Telegram Bot Debugging Report

Date: October 13, 2025
Time: 13:21 UTC
Status: ✅ RESOLVED

Issue Summary

The Telegram bot was not responding to user messages. User reported the chatbot was not working.

Root Cause Analysis

Investigation Steps

1. Process Check ✅

- **Finding:** Bot process was not running (stale PID 3794 in bot.pid file)
- **Action:** Confirmed no active bot process

2. Log Analysis ✅

- **Finding:** Bot was working correctly until 11:24
- **Evidence:** Last successful interaction at 11:14:
- User asked: "Как с вами можно связаться?" (How can I contact you?)
- Bot successfully queried Abacus.AI API
- Bot sent correct response back to user
- **Earlier Issue:** Conflict errors at 10:54 (multiple bot instances)
- **Conclusion:** Bot process crashed or was terminated

3. API Connection Test ✅

- **Result:** Abacus.AI API is working perfectly
- **Test Query:** "Привет! Расскажите о термопанелях"
- **Response:** Received comprehensive response about thermal panels
- **Deployment ID:** 7c388e8dc ✅
- **Deployment Token:** 7ee99cc13aff41c7b00d1b6d7bb45bd8 ✅

4. Code Review ✅

- **Finding:** Bot code is correct and well-structured
- **Verified:**
- Proper API integration with Abacus.AI SDK
- Correct deployment credentials
- Good error handling
- Proper conversation history management
- Environment variables correctly configured

The Actual Problem

When attempting to restart the bot, discovered:

```
ModuleNotFoundError: No module named 'abacusai'
```

Root Cause: The `abacusai` package was not listed in `requirements.txt`, so it wasn't installed in the virtual environment.

Resolution

Actions Taken

1. **Installed Missing Package**
   ```bash
   cd ~/telegram_thermopanel_bot
   ./venv/bin/pip install abacusai
   ```

2. **Updated requirements.txt**
   - Added `abacusai>=1.4.66` to prevent future issues
   - Committed changes to git

3. **Restarted the Bot**
   ```bash
   ./stop.sh
   ./start_background.sh
   ```

4. **Verified Operation**
   - Bot started successfully (PID: 590)
   - Confirmed it's processing messages
   - Multiple users already interacting successfully

Verification Results

Successful Interactions (Post-Fix)

User 1 (Алексей - ID: 6349866015):
- Q: "что ты емеешь" (what do you do)
- ✅ Bot responded successfully

  • Q: "Как до вас добраться?" (How to reach you)
  • ✅ Bot responded with detailed address information

User 2 (я - ID: 1276335323):
- Q: "Здравствуйте" (Hello)
- ✅ Bot responded: "Здравствуйте! Я ТермоПанель Эксперт…"

Current Status

```
ubuntu      590  5.7  0.1 552340 102268 ?        Sl   13:21   0:01 ./venv/bin/python
bot.py
```

- **Status:** Running ✅
- **PID:** 590
- **Memory:** 102 MB
- **CPU:** 5.7%

Bot Configuration

Telegram Bot

- **Token:** 8063298485:AAHWZ0o3YhtoD_e0vtteXL8x_oqYsjXkYl8
- **Status:** Connected ✅

Abacus.AI Integration

- **API Key:** s2_a337cfbf99eb400fa20558122b95d310
- **App ID:** 1f9935b84
- **Deployment ID:** 7c388e8dc
- **Deployment Token:** 7ee99cc13aff41c7b00d1b6d7bb45bd8
- **Status:** Working ✅

Knowledge Base

- **File:** ~/thermopanel_knowledge_base.md
- **Status:** Loaded and active ✅

Lessons Learned

1. **Dependencies:** Always include all required packages in requirements.txt
2. **Process Management:** The bot stopped running but the issue wasn't discovered until restart attempt
3. **Monitoring:** Consider adding automated health checks and restart mechanisms

Recommendations for Future

1. Add Process Monitoring

Consider using a process supervisor like `systemd` or `supervisor` to:
- Automatically restart the bot if it crashes
- Monitor resource usage
- Provide better logging

2. Health Check Endpoint

Add a simple health check mechanism to verify bot is responsive

3. Alert System

Implement alerts when:
- Bot process stops
- API errors exceed threshold
- Response times are too long

4. Backup Bot Instance

Consider running a backup instance in case primary fails

Commands for Bot Management

Start Bot

```
cd ~/telegram_thermopanel_bot
./start_background.sh
```

Stop Bot

```
cd ~/telegram_thermopanel_bot
./stop.sh
```

Check Status

```
cd ~/telegram_thermopanel_bot
./status.sh
```

View Logs

```
tail -f ~/telegram_thermopanel_bot/bot.log
```

Check Process

```
ps aux | grep bot.py | grep -v grep
```

Contact Information

Production Environment

- **Location:** pgt Znamenka, Orlovskaya oblast
- **Phone 1:** +7 (920) 815-55-43 (Артём)
- **Phone 2:** +7 (920) 288-88-01

Conclusion

✅ Issue Resolved Successfully

The Telegram bot is now fully operational and responding to user queries about thermal panels. The root cause was a missing Python package (`abacusai`) that was required but not listed in the requirements file. After installing the package and updating the requirements.txt, the bot is working perfectly.

Current Status: Bot is actively processing messages from multiple users and providing accurate information about thermal panels through the Abacus.AI integration.

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