Camunda 8 + GenAI: A Journey to Redefine the Customer Care Agent Experience

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VodafoneThree

Largest mobile network operator in the UK serving over 27 million customers

Launch of a new "Just Ask Once" promise on Vodafone resolving customer queries quickly and painlessly

Opening 2 new customer care centres in Sheffield and Belfast, bringing 400 sales and customer service roles back to the UK within two years, alongside 7,000+ jobs in our existing Stoke and Glasgow care centres

Customer Case Management Reimagined

A Care Agent First Experience

Our Mission:

"We strive to build the best possible experience for our Care Agents, so they are better equipped to serve our Customers"

Business Outcomes
- Reduce Average Handling Time
- Reduce Total Cost of IT Ownership
  Agility to make change

Connecting the Mission to Business Outcomes:

Focus on Flow -*"Clarity in Motion"*

- People, process, and goal aligns → *empowerment, faster decisions and better customer interaction*

- When information flows seamlessly and intelligently, work gets done

Workflows should be intelligent, orchestrated, and human

Engineering for Flow

🧩 **Unified Journey Structure**
Common Case Framework with guided task flow and deep system integration
→ *familiarity helps drives efficiency*

🤖 **Smart Defaults (Infused GenAI)**
Auto-filled context driven defaults → *keep care agents focused on resolution*

👁 **Guided UI elements**
Visualises progress and direction → *care agents stay focused on making progress and less time on the current status*

🔷 **Decisions at the Edge**
Embedded logic for case auto-creation and routing → *more time focussing on case management and closure*

Engineering for Flow (continued)

⚙️ **Event-Driven Microservices (Async-First)**
Enable non-blocking, parallel processing → *care agents stay productive whilst automated tasks run seamlessly in the background*

⏸️ **Built for Interruptions**
Pause/resume cases seamlessly → *care agent can focus on something else*
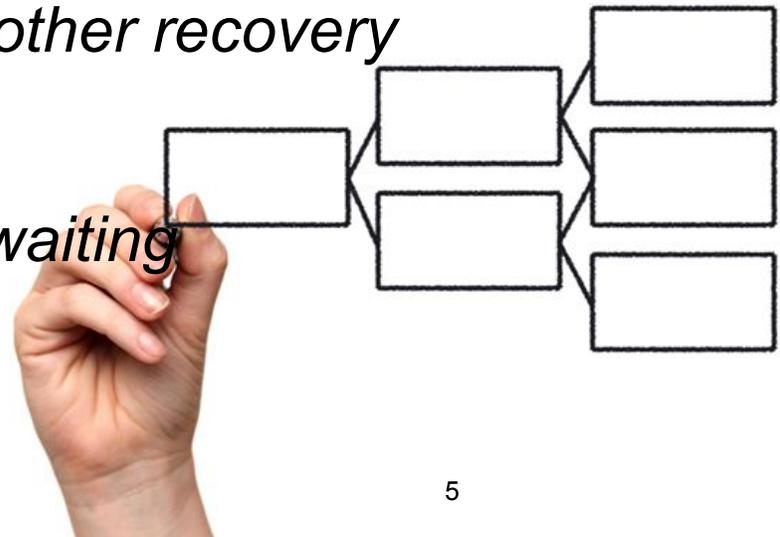
🔍 **Observable by Design**
Issues are surfaced early → *faster action and smoother recovery*

🚀 **Cached Search**
Faster lookups → *snappier performance and less waiting*
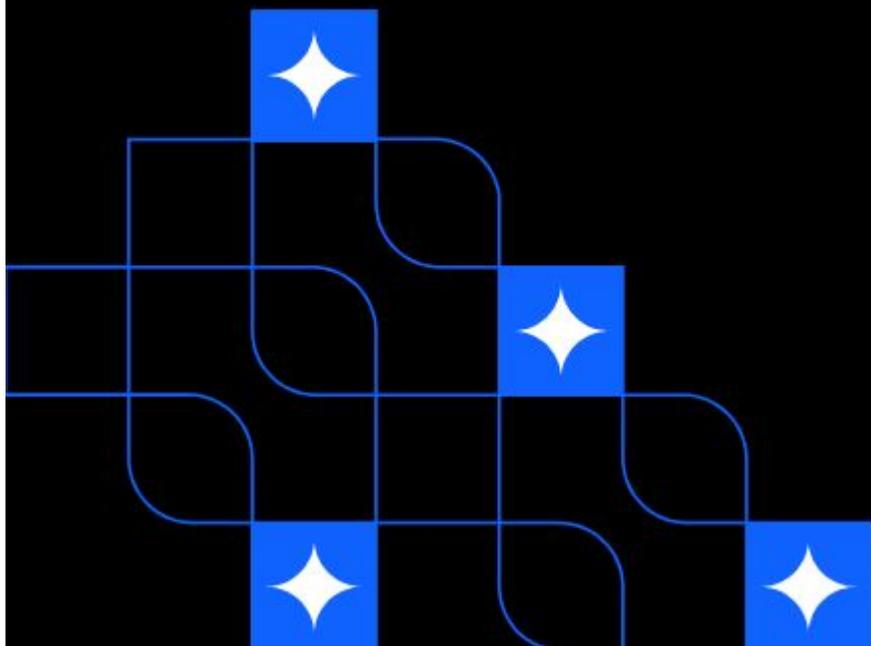
🚚 **Progressive Migration**
Phased rollout → *no big-bang disruption*

