

1. Layers

• Bronze

- Type: raw_landing
- Description: Preserve all ingested client, custodian, and workflow (including audit) data in its received/raw form for traceability and compliance. Handles structured, semi-structured, and unstructured inputs with full fidelity. Append-only architecture to ensure immutability and audit.
- Storage type: Data Lake / STAGING / sFTP / FTP Server (File/Object)
- Patterns used: Append-Only Architecture
- Datasets included: RawIntakeForms, RawClientDocuments, RawCustodianFormLibraries, RawDocuSignEnvelopes, RawStatements (optional), RawAuditEvent_Logs

• Silver

- Type: normalized
- Description: Normalize, classify, and contextually merge/align client intake data and supporting documents to client/household for validation and packet assembly per workflow logic. Supports structural alignment and conformance for downstream workflows. Lakehouse pattern to handle schema drift.
- Storage type: Data Lake / STAGING (Structured DB)
- Patterns used: Lakehouse Pattern
- Datasets included: IntakeFormNormalized, DocumentMetadata, CustodianFormIndex, EnvelopeMetadata, AuditEventLog, Workflow State Table, Audit Event Table, Custodian Form Mapping

• Gold

- Type: consumer_ready
 - Description: Produce shaped data packets, forms, and workflow outputs consumable by AI Co-Worker Agent Team and custodian/write-back systems; enable traceable audit outputs for operational review and compliance. Supports agent/human interaction and exception management.
 - Storage type: Data Warehouse
 - Patterns used: Consumer-ready final output storage
 - Datasets included: Packet Output Warehouse, Workflow State Feed, Signature Envelope Artifact, Write-back Payload Store, Audit Log Warehouse
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2. Data Stores

• Raw Intake Object Store

- Layer assignment: Bronze
- Type: data_lake (Object Storage/File)
- Storage format: JSON, PDF, Mixed (Per submission/event)
- Location: Data Lake / STAGING / sFTP / FTP Server
- Datasets stored: RawIntakeForms

• Raw Client Docs Store

- Layer assignment: Bronze
- Type: data_lake (Object Storage/File)
- Storage format: PDF, Image Files (Per-upload/document)
- Location: Data Lake / STAGING / sFTP / FTP Server
- Datasets stored: RawClientDocuments

• Raw Custodian Form Store

- Layer assignment: Bronze
- Type: data_lake (Object Storage/File)
- Storage format: PDF, Docx, XLSX (Per snapshot/file)
- Location: Data Lake / STAGING / sFTP / FTP Server
- Datasets stored: RawCustodianForm_Libraries

• Raw DocuSign Envelope Store

- Layer assignment: Bronze
- Type: data_lake (Object Storage/File)
- Storage format: JSON, PDF, ZIP (Per envelope/event)
- Location: Data Lake / STAGING / sFTP / FTP Server
- Datasets stored: RawDocuSignEnvelopes

• Raw Statements Store (Optional)

- Layer assignment: Bronze
- Type: data_lake (Object Storage/File)
- Storage format: PDF, XLSX (Per statement/upload)
- Location: Data Lake / STAGING / sFTP / FTP Server
- Datasets stored: Raw_Statements

• Raw Audit/Event Log Store

- Layer assignment: Bronze
- Type: data_lake (Object Storage/File)

