Interactive Ad Unit Integration Guide

Overview

This document outlines the integration of our Interactive Ad Units into the Bitmovin Player ecosystem. Our solution leverages VAST tags, cue signaling, and a lightweight JavaScript framework to deliver engaging, interactive ad experiences across web, smart TVs, and native apps. The integration is designed as a partnership, embedding our ad rendering logic directly into Bitmovin's player framework to enhance monetization, differentiation, and advertiser appeal.

Objectives

- Embed our interactive ad unit framework into Bitmovin's player.
- Enable dynamic ad insertion using VAST tags and cue points.
- Provide advertisers with advanced analytics and engagement metrics.
- Enhance viewer experience with non-intrusive, interactive overlays.

Key Functional Highlights

Cue-Based Ad Unit Fetching

- Ad units are dynamically fetched from the Canvas CDN based on predefined cue points in the video timeline.
- Ensures timely delivery without reliance on local storage.

Player Lifecycle Methods

- Bitmovin exposes lifecycle events; our integration provides methods (e.g., canvasInitCISVideoPlayer) to trigger overlay rendering.
- Ad units render seamlessly as overlays within the player's UI container.

Shared Script & Styling Layer

- Bitmovin player inherits shared JS/CSS logic from our Canvas Script team.
- Overrides allow publishers to customize styling while maintaining consistent ad logic.

Adaptive CDN Delivery

- All assets (images, forms, interactive widgets) are delivered via CDN.
- Adaptive quality ensures low-latency loading based on user bandwidth, preserving playback quality.

Technical Highlights

- **VAST Tag Generation**: Industry-standard VAST tags ensure compatibility with ad servers and SSPs.
- **Interactive Overlays**: Clickable elements, quizzes, polls, and product showcases.
- **Analytics Dispatch**: Engagement data captured and dispatched to analytics endpoints for reporting and optimization.
- **Customization**: Flexible ad formats tailored to publisher needs.

Sample Integration JavaScript

This section provides an example of how JavaScript can be integrated to enable application functionality. The sample demonstrates the structure and key snippets required to connect front-end components with backend services, handle events, and ensure smooth interaction between the user interface and the system

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <title>Video with AEL Forms</title>

    <link rel="stylesheet" href="https://yourdomain.com/canvas-ad-style.css" />
    <script src="https://yourdomain.com/canvas-ad-insertion-vj.js"></script>

    <script>
      document.addEventListener('DOMContentLoaded', function () {
        const checkPlayerReady = setInterval(() => {
          const playerElement = document.getElementById("player_html5_api");
          const lockId = "6870be205513b72caa32621e"; // Replace with actual lock ID

          if (playerElement && typeof window.canvasInitSSAIVideoPlayer === 'function') {
            clearInterval(checkPlayerReady);
            console.log("✅ Initializing SSAI Player...");
            window.canvasInitSSAIVideoPlayer(playerElement, lockId, false);

            setTimeout(() => {
              const uiContainer = document.getElementById("canvas-ssai-ui-container");
              if (uiContainer) uiContainer.style.display = 'block';
            }, 10000);
          }
        }, 500);
      });
    </script>
  </head>
  <body>
    <video id="player_html5_api" controls autoplay style="width: 100%;">
      <source src="video_url"/>
    </video>

    <!-- This container is used by the AEL system to inject the form UI -->
    <div id="canvas-ssai-ui-container"></div>
  </body>
</html>
```

Sample Vast tag generation:

This screenshot provides an example of how a VAST (Video Ad Serving Template) tag is generated. A VAST tag is an XML snippet used to deliver video ads to players, containing metadata such as ad creatives, tracking URLs, and impression events. The sample demonstrates the structure and key elements required to integrate ads seamlessly into video content

<?xml version="1.0" encoding="UTF-8"?><VAST version="4.0" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns="http://www.iab.com/VAST">
<Ad id="elem-elem_corner_banner_1767872311372" sequence="1">
        <InLine>
          <AdSystem>Canvas SSAI</AdSystem>
          <AdTitle><![CDATA[Card1]]></AdTitle>

          <Impression><![CDATA[https://canvas-siau-server-dev.vercel.app/api/track/impression/elem_corner_banner_1767872311372?seq=1]]></Impression>

          <Creatives>
            <Creative>
              <CompanionAds>
                <Companion id="banner-seq1" width="300" height="220">

                  <!-- Impression -->
                  <Tracking event="creativeView"><![CDATA[https://canvas-siau-server-dev.vercel.app/api/track/view/elem_corner_banner_1767872311372?seq=1]]></Tracking>

                  <!-- 🔥 NEW: Individual Poll Option Tracking -->

              <Tracking event="pollOptionClick" data-option="1" data-buttonText="1980">
                  <![CDATA[https://canvas-siau-server-dev.vercel.app/api/track/poll/elem_corner_banner_1767872311372?seq=1&option=1&choice=1980]]>
              </Tracking>

              <Tracking event="pollOptionClick" data-option="2" data-buttonText="1981">
                  <![CDATA[https://canvas-siau-server-dev.vercel.app/api/track/poll/elem_corner_banner_1767872311372?seq=1&option=2&choice=1981]]>
              </Tracking>

              <Tracking event="pollOptionClick" data-option="3" data-buttonText="1982">
                  <![CDATA[https://canvas-siau-server-dev.vercel.app/api/track/poll/elem_corner_banner_1767872311372?seq=1&option=3&choice=1982]]>
              </Tracking>

              <Tracking event="pollOptionClick" data-option="4" data-buttonText="1983">
                  <![CDATA[https://canvas-siau-server-dev.vercel.app/api/track/poll/elem_corner_banner_1767872311372?seq=1&option=4&choice=1983]]>
              </Tracking>

                  <!-- Completion -->
                  <Tracking event="complete"><![CDATA[https://canvas-siau-server-dev.vercel.app/api/track/complete/elem_corner_banner_1767872311372?seq=1]]></Tracking>
                </Companion>
              </CompanionAds>
            </Creative>
          </Creatives>

          <!-- FULL JSON (unchanged - perfect) -->
          <AdParameters><!
[CDATA[{"_id":"elem_corner_banner_1767872311372","userId":"694a8d569512e1b853efb2f4","brandId":"brand_akash_1766493540872","meta":
{"id":"elem_corner_banner_1767872311372","brandId":"brand_akash_1766493540872","title":"Card1","elementType":"corner-banner","status":"live","createdAt":"2026-01-08T11:38:31.370Z","updatedAt":"2026-01-08T17:31:06.820Z","createdBy":"current_user"},"configuration":{"layout":{"position":"bottom-right","dimensions":{"width":300,"height":220},"imageSlot":
{"enabled":true,"image":{"url":"https://cis-v1.s3.us-east-2.amazonaws.com/uploads/compressed-1767893468736-639570371.png?X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Content-Sha256=UNSIGNED-PAYLOAD&X-Amz-Credential=AKIAXGYYQ2OYIW4YFYT3%2F20260108%2Fus-east-2%2Fs3%2Faws4_request&X-Amz-Date=20260108T173112Z&X-Amz-Expires=604800&X-Amz-Signature=d3fc012366fc77886ddbf68c521f27e9322bdbda6284c1c8713d485cd7f0734f&X-Amz-

Next Steps

1. Joint technical workshop to finalize integration details.
2. Pilot deployment with select Bitmovin publishers.