

Android Cast — production infrastructure

Production topology — FE, BE, ports

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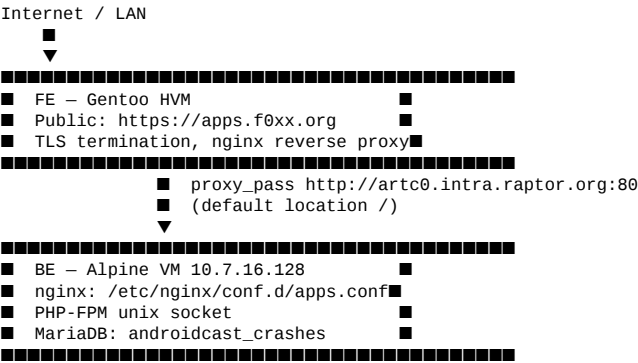
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Source: *INFRA.md* — section links work in PDF viewers that support internal anchors.

Read this first after a context reset, before changing nginx, deploy paths, or URLs.

Doc	When
docs/README.md	Documentation index — TOC for all guides
This file	Topology, hosts, ports, sshfs, agent rules
examples/app_hub/DEPLOY.md	Hub landing only (BE listen 80)
examples/crash_reporter/backend/README.md	PHP, MariaDB, tickets, ingest
docs/GIT_FLOW.md	Branches, next, no direct commits to master
docs/TICKETS_ROADMAP.md	Tickets, Gitea, alpha delegation

1. Topology



Role	Host	Notes
FE	Gentoo, <code>apps.f0xx.org</code>	Almost all app traffic → BE :80
BE	Alpine <code>artc0.intra.raptor.org</code>	App vhost lives in <code>listen 80</code> for FE traffic
Jump SSH	<code>f0xx.org:222</code> → Alpine :22	<code>~/.ssh/config</code> host <code>alpine-be</code>
Git origin	<code>git://f0xx.org/android_cast</code>	Integration branch next

2. Port 8089 — not the androidcast vhost

Do not configure or document the project hub or crash console on :8089 for this installation.

Port	Service
80	Canonical androidcast vhost on BE (hub + crashes when FE uses <code>location /</code> or explicit <code>:80</code> upstream)
443	BE TLS (used by some FE <code>proxy_pass</code> rules, e.g. <code>apps.f0xx.org</code> → <code>https://artc0:443/.../crashes/</code>)
8089	Other stack (e.g. Janus /janus/) — not androidcast nginx vhost

Wrong FE pattern (remove if present on `artc0.f0xx.org`):
`proxy_pass https://artc0.intra.raptor.org:8089/app/androidcast_project/; # BAD for hub`

Correct public path for hub:
`https://apps.f0xx.org/app/androidcast_project/` → FE `location /` → `http://artc0.intra.raptor.org:80` → BE `listen 80` locations.

3. Public URLs

URL	Component
<code>https://apps.f0xx.org/app/androidcast_project/</code>	Static hub (<code>examples/app_hub/index.html</code>)
<code>https://apps.f0xx.org/app/androidcast_project/crashes/</code>	PHP crash + tickets console
<code>https://apps.f0xx.org/app/androidcast_project/build/</code>	PHP APK builder console
<code>https://apps.f0xx.org/app/androidcast_project/crashes/api/upload.php</code>	Device crash upload (no session)

Legacy hostname `f0xx.org` may still appear in `app settings.json` examples; production `ingest/scripts` prefer `apps.f0xx.org`.

4. Disk layout (BE)

Web root prefix:
`/var/www/localhost/htdocs/apps/app/androidcast_project/`

Path on BE	Repo
.../androidcast_project/android_cast/	Full git tree (crash backend, app sources)
.../androidcast_project/index.html	examples/app_hub/index.html (copy or symlink)
.../androidcast_project/ota-artifacts/v0/	OTA publish tree (/v0/ota/ on public URL)
.../android_cast/examples/crash_reporter/backend/public/	PHP document root for crashes

config.php base_path must be exactly:
/app/androidcast_project/crashes

5. Nginx — source of truth in repo

File	Purpose
examples/crash_reporter/backend/nginx.apps-port80.fragment	Replace BE server { listen 80; ... } — hub + crashes + build
examples/crash_reporter/backend/nginx.apps-builder.fragment	Build-only blocks (also included on BE 443 via apps_builder.fragment)
examples/crash_reporter/backend/nginx.fe-apps.f0xx.org.snippet	FE hub/crashes → http://artc0:80 (preserve URI)
examples/crash_reporter/backend/nginx.apps.conf.fragment	Reference blocks (443-oriented comments)
examples/crash_reporter/backend/nginx.vm.conf	Full VM example

BE apps.conf today (typical)

- listen 80 — often **empty** (only generic \.php\$) → **public hub 502** until port-80 fragment is applied.
- listen 443 ssl — may already contain hub + crashes (direct HTTPS to VM).

