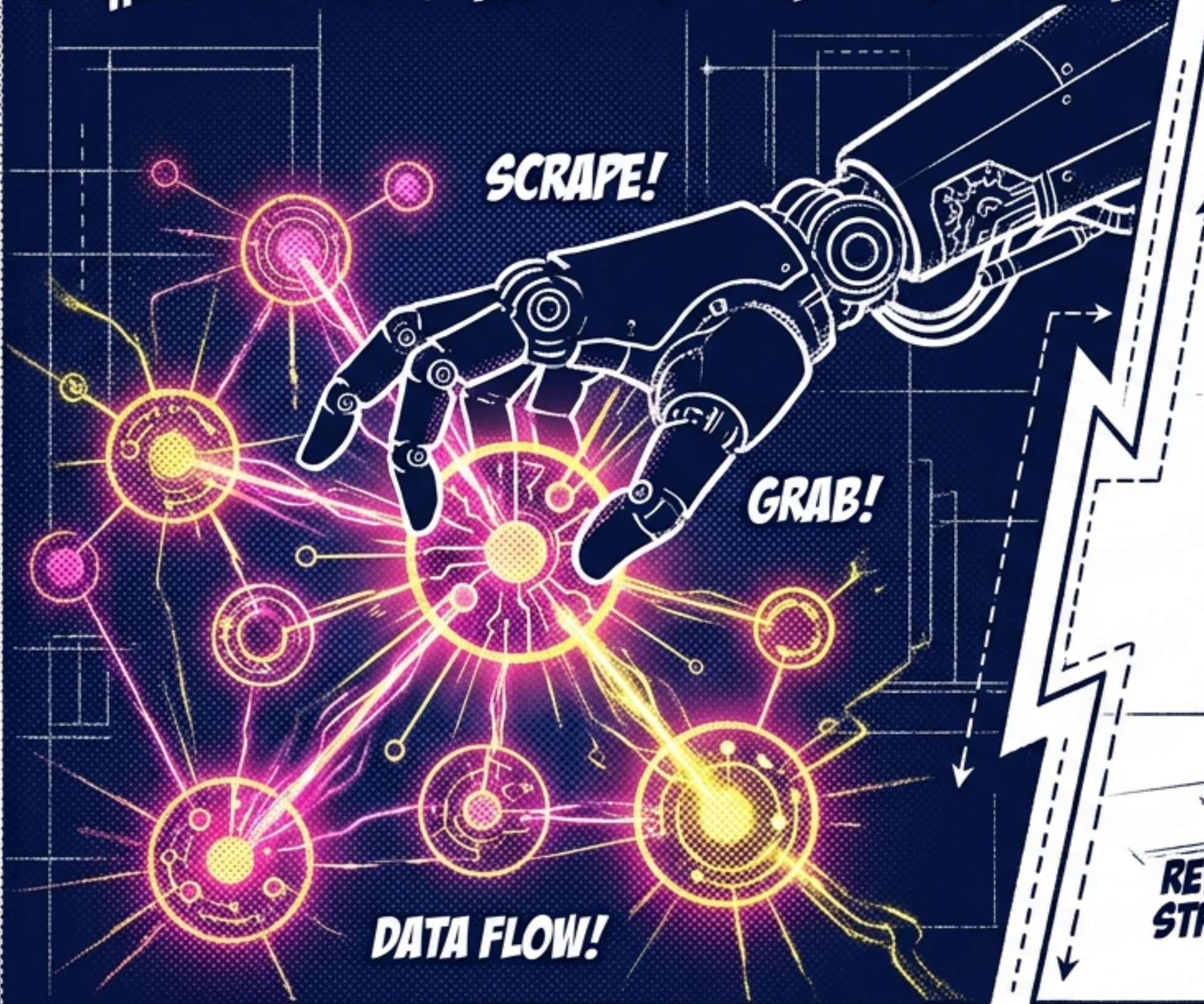