- Storage format: JSON, CSV, Text (Per event/log record)
- Location: Data Lake / STAGING / sFTP / FTP Server
- Datasets stored: RawAuditEvent_Logs
- **Normalized Intake Table Store**
 - Layer assignment: Silver
 - Type: data_lake (Structured DB)
 - Storage format: Structured tables
 - Location: Data Lake / STAGING
 - Datasets stored: IntakeFormNormalized
- **Document Metadata Table Store**
 - Layer assignment: Silver
 - Type: data_lake (Structured DB)
 - Storage format: Structured tables
 - Location: Data Lake / STAGING
 - Datasets stored: Document_Metadata
- **Custodian Form Mapping Store**
 - Layer assignment: Silver
 - Type: data_lake (Structured DB)
 - Storage format: Structured tables
 - Location: Data Lake / STAGING
 - Datasets stored: CustodianFormIndex, Custodian Form Mapping
- **Workflow State Table Store**
 - Layer assignment: Silver
 - Type: data_lake (Structured DB)
 - Storage format: Structured tables
 - Location: Data Lake / STAGING
 - Datasets stored: Workflow State Table
- **Audit Event Table Store**
 - Layer assignment: Silver
 - Type: data_lake (Structured DB)
 - Storage format: Structured tables
 - Location: Data Lake / STAGING
 - Datasets stored: AuditEventLog, Audit Event Table
- **Packet Output Warehouse**
 - Layer assignment: Gold
 - Type: data_warehouse
 - Storage format: Structured final packets
 - Location: Data Warehouse
 - Datasets stored: Packet Output Warehouse
- **Workflow State Feed**
 - Layer assignment: Gold
 - Type: data_warehouse
 - Storage format: Structured workflow state/exception feed
 - Location: Data Warehouse
 - Datasets stored: Workflow State Feed
- **Signature Envelope Artifact Store**
 - Layer assignment: Gold
 - Type: data_warehouse (or file system for artifacts)
 - Storage format: Structured / Artifact files (envelopes)
 - Location: Data Warehouse
 - Datasets stored: Signature Envelope Artifact
- **Write-back Payload Store**
 - Layer assignment: Gold
 - Type: data_warehouse
 - Storage format: Structured status/artifact data
 - Location: Data Warehouse
 - Datasets stored: Write-back Payload Store
- **Audit Log Warehouse**
 - Layer assignment: Gold
 - Type: data_warehouse
 - Storage format: Immutable audit event logs (structured)
 - Location: Data Warehouse
 - Datasets stored: Audit Log Warehouse

- **Audit/Trace Store (Backed by Subatomic Deep Lens)**

- Layer assignment: Gold
 - Type: vectorstore / audittrace_store
 - Storage format: Structured trace/log
 - Location: Subatomic Deep Lens Platform
 - Datasets stored: Audit Workflow Trace/Log
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3. Datasets

- **RawIntakeForms**

- Layer assignment: Bronze
- Data store assignment: Raw Intake Object Store
- Source system: Formstack
- Format: JSON, PDF, Mixed (per submission/event)
- Granularity: Per submission/event
- Schema fields:
 - formid (string, required)
 - eventid (string, required)
 - templatenamename (string, required)
 - clientid (string, optional)
 - householdid (string, optional)
 - submissiontimestamp (ISO8601 string, required)
 - fields (variable attributes, optional)

- **RawClientDocuments**

- Layer assignment: Bronze
- Data store assignment: Raw Client Docs Store
- Source system: Client upload / Edge
- Format: PDF, Image Files
- Granularity: Per upload/document
- Schema fields: Entire file preserved, no structured fields

- **RawCustodianForm_Libraries**

- Layer assignment: Bronze
- Data store assignment: Raw Custodian Form Store
- Source system: Schwab, Fidelity
- Format: PDF, Docx, XLSX
- Granularity: Per snapshot/file
- Schema fields:
 - custodian (string, required)
 - formid (string, required)
 - version (string, optional)
 - ingesttimestamp (timestamp, required)
 - file_name (string, required)

- **RawDocuSignEnvelopes**

- Layer assignment: Bronze
- Data store assignment: Raw DocuSign Envelope Store
- Source system: DocuSign
- Format: JSON, PDF, ZIP
- Granularity: Per envelope/event
- Schema fields:
 - envelopeid (string, required)
 - eventtimestamp (timestamp, required)
 - status (enum: sent, completed, cancelled, error; required)
 - recipients (array[objects], optional)
 - documents (array of file references, optional)
 - source_system (string, required)

- **Raw_Statements**

- Layer assignment: Bronze
- Data store assignment: Raw Statements Store
- Source system: Black Diamond (optional), Client-provided Docs
- Format: PDF, XLSX
- Granularity: Per statement/upload
- Schema fields: Entire file preserved, no structured fields