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Camunda Platform 8

The Universal Process Orchestrator

Why we chose Camunda 8

(Our Strategy Through this Project)

💰 **Cost Efficiency Through Scale**
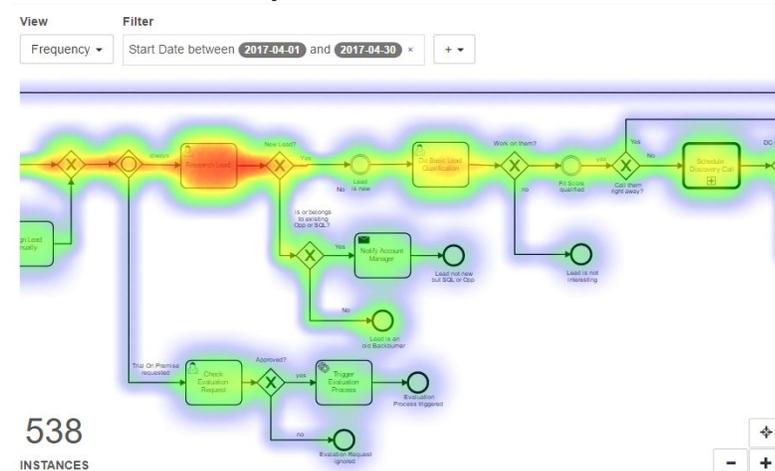Designed to scale seamlessly
- Growth drives lower Cost per Transaction

🧩 **Enterprise-Ready Flexibility**
Focussed on Orchestration, not Reinvention
- Make use of existing assets
- Customise to existing IT landscape

🔍 **Built-In Process Observability**
Camunda Optimize

538
INSTANCES

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Core Platform Components
Designed for resilience, scalability, and orchestration-first delivery

🧱 **Layered Multitenant Architecture** – GenAI Ready
- Business Logic Layer: Camunda 8 BPMN engine
  - Orchestrates case flows, escalations, and SLAs
- Application Logic: Split into microservices
- Presentation Layer: Browser-delivered UI
- Data Access Layer: Interfaces with NoSQL Case data store