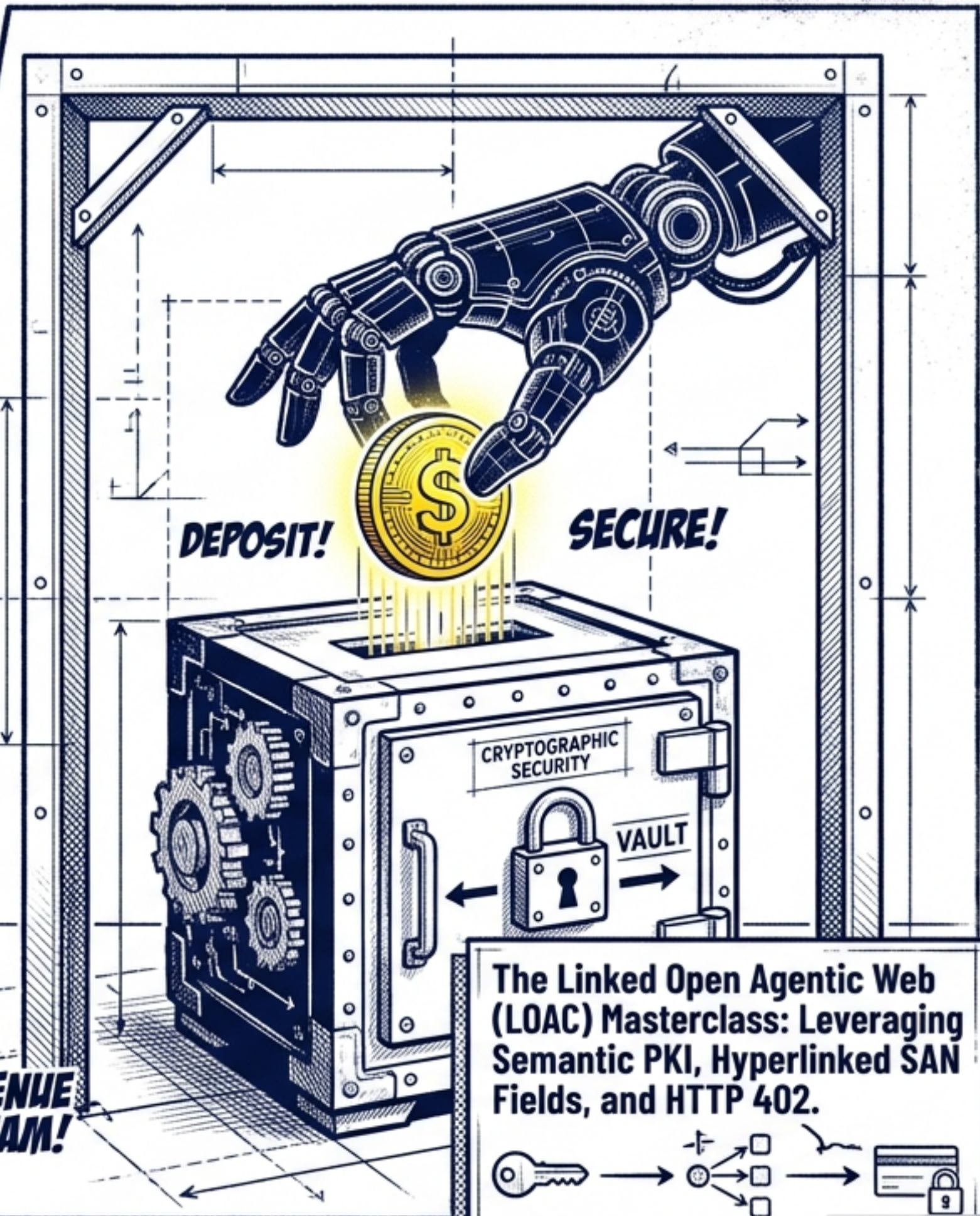


