

Android Cast build ecosystem

From BUILD_DEPLOY.md

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Source: BUILD_DEPLOY.md — section links work in PDF viewers that support internal anchors.

Shared authentication

All web consoles (Crashes, Tickets, Builder) share:

Setting	Value
Session name	ac_crash_sess
Cookie path	/app/androidcast_project
User store	MariaDB users table (same DB as crashes)
PHP auth	examples/crash_reporter/backend/src/Auth.php

Sign in once on any console; the session cookie is valid for /crashes/, /build/, and future apps under the same path prefix.

Orchestration generates matching configs:

- orchestration/runtime/crash-config.php
- orchestration/runtime/build-config.php

Both use \${MARIADB_USER} / \${MARIADB_PASSWORD} from orchestration/.env.

Local stack

```
cd orchestration
./deploy.sh
```

URL	Purpose
http://localhost:8080/app/androidcast_project/	Hub landing
.../crashes/	Crash / ticket console
.../build/	APK builder console
.../v0/ota/	Published OTA artifacts (when auto-deploy enabled)

Direct debug ports: crashes :8082, builder :8083.

Local developer rebuild

./rebuild.sh (repo root):

1. scripts/init-third-party-submodules.sh — libvpx, opus, speex, **wireguard-android** (+ nested wireguard-tools / elf-cleaner)
2. scripts/build-native-codecs.sh per ABI
3. ./gradlew :tunnel:assembleDebug :app:assembleDebug — WireGuard userspace (libwg-go.so) from third-party/wireguard-android
4. Unit tests, adb install (when devices configured)

No runtime fetch from zx2c4/GitHub during Gradle: sources come from checked-out third-party/ submodules only.

Trigger a build

1. Open Builder → sign in (default dev user from crash schema seed).
2. Set git ref, pipeline options, OTA channel.
3. **Start build** → detail page polls log every 1s.
4. Artifacts land in out/builds/<id>; optional OTA copy to orchestration/runtime/ota-artifacts/.

Docker CI

- Image version label: 00.BB.CC.DDDD (see root Dockerfile).
- Host wrapper: scripts/docker-build-runner.sh
- In-container pipeline: scripts/ci-build-and-publish-ota.sh
- OTA generator: scripts/generate-ota-v0.sh [channel]

CircleCI

- Pipeline description: build.config.yml
- Local CLI stub: .circleci/config.yml (circleci config validate)

Production notes

- Mount builder PHP with Docker socket (build host only).
- FE nginx: read-only OTA under /v0/ota/; BE RWX on artifact mount.
- Keep session_cookie_path identical across all PHP apps behind the hub.

Alpine BE (config.php paths)

Key	Example on artc0
build.repo_root	/var/www/.../androidcast_project/android_cast (git tree)

build.artifacts_root	/var/www/.../androidcast_project/out/builds — must exist , writable by PHP-FPM (nginx)
build.ota_mount	/var/www/.../androidcast_project/ota-artifacts — nginx serves .../v0/ota/ at /v0/ota/
build.runner_script	full path to scripts/docker-build-runner.sh (no ... placeholders)

```

sudo examples/crash_reporter/backend/scripts/prepare-be-ota-mount.sh
mkdir -p .../out/builds
chown -R nginx:nginx .../out .../ota-artifacts
chmod -R 775 .../out .../ota-artifacts

```

Apply nginx OTA block: nginx.apps-port80.fragment (location ^~ /v0/ota/), then nginx -t && rc-service nginx reload on BE.

If **Start build** shows *Network error*, check BE php-fpm81 log: often mkdir(): Permission denied on out/builds (HTTP 500, not a browser network fault).