

ARCHITECTURE OVERVIEW

Six Layer Architecture

Six operational layers connected by a cross-cutting coordination fabric. This overview sets out each operational layer, the Layer 0 Unified Coordination Fabric, the distinction between Layer 0 and Layer 3, and the end-to-end signal flow from external systems through to governed action and outcome feedback.

SIX OPERATIONAL LAYERS

L1 Security & Governance through L6 Intelligence Applications & Experience.

ONE COORDINATION FABRIC

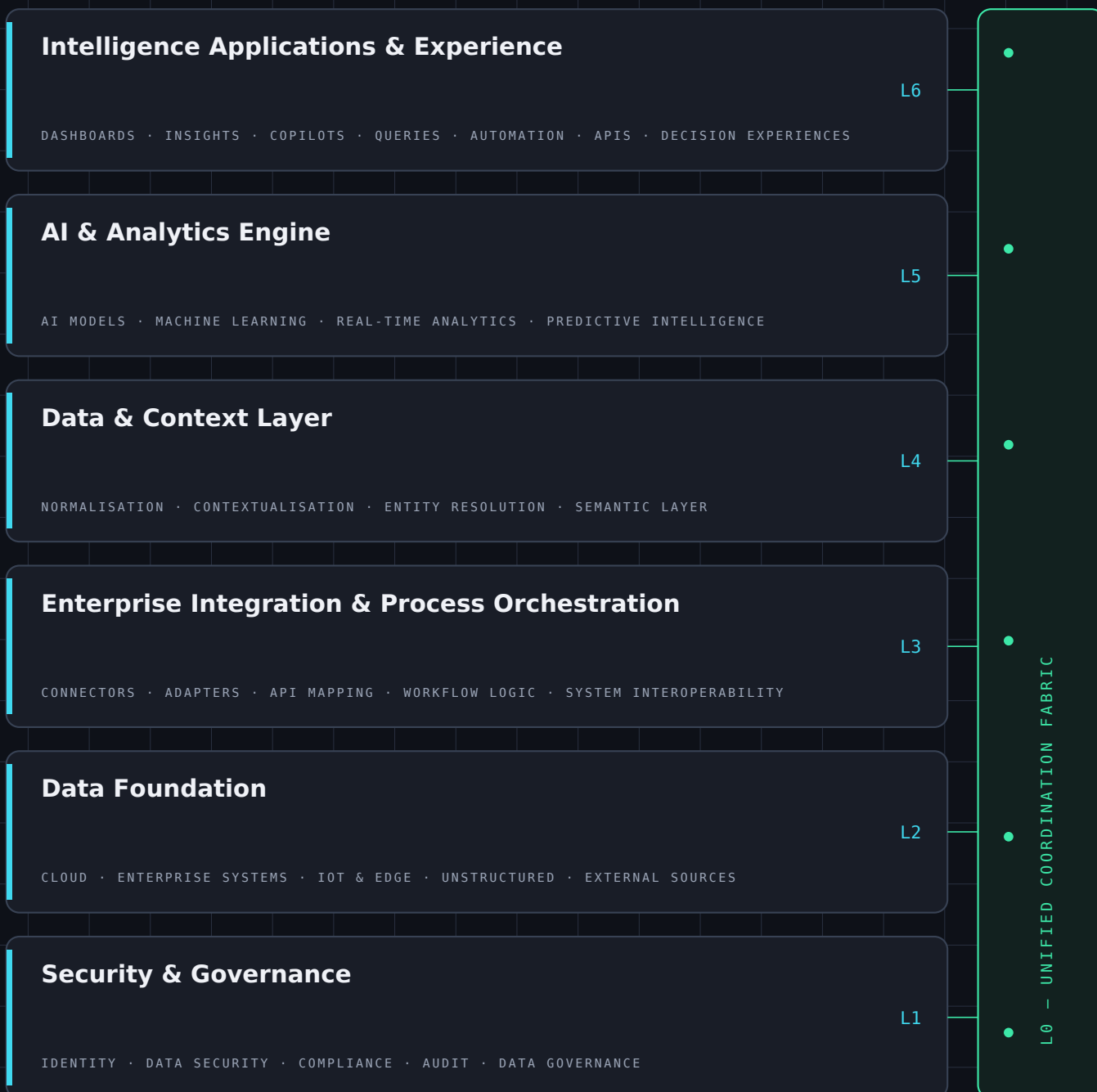
Layer 0 moves signals, intelligence, governance and outcomes across every layer.

END-TO-END SIGNAL FLOW

External systems → Layer 3 → Layer 0 → USO → intelligence → Layer 6 → action → feedback.

