

SERVICE EXCELLENCE

SCIENTIFIC MANUFACTURING

THIN-FILM DEPOSITION

From 4-month backlogs to 2-minute triage.

AI-enabled customer support orchestration for precision equipment manufacturers.

5 weeks

POC DELIVERY

>90%

TRIAGE REDUCTION

100%

COMMERCIAL CAPTURE

4mo → <4wk

RESOLUTION TRAJECTORY

CLIENT CONTEXT

A UK manufacturer of advanced thin-film deposition systems for academic, industrial R&D and semiconductor customers worldwide. Support ran through a central inbox and Jira, with the MD personally triaging every case. Average resolution exceeded four months on high-priority issues, engineering time was being consumed by reactive support instead of R&D, and a new commercial policy (one hour free, then billable) had no mechanism to enforce it — revenue was leaking.

WHAT WE BUILT

A five-stage orchestration layer sitting between the client's inbox, Jira and their installed-base data. Inbound emails are auto-parsed, matched to equipment and warranty records, scored for priority, and routed to a single accountable owner — with similar past cases and suggested diagnoses surfaced against the ticket. Billable-hour thresholds trigger commercial prompts and draft quotes automatically. Every resolution feeds a vector knowledge base that detects systemic failures across the install base before customers report them.

WHAT IT UNLOCKED

▶ MD time returned to leadership work

30+ minutes of MD triage per ticket replaced by sub-2-minute automated routing at >90% priority accuracy. Leadership capacity freed entirely.

▶ Revenue leakage stopped

Every case exceeding the 1-hour free threshold is detected and auto-prompted for conversion to paid support or service contract — a policy that was previously unenforced.

▶ Pattern detection across the install base

Systemic issues surfaced weeks earlier, targeting a 10× reduction in long-tail case duration. Support scales without new headcount.

▶ Engineering hours returned to R&D

Draft diagnoses and suggested steps reduce the engineer's load on routine cases — experts focus on the genuinely novel ones.

"Exceeded my expectations. It's freed significant time from my technical team and is already capturing revenue we were previously leaving on the table."

— Managing Director, UK precision equipment manufacturer · exact wording to be confirmed

COMMERCIAL SUMMARY

ENGAGEMENT LENGTH

5-week PoC

8–12 weeks production

INVESTMENT RANGE

£25k – £55k build

Optional retainer from £6k/yr

ENTRY-LEVEL ENGAGEMENTS

From £8k

Scoped to single workflow

INDICATIVE ROI

£200k+ annual value · Payback in 2–3 months

Headcount saving + revenue capture + R&D time freed

PILLAR

Service Excellence

SECTOR

Thin-Film Deposition

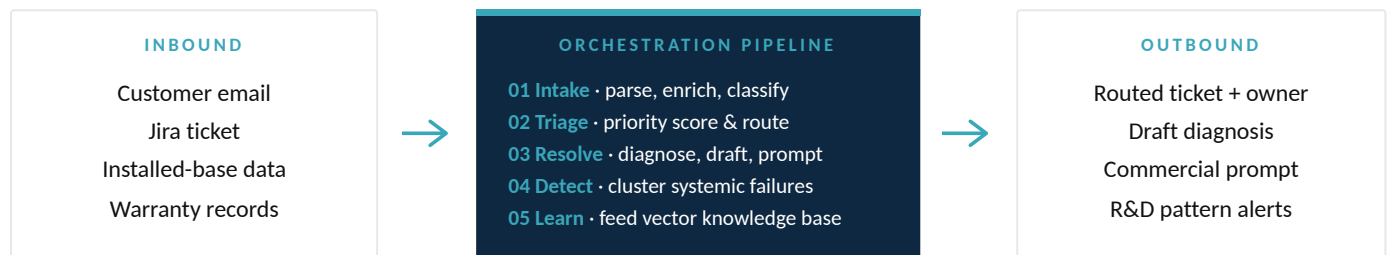
Precision equipment · Semiconductor R&D

SUPPORT ORCHESTRATION · TECHNICAL DEEP-DIVE

Azure-hosted. Integrated. Built around your existing stack.

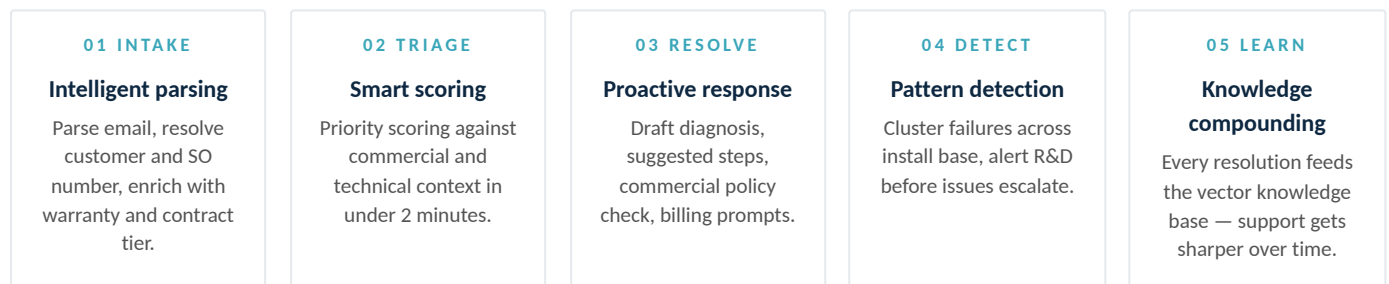
Cloud deployment where the client prefers it · Same architecture runs self-hosted on-premises where required.

ORCHESTRATION FLOW · HOW THE PIPELINE WORKS



Every resolved case compounds the knowledge base · every new ticket benefits from every one that came before.

FIVE-STAGE PIPELINE · DETAIL



TECHNICAL STACK

Orchestration	n8n · workflow engine
Vector DB	Qdrant · semantic search
LLM	Ollama (on-prem) or GPT-class
Integration	Jira API · IMAP · webhook
Hosting	Azure UK · GPU-enabled
Deployment	Docker · containerised
Alternative	Fully self-hosted available

DEPLOYMENT & DATA POSTURE

- ✓ Deployed in Azure UK with data sovereignty guarantees — client preference for managed cloud.
- ✓ Same architecture runs fully on-premises where air-gap or regulated environments require it.
- ✓ No confidential customer data leaves the Azure tenant during normal operation.
- ✓ Client owns the data, the vector knowledge base, and the pipeline configuration in perpetuity.
- ✓ Standard APIs throughout — replaceable by client, with a documented exit path.

Talk to us about a pilot

NO COMMITMENT · CLOUD OR ON-PREMISES · JUST RESULTS