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BNP Paribas Securities Services - Hobart Case

Final Executive Deliverable

1. Executive Message

Hobart has three main optimizable axes:

1. **Automatable tickets:** a large share of requests are simple and directly answerable from internal data.

2. **Ownership transfer tax:** tickets are often sent to the wrong known contact first, then reassigned internally.
 3. **Boomerang effect in complex flows:** tickets move back and forth and do not follow the most efficient path.
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2. Issue 1 - Automatable Ticket Pool (Simple, Direct Data Requests)

What we observed

A very large ticket share is objective and can be answered from trusted internal data without subjective interpretation.

Automatable ticket criteria (clear rule set)

A ticket is classified as automatable only if **all** conditions below are true:

1. `transfer_count <= 1`
2. `comm_count <= 1`
3. `task_count <= 1`
4. `reopen_date_parsed IS NULL`
5. The request is objective and can be answered from trusted internal data (no subjective interpretation)

Scope note for measurement rigor:

- The analysis population is **closed tickets only** (open/in-progress tickets excluded) to avoid underestimating duration.

Why this matters:

- It keeps AI focused on low-risk, factual requests.
- It excludes unstable cases that already show escalation signals.
- It preserves service quality by pushing ambiguous cases to humans.

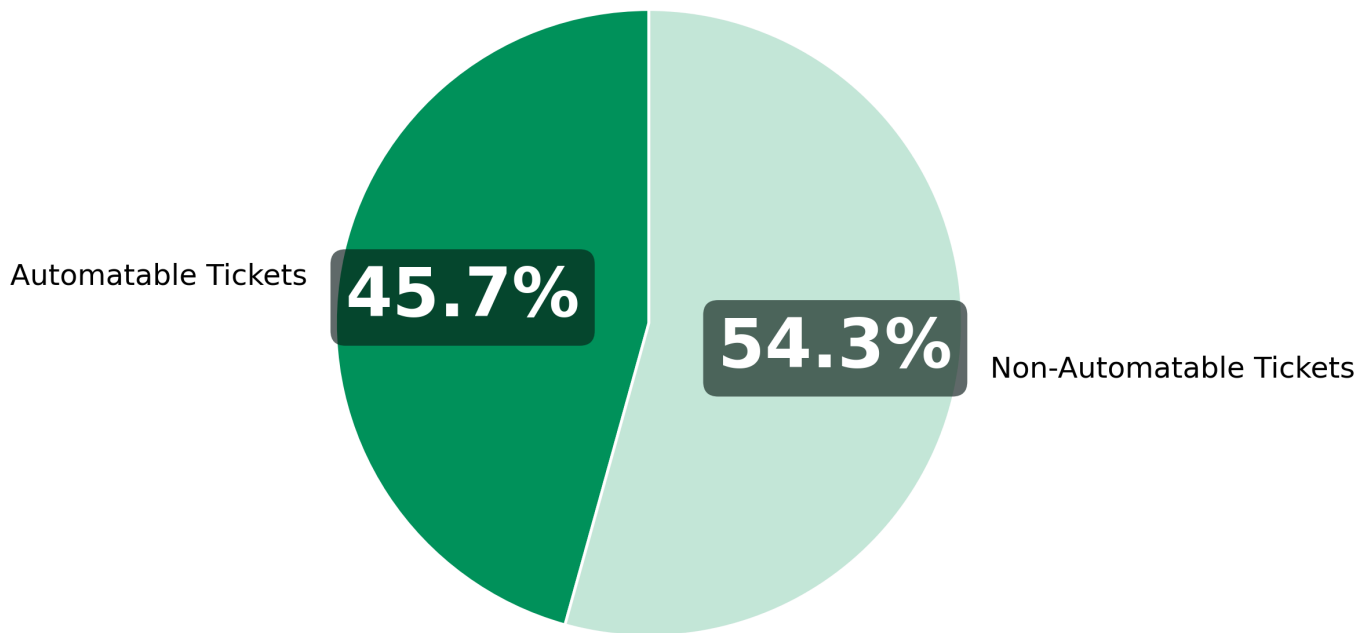
Evidence

- Total tickets analyzed: **4,729,176**
- Automatable tickets: **2,160,544**
- Automatable share: **45.69%**
- Median handling proxy on this pool: **0.93 hours**

Management interpretation:

- Even if each ticket is relatively fast, the volume is so high that this still consumes substantial team capacity.

