

# Baikal CalDAV Runbook

## Service: Baikal CalDAV

**Label:** Docker container `baikal` + LaunchAgent `com.john.calendar-bridge` **Tier:** P2 (Business)

**Port:** 5232 (local), `calendar.basicconsulting.no` (public via Cloudflare)

## What It Does

Self-hosted CalDAV server for ALAI Business calendar. Alem syncs from iPhone/MacBook via native Calendar app. `calendar-bridge.js` daemon scans emails every 5min, detects meeting invites, forwards to `alem@alai.no`, and creates CalDAV events.

## Architecture

```
Email (john@) → email-agent.js → calendar-bridge.js → Baikal CalDAV → Alem iPhone/Mac
                                     ↓
                               mail-native.js forward → alem@alai.no
```

## Components

Component	Location	Type
Baikal server	<code>~/system/services/baikal/docker-compose.yml</code>	Docker
<code>calendar-bridge.js</code>	<code>~/system/tools/calendar-bridge.js</code>	Tool + Daemon
LaunchAgent	<code>~/Library/LaunchAgents/com.john.calendar-bridge.plist</code>	Daemon (5min)
Cloudflare tunnel	<code>calendar.basicconsulting.no</code> → <code>localhost:5232</code>	Tunnel
Credentials	Vaultwarden → "Baikal CalDAV"	Vault
Calendar	"ALAI Business" (CalDAV user: alem)	CalDAV

Component	Location	Type
Data	~/system/services/baikal/data/	Persistent volume

# Dependencies

- Docker (container: baikal)
- Cloudflare tunnel (com.john.cloudflared)
- Vaultwarden (credentials)
- mail-native.js (email forwarding)
- email-agent.js (inline meeting detection)

# Health Check

```
# Quick check
node ~/system/tools/calendar-bridge.js test

# Docker container
docker ps --filter name=baikal

# CalDAV endpoint
curl -s -o /dev/null -w "%{http_code}" http://localhost:5232/dav.php/

# Public URL (expect 401 = auth required = healthy)
curl -s -o /dev/null -w "%{http_code}" https://calendar.basicconsulting.no/dav.php/

# List events
node ~/system/tools/calendar-bridge.js list
```

# Common Failures & Fixes

## Failure 1: Baikal container down

**Symptoms:** calendar-bridge.js test fails, CalDAV 502/connection refused **Fix:**

```
cd ~/system/services/baikal && docker compose up -d
```

## Failure 2: Cloudflare tunnel not routing

**Symptoms:** Public URL returns 404 or timeout, local URL works fine **Fix:**

```
# Check config includes calendar entry
grep calendar ~/.cloudflared/config.yml

# Restart tunnel
launchctl kickstart -k gui/$(id -u)/com.john.cloudflared
```

## Failure 3: Calendar-bridge scan finds nothing

**Symptoms:** Meeting invites arrive but no events created, no forwards **Check:**

```
# Check daemon is running
launchctl list | grep calendar-bridge

# Check logs
tail -50 ~/system/logs/calendar-bridge.log

# Check state file
cat ~/system/logs/calendar-bridge-state.json

# Manual scan with verbose
node ~/system/tools/calendar-bridge.js scan --verbose
```

## Failure 4: Alem can't sync from iPhone

**Symptoms:** iPhone Calendar shows error, events not showing **Check:**

1. Verify credentials in Vault: `node ~/system/tools/vault.js get "Baikal CalDAV"`
2. Test public CalDAV endpoint (should return 401, not 502/404)
3. iPhone settings: Server = `calendar.basicconsulting.no/dav.php/principals/alem`

## Failure 5: Authentication failure

**Symptoms:** 401 with correct password **Fix:** Password might be out of sync. Re-hash in Baikal DB:

```
NEW_PASS=$(bw get password "Baikal CalDAV" --session $(cat /tmp/bw-session))
DIGEST=$(printf "alem:BaikalDAV:$NEW_PASS" | md5)
docker exec baikal sqlite3 /var/www/baikal/Specific/db/db.sqlite \
  "UPDATE users SET digest1='$DIGEST' WHERE username='alem';"
```

# Restart Procedure

```
# Restart Baikal
cd ~/system/services/baikal && docker compose restart

# Restart calendar-bridge daemon
launchctl kickstart -k gui/$(id -u)/com.john.calendar-bridge
```

## Backup

- SQLite DB: ~/system/services/baikal/data/Specific/db/db.sqlite
- Config: ~/system/services/baikal/data/config/baikal.yaml
- Included in daily db-backup.sh via Docker volume mount

## MC Task

Created: #3029 (Deploy), #3035 (Documentation + Watchdog)

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Revision #3

Created 2026-03-02 19:43:51 UTC by John

Updated 2026-05-31 20:04:34 UTC by John