TECHNICAL ARCHITECTURE

A deeper view of the Midiacode platform

This document describes the technical foundation behind Midiacode Core, Studio, Lite and Mobile. It is a generic architecture overview, not a customer-specific implementation specification.

Platform boundary

Midiacode Core provides backend services, public APIs, orchestration, delivery, infrastructure and operations. It is the foundation that can be licensed or used to build third-party systems and Super Apps.

Four coordinated products

Core is the engine; Studio is the publisher workspace; Lite is the browser delivery layer; Mobile is the native iOS/Android experience with native capabilities.

Multi-tenant foundation

Workspaces, identity, permissions, plans, quotas, content lifecycle and analytics are designed to operate across multiple organizations and branded experiences.

Fourth-generation direction

The platform connects physical touchpoints with mobile content, mini-apps, automation, AI and enterprise systems rather than treating a QR Code as a static link.

Architecture details such as deployment topology, endpoint definitions, data-retention parameters and customer-specific integrations are defined during technical discovery.

CORE SERVICES

Core Foundations service domains

Identity and authentication

User accounts, social login, anonymous access, SSO and enterprise identity establish the access layer for publishers and end users.

Workspaces and governance

Roles, permissions, groups, audit trails, quotas and workspace boundaries support controlled enterprise publishing.

Content lifecycle

Content can move through creation, review, scheduling, publication, localization, versioning and retirement.

Codes and routing

Dynamic QR Codes, short links, conditional delivery and routing connect physical or digital carriers to governed experiences.

Analytics and events

Scans, views, interactions and operational events create the event layer used by dashboards, reports and Smart Analytics.

Integrations and automation

Public APIs, webhooks, imports, exports and AI-assisted workflows connect the platform to external systems and processes.

PUBLISHING PIPELINE

From authoring to measured delivery

1. Author

A publisher creates structured content, Smart Forms, Lead Capture flows or mini-app configurations in Studio.

2. Govern

Workspace permissions, review processes, templates, schedules and localization rules control what can be published.

3. Connect

The content is linked to a dynamic QR Code, short link, location, event or Super App entry point.

4. Deliver

Lite renders the browser experience; Mobile adds native capabilities and native mini-app bridges.

5. Observe

Events and interactions feed analytics at content, workspace and account levels.

6. Improve

Teams use evidence, automation and AI-assisted workflows to refine content, operations and journeys.

Content, users, events and mini-apps

Content objects

Rich content types can include text, media, documents, structured articles, forms, result pages and linked experiences.

User collection

End users can collect and revisit content through browser or native mobile journeys, creating a personal library of experiences.

Smart Forms

Forms are content objects with their own response flow. Result pages can be generated from responses for tests, certificates and operational processes.

Mini-app runtime

Commerce, points, Pay, data collection and other specialized journeys can run as mini-apps configured from Studio.

Event model

Scans, views, submissions, transactions and operational actions form measurable events for analytics and automation.

Conditional delivery

A single carrier can deliver different content based on profile, language, location, time, permissions or business rules.

INTEGRATION LAYER

Connecting enterprise systems

Midiacode is designed to sit alongside existing systems rather than require an organization to replace its operational backbone.

API and webhook boundary

External systems can exchange content, product, user, event and workflow data through documented integration contracts defined per project.

ERP / MES / WMS / CRM

Corporate systems can provide master data and receive operational or engagement events, subject to the integration scope.

Import and export

Structured imports, reports and exports support onboarding, governance, analytics and regulatory evidence workflows.

Automation

Rules, triggers, notifications and AI-assisted processes can reduce repetitive publishing and operational work.

Data ownership

Customer-specific data flows, retention, access and export requirements are defined during solution architecture and contracting.

Integration governance

Credentials, scopes, environments, failure handling and monitoring must be specified for each connected system.

Designed for controlled operation

Observability

Monitoring and security procedures support visibility into platform behavior, service health and relevant events.

Recovery

A disaster recovery plan, backup and recovery procedures and infrastructure management are part of the documented operating model.

Software delivery

Development procedures, versioning, testing, review and controlled release practices support predictable evolution.

Documentation control

Policies, procedures, models and technical records are maintained under document-control practices.

Customer success

Onboarding, support and post-launch evolution are treated as part of the operating lifecycle, not as a separate afterthought.

Service levels

Availability targets and service commitments are defined by contract and depend on the selected service model and scope.

TECHNICAL BOUNDARIES

What is defined per implementation

The Core Foundations catalogue describes the platform capability domains. A production implementation still requires a project-specific technical design.

Deployment model Environments, regions, network boundaries, scaling, observability and release strategy.	**Data model** Entities, identifiers, master-data ownership, retention, deletion, export and data-residency requirements.
Integration contracts Endpoints, authentication, payloads, rate limits, retries, reconciliation and ownership of failures.	**Security model** Identity provider, roles, privileged access, secrets, logging, incident response and customer responsibilities.
Regulatory scope Applicable jurisdictions, product categories, evidence requirements and review responsibilities.	**Acceptance criteria** Performance, availability, accessibility, content quality, operational readiness and handover criteria.

SUMMARY

A composable foundation for digital ecosystems

Midiacode Core Foundations provides the technical building blocks to create, govern, connect, deliver, measure and automate digital experiences across products, places and people.

Core Backend services, APIs, tenancy, identity, governance, content, events, integrations and operations.	**Studio** Web authoring, publishing, analytics, mini-app configuration and operational control.
Lite Browser delivery, SSR rendering, routing, forms, result pages and web mini-apps.	**Mobile** Native Super App, Wallet, Pay, points, Tap&Take;, data collection and native capabilities.

The full technical specification should be completed with the customer’s selected modules, integrations, security requirements, service levels and acceptance criteria.