Automatable Ticket Share of Total SR Population



3. Issue 2 - Ownership Transfer Tax (Wrong Initial Contact)

What we observed

The operational pattern is often:

- client sends to a customer service email they already know,
- but that person is not the best owner for this ticket,
- ticket gets reassigned one or multiple times.

This reassignment chain is a major time tax.

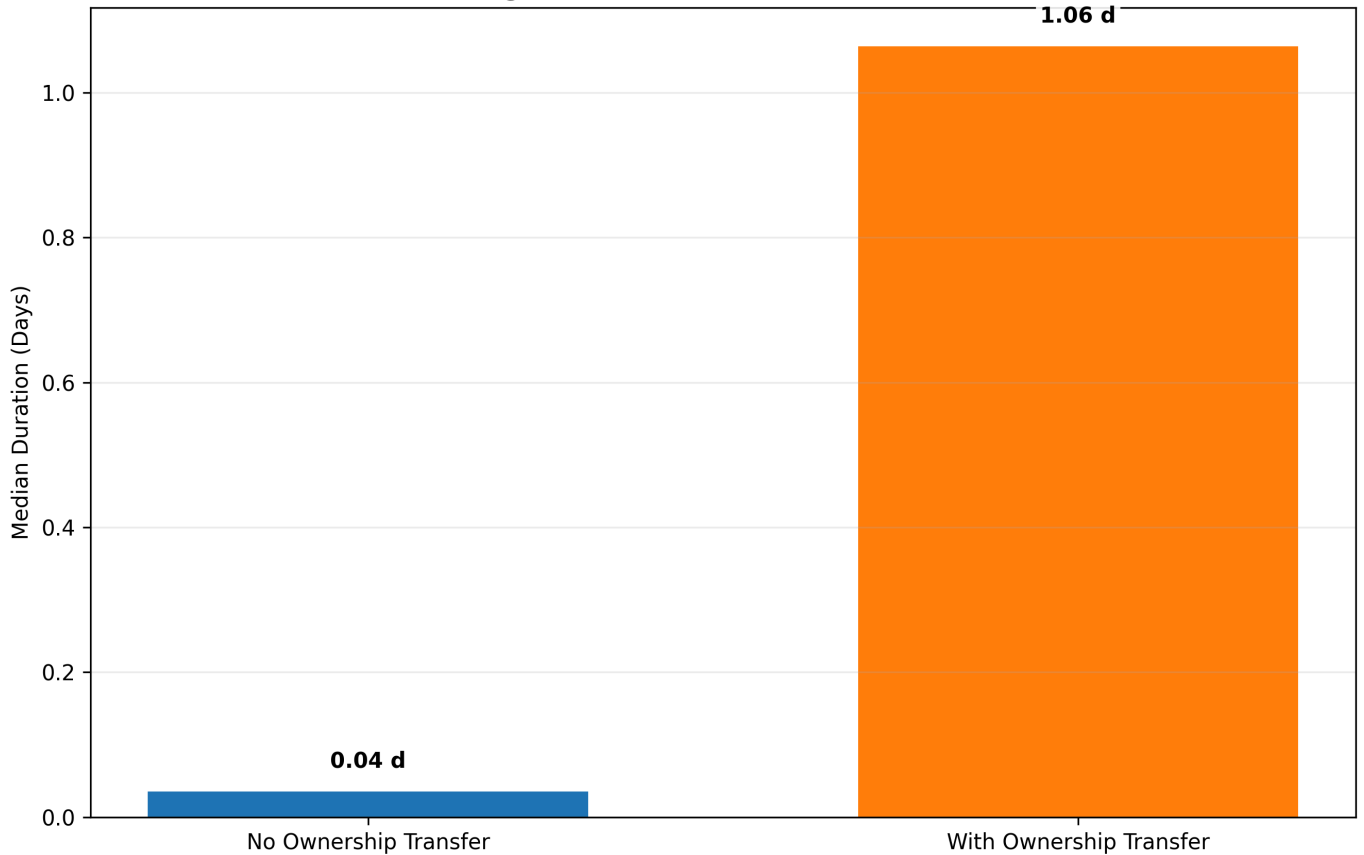
Evidence

- Median duration **without** ownership transfer: **0.036 days**
- Median duration **with** ownership transfer: **1.064 days**
- Average duration with ownership transfer: **14.08 days**
- Average duration without ownership transfer: **3.95 days**
- Ratio (with/without): **3.56x**

