

Shaka Player production checklist

Updated October 2026 for v5.2.13: engines, ABR knobs, LL-* config, DRM, errors, pitfalls.

Engines you actually touch

NetworkingEngine: every HTTP request; plugin per URI scheme; request and response filters.

ManifestParser: DASH, HLS; MSF experimental; Smooth removed in v5.0.

DrmEngine: EME bridge to the CDM; drm.servers config block; per-key-system advanced.

StreamingEngine: segment-fetch state machine; appends bytes into MSE SourceBuffer.

AbrManager: throughput EWMA + safety factor; replace via configure({abrFactory}).

Storage: shaka.offline.Storage; IndexedDB downloads; persistent EME licenses.

UI Overlay: optional shaka-player.ui.js bundle; accessible controls; Cast button.

Seven-line player (canonical pattern)

```
import shaka from 'shaka-player';
shaka.polyfill.installAll();
if (!shaka.Player.isBrowserSupported()) throw
...;
const video = document.getElementById('v');
const player = new shaka.Player();
await player.attach(video);
await player.load('https://.../asset.mpd');
Same code plays .mpd or .m3u8 — Shaka picks the
parser.
```

ABR knobs that matter

abr.bandwidthDowngradeTarget (0.95) steady-state safety factor for the throughput pick.

abr.bandwidthUpgradeTarget (0.85) stricter factor for an upshift; asymmetry is intentional.

abr.defaultBandwidthEstimate starting bandwidth before first segment is timed.

abr.restrictions lock min/max width/height/bandwidth; hardware-tier safety.

Dropped-frame ABR (v5.1+) auto-enabled; downshifts on decoder strain (smart TV 4K HEVC).

Low-latency hint (v5.1+) tells AbrManager whether the stream is low-latency; live-edge stickier.

Low-latency configuration (DASH + HLS)

streaming.lowLatencyMode true by default (v4.16+); acts only on LL streams.

streaming.inaccurateManifestTolerance auto 0 in LL mode.

streaming.rebufferingGoal 0.01 only on an LL-only player.

streaming.bufferingGoal smaller for LL live; pair with rebufferingGoal.

Packager must produce CMAF chunks (DASH) or EXT-X-PART parts (HLS).

CDN must forward chunked transfer encoding without stripping it at edge.

Error categories → runbooks

NETWORK → CDN health, failover, retry pressure; user: 'Network problem'.

STREAMING → Same CDN runbook + check origin shielding behaviour.

MEDIA → Packaging / MSE; unload() then load() to reset SourceBuffer.

DRM → License-server runbook; rotate token; user: 'Session expired'.

MANIFEST → Asset-catalogue; geo-rights; user: 'Not available'.

Recoverable severity → small toast; CRITICAL → red banner. Never red-banner recoverable.

Top pitfalls in production

Skipping polyfill.installAll() → Safari edge cases break silently.

Mixing attach() and load() order on retries → use unload() + load(), not re-attach.

Surfacing recoverable errors to the user → working player looks broken.

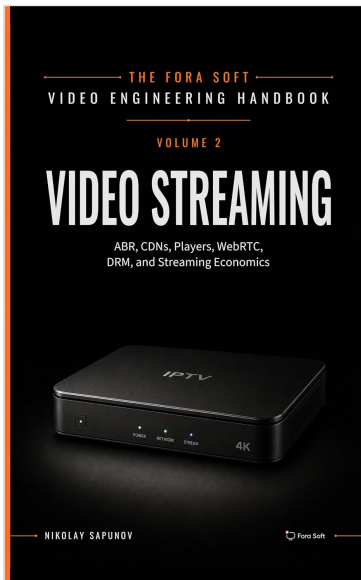
Copying LL values into a global config → regular streams lose drift tolerance and rebuffer.

Sharing one retryParameters for all classes → license outages back off like CDN outages.

Loading the UI bundle without its controls.css → buttons render as unstyled rectangles.

Multi-DRM configuration (drm.servers map)

Key system	drm.servers key (Shaka)	Browsers / platforms	Schemes
Widevine	com.widevine.alpha	Chrome, Edge, Firefox, Android, ChromeOS	cenc, cbcs
FairPlay	com.apple.fps	Safari (macOS, iOS, iPadOS), tvOS	cbcs only + serverCertificateUri
PlayReady	com.microsoft.playready	Edge on Windows, Xbox, Tizen, webOS	cenc, cbcs



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This checklist covers Shaka Player engines, ABR knobs, low-latency config, DRM servers and production pitfalls. Volume 3 covers players in depth: ABR algorithms and bitrate ladders, recovery after stalls, DRM with Widevine, FairPlay and PlayReady, and QoE monitoring.

WHAT YOU WILL FIND INSIDE

- ABR algorithms and rung selection
- Multi-DRM: Widevine, FairPlay, PlayReady
- Player stall recovery and trick play
- QoE monitoring in production

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Taking a Shaka Player build from demo to production?

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