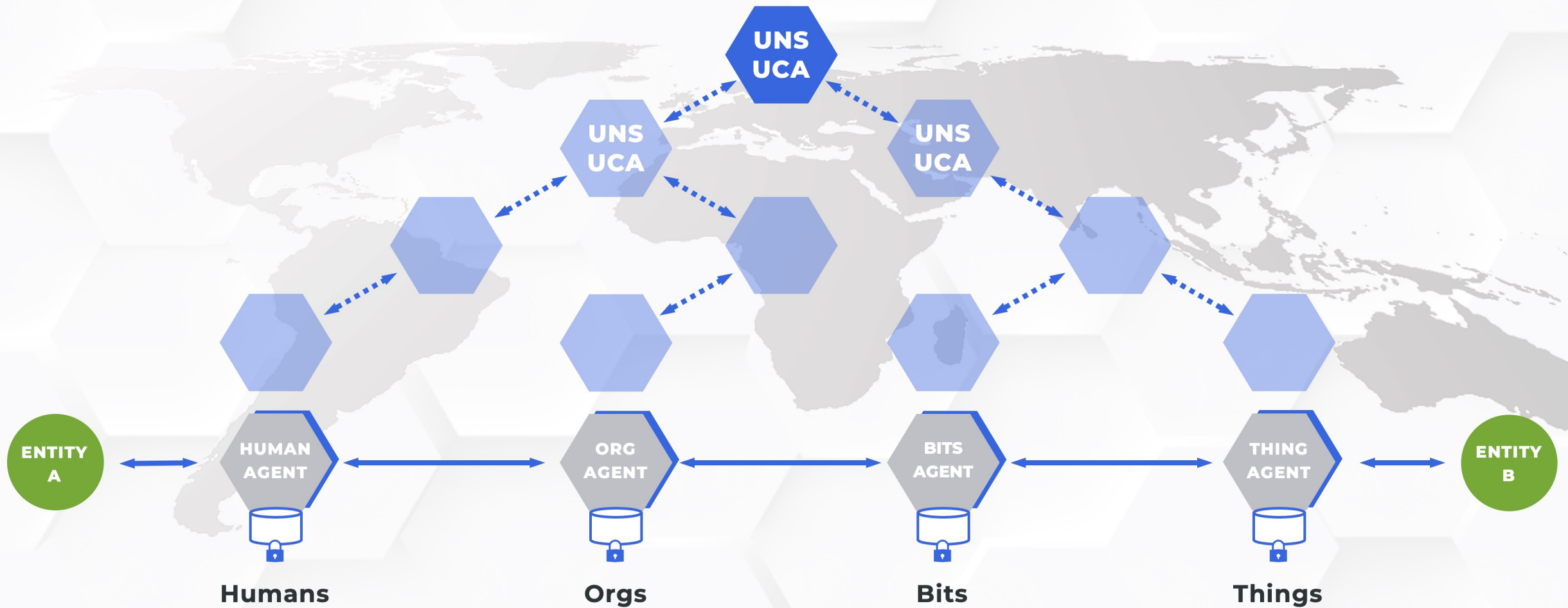
Universal Name System (UNS)

A global, decentralized, automated cryptographic name system unified across all entities: people, organizations, physical things, and digital things

Universal Certificate Authority (UCA)