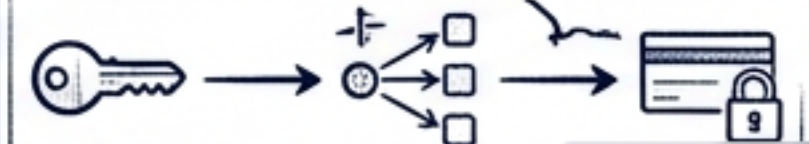
# HOW CHARLIE TURNS AI SCRAPING INTO A \$2.99 AUTOMATED REVENUE STREAM



**REVENUE STREAM!**



**The Linked Open Agentic Web (LOAC) Masterclass: Leveraging Semantic PKI, Hyperlinked SAN Fields, and HTTP 402.**



# MEET CHARLIE. HE SPENT YEARS BUILDING A MASTERPIECE. NOW, MACHINES ARE TAKING IT FOR FREE.



I publish RDF graphs that are incredibly valuable to AI agents. But how do my systems know who is scraping my data—and if they have the right to take it?

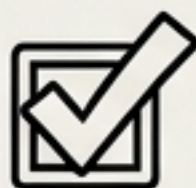


PROJECT: CHARLIE'S KNOWLEDGE GRAPH  
DRAWN BY: DATE: 2024

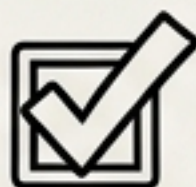


**TRADITIONAL PKI PROVES WHO HOLDS THE KEY, BUT IS COMPLETELY BLIND TO MEANING.**

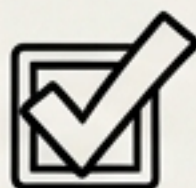
### THE X.509 CERTIFICATE ANATOMY



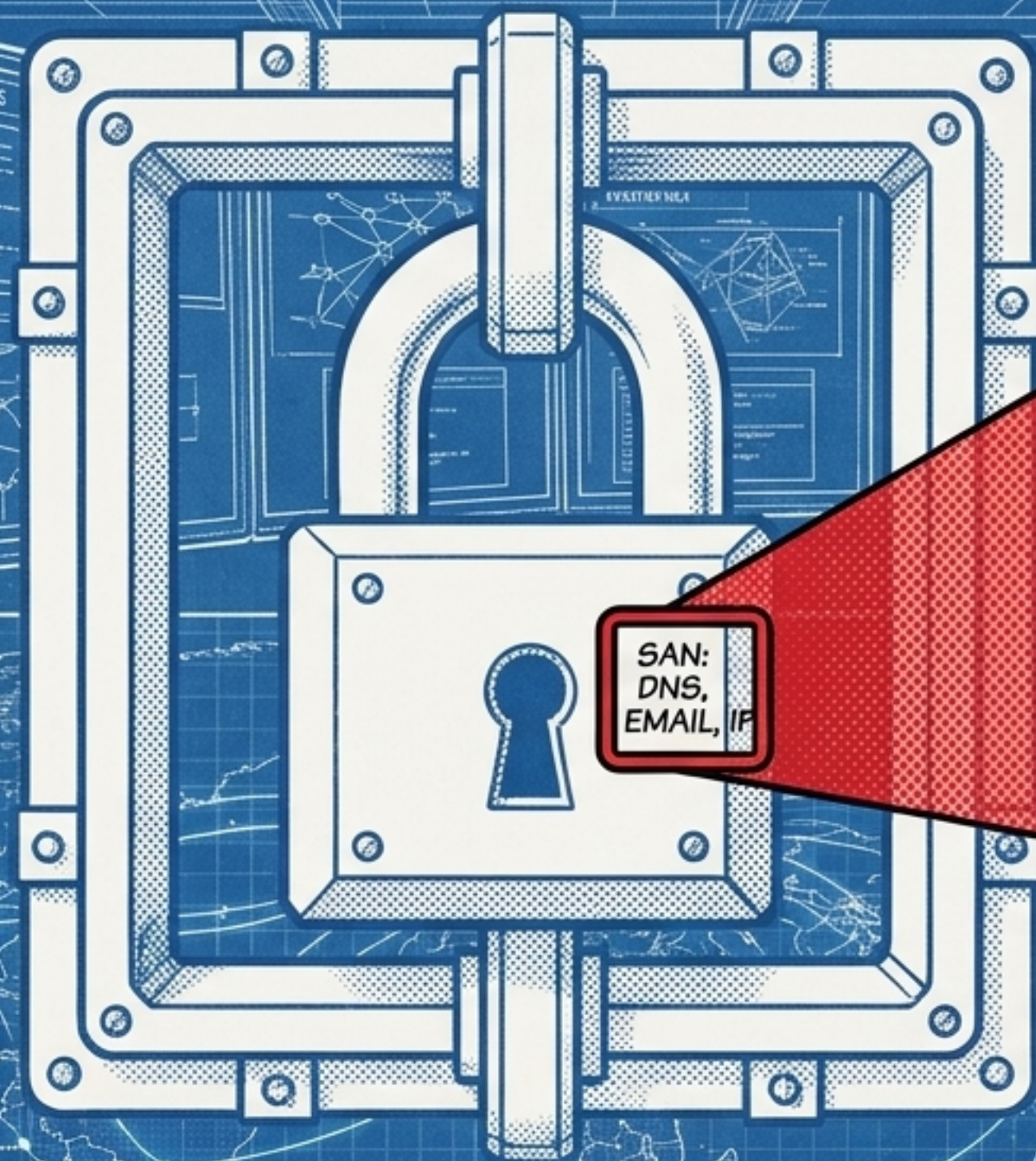
Binds public key to identity.



