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J I L S O V E R E I G N T E C H N O L O G I E S

# Architecture & *Ecosystem Overview.*

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*Kill payment fraud before it settles.  
Prove compliance after it does.*

BI-DIRECTIONAL PAYMENT INTEGRITY NETWORK

[jilsovereign.com](http://jilsovereign.com)

WHAT JIL IS

# Detection and proof for the world's payment rails.

*JIL is a Bi-Directional Payment Integrity Network that produces sub-second verdicts on inbound payments and court-ready evidence on settled ones. Detection in front. Proof behind. Both anchored to a sovereign evidence chain.*

**250**

PRODUCTION SERVICES

**1.2M**

LINES OF CODE

**53**

PATENTS FILED

**148**

CHECKS · 15 CATEGORIES

**13+**

JURISDICTIONS

*\$8.3M recovered in a 17-minute audit of 49.87 million Medicare records.*

THE PROBLEM

# Payment fraud is over a trillion dollars a year. The controls do not scale.

TOO LATE

## Settlement is final.

Most fraud is detected after the money has moved. Recovery is expensive, slow, and often impossible across jurisdictions.

TOO BLIND

## Each payer fights alone.

Bad actors move between MCOs, banks, agencies, and borders. No payer sees the whole pattern. The criminals do.

TOO WEAK

## Evidence does not travel.

Detection systems produce alerts, not court-admissible records. By the time a case is built, the trail is cold.

*JIL closes all three gaps with one architecture.*

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PART ONE

# The JIL *Ecosystem.*

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*Six product lines. Four pillars. One Verdict Engine.*

# Six surfaces. One brain. The customer chooses what to switch on.

PRODUCT 01

## Pre-Settlement

Block fraud and improper payments before they settle. Sub-second verdicts on inbound claims and wires.

REAL-TIME

PRODUCT 02

## Retroactive

Forensic sweeps on settled claims. Recovers overpayments with court-ready evidence.

BATCH · CREB

PRODUCT 03

## Pre-Clearance

Attestyx grant and disbursement clearance. Approves grantees before funds move.

FOUNDATIONS · FEDERAL

PRODUCT 04

## Asset Intel

Counterparty graph, beneficial ownership, sanctions, and exposure mapping.

OFAC · FINCEN · UBO

PRODUCT 05

## Wallet Intel

On-chain plus off-chain wallet attribution. Flags laundering patterns and mule networks.

ON-CHAIN · ATTRIBUTION

PRODUCT 06 · NEW

## Utilization Mgmt

Proof layer beneath the plan's medical team. Validates evidence, never decides care.

PROOF, NOT DECISION

# What the platform is built on.

***I***

**RAN**

*Risk Attribution Network*

The shared graph that links entities, wallets, identities, and patterns across all customers and jurisdictions.

***II***

**CourtChain**

*Sovereign Evidence Ledger*

Layer 1 blockchain anchoring every verdict and CREB. BFT consensus across jurisdictionally independent validators.

***III***

**PoCS**

*Proof of Compliant Settlement*

Cryptographic receipt that a payment cleared every required check. Settlement-final, audit-ready, court-admissible.

***IV***

**Sealed Escrow**

*Cryptographic Hold*

Suspicious payments held under cryptographic seal pending review. The plan's money never leaves; the bad actor never gets paid.