- **RawAuditEvent_Logs**

- Layer assignment: Bronze
- Data store assignment: Raw Audit/Event Log Store

- Source system: Subatomic Deep Lens
- Format: JSON, CSV, Text
- Granularity: Per event/log record
- Schema fields:
 - auditeventid (string, required)
 - eventtype (string, required)
 - actorid (string, optional)
 - eventtimestamp (timestamp ISO8601, required)
 - relatedformid (string, optional)
 - sourcesystem (string, required)

- **IntakeFormNormalized**

- Layer assignment: Silver
- Data store assignment: Normalized Intake Table Store
- Source system: Transformation of RawIntakeForms
- Format: Structured Table
- Granularity: One row per form submission/event
- Schema fields:
 - formid (string, required)
 - eventid (string, required)
 - templatenamename (string, required)
 - clientid (string, optional)
 - householdid (string, optional)
 - submissiontimestamp (timestamp ISO8601, required)
 - fields (variable flattened attributes, optional)
 - sourcefile (string, required)
 - ingestiontimestamp (timestamp ISO8601, required)

- **Document_Metadata**

- Layer assignment: Silver
- Data store assignment: Document Metadata Table Store
- Source system: Transformation of RawClientDocuments and Raw_Statements
- Format: Structured Table
- Granularity: One row per uploaded document/statement file
- Schema fields:
 - documentid (string, required; filename/file ID)
 - clientid (string, optional)
 - documenttype (string, required; e.g., statement, ID)
 - uploadtimestamp (timestamp ISO8601, required)
 - filehash (string, optional)
 - sourcesystem (string, required)

- **CustodianFormIndex**

- Layer assignment: Silver
- Data store assignment: Custodian Form Mapping Store
- Source system: Transformation of RawCustodianForm_Libraries
- Format: Structured Table
- Granularity: One row per custodian form/version/file
- Schema fields:
 - custodian (string, required)
 - formid (string, required)
 - accounttype (string, optional)
 - version (string, optional)
 - ingesttimestamp (timestamp ISO8601, required)
 - filename (string, required)
 - source_system (string, required)

- **Envelope_Metadata**

- Layer assignment: Silver
- Data store assignment: Envelope Metadata Table Store
- Source system: Transformation of RawDocuSignEnvelopes
- Format: Structured Table
- Granularity: One row per DocuSign envelope/event
- Schema fields:
 - envelopeid (string, required)
 - eventtimestamp (timestamp ISO8601, required)
 - status (enum: sent, completed, cancelled, error; required)
 - recipientemail (string, optional)
 - recipientrole (string, optional)

- doclink (string, optional; filename references)
- source_system (string, required)

- **AuditEventLog**

- Layer assignment: Silver
- Data store assignment: Audit Event Table Store
- Source system: Transformation of RawAuditEvent_Logs
- Format: Structured Table
- Granularity: One row per workflow/audit event
- Schema fields:
 - auditeventid (string, required)
 - eventtype (string, required)
 - actorid (string, optional)
 - eventtimestamp (timestamp ISO8601, required)
 - relatedformid (string, optional)
 - sourcesystem (string, required)

- **Workflow State Table**

- Layer assignment: Silver
- Data store assignment: Workflow State Table Store
- Source system: Transformation/Aggregation of validation/review states
- Format: Structured Table
- Granularity: Per workflow instance/state
- Schema fields: Workflow exception details, status logs, human actions captured

- **Audit Event Table**

- Layer assignment: Silver
- Data store assignment: Audit Event Table Store
- Source system: Aggregated audit events aligned to workflow steps
- Format: Structured Table

- **Packet Output Warehouse**

- Layer assignment: Gold
- Data store assignment: Packet Output Warehouse
- Source system: Packet build from Silver inputs
- Format: Structured final assembled account packets
- Granularity: Per account event
- Schema fields: Shaped custodian packet documents and metadata

- **Workflow State Feed**

- Layer assignment: Gold
- Data store assignment: Workflow State Feed
- Source system: Workflow State Table updates
- Format: Stream or structured table for status/exceptions
- Granularity: Real-time or event-based workflow state changes