🧩 **Microservices - Scalable, Isolated & Fault Tolerant**
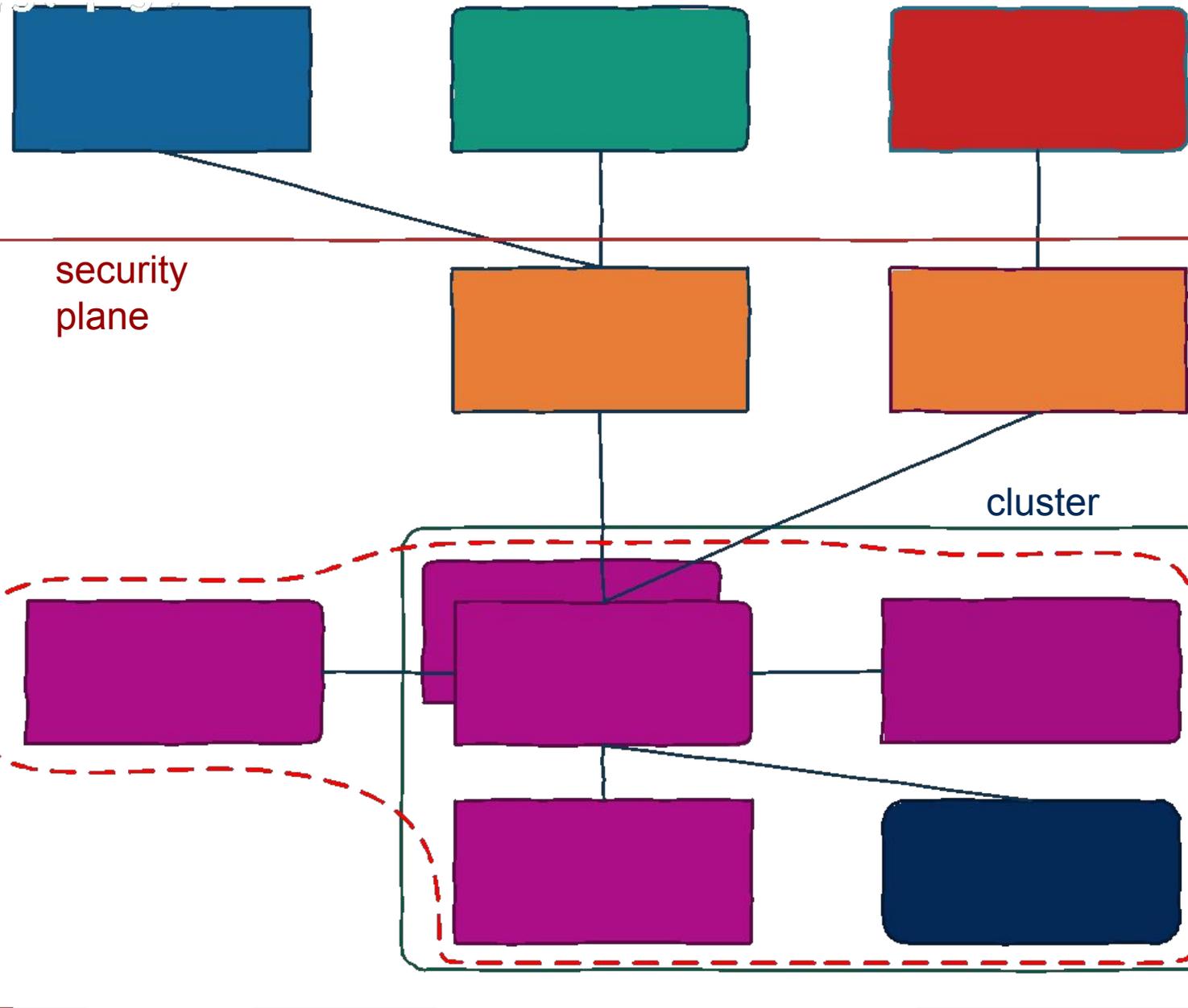Independent scaling, data access separation, rapid change deployment and fault isolation.

🔀 **Service Mesh**
Enables secure, observable communication between services.

📦 **Containerised Deployment**
Core components are containerised for portability, scalability and environment consistency.

