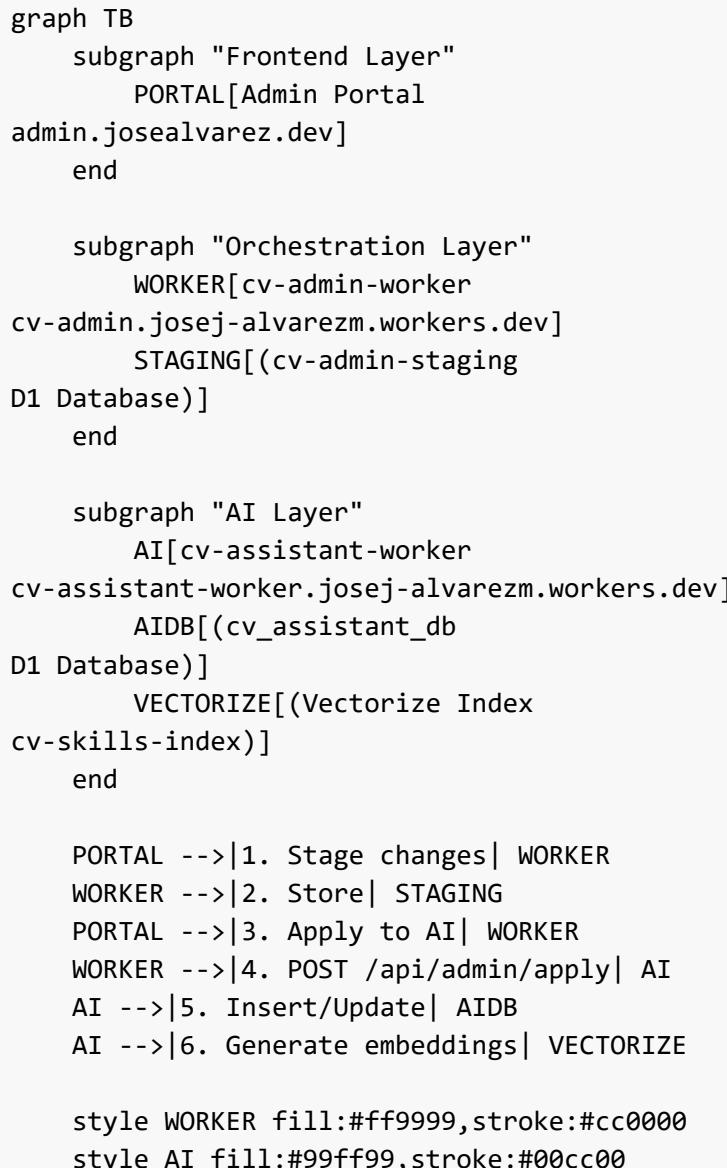


# AI Sync Flow - Troubleshooting Guide

## Problem Statement

The Admin Portal's "Apply to AI" functionality was failing to sync technology data to the AI Agent's semantic search index. Changes staged in the Admin Portal were not being reflected in the chatbot's knowledge base.

## System Architecture Overview



## The Sync Flow in Detail

### Step-by-Step Process

```

sequenceDiagram
    participant User as Admin User
    participant Portal as Admin Portal
    participant Worker as cv-admin-worker
    participant Staging as cv-admin-staging DB
    participant AI as cv-assistant-worker
    participant D1 as cv_assistant_db
    participant Vec as Vectorize

    Note over User,Vec: STAGING PHASE
    User->>Portal: Edit technology (e.g., update TypeScript description)
    Portal->>Worker: POST /stage {entity: "technology", data: {...}}
    Worker->>Staging: INSERT into staged_ai_changes
    Worker-->>Portal: {success: true, id: 123}
    Portal-->>User: "Change staged for AI sync"

    Note over User,Vec: APPLY PHASE
    User->>Portal: Click "Apply to AI"
    Portal->>Worker: POST /api/apply/ai
    Worker->>Staging: SELECT * FROM staged_ai_changes WHERE status='pending'
    Staging-->>Worker: [{id: 123, operation: 'UPDATE', data: {...}}]

    rect rgb(255, 200, 200)
    Note over Worker,AI: THIS IS WHERE THE ISSUE WAS
    Worker->>AI: POST /api/admin/apply
    {operations: [...]}
    end

    AI->>D1: INSERT/UPDATE technology record
    AI->>AI: Generate BGE-base embedding (768 dimensions)
    AI->>Vec: Upsert vector with metadata
    AI-->>Worker: {success: true, inserted: 1}
    Worker->>Staging: UPDATE status='applied' WHERE id=123
    Worker-->>Portal: {success: true, applied: 1}
    Portal-->>User: "1 change applied to AI"

