Tech Design Spec – Supplier AI Agent

Product: Supplier AI Agent (Multilingual Outreach & Logging System)

Version: v1.0

Prepared By: Filentra Founder

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1. PURPOSE

The Supplier AI Agent is a multilingual, GDPR-compliant outreach engine designed to automate supplier contact across EU and third-country jurisdictions. It is triggered by the Sprint Pack or Concierge workflows and executes email/call cadences while logging all contact attempts in metadata form for auditability.

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2. INPUT STRUCTURE

Required Inputs:

- Supplier list (name, email, country, CN code, language preference [optional])

- Declarant metadata (EORI, quarter, fallback use flag)

- Trigger source: Sprint Pack or Concierge

Data Structure:

- Format: XLS or JSON

- Required Fields:

- supplier\_name

- supplier\_email

- country\_code

- preferred\_language (optional)

- cn\_code

- declarant\_eori

- fallback\_flag (Y/N)

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3. OUTPUT STRUCTURE

Generated Files:

- PDF Effort Log: Timestamps, email status, call attempts

- Status JSON: supplier\_id, contact\_status, response\_flag, audit\_required\_flag

- Optional: ZIP inclusion into Risk Vault or Concierge

Logging Rules:

- Only metadata retained (language, timestamp, method, result)

- Response emails NOT stored

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4. OUTREACH LOGIC

4.1 Language Selection

- Uses country code → language map fallback

- DeepL or RelevanceAI API for translation

- Formal CBAM-compliant template adapted

4.2 Cadence Schedule

- Day 0: Email #1 → introduction + data request + form link

- Day 1: Voice Call #1 (optional)

- Day 2: Email #2 → reminder

- Day 3: Voice Call #2

- Day 4: Email #3 → final notice + audit clause warning

4.3 Message Elements

- All emails include:

- Why emissions data is needed

- Submission deadline

- Response form link (UploadThing, Tella, XLS)

- GDPR clause & deletion notice

- Declarant ID and CN code list (optional)

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5. FUNCTIONAL MODULES

5.1 Language Engine

- Maps supplier country to language

- Translates using DeepL API or pre-approved template bank

5.2 Delivery Core

- Sends multilingual emails via transactional email infra

- Logs: sent\_at, delivery\_status, bounce\_status, opened\_at (if available)

- Retry if bounce or no open within 48h

5.3 Metadata Logger

- Writes to internal log file:

- supplier\_email

- language\_sent

- status (sent, bounced, ignored)

- last\_contact\_attempt\_at

- fallback\_required\_flag (if no response in 5d)

- Generates log in CSV + PDF

5.4 Escalation Tagger

- If no reply in 5d → auto-flag for Default Memo

- Pushes signal into Sprint Pack or Concierge flows

5.5 Dashboard Hook (Internal)

- Activity log UI for ops team

- Manual override: "Trigger human follow-up"

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6. NON-FUNCTIONAL REQUIREMENTS

- GDPR: No body storage; metadata only

- Logs auto-delete after 30 days unless client export requested

- EU-only data storage zones (S3, Supabase, UploadThing)

- Max 300 outbound per domain/day (spam prevention)

- High-availability required during Jan–Feb peak

- SLA: 99.5% delivery uptime

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7. UI/UX NOTES

- Internal-only dashboard view

- Display:

- Supplier name

- Language

- # of attempts

- Status (Pending, Responded, Escalated)

- Default Memo Flag (Y/N)

- Button: “Retry Now” or “Override to Human Chase”

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8. ANALYTICS & EVENTS

PostHog Events:

- agent\_email\_sent

- agent\_email\_failed

- agent\_supplier\_nonresponse

- agent\_flag\_default\_required

- agent\_filed\_to\_riskvault

Funnel:

Triggered → Sent → Opened → Responded → Logged

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9. EDGE CASES

- Invalid email → bounce and escalate to manual

- Country not in lang map → default to English

- No response → fallback flag + auto memo trigger

- Early reply → cancel future cadences

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10. DEPENDENCIES

- DeepL API

- RelevanceAI or n8n (flow logic)

- UploadThing/Tella (data intake)

- PostHog

- PDFKit (log generation)

- Concierge / Sprint Pack (trigger source)

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11. OWNER

- Product Owner: Filentra Founder

- Integration: Ops + Growth

- Legal: Metadata retention only – Approved