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PART TWO

# How it is *Architected.*

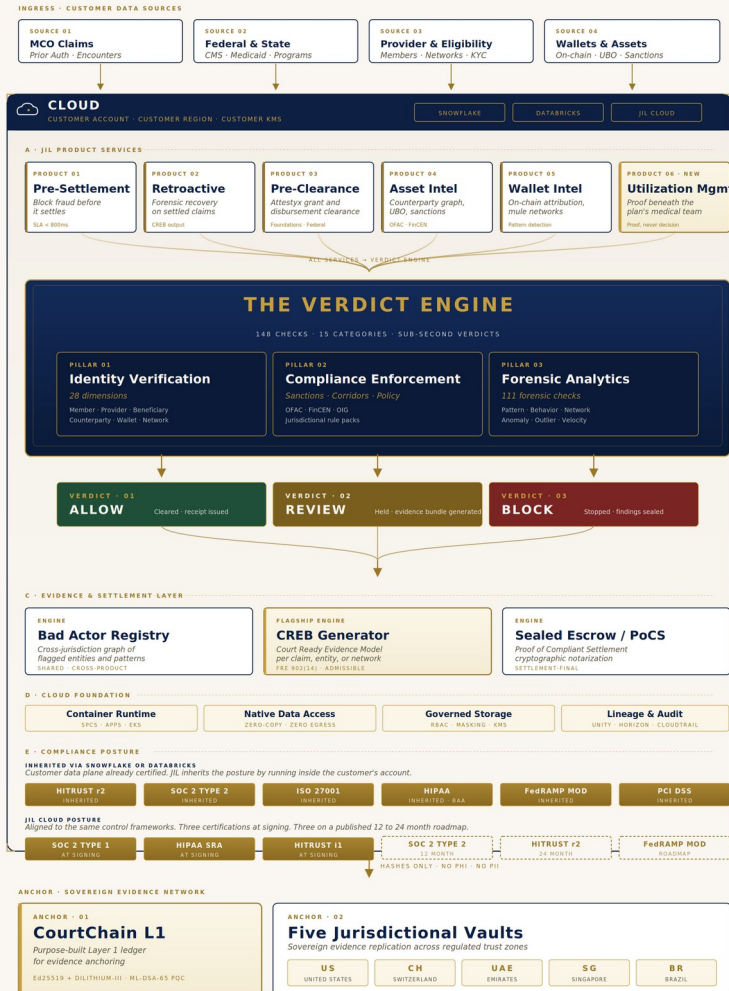
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*All services run inside the customer's cloud. Evidence anchors stay sovereign.*

# JIL Cloud · The Full Stack

## JIL CLOUD ARCHITECTURE

Six product lines. One Verdict Engine. Deployable to any cloud the customer chooses.



## READING THE DIAGRAM

### INGRESS

Customer data flows in: claims, prior auth, federal feeds, wallets. Data never leaves the customer's account.

### PRODUCT SERVICES

Six product lines run as containers inside the cloud. Pre-Settlement, Retroactive, Pre-Clearance, Asset Intel, Wallet Intel, Utilization Management.

### VERDICT ENGINE

All services converge here. 148 checks across 15 categories produce Allow, Review, or Block in sub-second time.

### EVIDENCE LAYER

Bad Actor Registry, CREB Generator, and Sealed Escrow turn each verdict into court-ready proof.

### FOUNDATION

Container runtime, native data access, governed storage, and audit logging are inherited from the host cloud.

### COMPLIANCE

HITRUST, SOC 2, ISO 27001, HIPAA, FedRAMP, PCI inherited via Snowflake or Databricks. JIL Cloud aligned with three certifications at signing and three on a 12 to 24 month roadmap.

### ANCHOR

Hashes leave the cloud. CourtChain L1 and five jurisdictional vaults sit outside any single customer's account.

# All six product lines converge on one engine.

148 CHECKS · 15 CATEGORIES · SUB-SECOND VERDICTS

PILLAR 01

## Identity Verification

*28 dimensions*

Member · Provider · Beneficiary  
Counterparty · Wallet · Network  
Cross-product entity resolution

PILLAR 02

## Compliance Enforcement

*Sanctions · Corridors · Policy*

OFAC · FinCEN · OIG  
Jurisdictional rule packs  
Federal program eligibility

PILLAR 03

## Forensic Analytics

*111 forensic checks*

Pattern · Behavior · Network  
Anomaly · Outlier · Velocity  
Cross-claim collusion detection

*The engine is detection. The chain is proof. They are deliberately separate.*

THE THREE VERDICTS

# Every transaction resolves to one of three outcomes.

VERDICT · 01

## ALLOW

*Cleared. Payment proceeds.*

PoCS receipt issued. Hash anchored to CourtChain. The customer can prove the payment was screened.

VERDICT · 02

## REVIEW

*Held for human eyes.*

Evidence bundle generated. Routed to plan medical team or compliance reviewer. Decision logged.

VERDICT · 03

## BLOCK

*Stopped at the gate.*

Funds held in Sealed Escrow. CREB package built. Findings sealed and admissible.

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PART THREE

# Sovereign *Evidence.*

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*Why detection alone is not enough. Why we built our own ledger.*

# A purpose-built blockchain for evidence. Not crypto. Not currency.

## WHY A BLOCKCHAIN

*A regular database has one administrator who can edit any record. That fails the legal test. Federal Rule of Evidence 902(14) requires a trustworthy process that no single party can rewrite.*

CourtChain is that trustworthy process. Every verdict, every CREB, every settlement event hashed and notarized across 20 jurisdictionally independent validators. No one party, including JIL, can tamper with history.