- **Signature Envelope Artifact**

- Layer assignment: Gold
- Data store assignment: Signature Envelope Artifact Store
- Source system: DocuSign integration
- Format: Structured envelope artifacts (JSON, PDF)
- Granularity: Per workflow step/event

- **Write-back Payload Store**

- Layer assignment: Gold
- Data store assignment: Write-back Payload Store
- Source system: Workflow outputs
- Format: Structured lifecycle state/status updates
- Granularity: Per status change

- **Audit Log Warehouse**

- Layer assignment: Gold
- Data store assignment: Audit Log Warehouse
- Source system: Audit Event Table, Subatomic Deep Lens
- Format: Immutable log of workflow/audit events

4. Source Systems

- **Formstack**

- Type: SaaS Application/Service
- Output datasets: RawIntakeForms

- **Client-provided Docs / Edge**
 - Type: Application/File Upload
 - Output datasets: RawClientDocuments
 - **Schwab Custodial Platform**
 - Type: External Application/API
 - Output datasets: RawCustodianForm_Libraries
 - **Fidelity Custodial Platform**
 - Type: External Application/API
 - Output datasets: RawCustodianForm_Libraries
 - **DocuSign**
 - Type: Service/API
 - Output datasets: RawDocuSignEnvelopes
 - **Black Diamond (optional)**
 - Type: Application/Platform
 - Output datasets: Raw_Statements
 - **Subatomic Deep Lens**
 - Type: Service (Audit/Workflow Logging)
 - Output datasets: RawAuditEvent_Logs
 - **Salesforce / Edge**
 - Type: Application/Platform
 - Output datasets: Client/HH records (ingestion for Bronze), write-back datasets (Gold)
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5. Transformations

- **Intake Form Normalization**
 - Transformation ID/Name: IntakeFormNormalized Process
 - Type: normalization, flattening, alignment
 - From layer: Bronze
 - To layer: Silver
 - Input datasets: RawIntakeForms
 - Output datasets: IntakeFormNormalized
 - Logic description: Flatten nested structures in variable form templates; conform and align fields; extract metadata; enforce required fields for traceability.
- **Document Classification**
 - Transformation ID/Name: Document_Metadata Extraction
 - Type: classification, deduplication, alignment
 - From layer: Bronze
 - To layer: Silver
 - Input datasets: RawClientDocuments, Raw_Statements
 - Output datasets: Document_Metadata
 - Logic description: Extract metadata attributes (document type, source system, timestamps), deduplicate by file hash or name, associate documents with intake data.
- **Custodian Form Alignment**
 - Transformation ID/Name: CustodianFormIndex Processing
 - Type: normalization, flattening, deduplication
 - From layer: Bronze
 - To layer: Silver
 - Input datasets: RawCustodianForm_Libraries
 - Output datasets: CustodianFormIndex, Custodian Form Mapping
 - Logic description: Extract custodian, form ID, versioning; flatten inconsistent structures; deduplicate by form file name/version; prepare for rules and packet building.
- **Envelope Metadata Extraction**
 - Transformation ID/Name: Envelope_Metadata Processing
 - Type: flattening, unnesting, conformance
 - From layer: Bronze
 - To layer: Silver
 - Input datasets: RawDocuSignEnvelopes
 - Output datasets: Envelope_Metadata
 - Logic description: Unnest recipient and signature lists; standardize timestamps and status enums; conform inconsistent metadata fields.
- **Audit Event Processing**
 - Transformation ID/Name: AuditEventLog Normalization
 - Type: flattening, conforming, deduplication
 - From layer: Bronze
 - To layer: Silver

- Input datasets: RawAuditEvent_Logs
- Output datasets: AuditEventLog, Audit Event Table
- Logic description: Enforce presence of event IDs, timestamps, source info; align variable event fields; prepare linked audit trails for workflow.

