

Phase 2 Deployment Guide

Status: Ready for production deployment 

Version: v2.0.0-phase2

Date: November 17, 2025

Pre-Deployment Checklist

-  PostgreSQL integration complete
-  All analytics endpoints working
-  UI updated with session history & trust indicators
-  All tests passing (9/9)
-  Documentation updated
-  Git commits tagged (v2.0.0-phase2)

Deployment Instructions

Option 1: Deploy via Platform UI (Recommended)

Backend Deployment

Using the Platform Checkpoint System:

1. Save Checkpoint (if not already done):

- The assistant will create a checkpoint using `build_and_save_nodejs_service_checkpoint`
- Checkpoint name: "Phase 2 PostgreSQL Analytics Complete"

2. Deploy via UI:

- Go to your platform dashboard
- Navigate to the service checkpoints
- Select the "Phase 2 PostgreSQL Analytics Complete" checkpoint
- Click "Deploy to Production"
- The platform will automatically:
 - Build the service
 - Set up PostgreSQL database
 - Configure environment variables
 - Deploy to a public URL

Environment Variables Needed:

```
OPENAI_API_KEY=sk-your-key-here
DATABASE_URL=postgresql://... (auto-configured by platform)
PORT=8000 (optional, defaults to 8000)
```

UI Deployment

Using Vercel (Current Setup):

1. Go to <https://vercel.com/dashboard>
2. Import the `vctt_agi_ui` repository
3. Configure build settings:
 - Framework: Vite
 - Build Command: `yarn build`
 - Output Directory: `dist`
4. Set environment variable:
`VITE_API_URL=https://your-backend-url.com`
5. Deploy

OR Deploy via CLI:

```
cd /home/ubuntu/vctt_agi_ui
vercel --prod
```

Option 2: Manual Deployment (Alternative)

Backend to Render.com

1. Connect GitHub repository to Render
2. Create new Web Service:
 - Name: `vctt-agi-backend`
 - Environment: Node
 - Build Command: `cd nodejs_space && yarn install && yarn build`
 - Start Command: `cd nodejs_space && yarn start:prod`
3. Add PostgreSQL database (included in plan)
4. Set environment variables:


```
OPENAI_API_KEY=sk-...
DATABASE_URL=<auto-populated by Render>
```
5. Deploy

UI to Vercel

(Same as Option 1 above)

URLs After Deployment

Backend

- Production URL: `https://your-backend-service.onrender.com`
- API Docs: `https://your-backend-service.onrender.com/api`
- Health: `https://your-backend-service.onrender.com/health`

Frontend

- Production URL: `https://vcttagiui.vercel.app` (or your custom domain)

Post-Deployment Verification

1. Test Backend Health

```
curl https://your-backend-url.com/health
# Should return: {"status":"healthy"..."}
```

2. Test Analytics Endpoints

```
# List sessions
curl https://your-backend-url.com/analytics/sessions

# Trust metrics
curl https://your-backend-url.com/analytics/trust-metrics

# Aggregate stats
curl https://your-backend-url.com/analytics/aggregate
```

3. Test Session Creation

```
curl -X POST https://your-backend-url.com/api/v1/session/start \
-H "Content-Type: application/json" \
-d '{"user_id": "prod_test", "input": "Hello from production!"}'
```

4. Test UI

1. Open <https://vcttagiui.vercel.app>
2. Verify “Analytics” button is visible
3. Click “Analytics” - should show dashboard
4. Create new chat - verify trust indicator displays
5. Check session list shows trust scores



Troubleshooting

Backend Issues

Problem: Database connection error

- **Solution:** Verify `DATABASE_URL` environment variable is set
- Check PostgreSQL database is running

Problem: OpenAI API errors

- **Solution:** Verify `OPENAI_API_KEY` is correct
- Check API quota/billing

Problem: 500 errors on analytics endpoints

- **Solution:** Check database has data (create test sessions first)
- Review server logs

UI Issues

Problem: "Failed to fetch sessions"

- **Solution:** Verify `VITE_API_URL` points to correct backend
- Check CORS is enabled on backend

Problem: Analytics dashboard empty

- **Solution:** Create some sessions first
- Backend must have PostgreSQL data

Problem: Trust indicator not showing

- **Solution:** Ensure backend returns `trust_tau` in responses
 - Check console for errors
-



Expected Performance

Backend

- **Response Time:** < 100ms for analytics
- **Database Queries:** < 50ms
- **Session Creation:** < 2s (includes OpenAI API call)
- **Concurrent Users:** 1000+

UI

- **Load Time:** < 2s
 - **Time to Interactive:** < 3s
 - **Analytics Dashboard:** < 1s to load
-



Security Checklist

- ✓ Environment variables used for secrets
 - ✓ Database credentials not in code
 - ✓ CORS configured for production domains
 - ✓ Input validation on all endpoints
 - ⚠ Add rate limiting (Phase 3)
 - ⚠ Add authentication (Phase 3)
-



Monitoring

Key Metrics to Watch

1. **Database Size:** Should grow steadily
2. **Session Count:** Track user engagement
3. **Average Trust Score:** Should be > 0.85
4. **Error Rate:** Should be < 1%
5. **Response Time:** Should be < 100ms

Recommended Tools

- Render dashboard for backend metrics
 - Vercel analytics for UI metrics
 - PostgreSQL monitoring (via Render)
 - OpenAI API usage dashboard
-

Rolling Back

If deployment issues occur:

Backend

1. In platform UI, select previous checkpoint
2. Redeploy

UI

1. In Vercel dashboard, go to Deployments
 2. Select previous successful deployment
 3. Click “Promote to Production”
-

Database Migrations

For future schema changes:

```
# Generate migration
cd /home/ubuntu/vctt_agi_engine/nodejs_space
yarn typeorm migration:generate -n MigrationName

# Run migrations
yarn typeorm migration:run
```

Success Criteria

Phase 2 deployment is successful when:

- Backend accessible at production URL
 - All 9 tests passing in production
 - Analytics endpoints returning data
 - UI loading with backend data
 - Trust indicators visible in UI
 - Analytics dashboard functional
 - Sessions persisting across restarts
 - No errors in production logs
-

Support

If issues persist:

1. Check server logs (Render dashboard)
 2. Check browser console (for UI issues)
 3. Review `test-phase2.sh` results
 4. Verify environment variables are set
 5. Check database connections
-

Next Steps After Deployment

1. Monitor for 24 hours
 2. Verify user sessions are being created
 3. Check analytics data is accumulating
 4. Review trust metric trends
 5. Plan Phase 3 features
-

Deployment Prepared By: VCTT-AGI Development Team

Last Updated: November 17, 2025

Version: 2.0.0-phase2