Vouched for by a Certificate Authority (CA).



Secures transport (mTLS).



**SAN: DNS,  
EMAIL, IP**

These are identifiers of location, not descriptions of meaning. They tell a system where something is, but not what it is. PKI answers "Can you prove control of this key?" It cannot answer "Who are you in a machine-understandable world?"

# WHAT IF A CRYPTOGRAPHIC CERTIFICATE COULD POINT TO A NAVIGABLE UNIVERSE OF MEANING?

ISOLATED CRYPTOGRAPHIC IDENTIFIERS.

Certificates identify things cryptographically. Hyperlinks identify things semantically. What happens if I combine them?

In Linked Data, identifiers are HTTP URIs. They are dereferenceable. Following them yields RDF descriptions, linking entities into a global graph governed by ontologies.

LINKED DATA:  
MACHINE-READABLE  
SEMANTICS.



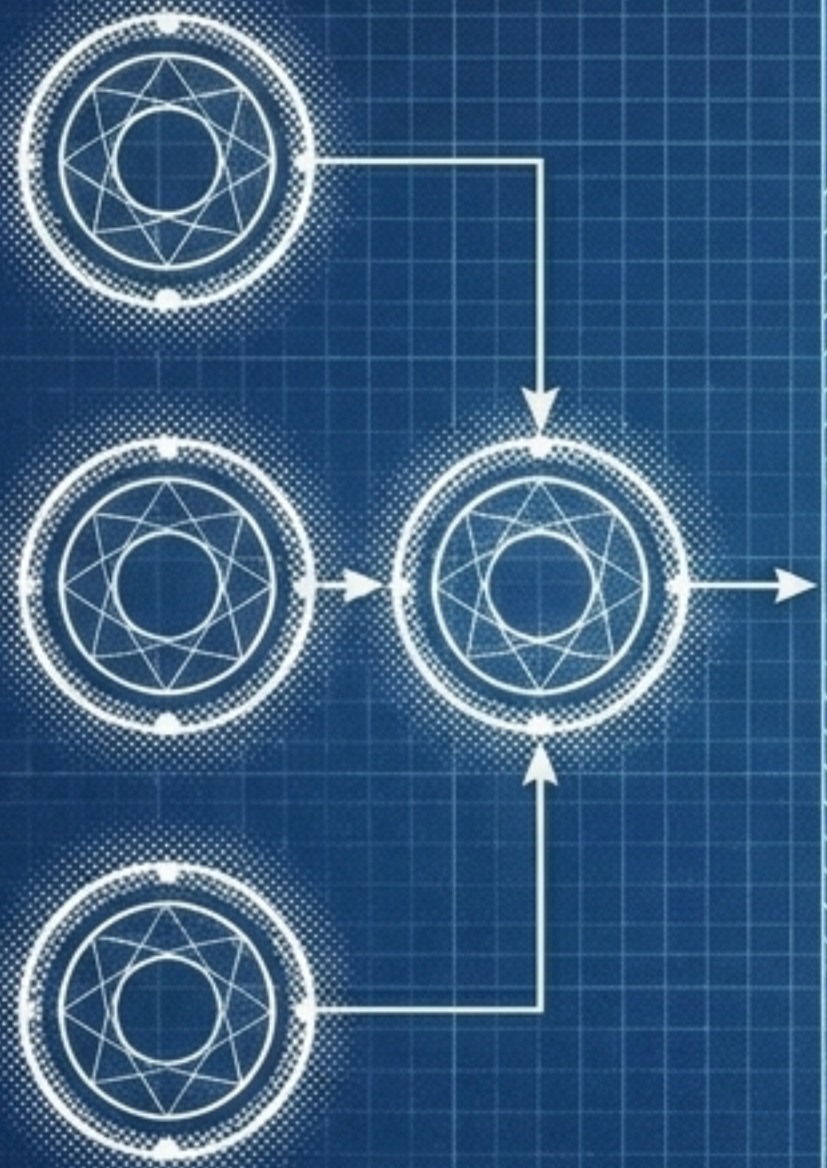
# CHARLIE DEPLOYS HIS GRAPH WITH A STRICT, MACHINE-READABLE ECONOMIC BOUNDARY.