- **Validation and Alignment**

- Transformation ID/Name: Custodian and Account Rule Validation
- Type: validation, business rule application
- From layer: Silver
- To layer: Silver (updated state)
- Input datasets: IntakeFormNormalized, Document_Metadata, CustodianFormIndex, Workflow State Table
- Output datasets: Workflow State Table, Audit Event Table
- Logic description: Apply custodian and account-type-specific validation rules; check form completeness; cross-document consistency; generate validation outcomes and exception flags.

- **Packet Assembly**

- Transformation ID/Name: Packet Output Build
- Type: assembly, enrichment
- From layer: Silver
- To layer: Gold
- Input datasets: Validated Intake Data, Custodian Form Mapping, Workflow State
- Output datasets: Packet Output Warehouse
- Logic description: Pre-populate custodian form sets with verified client data; assemble complete account opening packets; produce final ready-for-submission artifacts.

- **Exception/Review Handling**

- Transformation ID/Name: Workflow Exception Normalization
- Type: state normalization, logging, human-in-loop support
- From layer: Gold
- To layer: Gold
- Input datasets: Workflow State Feed, Audit Log Warehouse
- Output datasets: Workflow State Feed
- Logic description: Capture exceptions, ambiguities, human reviewer decisions; maintain fully auditable status and lifecycle state records; support exception resolution workflows.

- **Signature Envelope Generation**

- Transformation ID/Name: DocuSign Envelope Artifact Generation
- Type: artifact creation, routing
- From layer: Gold
- To layer: Gold
- Input datasets: Workflow State Feed, Packet Output Warehouse
- Output datasets: Signature Envelope Artifact
- Logic description: Generate and route DocuSign envelopes as needed based on workflow step and signature requirements.

- **Submission Write-back**

- Transformation ID/Name: Lifecycle State Write-back
- Type: status synchronization
- From layer: Gold
- To layer: External Systems (Salesforce/Edge, Custodian platforms)
- Input datasets: Workflow State Feed, Packet Output Warehouse
- Output datasets: Write-back Payload Store
- Logic description: Write updated status, structured data, and submission artifacts back to source systems to maintain synchronized lifecycle state.

- **Audit Logging**

- Transformation ID/Name: Audit Tracing and Event Logging
- Type: audit event structuring, enrichment
- From layer: Gold
- To layer: Audit/Trace Store (Subatomic Deep Lens)
- Input datasets: All workflow stages/events
- Output datasets: Audit Log Warehouse, Audit Workflow Trace/Log
- Logic description: Capture immutable audit events at every stage; produce structured trace logs with scoring, lineage, and operational/compliance metadata.

6. Data Flows

- **Flow 1: Intake Form Ingestion**

- Flow ID: IntakeToBronze
- From component: Formstack (source system)
- To component: Raw Intake Object Store (Bronze)
- From layer: Source System / raw
- To layer: Bronze

