

## Module 1: Student Registration & Onboarding

### Solution Overview

The proposed Office Administrator is a chat-centric digital service that guides prospective learners from their first enquiry through enrolment and day-one readiness. A single conversational entry point intelligently routes each interaction to a specialized **agent**—a lightweight micro-service focused on one administrative task. Behind the scenes, workflow orchestration and secure data APIs move applicant information, documents and payments safely between existing Student Information Systems (SIS), finance tools and communication channels.

### Solution Construct

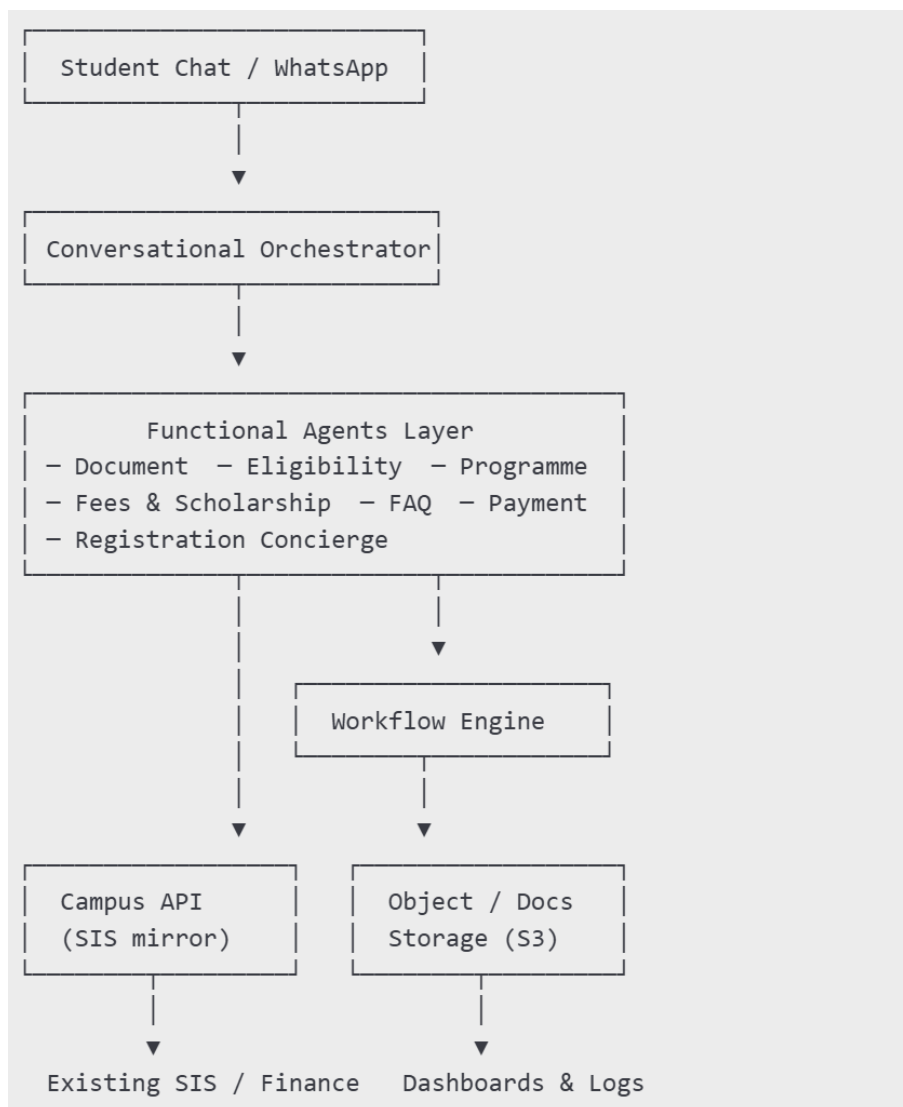
Layer	Purpose	Key Modules (agents)
Channel Layer	Unified student touch-points	Web chat widget, WhatsApp, e-mail & SMS
Conversational Orchestrator	Interprets intent and dispatches to the correct agent	Router logic with confidence thresholds & fallback menu
Functional Agents	Perform core tasks	1. Document Digitiser 2. Eligibility Checker 3. Programme Recommender 4. Fee & Scholarship Calculator 5. Registration Concierge 6. Smart FAQ 7. Payment Helper
Workflow & Data Services	Persist state and trigger next actions	Event-driven workflow engine, Campus API Gateway, Postgres mirror, Object store for uploads

### Simple Agent Roles

1. **Document Digitiser** – extracts data from uploaded IDs and transcripts; flags low-confidence fields for human review.
2. **Eligibility Checker** – compares extracted grades against programme prerequisites and provides explanations.
3. **Programme Recommender** – suggests best-fit pathways using profile similarity and student goals.
4. **Fee & Scholarship Calculator** – returns a transparent cost breakdown and explores financial-aid scenarios.

5. **Registration Concierge** – pushes step-by-step tasks, deadlines and reminders across chat, e-mail, SMS.
6. **Smart FAQ** – answers policy, timetable and campus-life questions in multiple languages, escalating edge cases.
7. **Payment Helper** – issues secure payment links, confirms receipts and updates the finance ledger.

## High-Level Solution Diagram



## Benefits

Dimension	Target Outcome	Business Value
<b>Speed</b>	Faster average application turnaround	Accelerates revenue, boosts student satisfaction
<b>Staff Efficiency</b>	Major reduction in manual data entry & follow-ups	Registrar team focuses on complex cases
<b>Scalability</b>	Plug-in architecture for future agents (e.g., visa support)	Protects investment as campus grows
<b>Transparency</b>	Every decision traceable through logs & explanations	Simplifies audits and accreditation reviews

## Guardrails & Security Considerations

- **Data Isolation** – Conversational agents operate with read-only rights; all write operations pass through validated APIs.
- **Encryption** – TLS 1.3 in transit; server-side encryption at rest via managed keys.
- **Role-Based Access Control** – Separate service accounts per agent with least-privilege IAM.
- **Prompt & Response Filtering** – Automated scanning to block disallowed content and personal-data leaks before storage.
- **Human-in-the-Loop** – Low-confidence extractions and ambiguous intents surface in staff dashboards for confirmation.
- **Rate & Cost Limits** – Per-agent quotas ensure predictable operating expense.
- **Fail-Safe UX** – Graceful degradation if an agent or external service is unavailable; real-time alerts to support staff.