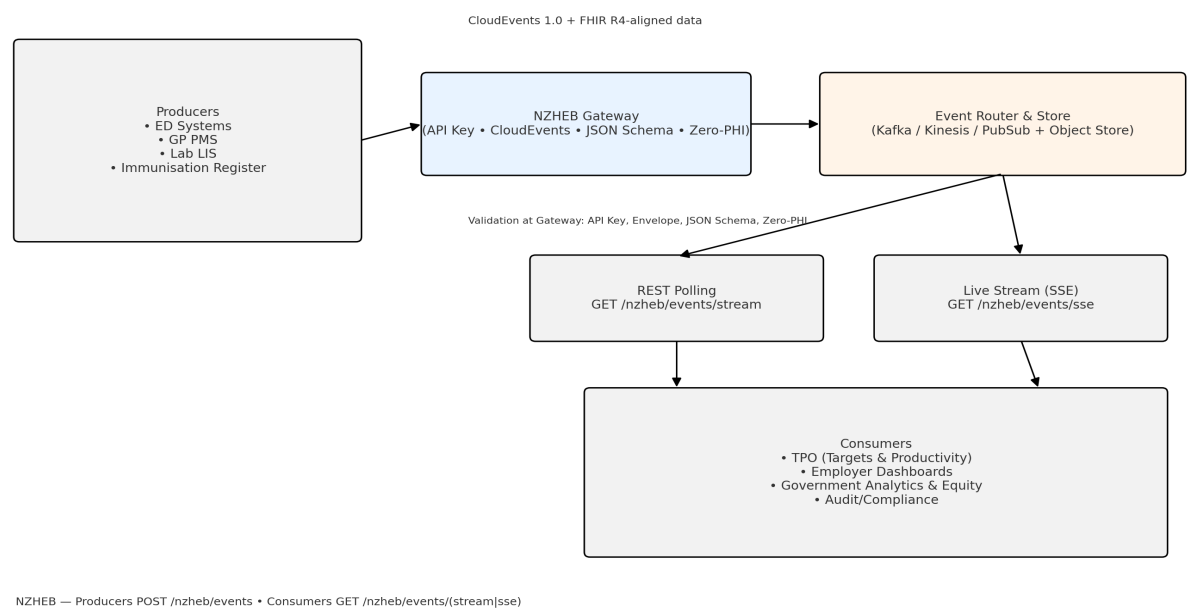


# NZHEB — Architecture & Implementation (High-level)



## Event Flow

- 1 Producers (ED systems, GP PMS, Lab LIS, Immunisation registers) → POST CloudEvents to /nzheb/events
- 2 Gateway validates API key, CloudEvents 1.0 envelope, JSON Schema & Zero-PHI (no PHI fields)
- 3 Router persists to Event Store and enqueues for delivery
- 4 Consumers retrieve via REST polling (/nzheb/events/stream) or live SSE (/nzheb/events/sse)
- 5 TPO consumes the same feed to compute targets, productivity (time/\$), and equity views

## Implementation Toolkit (Reference Stack)

Layer	Recommendation (examples)
API Gateway	Kong, Apigee, AWS API Gateway
AuthN/Z	API Keys (prototype), JWT, mTLS (system-to-system)
Schema Validation	JSON Schema, FHIR R4 profiles
Event Store/Bus	Kafka, Kinesis, Pub/Sub
Delivery	REST polling, Server-Sent Events (SSE)
Observability	OpenTelemetry, central logs & metrics
Security	WAF, IP allowlists, Zero-PHI enforcement

Updated 2025-08-30 08:19:47Z — connectors fixed for clarity.