## Free Tier

Match summaries

High-level statistics

Analytical commentary



## Premium Tier



The data is ready. Now, the system must enforce the commercial rules autonomously.

**AN AI AGENT REQUESTS THE PREMIUM DATASET. THE SERVER DEMANDS CRYPTOGRAPHIC PROOF.**

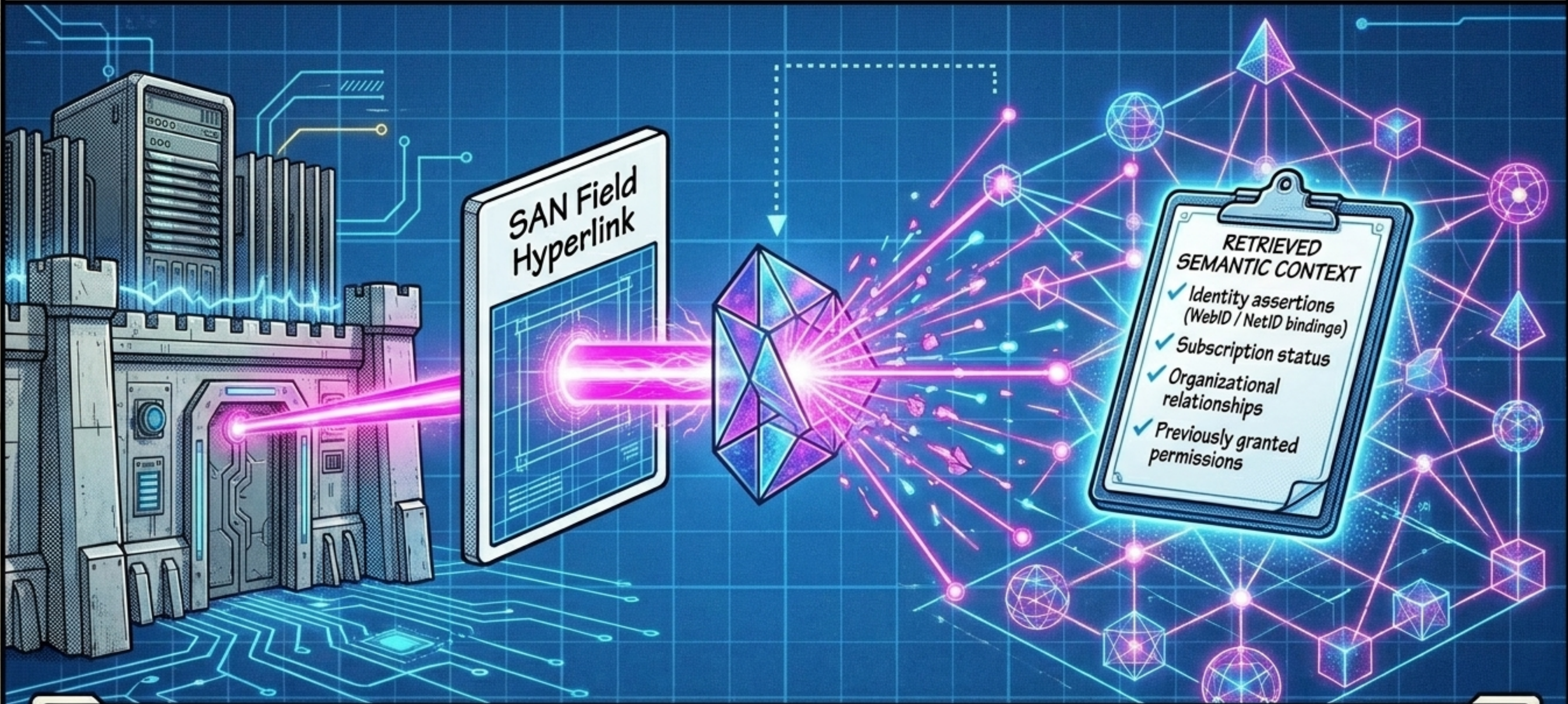
**PRESENT YOUR CERTIFICATE.  
(INITIATING MUTUAL TLS / mTLS)**