## CHAIN SPECIFICATIONS

<b>TYPE</b>	Layer 1 · Proof of Stake
<b>CONSENSUS</b>	BFT · 2/3 + 1 supermajority
<b>FINALITY</b>	Sub-second deterministic
<b>SIGNATURES</b>	Ed25519 + Dilithium-III hybrid
<b>PQC</b>	ML-DSA-65 quantum-resistant
<b>VALIDATORS</b>	20 active + 20 standby
<b>JURISDICTIONS</b>	13+ operational, 5 vaults
<b>DATA STORED</b>	Hashes only · No PHI · No PII

# The notary, not the judge.

## THE JUDGE

### Verdict Engine

*Decides the case.*

Runs the 148 checks. Reasons over identity, compliance, and forensic patterns. Produces the verdict and the evidence bundle. Lives inside the customer's cloud. This is JIL's intellectual property.

## THE NOTARY

### BFT Consensus

*Records the decision.*

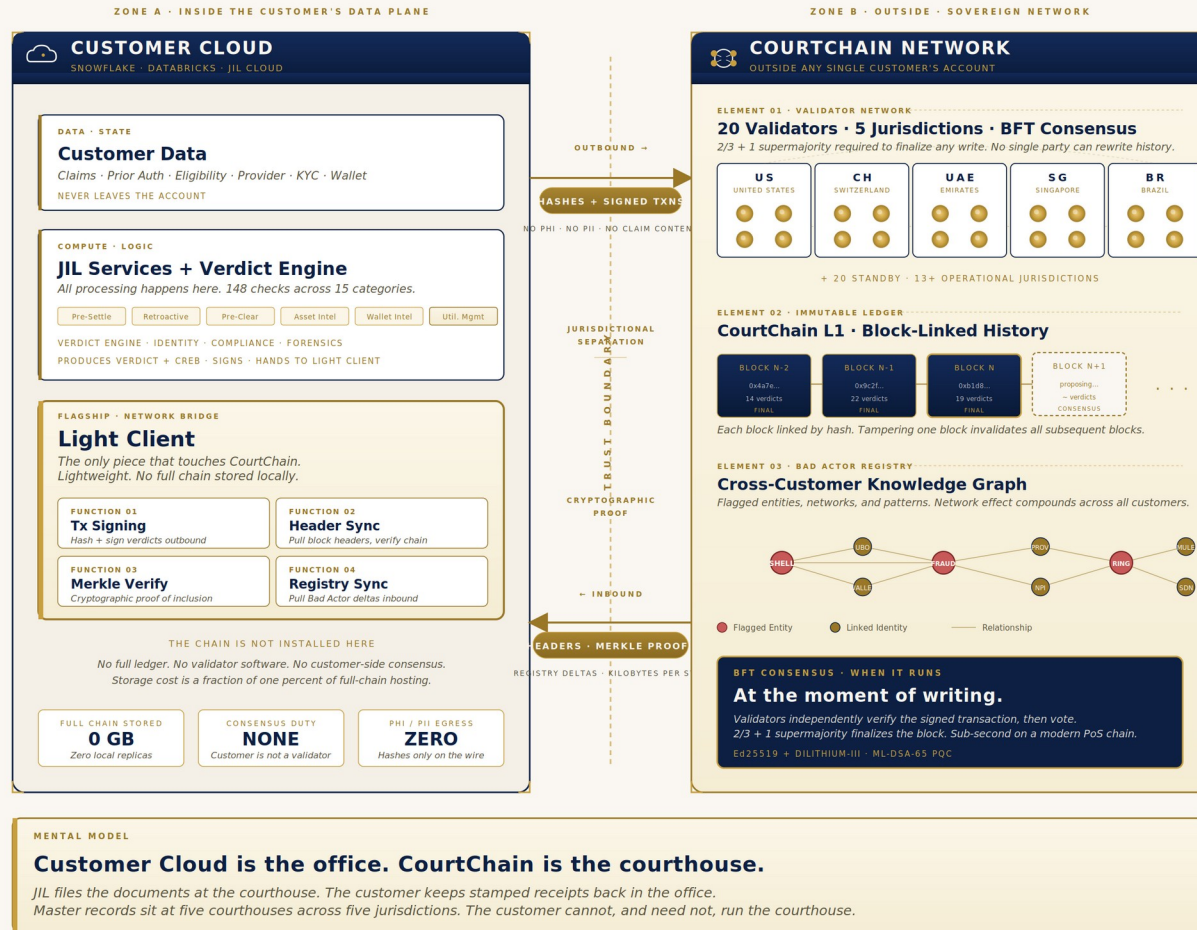
20 validators across 5 jurisdictions independently verify the signed transaction. 2/3 + 1 supermajority finalizes the block. Tampering requires compromising six validators in different countries simultaneously. Sub-second on a modern PoS chain.

