01 / EXECUTIVE OVERVIEW

Lead-to-Client System

A controlled handoff, not another loose automation.

REFERENCE IMPLEMENTATION

Designed / Built / Runtime-tested

Gates A-I recorded as PASS | Live production gate not claimed

THE BUSINESS RISK

An inquiry can be captured correctly and still be lost between identity checks, qualification, ownership, follow-up and the CRM. Conflicting records or uncertain provider responses create mistakes when systems act without a reliable state or an accountable decision.

MY CONTRIBUTION

Diagnose + define

Mapped the lead journey, decision points, and conditions that require review.

Design + implement

Structured the n8n modules and PostgreSQL state/control boundaries.

Validate + reconcile

Tested edge cases, reviewed provider behavior, and addressed architecture drift.

Release with limits

Accepted a controlled reference release without claiming client results.

THE CLAIM BOUNDARY

Tests establish controlled system behavior. They do not demonstrate a live-client deployment, production throughput, cost reduction, conversion lift or ROI.

02 / HOW THE SYSTEM WORKS

Clear decisions. Recoverable work.

Three business stages group six implemented modules. The arrows describe responsibilities, not a single uninterrupted execution.

01 / CAPTURE + IDENTIFY

Know the lead

LCS-01 Validate intake

LCS-02 Resolve identity

Conflicting records are not merged by assumption.

02 / DECIDE + RESPOND

Set the next step

LCS-03 Qualify + route

LCS-04 Respond / review

AI assists interpretation; rules and people retain authority.

03 / FOLLOW THROUGH

Keep the handoff

LCS-05 Monitor + stop

LCS-06 Outcome + CRM

Retries and repeated actions refer to durable state.

AUTHORITATIVE BUSINESS STATE / POSTGRESQL

Identity, ownership, lifecycle and outcomes are controlled in the database. n8n orchestrates; Gmail and HubSpot remain external provider actions.

SHARED CONTROLS ACROSS THE JOURNEY

- Human authority
- Audit + traceability
- Bounded recovery

Illustration is conceptual. Human review, SLA monitoring, commercial outcomes and recovery can run as separate, validated control paths.

03 / SAVED CONTROL RESULTS

Tests you can trace.

Each example identifies the retained test fixture and the observed result. The source is a controlled test archive, not a client-production dataset.

01 / DUPLICATE INQUIRY — REF TC-06

EXPECTED	Repeated event should not start fresh work.
OBSERVED	**DUPLICATE_EVENT; duplicate_event=true.**

BUSINESS SIGNIFICANCE / Prevents one inquiry from being processed as multiple independent opportunities.

02 / CONFLICTING IDENTITY — REF TC-09

EXPECTED	Conflicting email/phone matches should not be merged.
OBSERVED	**REVIEW_REQUIRED; lead_id=null; both candidate IDs retained.**

BUSINESS SIGNIFICANCE / Protects customer-record integrity when identity is uncertain.

03 / CONCURRENT INTAKE — REF CONC-01 A/B

EXPECTED	Two concurrent same-identity requests should converge.
OBSERVED	**One NEW_LEAD and one REUSED_LEAD; same lead reference.**

BUSINESS SIGNIFICANCE / Tests protection against two records being created for the same contact.

04 / AMBIGUOUS QUALIFICATION — REF Q04

EXPECTED	An unclear request should not be automatically assigned.
OBSERVED	**REVIEW_REQUIRED; owner=null; SLA=NOT_STARTED.**

BUSINESS SIGNIFICANCE / Keeps consequential routing under human control when evidence is weak.

Evidence types: retained response files and detailed LCS-01/02/03 module validation reports. IDs refer to test cases, not customer records.

04 / PROVIDER + RECOVERY TESTS

Failure paths were tested too.

Saved module QA and response results cover communication, follow-up, CRM synchronization and recovery without blind replay.

GMAIL / TC-21 TO TC-23

Sent, suppressed, then failed safely

Controlled QA recorded a real acknowledgement, duplicate-send prevention and a simulated provider-network failure.

Formal LCS-04 QA + structured summary

FOLLOW-UP / TC-32

A reply stopped the sequence

The saved response returned PROSPECT_REPLY_RECORDED and cancelled two pending follow-ups.

Retained LCS-05 response file

HUBSPOT / TC-18 + RELEASE QA

Provider-side test deals exist

Archived QA documented contact/deal handoff. Two corresponding deal records were also located in the connected HubSpot test account.

LCS-06 QA + provider read

RECOVERY / CTRL-01

Successful work was reused

A saved recovery result retained the existing HubSpot contact/deal IDs; repeat dispatch returned NO_ACTION.

CTRL-01 response + validation report

INDEPENDENT EVIDENCE LIMIT

Current test CRM objects corroborate that provider-side records exist. Historical stage changes, associations, and complete retry histories were not independently replayed in this review.

05 / MATURITY + SOURCES

What has been established.

The release boundary is as important as the validated behaviors. This document is an owner-built portfolio evidence summary, not an independent certification.

DESIGNED	YES	Architecture and interfaces documented
BUILT	YES	Modules and retained runtime exports
CONTROLLED TESTS	YES	Test reports, responses and provider paths
CLIENT-DELIVERED	NO	No live client rollout established
COMMERCIAL IMPACT	NOT MEASURED	No operating baseline, revenue or ROI evidence

RELEASE RECORDS

26 SEP 2026 Formal module and whole-system release: ASES Gates A-I marked PASS in PORTFOLIO_TEST. Gate J (production verification) was not claimed.

02 OCT 2026 Canonical-path regression and drift reconciliation recorded; accepted as a runtime-validated reference implementation.

SELECTED SOURCE INDEX

TC-06 / LCS-01 intake response | TC-09 + CONC-01 / LCS-02 identity results | Q04 / LCS-03 qualification response

TC-21-23 / LCS-04 QA | TC-32 / LCS-05 reply response | TC-18 / LCS-06 QA | CTRL-01 / recovery results

NEXT PROOF THRESHOLD

Client-specific deployment, baseline measurement, operational observation and attributed results.

FULL CASE STUDY raelferrer.com/work/lead-to-client-system/