

NZHEB — New Zealand Health Event Bus

API Contract & Usage (v1.0.0)

Standards: CloudEvents 1.0 + FHIR R4 payloads

Privacy: Zero-PHI (hashed linkage identifiers only)

Scope: Producers publish events, Consumers stream/poll, TPO consumes for ROI/Equity metrics.

Category	Method & Path	Notes
Producers	POST /nzheb/events	Publish CloudEvents 1.0; Zero-PHI enforced
Consumers	GET /nzheb/events/stream	Polling with filters (type, since, limit); cursor in header
Consumers	GET /nzheb/events/sse	Server-Sent Events (live stream of CloudEvents)
System	GET /nzheb/schemas/{eventType}	Retrieve JSON Schema for validating event payloads

Zero-PHI Enforcement: Only hashed linkage identifiers allowed (e.g., *hash:<digest>*). Requests containing PHI are rejected with *400 VALIDATION_ERROR*.

Publish Example (curl)

```
curl -X POST http://localhost:8080/nzheb/events \
-H "Authorization: Bearer <API-Key>" \
-H "Content-Type: application/cloudevents+json" \
-d '{
  "specversion": "1.0",
  "type": "LabResultReady",
  "source": "LabSysA",
  "id": "nzheb-event-001",
  "time": "2025-08-30T09:45:00Z",
  "subject": "PatientRef:hash:9a7f3...",
  "datacontenttype": "application/json",
  "data": {
    "PatientRef": "hash:9a7f3...",
    "LabID": "LABX999",
    "Status": "Completed",
    "Result": "Positive"
  }
}'
```

Poll Example (curl)

```
curl "http://localhost:8080/nzheb/events/stream?type=LabResultReady&limit=50" \
-H "Authorization: Bearer <API-Key>"
```

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