*BFT runs once per write, at the moment a verdict transitions from "JIL says this" to "the network has recorded this."*

# What runs inside the customer's cloud, and what stays sovereign.

## TRUST BOUNDARY · WHAT RUNS WHERE

The chain is not a copy you install. It is a network you join.



# The artifact a federal IG, a state AG, or opposing counsel actually wants.

FRE 902(14) · SELF-AUTHENTICATING DIGITAL EVIDENCE

*Records generated by a process shown to be trustworthy are admissible without a human witness to lay foundation.*

## WHAT EVERY CREB CONTAINS

### **01** Verdict + Reasoning Trace

Which checks fired, which thresholds were crossed, what evidence supported each decision.

### **02** Cryptographic Provenance

Signed by the Verdict Engine. Timestamped. Hash anchored to CourtChain at finalization.

### **03** Source References

Pointers to underlying data without exposing PHI or PII. Verifiable on demand inside the customer's cloud.

### **04** Validator Attestations

2/3 + 1 supermajority signatures from jurisdictionally independent validators on the anchor block.

# The shared knowledge graph. The network effect.

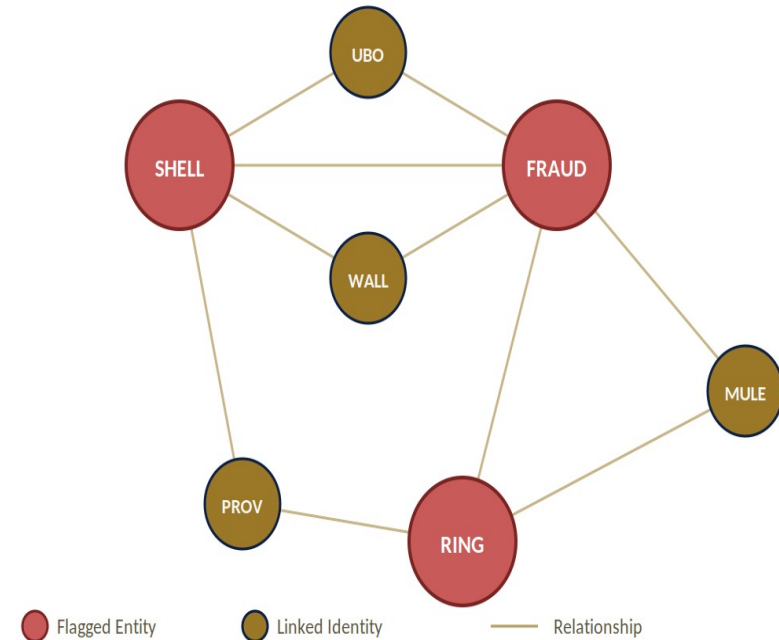
*Every flagged entity, every linked wallet, every detected pattern is added to a graph that all customers query and all customers contribute to. A fraud ring caught at one MCO surfaces in milliseconds at every other MCO, every federal agency, and every foundation on the network.*

This is the moat. The longer JIL runs, the more entities are flagged, the more relationships are mapped, the harder it becomes for a bad actor to operate anywhere on the network.

## NETWORK EFFECT

*Every customer on the network strengthens every other customer's defenses.*

CROSS-CUSTOMER KNOWLEDGE GRAPH



# Sovereign evidence replicated across regulated trust zones.

*Tampering with the chain would require simultaneously compromising validators in five different countries. That bar is essentially uncrossable, and every jurisdiction's regulators can verify the records under their own legal framework.*



*Plus 13+ operational jurisdictions where validators may run.*

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PART FOUR

# The Six Products *In Detail.*

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*Each one a SKU. Each one optional. All built on the same engine.*

# Pre-Settlement

*Block fraud and improper payments before they settle.*

Pre-Settlement runs the full Verdict Engine against every inbound claim, prior auth request, or wire in real time. Sub-800ms verdicts mean the customer's payment rails do not slow down. Bad payments are stopped at the gate. Good payments receive a Proof of Compliant Settlement receipt. The customer never has to chase recovery on something that never settled.