FE apps.f0xx.org uses proxy_pass http://artc0.intra.raptor.org:80 for / — so **hub must be on BE port 80**, not only 443.

Hub location (correct)

Use **directory** alias, not alias to a single file:

```
location /app/androidcast_project/ {
    alias /var/www/localhost/htdocs/apps/app/androidcast_project/;
    index index.html;
}
```

Reload (BE only for hub deploy)

```
ssh alpine-be 'sudo nginx -t && sudo rc-service nginx reload'
```

6. Local sshfs workspace (not in git)

Edit live configs from the dev machine via mounts under repo tmp/:

Mount	Remote
tmp/FE_gentoo/etc/nginx/	Gentoo FE nginx
tmp/BE_alpine/etc/nginx/conf.d/apps.conf	Alpine BE apps vhost
tmp/BE_alpine/var/www/localhost/htdocs/apps/...	BE web tree

Treat tmp/ as **local mirrors** — sync/reload on the real host after edits.

7. FE nginx — two server names

Mounted copy: tmp/FE_gentoo/etc/nginx/nginx.conf.

server_name	location /	androidcast crashes	Hub /app/androidcast_project/
apps.f0xx.org	→ http://artc0:80	Must not → https://artc0:443/... (static download)	Hub/crashes blocks must use http://artc0:80 — see nginx.fe-apps.f0xx.org.snippet
/v0/ota/ on FE	→ http://artc0:80	BE :80 serves static tree	In consolidated /etc/nginx/apps.conf — see patches/fe-nginx-APPLY.md
artc0.f0xx.org	→ http://artc0:80	Legacy → :8089	Legacy → :8089 — remove hub block; prefer apps.f0xx.org

Agent default: fix BE listen 80 first. Change FE only when user asks or to delete wrong **8089** hub overrides on artc0.f0xx.org.

8. Verify

```
curl -sS -o /dev/null -w "%{http_code}\n" -H "Host: apps.f0xx.org" \
```

```
"http://artc0.intra.raptor.org/app/androidcast_project/"

curl -sS -o /dev/null -w "%{http_code}\n" -H "Host: apps.f0xx.org" \
"http://artc0.intra.raptor.org/app/androidcast_project/crashes/"

curl -sS -o /dev/null -w "%{http_code}\n" \
"https://apps.f0xx.org/app/androidcast_project/"

Expect 200 (or 302 → crashes only if you intentionally redirect root).
```

9. Backend app (crashes / tickets)

- PHP 8.1+ FPM on Alpine; MariaDB DB androidcast_crashes.
- Migration 003_tickets.sql as **MySQL root** if UI says table missing (app user cannot DDL).
- Database::requireTicketsTable() must open PDO before SHOW TABLES (fixed in repo).
- Ingest smoke tickets: php scripts/ingest_alpha_smoke_tickets.php
- --url=https://apps.f0xx.org/app/androidcast_project/crashes

10. Rules for agents

1. **KISS** — prefer **one** BE change (listen 80 fragment) over FE + BE + 8089 guesses.
2. **Never** point androidcast hub/crashes docs at **:8089** for this install.
3. **Do not** use alias to index.html as a file path (breaks trailing slash / CSS).
4. **Do not** commit tmp/ sshfs trees, *.log, or workspace files unless user asks.
5. **Do not** commit to master/next directly — use feature/* → merge to next (GIT_FLOW).
6. User may be unwell / slow to deploy — give **short** copy-paste steps, not long runbooks.

11. Changelog (infra doc)

Date	Note
2026-06-04	Edge probes: examples/network/wan-snapshot.sh, monstro-netdiag.sh (conntrack/iptables/CPU)
2026-05-21	Documented BE-only hub on port 80; 8089 = Janus only; FE apps vs artc0 split