

SSAI and DAI Integration and Strategy Guide

Delivering seamless, targeted ad experiences across streaming content

Overview

This document explains how to design and implement Server-Side Ad Insertion (SSAI) and Dynamic Ad Insertion (DAI) to deliver premium, personalized ad experiences in live and on-demand streaming.

This document outlines where to use them, GTM strategy, monetization, privacy considerations (GDPR, CCPA, GPP), technical integration, cue points, metadata, and QA best practices.

SSAI: Server-Side Ad Insertion

What it is:

SSAI stitches ads directly into the video or audio stream on the server before it reaches the viewer.

Why it matters:

- Seamless ad experience with no buffering.
- Ads are part of the stream, making them harder to block.
- Best fit for live streams and large real-time events where consistency is critical.

Example:

During a live baseball game, SSAI inserts regional PMP sponsorship ads directly into the feed so every viewer sees a smooth, uninterrupted experience.

DAI: Dynamic Ad Insertion

What it is:

DAI delivers ads in real time at playback, based on user data and context, triggered by cue points in the content.

Why it matters:

- Enables per-user targeting: location, audience segment, time of day.
- Higher personalization/contextual. leads to higher engagement and CPM.
- Ideal for VOD, catch-up TV, and personalized sponsorships.

Example:

A viewer watches a cooking show at 6 PM. DAI targets them with a local food delivery ad that's more likely to drive action.

Strategic Use Cases

	SSAI	DAI
Best for	Live, simulcast, sports	VOD, catch-up TV
Targeting depth	Regional/device-based	Per-user and context-based
Ad blocking	Harder to block	Possible if client-side
Example	Live sports match	On-demand movie

Tip: Many platforms blend SSAI for live with DAI for on-demand to balance scale and personalization/contextual.

Integration Workflow

Title: How SSAI and DAI Work in Streaming

SSAI Flow:

- Viewer requests a live stream.
- SSAI system fetches ads (VAST tags / PMP deals).
- Ads are transcoded to match the stream.
- Ads and content are stitched into a single stream.
- Seamless playback delivered to the viewer.

DAI Flow:

- The viewer plays VOD with embedded cue points.
 - The player hits the cue point and triggers an ad request.
 - The ad server uses user data (geo, time, audience).
 - Best ad returned and inserted dynamically.
 - Playback continues seamlessly.
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Cue Points and Metadata

Setup steps:

- Insert cue points only at natural breaks (scene changes, quarter breaks).
 - Use SCTE-35 markers for live streams. Timeline markers for VOD.
 - Pass metadata: content ID, genre, episode, device ID, location, deal IDs for PMP buys, and planned ad pod length.
 - Share cue point plans with ad ops, sales, and SSPs for accurate forecasting.
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Ad Pod Strategy and Best Practices

- Keep ad pods under ~90 seconds to protect the viewer experience.
- Blend PMP deals, sponsorships, and programmatic demand.

- Refresh creative mid-flight to reduce ad fatigue.
 - Validate ad, fill, and playback across devices.
 - Use alerts for fill gaps, playback errors, or missing ads.
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Monetization and GTM Strategy

- Package inventory into seasonal sponsorships (e.g., "Holiday Sports Bundle").
 - Target premium advertiser verticals: consumer packaged goods, auto, retail, entertainment.
 - Build curated PMP deals by genre or event type.
 - Use real-time audience segments in DAI to unlock higher CPM buys.
 - Show differentiation to agencies: seamless live SSAI + personalized DAI + premium brand safety.
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Quality Assurance (QA) and Monitoring

- Test cue points and ad calls across platforms (mobile, smart TV, web).
 - Monitor fill rates, completion rates, and viewer drop-off.
 - Audit logs regularly to catch anomalies or errors.
 - Integrate verification vendors (IAS, MOAT, DoubleVerify) to track delivery and brand safety.
 - Keep a documented history of cue point updates, creative changes, and ad schedules.
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Privacy, Data Compliance, and User Consent

Implementing SSAI and DAI requires strict compliance with data privacy regulations and industry standards:

- GDPR (EU): Obtain user consent for data collection and targeting; document how consent is captured and stored.
- CCPA/CPRA (California): Provide notice and opt-out for "sale" or "sharing" of personal data.
- GPP (Global Privacy Platform): Adopt IAB Tech Lab's GPP to standardize consent signals across regions.
- Pass consent strings and user permissions in ad calls and metadata.
- Use a Consent Management Platform (CMP) to capture, manage, and store consent.
- Regularly audit data flows, partners, and retention policies to ensure compliance.
- Educate product, engineering, and commercial teams on the consent impact on ad delivery.

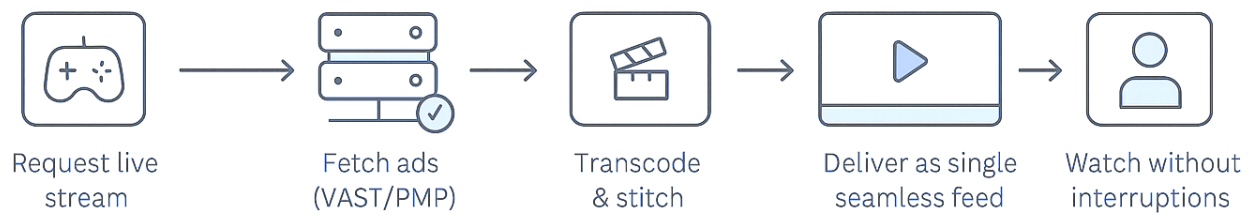
Why it matters: Protects the business legally, strengthens trust with viewers and brand advertisers, and supports transparent reporting.

Good To Know! / Best Practice!

- SSAI is best for seamless, block-resistant ads in live streams and supports premium sponsors.
- DAI adds high-value personalization/contextual ads for VOD and on-demand.
- Combining both drives better fill, higher CPMs, brand safety, and a better user experience.
- Strong metadata, curated PMP deals, and cross-team coordination make it work.

How SSAI & DAI Power Streaming Ads

SSAI



DAI