## KEY CAPABILITIES

- Sub-second verdicts on every inbound transaction
- All 148 checks across 15 categories applied per event
- PoCS receipt issued on Allow, evidence bundle on Review or Block
- Sealed Escrow holds disputed funds during review window
- Inline integration with existing claims and payment systems

## WHO BUYS THIS

# MCOs and Payers

Health plans, Medicaid managed care, P&C insurers, banks, federal disbursing agencies. Anywhere money is about to move and a fraud rate above 0.5 percent matters.

## PRICING

*Up to \$5M annual flat fee. Tiered by transaction volume and product breadth.*

# Retroactive

*Forensic recovery on settled claims with court-ready evidence.*

Retroactive performs forensic sweeps on already-settled claims to identify overpayments, ineligible recipients, fraudulent providers, and bad actor networks. Unlike conventional audit shops, JIL's output is not a finding letter. It is a CREB package, court-ready and admissible under FRE 902(14), that the customer's general counsel can take directly to recovery action or referral.

## KEY CAPABILITIES

- Batch sweeps on millions of historical claims
- Pattern, anomaly, and network analytics across the full forensic catalog
- CREB output for every flagged claim, entity, or scheme
- Cross-references the Bad Actor Registry to surface known patterns
- Findings sealed and anchored to CourtChain at generation time

## WHO BUYS THIS

# MCOs and Federal Programs

Plans facing OIG audit risk, federal program integrity offices, state Medicaid program integrity. Anywhere settled payments need to be re-examined and recovered.

## PRICING

*Tier 1 flat fee from \$150K to \$750K, scaling by MCO size. Tier 2 investigation a la carte per case.*

# Pre-Clearance · Attestyx

*Approve grantees, vendors, and counterparties before funds move.*

Attestyx is the JIL pre-clearance product for foundations, federal grant programs, and any disbursing entity that wants to prove every recipient was vetted before the wire left. Identity, beneficial ownership, sanctions, and program-eligibility checks run in advance. The output is an attestation packet a general counsel can stand behind in front of a board, an IG, or a journalist.

## KEY CAPABILITIES

- Identity and beneficial ownership resolution to 28 dimensions
- Sanctions and corridor screening across OFAC, FinCEN, OIG
- Federal grant program eligibility and conflict-of-interest checks
- Attestation packet generated per cleared entity
- Live at [grants.jilsovereign.com](https://grants.jilsovereign.com)

## WHO BUYS THIS

# Foundations and Federal Grant Offices

Family foundations, donor-advised funds, federal grant-making agencies, state administrators of federal pass-through funds. Any disbursing entity needing pre-flight diligence.

## PRICING

*Per-grantee clearance fee. Volume tiers for foundations writing 100+ grants per year.*

# Asset Intel

*Map the counterparty graph. Surface what is hidden in plain sight.*

Asset Intel is the counterparty risk graph engine. It builds and queries the network of relationships between entities, assets, and identities to surface shell company structures, undisclosed beneficial ownership, sanctions exposure, and politically exposed persons. It is the engine behind every Verdict Engine identity and counterparty check, and a standalone product for institutions that need diligence depth.

## KEY CAPABILITIES

- Beneficial ownership resolution and shell-company detection
- OFAC, FinCEN, EU and UK sanctions list cross-reference
- PEP and adverse-media graph integration
- Network-level exposure mapping across counterparties
- Live API for inline risk scoring during onboarding

## WHO BUYS THIS

# Banks, Investment Firms, Federal

AML and KYC teams at financial institutions, investment firms doing sanctions-sensitive deals, federal procurement offices vetting awardees and subcontractors.

## PRICING

*Per-query and subscription tiers. Enterprise volume agreements available.*

# Wallet Intel

*On-chain plus off-chain wallet attribution at the speed of the rail.*

Wallet Intel attributes wallets, addresses, and transaction patterns to real-world entities and known schemes. It surfaces mule networks, laundering layers, sanctioned counterparty exposure, and pre-settlement risk on payouts. Designed to feed the Verdict Engine in real time and to power independent analyst workflows for fraud teams and federal investigators.

## KEY CAPABILITIES

- Cross-chain attribution (Ethereum, Bitcoin, major L2s)
- Mule-pattern and layering detection
- Sanctioned wallet and tagged entity matching
- Pre-settlement risk scoring on payouts and transfers
- Investigator-friendly graph and timeline views

## WHO BUYS THIS

# Crypto-Aware Payers and Federal

Banks with crypto exposure, payment processors, exchanges, federal financial crimes investigators. Any organization where wallets touch real-world money.

