

Slack alaiops Bot — Backend Architecture

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Basic Info

- **Workspace:** alai-talk.slack.com
- **Bot user:** @alaiops (U0AEMU81LBG)
- **Channels:** 11 public + 6 private (manual invite required for private)
- **Mode:** Socket Mode (no public webhook needed)

Tokens Location

1. **Primary:** macOS Keychain
 - `slack-bot/slack-bot-token`
 - `slack-bot/slack-app-token`
2. **Fallback 1:** Bitwarden/Vault
3. **Fallback 2:** Environment variables

Daemon

- **LaunchAgent:** com.john.slack-bot
- **PID lookup:** `pgrep -f slack-bot.js`
- **Code:** `~/system/tools/slack-bot.js`
- **Logs:** `~/system/logs/slack-bot.log`

Backend Chain (via comms-responder.js)

Priority-based fallback system (lower number = higher priority, faster response):

1. **Groq (priority 5, ~100-500ms) — PRIMARY**
 - Model: llama-3.1-8b-instant
 - Added: 2026-04-18
 - Requires: `GROQ_API_KEY` env var
 - Adapter: `~/system/tools/adapters/groq.js`
2. **Claude API (priority 10, ~2s)**
3. **Claude CLI (priority 20, ~20s)**
4. **Ollama (priority 30, ~40s) — FALLBACK ONLY**

Groq Adapter

```
// Registered in ~/system/tools/adapters/index.js
const groq = require("./groq.js");

// Usage
const response = await groq.send("prompt", {
  model: "llama-3.1-8b-instant",
  temperature: 0.7,
  max_tokens: 512
});
```

Event Subscriptions

Status: Re-enabled 2026-04-18 after scope fix

Critical fix: Bot NO LONGER requires `admin` scopes (caused "Enterprise only" error). Removed admin scopes from User token, kept 15 bot scopes.

Active bot scopes (15):

- `app_mentions:read`
- `channels:history`
- `channels:read`

- chat:write
- groups:history
- groups:read
- im:history
- im:read
- im:write
- mpim:history
- mpim:read
- reactions:read
- reactions:write
- users:read
- users:read.email

Dead Pattern Warning

If bot stops responding, check logs first:

```
tail -100 ~/system/logs/slack-bot.log
```

Benign pattern (ignore): "Dedup: skipping" — message already processed

Error patterns (investigate):

- "Socket mode error"
- "Token invalid"
- "Groq API error"
- "All backends failed"

Test Commands

```
# Send test message
node ~/system/tools/slack.js send general "Test from John"

# Read channel history
node ~/system/tools/slack.js read general 10

# Check bot status
pgrep -f slack-bot.js && echo "Running" || echo "Stopped"
```

See Also

- Groq adapter source: ~/system/tools/adapters/groq.js
- Bot source: ~/system/tools/slack-bot.js
- Comms responder: ~/system/tools/comms-responder.js

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