```

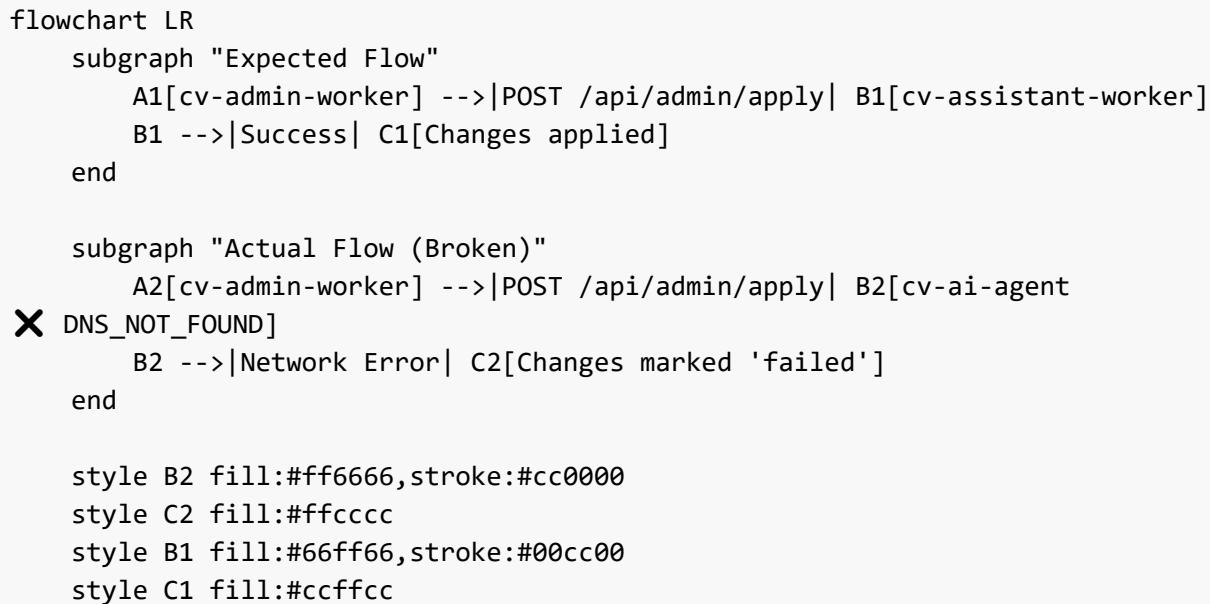
## The Issue

### Root Cause

The **AI\_AGENT\_API\_URL** secret in cv-admin-worker was configured with an **incorrect URL**:

Configuration	Value	Status
<b>Configured URL</b>	<a href="https://cv-ai-agent.josej-alvarezm.workers.dev">https://cv-ai-agent.josej-alvarezm.workers.dev</a>	<span style="color: red;">✖</span> Does not exist
<b>Correct URL</b>	<a href="https://cv-assistant-worker.josej-alvarezm.workers.dev">https://cv-assistant-worker.josej-alvarezm.workers.dev</a>	<span style="color: green;">✓</span> Working

### What Was Happening



## Symptoms

- In Admin Portal:** "Apply to AI" button would fail or timeout
- In Staging DB:** Changes stuck in `pending` or marked as `failed`
- In Chatbot:** New or updated skills not appearing in search results
- In Logs:** Network errors like `ENOTFOUND` or `DNS resolution failed`

## The Fix

### What Was Done

- Updated the secret** in cv-admin-worker:

```

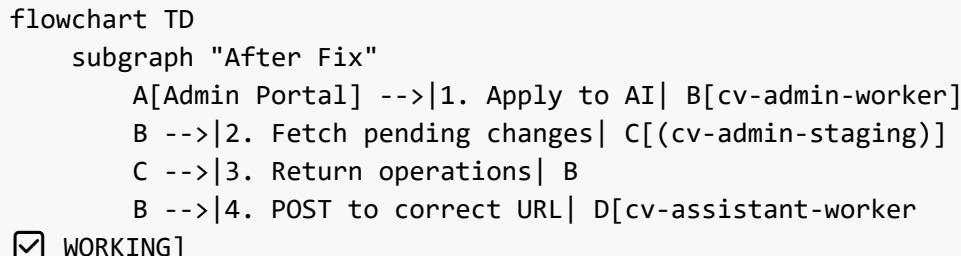
npx wrangler secret put AI_AGENT_API_URL
# Entered: https://cv-assistant-worker.josej-alvarezm.workers.dev

```

- Updated documentation** in `SECRETS.md` with correct URLs

- Created architecture documentation** to prevent future confusion

### Expected Outcome After Fix



```

D -->|5. Insert to D1| E[(cv_assistant_db)]
D -->|6. Generate embedding| F[Workers AI]
F -->|7. 768-dim vector| D
D -->|8. Upsert| G[(Vectorize
cv-skills-index)]
D -->|9. Success response| B
B -->|10. Mark applied| C
B -->|11. Return result| A
end

style D fill:#66ff66,stroke:#00cc00
style G fill:#66ffff,stroke:#0099cc

```

## Verification Checklist

Pre-Verification (Already Confirmed )

Check	Status	Details
AI Agent health	<input checked="" type="checkbox"/>	/health returns {status: "healthy", db: "connected"}
Database connectivity	<input checked="" type="checkbox"/>	cv_assistant_db connected
AI quota available	<input checked="" type="checkbox"/>	9490/9500 neurons remaining
Secret updated	<input checked="" type="checkbox"/>	wrangler secret put succeeded

End-to-End Verification (Pending)

Step	How to Verify
1. Stage a change	Open Admin Portal → Edit a technology → Save
2. Check staging	Portal should show 1 pending AI change
3. Apply to AI	Click "Apply to AI" button
4. Verify success	Should show "1 change applied"
5. Test search	Query chatbot for the updated technology
6. Confirm in Vectorize	/api/debug/vectors should show updated timestamp

## Related Files

File	Purpose
cv-admin-worker/src/index.ts	Contains applyAiHandler that calls AI Agent
cv-admin-worker/SECRETS.md	Documents all required secrets
cv-admin-worker/docs/ARCHITECTURE.md	Full system architecture diagrams

File	Purpose
cv-ai-agent/src/index.ts	AI Agent's <a href="#">/api/admin/apply</a> handler

## Naming Confusion (Historical Context)

The project has two similar worker names which caused confusion:

Worker Name	Purpose	Status
cv-assistant-worker	The actual AI Agent (semantic search)	<input checked="" type="checkbox"/> Active, correct URL
cv-ai-agent	Conceptual name used in documentation	<input type="checkbox"/> ⚠ No worker with this exact name exists
cv-assistant-worker-production	Production environment of same code	<input checked="" type="checkbox"/> Active, same database

**Recommendation:** Consolidate to single worker name to avoid future confusion.