## PRICING

*Per-query and subscription tiers. Federal engagement agreements available.*

# Utilization Management

*Proof beneath the plan's medical team. Never above it.*

Utilization Management is the JIL proof layer for prior authorization and medical necessity decisions. It does not approve or deny care. It validates that the medical evidence on file is internally consistent, that the documentation pattern matches peer norms, and that any flagged outliers are surfaced for the human reviewer with a sealed audit trail. The plan's clinicians make the call. JIL proves what the clinicians had in front of them when they made it. This deliberate scoping avoids the NaviHealth pattern of litigation.

## KEY CAPABILITIES

- Medical necessity evidence consistency checking
- Peer-norm pattern flagging for outlier documentation
- Sealed audit trail of every review surfaced to clinicians
- Cryptographic attestation of the evidence package at decision time
- Integrates with existing UM workflow without replacing clinical judgement

## WHO BUYS THIS

# MCOs and Health Plans

Medicaid managed care, commercial health plans, integrated delivery systems. Any plan whose UM decisions are subject to litigation, regulatory scrutiny, or member complaint risk.

## PRICING

*Annual flat fee tiered by membership size. Available standalone or bundled with Pre-Settlement.*

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PART FIVE

# Deployment & *Compliance.*

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*Three runtime options. One controls posture. Zero data movement.*

# Same six product lines. Same evidence anchor. Customer picks the runtime.

DEPLOYMENT OPTION

## Snowflake

*SPCS · Native Sharing*

BEST FIT

*Customer is standardized on Snowflake. Fastest path to value.*

FOUNDATION

- Snowpark Container Services
- Native data sharing
- Horizon Catalog governance
- Per-warehouse compute

DEPLOYMENT OPTION

## Databricks

*Apps · Workflows · MLflow*

BEST FIT

*Customer is lakehouse-native, ML-heavy, runs Unity Catalog.*

FOUNDATION

- Databricks Apps runtime
- Delta Lake substrate
- Unity Catalog governance
- Photon and serverless SQL

DEPLOYMENT OPTION

## JIL Cloud

*EKS · PrivateLink · KMS*

BEST FIT

*Heterogeneous estates and federal customers. Maximum control.*

FOUNDATION

- Amazon EKS runtime
- S3, Aurora, Redshift
- IAM, KMS, GuardDuty
- Customer VPC or peered

COMPLIANCE POSTURE

# Aligned to every framework that matters. Inherited where possible.

INHERITED VIA SNOWFLAKE OR DATABRICKS

*The customer data plane is already certified. JIL inherits the posture by running inside the customer's account.*



JIL CLOUD POSTURE

*Aligned to the same control frameworks. Three certifications at signing. Three on a published 12 to 24 month roadmap.*



*Customer data plane is already certified. JIL just runs there.*

# Three audiences. Three procurement stories. One platform.

## MCOS & PAYERS

***Stop loss before it settles.***

### WHY THEY BUY

- Fraud rates above 0.5 percent of premium dollars
- OIG audit risk and growing program integrity scrutiny
- Existing UM litigation exposure under NaviHealth pattern

### WHAT THEY DEPLOY

*Pre-Settlement plus Utilization Management plus Retroactive on day one.*

## FEDERAL & STATE

***Prove the program ran clean.***

### WHY THEY BUY

- Continuous improper-payment headlines
- FedRAMP and StateRAMP procurement frameworks
- Sovereign data residency and GovCloud requirements

### WHAT THEY DEPLOY

*Anchored Medicare engagement model. CourtChain admissibility for IG referral.*

## FOUNDATIONS

***Show the board the recipients were vetted.***

### WHY THEY BUY

- Board-level risk on grantee selection
- Regulatory and donor-pressure oversight
- Need for pre-flight diligence at scale

### WHAT THEY DEPLOY

*Attestyx pre-clearance. Live at [grants.jilsovereign.com](https://grants.jilsovereign.com).*

# Customer Cloud is the office.

## *CourtChain is the courthouse.*

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*JIL files the documents at the courthouse. The customer keeps stamped receipts back in the office. Master records sit at five courthouses across five jurisdictions. The customer cannot, and need not, run the courthouse.*

Detecti on in front. Proof behind. Anchored in five sovereign jurisdicti ons.

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T H A N K   Y O U

# JIL Sovereign Technologies, Inc.

*A Bi-Directional Payment Integrity Network.*

INSTITUTIONAL

[jilsovereign.com](https://jilsovereign.com)

GRANTS · ATTESTYX

[grants.jilsovereign.com](https://grants.jilsovereign.com)

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*Detection. Proof. Anchored.*