

Companion to OTT Block 6, article 6.10. Tick each item before you call casting done. Print on A4.

1 • Choose the casting ecosystems for your device audience

- Google Cast — Android/iOS/Chrome senders; on Google TV, LG and Samsung sets. DRM via Custom Web Receiver.
- Apple AirPlay 2 — Apple devices + AirPlay-2 TVs; AVPlayer shows the route picker; external playback for FairPlay.
- Matter Casting — Fire TV / Echo Show (Matter 1.3→1.4); phone = client, TV = player, your TV app = content app.
- DIAL — discovers and launches your native TV app (it does not stream); useful where a full TV app already exists.
- W3C Remote Playback API — the open-web cast path from a browser; converges via Open Screen Protocol.

2 • Casting, not mirroring (the distinction that decides the build)

- Implement casting (the receiver fetches the stream); do NOT ship screen mirroring as your 'cast to TV' feature.
- Confirm the phone can lock / leave and playback continues — proof you are casting, not mirroring.
- Test a protected title: it must play when cast and is expected to be black when mirrored.

3 • The receiver's own license path (DRM)

- Send the license URL in the load message so the receiver gets its own key (cbcs = encode once, license many).
- Make entitlement accept the cast device, not only the phone session/IP — the #1 cast failure.
- Cast receiver: Widevine/PlayReady via EME; AirPlay: FairPlay over AirPlay. Verify both on real hardware.

4 • Second-screen controls

- Phone redraws as a remote after handoff: scrubber, play/pause, volume, audio + subtitle tracks, queue.
- Publish metadata + actions via the Media Session API so lock screen and cast remote show consistent controls.
- Keep the control channel responsive — measure remote-command latency in QoE instrumentation.

5 • Continuity — the resume-point service

- Send a position heartbeat every 10-30 s, plus on pause/seek/stop, keyed by profile × title.
- Resolve conflicts with newest-write-wins; resume to the exact second on any device, including after a cast.
- Transfer the start position on cast so the TV resumes rather than restarting from zero.
- Retire titles at a completion threshold (~90-95% of runtime) so finished shows leave Continue Watching.
- Size the store for scale: 1,000,000 viewers ÷ 30 s ≈ 33,333 writes/second baseline; plan for premiere bursts.

6 • QA and device-lab matrix

- Test each ecosystem on real receivers (Google TV, Apple TV, Fire TV, a Samsung and an LG set).
- Verify resume + DRM + track selection per receiver; many casting bugs appear only on actual hardware.