Six operational layers, one cross-cutting fabric

Layer 0 is not a seventh sequential layer. It is the connective architecture operating across every UFIS layer.



MESSAGING · EVENT ROUTING · WORKFLOW · ORCHESTRATION · POLICY

UFIS is not another dashboard, database or ordinary integration platform. It is a coordination architecture designed to enable independent systems to understand and act upon their wider operational environment.

Unified Coordination Fabric

The Unified Coordination Fabric is the connective architecture operating across every UFIS layer. It transports Unified Signal Objects, operational events, intelligence outputs, governance instructions, workflow states, recommendations and execution messages between distributed UFIS services and connected systems.

Layer 0 is not another sequential processing stage. It is the communication, messaging and orchestration fabric through which the complete UFIS architecture operates. It enables UFIS components to exchange intelligence without requiring every component to be permanently and directly connected to every other component.

CORE CAPABILITIES



WHAT LAYER 0 TRANSPORTS

- Raw source events entering the architecture
- Validated Unified Signal Objects
- Relationship and causal-analysis outputs
- Coherence-state changes
- Forecasting requests and predicted-state outputs
- Governance approvals and restrictions
- Human-review requests
- Recommendations and automation instructions
- Execution acknowledgements
- Outcome and feedback events
- Intelligence exchanged between UFIS nodes

TECHNICAL POSITIONING

UFIS is implementation-agnostic. The Unified Coordination Fabric may be implemented through one or more enterprise integration, event-streaming, service-mesh, workflow, business-process-management or distributed-messaging technologies. The strategic and technical value lies in how the fabric coordinates UFIS intelligence objects, operational states, governance conditions and orchestrated actions across the architecture, rather than dependency upon any single software or infrastructure provider.

Technology categories are illustrative. UFIS is not limited to any particular provider, protocol or implementation environment.

Layer 0 versus Layer 3

Layer 0 and Layer 3 perform different functions within the architecture.

LAYER 0

Unified Coordination Fabric

Moves intelligence, events, governance instructions and control messages throughout the UFIS architecture.

- Internal to UFIS
- Messaging & event routing
- Workflow & policy orchestration
- Cross-layer, always active

LAYER 3

Enterprise Integration

Connects UFIS to external systems through adapters, mappings, connectors and enterprise process logic.

- External to UFIS
- Connectors & protocol adapters
- API mapping & workflow logic
- System interoperability

Layer 0 connects UFIS internally. Layer 3 connects UFIS externally.

POSSIBLE IMPLEMENTATION CATEGORIES FOR LAYER 0

Integration Platform as a Service

Distributed message broker

Event-stream-processing platform

Enterprise service bus

Service mesh

Workflow engine

Business process management suite

API gateway

Cloud-native orchestration service

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From external event to outcome feedback

A signal enters through Layer 3, is routed through Layer 0, processed across the architecture, presented at Layer 6 and returned as an outcome event.

01 External Systems

Enterprise, operational, industrial, cloud and public sources produce measurable change.

02 Layer 3 Connections

Connectors, adapters and API mappings bring the source into the UFIS environment.

03 Layer 0 Fabric

The coordination fabric routes the event to the services that must act on it.

04 Unified Signal Objects

The event becomes a structured object with origin, time, trust and governance.

05 Intelligence Processing

Relationships, coherence, causality and prediction are resolved across layers.

06 Layer 6 Experience

Governed intelligence is presented to people, applications and autonomous services.

07 Governed Action

Recommendations are executed under explicit authority and audit conditions.

08 Outcome Feedback

The observed result returns through Layer 0 and improves the next comparable signal.

One architecture. Six operational layers. One coordination fabric.

- UFIS converts measurable change into governed operational intelligence.
- Layer 3 connects participating external systems.
- The Unified Signal Object creates a common intelligence representation.
- Layers 2 through 5 organise, contextualise, analyse and predict operational conditions.
- Layer 6 presents intelligence to users, applications and autonomous services.
- Layer 1 protects identity, access, trust, security and governance.
- Layer 0 connects the complete architecture by moving signals, intelligence outputs, governance instructions, workflow states and outcomes between every participating component.

UFIS is not another dashboard, database or ordinary integration platform. It is a coordination architecture designed to enable independent systems to understand and act upon their wider operational environment.

PRESENTATION VERSUS STORAGE

Layer 6 presents intelligence but does not permanently store every underlying signal, relationship, model output or source record. Unified Signal Objects, time-series events, graph relationships, historical outcomes, model features, source references and operational memory may be maintained through appropriate services within the Data Foundation, Data & Context and wider UFIS architecture.

NOTICE

This document is an architectural overview. Figures, categories and technologies referenced are illustrative and are not represented as achieved results from a live commercial deployment.