**PROVIDES X.509  
CERTIFICATE.**

**THE SERVER VERIFIES THE CRYPTOGRAPHIC  
SIGNATURE, CERTIFICATE CHAIN, AND KEY VALIDITY.  
BUT THIS IS ONLY THE FIRST STEP.**

RDF-Turtle  
Export

**THE SERVER DOESN'T JUST READ THE NAME. IT FOLLOWS THE HYPERLINK INTO THE AGENT'S IDENTITY GRAPH.**



The server now has semantic context. It knows exactly who the agent is in a universe of meaning.

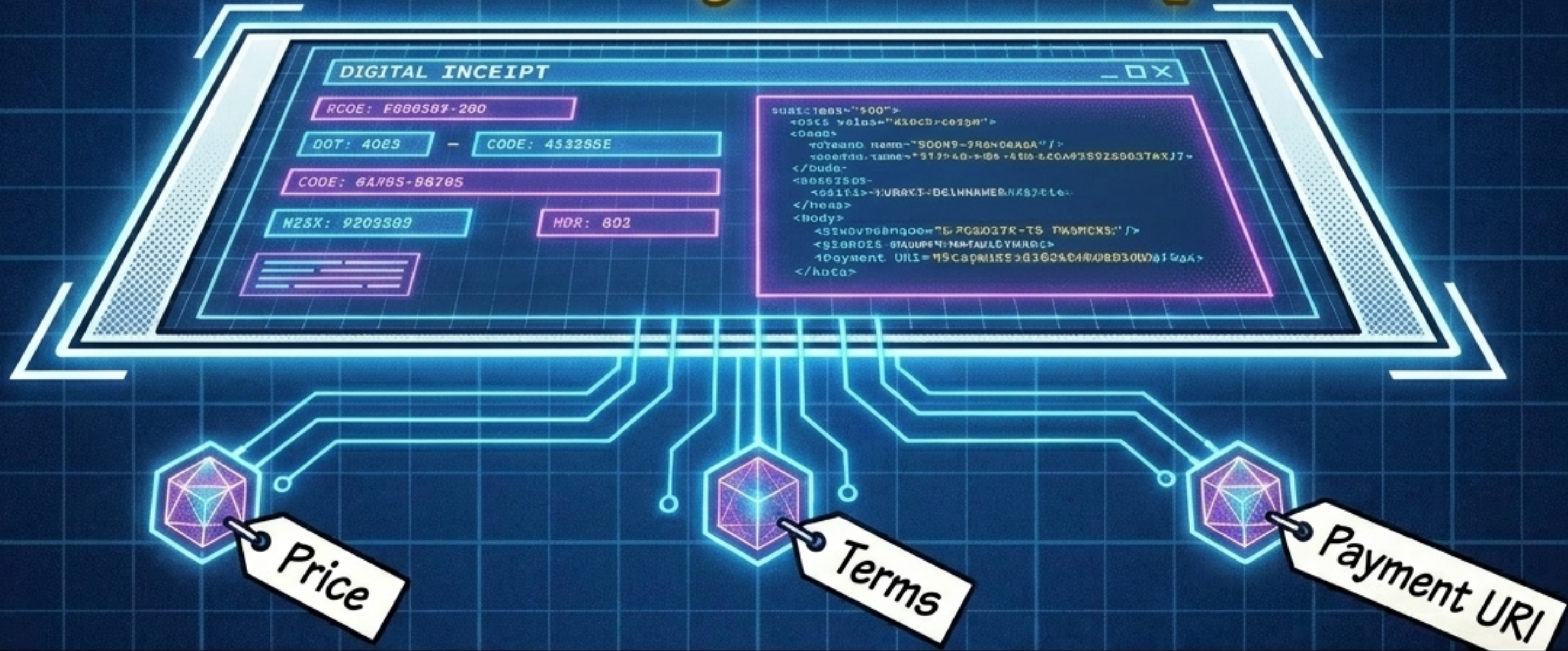
**ATTRIBUTE-BASED ACCESS CONTROL EVALUATES THE SEMANTIC GRAPH AND BLOCKS THE REQUEST.**



The server evaluates the agent's retrieved graph. The entitlement is missing. Access is DENIED.

**THE SERVER DOESN'T JUST SAY "NO." IT RESPONDS WITH HTTP 402 AND A MACHINE-READABLE INVOICE.**

# HTTP 402 Payment Required



This is the critical handoff. The server rejects the unauthorized request but provides the exact semantic roadmap for the agent to purchase authorization.

# THE AGENT INTERPRETS THE OFFER, EXECUTES THE PAYMENT, AND CLAIMS THE ENTITLEMENT.

Interpret



Transact



Claim



Retry



The agent interprets the offer, executes the payment, and claims the entitlement.



*We replaced an infrastructure of secure transport with an engine for agentic commerce.*

## Traditional Identity (Crypto)

## Semantic Authorization (Crypto + Context)



Mechanism: X.509 binds keys to names.



Mechanism: SAN-linked knowledge graphs.



Result: Cryptographic assurance of key possession.



Result: Authorization driven by identity, meaning, rights, and context.



