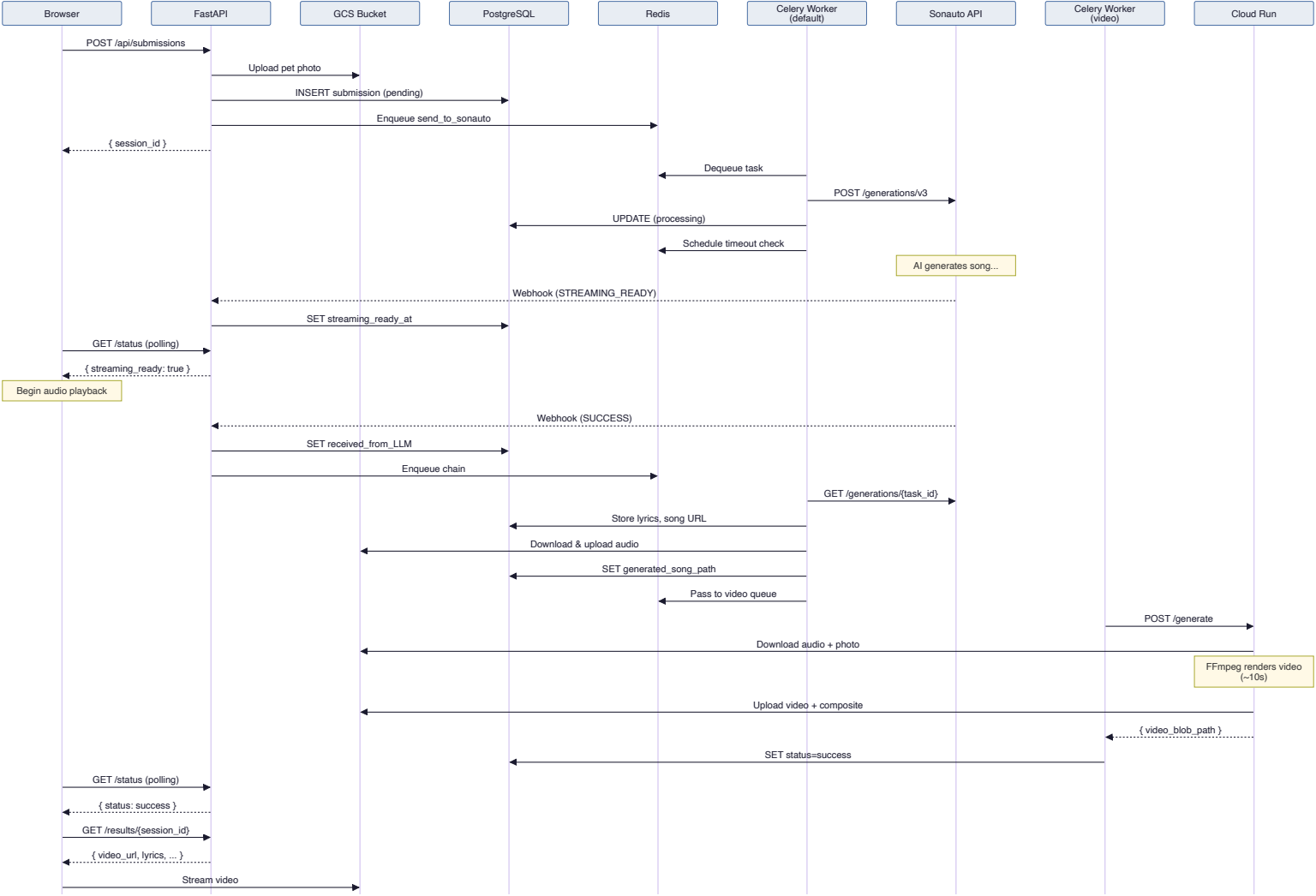
Browser
FastAPI
GCS Bucket
PostgreSQL
Redis
Celery Worker (default)
Sonauto API
Celery Worker (video)
Cloud Run
POST /api/submissions
Upload pet photo
INSERT submission (pending)
Enqueue send_to_sonauto
{ session_id }
Dequeue task
POST /generations/v3
UPDATE (processing)
Schedule timeout check
AI generates song...
Webhook (STREAMING_READY)
SET streaming_ready_at
GET /status (polling)
{ streaming_ready: true }
Begin audio playback
Webhook (SUCCESS)
SET received_from_LLM
Enqueue chain
GET /generations/{task_id}
Store lyrics, song URL
Download & upload audio
SET generated_song_path
Pass to video queue
POST /generate
Download audio + photo
FFmpeg renders video (~10s)
Upload video + composite
{ video_blob_path }
SET status=success
GET /status (polling)
{ status: success }
GET /results/{session_id}
{ video_url, lyrics, ... }
Stream video