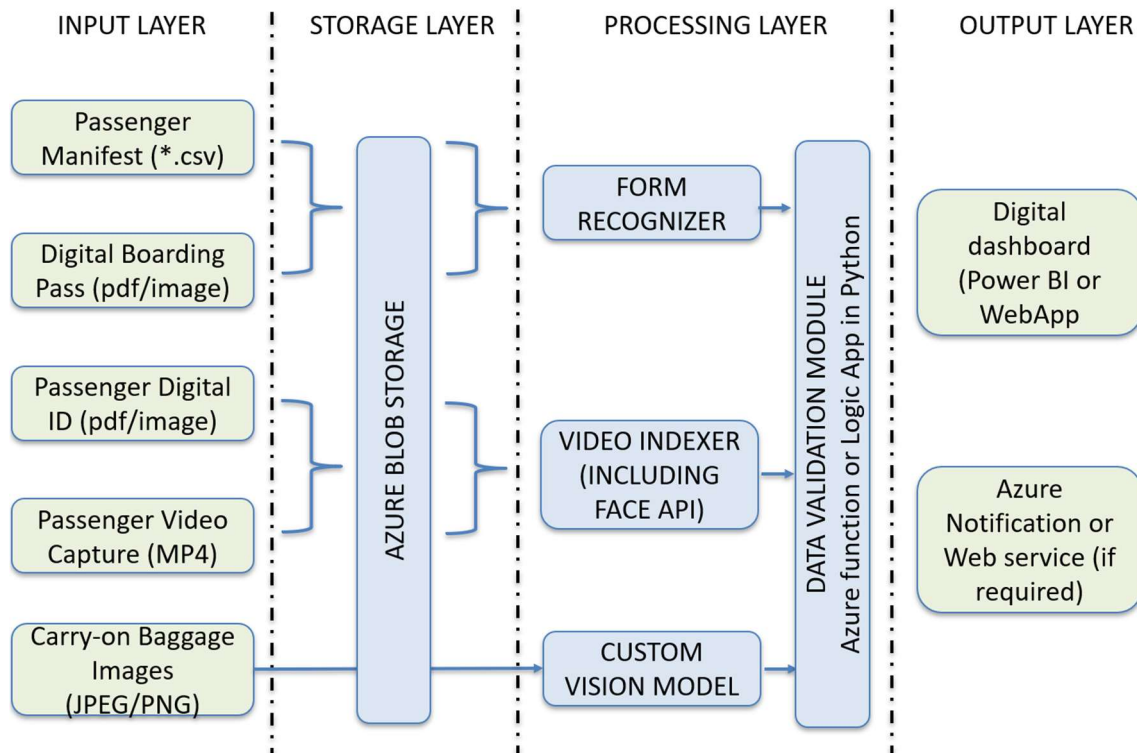


Architecture Diagram



Azure Services Architecture Diagram (Conceptual Overview)

Inputs (Input Layer)

- Passenger Manifest (CSV/JSON)
- Digital Boarding Pass (PDF/Image)
- Passenger Digital ID (PDF/Image)
- Passenger Video Capture (MP4)
- Carry-on Baggage Images (JPEG/PNG)

Storage (Storage Layer)

- **Azure Blob Storage:** Stores all input files (videos, images, documents).

Processing (Cognitive Processing Layer)

- **Azure Form Recognizer:** Extracts structured text from boarding passes and ID cards.
- **Azure Video Indexer** (includes Face API): Extracts frames and performs facial recognition.
- **Azure Custom Vision:** Detects prohibited items (e.g., lighters) in baggage images.

- **Data Validation Logic** (Azure Function or Logic App): Implements cross-service validation logic.

Outputs

- **Digital Dashboard** (Power BI Embedded or Web App): Displays validation results.
- **Azure Notification or Web Service Response**: Provides feedback to the user (can board or must contact an agent).