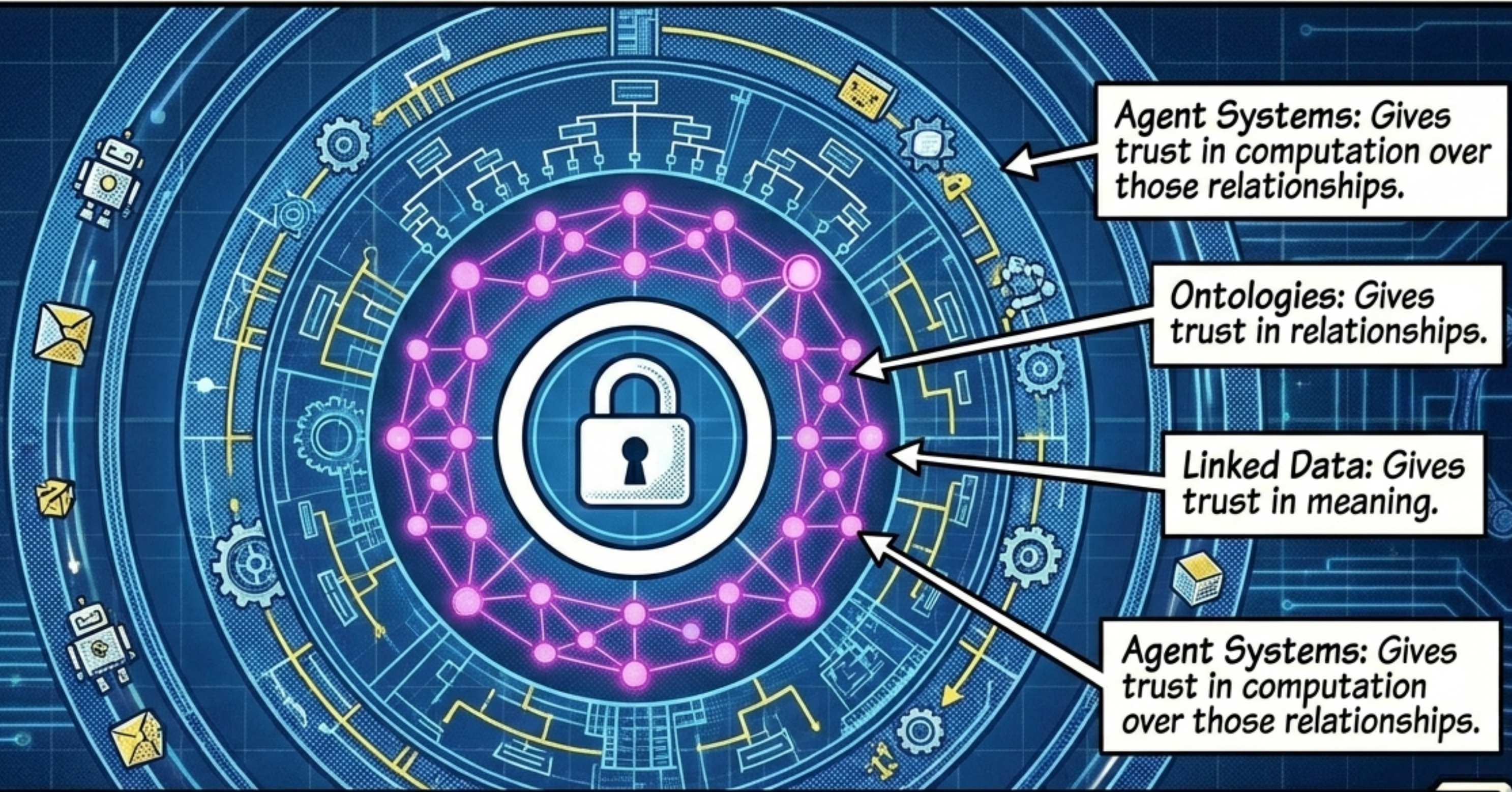
Limitation: Blind to context, rights, and meaning.




Advantage: Evaluates whether the entity satisfies machine-readable conditions for access.

*Authorization is no longer just "Do you have the key?"  
It is "Do your attributes satisfy the economic policy?"*

*The Convergence: PKI anchors the cryptography. Linked Data maps the meaning. Agents execute the economy.*



*By embedding hyperlinks into the SAN field, PKI stops being an isolated trust mechanism. It becomes an entry point into a semantic and economic graph.*

A stylized illustration of a server room. In the center, a silhouette of a muscular man stands on a raised platform, looking out over a cityscape of server racks. The server racks are arranged in rows and are connected by a complex network of glowing, multi-colored lines (yellow, pink, blue) that represent data flow. Several large, glowing padlocks are superimposed over the server racks and data lines, symbolizing security and protection. The background shows a cityscape of server racks under a dark blue sky with a grid pattern.

*Certificates no longer  
just bind keys to names.  
They bind keys to  
navigable identities.*

*Charlie is no longer  
just publishing data.  
He is publishing  
machine-interpretable,  
economically governed  
knowledge.*

**PKI is the cryptographic anchor point for a Linked Data-driven agentic economy. Build the bridge today.**