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Core Architecture

Here is where we spent most of our time engineering

security plane

cluster

Guided Case Lifecycle Management

Common guided framework for easy phase of the Case journey

Case Creation/Validation → Case Management → Case Closure

Case Creation/Validation

Camunda Driven UI
Streamlined for Case Progress. Focused on Resolution
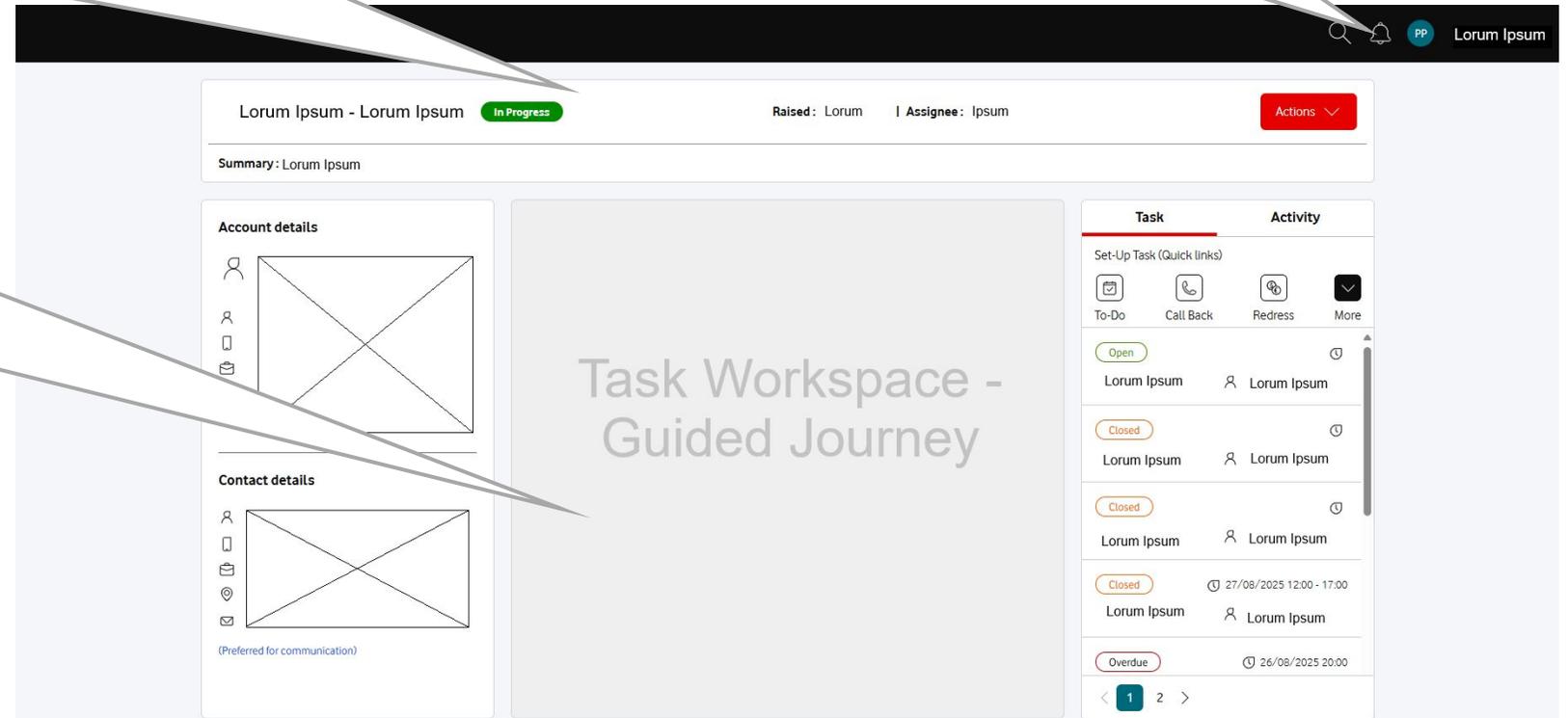
🧠 **Minimise Clutter**
- Designed to reduce distractions and cognitive load.
- Only surfaces what the agent needs when they need it.

🔔 **Proactive Alerts**
Agents are notified when upcoming tasks are due or there is an SLAs risk

🧭 **Guided Task Completion**
- Customisable framework for guided task completion.
- Helps Agent focus on the task at hand and what's next.

Boost Workflow with GenAI (Current Maturity: Optimised/Intelligent Case Management)
Accelerate flow, maintain oversight and protect trust

Camunda 8: Governance by Design - set boundaries on where GenAI operates and where it doesn't

- GenAI only invoked when needed
  - Optimised resource consumption
- Built-in GenAI service fallbacks
- Sensitive data is isolated - GenAI only used for non-decision influencing tasks

Transparency, Bias Mitigation and Human Control

- Depending on use case where GenAI explainability is not possible, tighten or consider removing its application. We use a narrow scope for GenAI (e.g. Case Summary, Case Categorisation).
- Clearly identify GenAI-generated fields and allow users to override when needed
- Implement baseline GenAI response comparison
- Build in API heuristic checks e.g. for Case Summary no PII data, must include timestamp of last contact with the Customer.

Boost Workflow with GenAI (continued)

🔗 **GenAI woven into the core of the Case workflow** - not just an afterthought
- Powers context-aware triage, intelligent defaults, and auto-generated writeups

⚡ **Speed with Structure** - transforms unstructured data into an actionable Case
- Automatically categorises, tags, and pre-processes emails for downstream workflow

🗣 **Consistent Brand Voice**
- GenAI helps drive VodafoneThree's tone and language in customer communications

🧭 **The Future** (Next Level of Maturity: Transformational/Predictive Case Management)
- Use GenAI to unlock insights from Customer Insights and Outcomes
- Infuse insights and dynamically optimise workflow

"We deepened our understanding of GenAI and Agentic AI by embedding it in our team day-to-day processes even before the project officially launched."

Thank You

➤ **Engineer for Flow** - Clarity in Motion

🛡️ **Protect Trust when using GenAI**

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