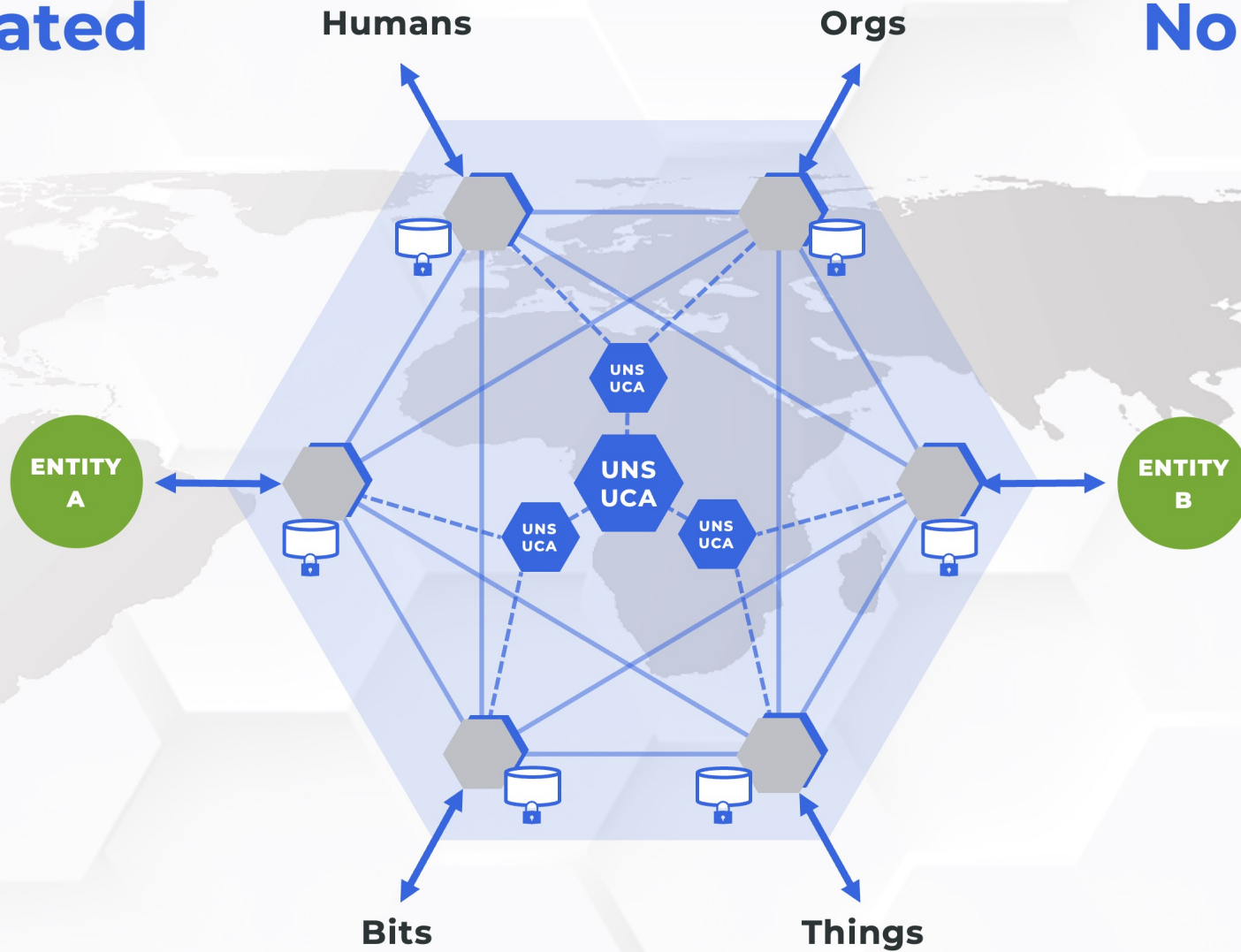
A global, decentralized, automated key infrastructure to solve provenance, integrity, authenticity, reputation, confidentiality, and privacy

Hierarchical, recursive, chip-level, process-level attestation and verification + decentralized identifiers and automated pairwise cryptography



Globally verified
Fully automated

Quantum-resistant
No insider at all



Information Isolation

Each process has its own encrypted information space

Cell Number

Cell content, encrypted with Cell Key

wwuviPYj/RPWpQV8KbqWSH1hmVIYoZ1MvYI/pTtwRuo=	pZztwZxRTD2zcihkinuOUZj6c24E+zP3kcFO2jahI/i/KquVbP5ZD0xtZyqoP6H/oZXY5fjz8Z2 2sgbyacT9fDcJIKKGofuV7udm02iCCQjh5+itQL3N6Y/cq/V7SgvfN2xTJVbejmcDoqKKDD4gY rA9MFEM+rb+O9XuneldVCsvUCSUb965YHjsvtXJC
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Process isolation

is not sufficient

Processes come and go. They need to persist and secure their own information space outside their isolated computing environment, without having to trust an external system.

Information isolation

is necessary

Conventional identifiers require processes to trust what's outside their isolation boundaries. Cryptographic identifiers enable each process to mathematically secure its own information space.

Side Meeting in **Prince of Wales/Oxford** on **Wed @ 13:00**

UNS / UCA overview and **updates** since IETF 119, and **conversation**

Figure out **how to bring this work to the IETF**

Discuss collaboration and coalition for neutral governance

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