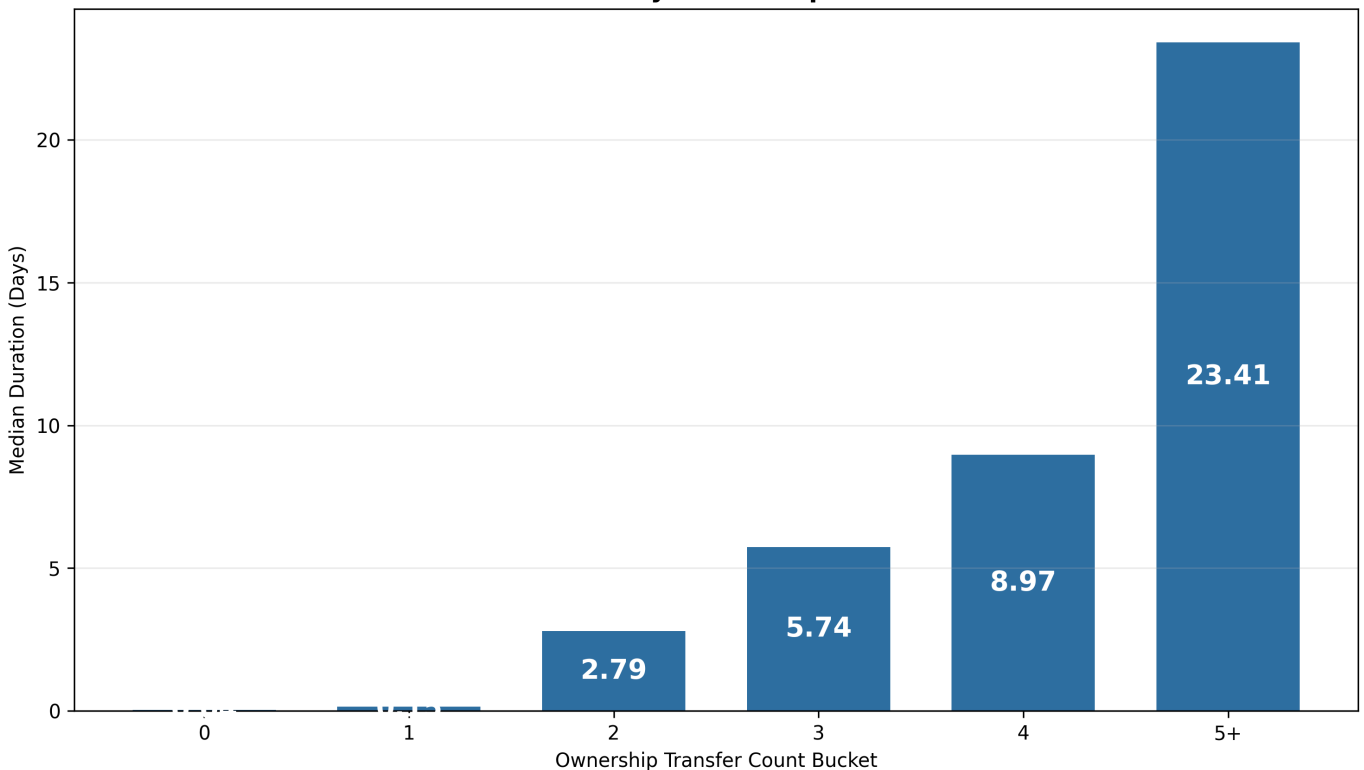
Management interpretation:

- The key penalty is not only complexity of work, but ownership instability and reassignment delay.

Owner Changes vs Median Duration (Closed Tickets)



Median Duration by Ownership Transfer Count



4. Issue 3 - Boomerang Effect (Back-and-Forth, Non-Optimal Path)

What we observed

In multi-step tickets, there is frequent back-and-forth (ping-pong), and some tickets revisit desks already seen (loop behavior), which means the path is not optimal.