- Flow type: ingestion
- Frequency: asynchronous (not strictly batch or real-time)
- Direction: unidirectional
- **Flow 2: Client Documents Ingestion**
 - Flow ID: ClientDocsToBronze
 - From component: Client Upload / Edge
 - To component: Raw Client Docs Store (Bronze)
 - From layer: Source System / raw
 - To layer: Bronze
 - Flow type: ingestion
 - Frequency: asynchronous
 - Direction: unidirectional
- **Flow 3: Custodian Form Library Ingestion**
 - Flow ID: CustodianFormsToBronze
 - From component: Schwab, Fidelity Custodial Platforms
 - To component: Raw Custodian Form Store (Bronze)
 - From layer: Source System / raw
 - To layer: Bronze
 - Flow type: ingestion
 - Frequency: scheduled/pull snapshots
 - Direction: unidirectional
- **Flow 4: DocuSign Envelope Ingestion**
 - Flow ID: DocuSignToBronze
 - From component: DocuSign Service
 - To component: Raw DocuSign Envelope Store (Bronze)
 - From layer: Source System / raw
 - To layer: Bronze
 - Flow type: ingestion
 - Frequency: push/event-based
 - Direction: unidirectional
- **Flow 5: Statement Documents Ingestion (Optional)**
 - Flow ID: StatementsToBronze
 - From component: Black Diamond (optional), Client-provided Docs
 - To component: Raw Statements Store (Bronze)
 - From layer: Source System / raw
 - To layer: Bronze
 - Flow type: ingestion
 - Frequency: asynchronous
 - Direction: unidirectional
- **Flow 6: Audit Event Ingestion**
 - Flow ID: AuditEventsToBronze
 - From component: Subatomic Deep Lens Service
 - To component: Raw Audit/Event Log Store (Bronze)
 - From layer: Source System / raw
 - To layer: Bronze
 - Flow type: ingestion
 - Frequency: push/stream
 - Direction: unidirectional
- **Flow 7: Bronze to Silver Normalization**
 - Flow ID: BronzeToSilverNormalization
 - From component: Raw Stores (RawIntakeForms, RawClientDocuments, RawCustodianFormLibraries, RawDocuSignEnvelopes, RawAuditEventLogs)
 - To component: Silver Structured Tables (IntakeFormNormalized, DocumentMetadata, CustodianFormIndex, EnvelopeMetadata, AuditEventLog)
 - From layer: Bronze
 - To layer: Silver
 - Flow type: transformation / normalization
 - Frequency: event-based/on ingestion
 - Direction: unidirectional
- **Flow 8: Silver Validation and Contextual Alignment**
 - Flow ID: SilverValidation
 - From component: Silver Tables (IntakeFormNormalized, Document_Metadata, CustodianFormIndex)
 - To component: Silver Workflow State Table, Audit Event Table
 - From layer: Silver

- To layer: Silver
 - Flow type: validation, enrichment
 - Frequency: near-real-time
 - Direction: unidirectional
 - **Flow 9: Silver to Gold Packet Build**
 - Flow ID: SilverToGoldPacketBuild
 - From component: Silver Validated Data and Workflow State
 - To component: Gold Packet Output Warehouse
 - From layer: Silver
 - To layer: Gold
 - Flow type: transformation, assembly
 - Frequency: per account event/on validation pass
 - Direction: unidirectional
 - **Flow 10: Gold Workflow Exception and State Feed**
 - Flow ID: GoldWorkflowStateFeed
 - From component: Gold Packet Warehouse, Audit Log Warehouse
 - To component: Workflow State Feed (Gold)
 - From layer: Gold
 - To layer: Gold
 - Flow type: serving, exception handling
 - Frequency: real-time/event-based
 - Direction: unidirectional
 - **Flow 11: Signature Envelope Generation**
 - Flow ID: GoldToDocuSignEnvelope
 - From component: Gold Workflow State Feed, Packet Output Warehouse
 - To component: DocuSign (Service)
 - From layer: Gold
 - To layer: External service (with data artifact in Gold Signature Envelope Artifact)
 - Flow type: artifact generation, serving
 - Frequency: on-demand/per workflow step
 - Direction: unidirectional
 - **Flow 12: Submission and Write-back**
 - Flow ID: GoldWriteBackToSystems
 - From component: Gold Write-back Payload Store
 - To component: Salesforce/Edge, Custodian Platforms
 - From layer: Gold
 - To layer: External systems
 - Flow type: write-back synchronization
 - Frequency: per status change
 - Direction: unidirectional
 - **Flow 13: Audit Logging Throughout Workflow**
 - Flow ID: GoldAuditLogging
 - From component: All workflow components
 - To component: Audit Log Warehouse, Subatomic Deep Lens
 - From layer: Gold
 - To layer: Audit/Trace store (Gold)
 - Flow type: audit/trace logging
 - Frequency: continuous/step-based
 - Direction: unidirectional
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7. Relationships

- **Relationship 1**
 - Relationship ID: R1
 - From dataset: IntakeFormNormalized
 - To dataset: Document_Metadata
 - Type: onetomany
 - Relationship name: Form-to-Document Reference
 - Foreign key: formid (in IntakeFormNormalized) references document filenames or IDs in DocumentMetadata
- **Relationship 2**
 - Relationship ID: R2
 - From dataset: IntakeFormNormalized
 - To dataset: Envelope_Metadata
 - Type: onetomany
 - Relationship name: Form-to-Envelope Embedded Association