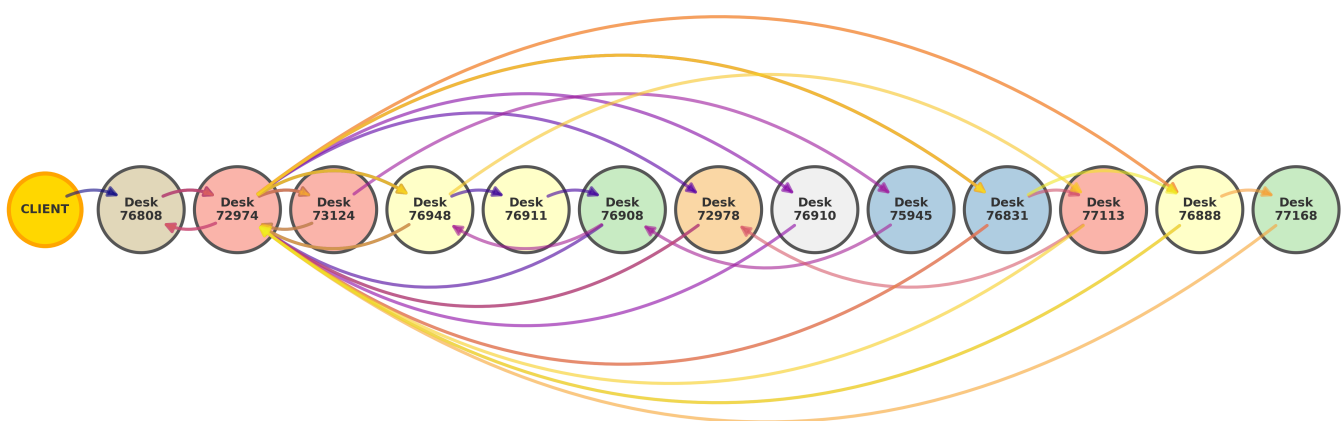
Evidence

- Average hops per ticket: **1.32**
- Loop rate on transferred tickets: **17.88%**
- Tickets with 5+ transfers: **0.92%** (small segment, very high friction)

Management interpretation:

- A notable part of complex workload is lost to coordination inefficiency, not value-adding resolution steps.

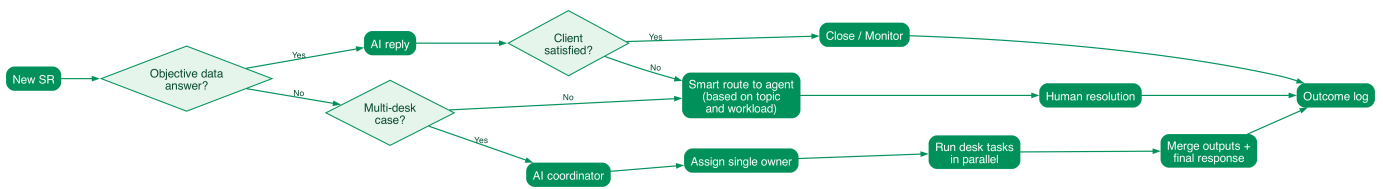
The Pinball Effect (Timeline View)
Ticket #1405635



Arrow Color: Purple (Start) -> Yellow (Finish)

5. Solution (Theoretical Operating Model)

Decision tree used in operations



Routing logic

1. Is answer directly available with no subjective interpretation?

- Yes -> AI response using internal database.
- If client responds **NOT RESOLVED** -> immediate handoff to human owner.

2. If no direct answer, does it require multiple desks?

- No -> assign best-fit human agent (specialty + live load + queue risk).
- Yes -> AI coordinator creates desk sequence; one human owner remains accountable end-to-end.

This is AI augmentation, not AI replacement.

6. Solution (Practical Implementation Built)

A. MVP Data Layer

- Includes clients, trades, tickets, routing traces, desk plans/hops, assignments, messages.

B. AI Routing Service

- Implemented: intent classification, deterministic decision-tree routing, direct-data responses, smart owner assignment, multi-desk planning, escalation handling.

C. Email-to-Ticket Flow

- MailSlurp worker integrated for inbound/outbound processing.
- New email -> routing decision -> ticket trace -> response.

D. Read-Only Management Dashboard

- [solution/management_dashboard/](#)
- Live overview + drilldown: ticket status, exchange, current desk, owner, routing trace, desk hops.

7. Why This Solution Fixes Each Issue

Issue	Root cause	Solution mechanism	Expected outcome
Automatable pool	High volume of objective requests	AI direct response from trusted internal data	Lower manual load, faster first response
Ownership transfer tax	Client sends to familiar but wrong contact, then reassignment chain	Smart initial owner selection based on specialty/load + clear ownership	Fewer reassignments, shorter cycle time
Boomerang effect	Back-and-forth and desk loops in complex tickets	AI workflow coordination + explicit desk plan + one accountable owner	Fewer loops, cleaner path, better control of complex cases

- Use dashboard in recurring management governance.

10. Final Takeaway

The analysis supports a clear conclusion:

- There is a large, measurable automatable ticket pool.
- Ownership reassignment is a major time tax (often starting from wrong initial contact).
- Complex ticket paths suffer back-and-forth inefficiency.

A hybrid AI + human-accountability operating model directly addresses these pain points and is already prototyped in a practical MVP.