- Foreign key: doclink in EnvelopeMetadata referencing forms embedded or linked

- **Relationship 3**

- Relationship ID: R3
- From dataset: IntakeFormNormalized
- To dataset: AuditEventLog
- Type: onetomany
- Relationship name: Form-to-Audit Event Reference
- Foreign key: relatedformid in AuditEventLog referencing form_id in IntakeFormNormalized

- **Relationship 4**

- Relationship ID: R4
- From dataset: Envelope_Metadata
- To dataset: Document_Metadata
- Type: onetomany
- Relationship name: Envelope-to-Document Attachment Association
- Foreign key: doclink in EnvelopeMetadata referencing documentid in DocumentMetadata

- **Relationship 5**

- Relationship ID: R5
- From dataset: FormDocumentAssoc (association table)
- To dataset (left entity): IntakeFormNormalized
- To dataset (right entity): Document_Metadata
- Type: manytomany (bridge represented as one-to-many through association table)
- Relationship name: Form to Document Association
- Foreign key: document filename/ID within form field(s)

- **Relationship 6**

- Relationship ID: R6
 - From dataset: EnvelopeDocumentAssoc (association table)
 - To dataset (left entity): Envelope_Metadata
 - To dataset (right entity): Document_Metadata
 - Type: manytomany (bridge represented as one-to-many through association table)
 - Relationship name: Envelope to Document Association
 - Foreign key: doclink(s) in EnvelopeMetadata mapping to document IDs in Document_Metadata
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8. Consumers

- **AI Co-Worker Agent Team**

- Consumer ID/Name: AI Co-Worker Agent Team
- Type: agent/application
- Consumes datasets: Packet Output Warehouse (Gold), Workflow State Feed (Gold), Signature Envelope Artifact (Gold)
- Layer: Gold

- **Human Reviewer**

- Consumer ID/Name: Human Reviewer
- Type: user
- Consumes datasets: Workflow State Feed (Gold), Packet Output Warehouse (Gold), Audit Log Warehouse (Gold)
- Layer: Gold

- **Packet Assembly Service**

- Consumer ID/Name: Packet Assembly Service
- Type: service
- Consumes datasets: Packet Output Warehouse (Gold), Workflow State Feed (Gold)
- Layer: Gold

- **DocuSign**

- Consumer ID/Name: DocuSign Service
- Type: external service/api
- Consumes datasets: Signature Envelope Artifact (Gold)
- Layer: Gold

- **Salesforce/Edge Platform**

- Consumer ID/Name: Salesforce/Edge
- Type: application
- Consumes datasets: Write-back Payload Store (Gold)
- Layer: Gold

- **Subatomic Deep Lens**

- Consumer ID/Name: Subatomic Deep Lens
- Type: service (audit/trace)
- Consumes datasets: Audit Log Warehouse (Gold), Audit Workflow Trace/Log (Gold)
- Layer: Gold

- **NorthRock Operations/Onboarding Teams**

- Consumer ID/Name: NorthRock Operations/Onboarding Teams
 - Type: users/team
 - Consumes datasets: Outputs from Gold layer (packets, reports) indirectly via workflow and system interfaces
 - Layer: Gold (via system integration)
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9. Metadata

- Project name: AI Co-Worker Agent Solution for Account Opening
 - Business domain: Wealth Management Client Onboarding / Account Opening Automation / Financial Services – Wealth Management Account Onboarding
 - Use case: Automated and auditable account opening for new clients; end-to-end onboarding with AI-driven automation, high-volume processing, full auditability, and compliance.
 - Patterns used (Bronze, Silver, Gold): Append-Only Architecture (Bronze), Lakehouse Pattern (Silver), Consumer-Ready Data Warehouse Pattern (Gold)
 - Database types: Structured DB (Silver), Data Warehouse (Gold)
 - Storage types: Data Lake/Object Storage (Bronze), Data Lakehouse/Structured Storage (Silver), Data Warehouse (Gold), External Systems/APIs (DocuSign, Custodians, Salesforce)
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End of Extraction